



# FCC RADIO TEST REPORT

**FCC ID** : UZ7TC26EK  
**Equipment** : Touch computer  
**Brand Name** : Zebra  
**Model Name** : TC26EK  
**Applicant** : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
**Manufacturer** : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
**Standard** : FCC 47 CFR Part 2, and 90(S)

The product was received on Jan. 27, 2021 and testing was started from Feb. 01, 2021 and completed on Feb. 19, 2021. 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 of 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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### 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	-
4.1	§2.1053 §90.691	Field Strength of Spurious Radiation	Pass	Under limit 45.18 dB at 3258.000 MHz

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang**

**Report Producer: Yimin Ho**



# 1 General Description

## 1.1 Feature of Equipment Under Test

Product Feature	
Equipment	Touch computer
Brand Name	Zebra
Model Name	TC26EK
FCC ID	UZ7TC26EK
EUT supports Radios application	WCDMA/HSPA/LTE/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	EV1.5
SW Version	Android version 10
OS Version	FUSION_QA_2_1.3.0.019_Q
FW Version	Zebra/TC26PG/TC26:10/10-16-10.00-QG-U33-STD-HEL-04/115:userdebug/release-keys
MFD	13JAN21
EUT Stage	Engineering sample

Remark: The above EUT's information was declared by manufacturer.

Specification of Accessories				
AC Adapter	Brand Name	Zebra	Model Name	SAWA-65-20005A
Battery	Brand Name	Zebra	Model Name	BT-000409A
USB Cable 1 (TypeA plug to TypeC plug)	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
USB Cable 2 (TypeA plug to TypeC plug)	Brand Name	Zebra	Part Number	CBL-TC2Y-USBC90A-01
Headset 3.5mm type with PTT/micassy	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
Adapter Cable PTT headset (3.5mm to 3.5mm)	Brand Name	Zebra	Part Number	CBL-TC51-HDST35-01
Type C to 3.5mm adapter	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01
Snap on Trigger handle	Brand Name	Zebra	Part Number	TRG-TC2Y-SNP1-01
Belt Holster	Brand Name	Zebra	Part Number	SG-TC2Y-HLSTR1-01
Wearable Arm Mount	Brand Name	Zebra	Part Number	SG-TC2Y-ARMNT-01

## 1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
<b>Tx Frequency</b>	LTE Band 26 : 814.7 ~ 823.3 MHz
<b>Rx Frequency</b>	LTE Band 26 : 859.7 ~ 868.3 MHz
<b>Bandwidth</b>	1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz
<b>Maximum Output Power to Antenna</b>	23.22 dBm
<b>Antenna Type</b>	PIFA Antenna
<b>Antenna Gain</b>	0.7 dBi
<b>Type of Modulation</b>	QPSK / 16QAM / 64QAM

**Remark:** The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

## 1.3 Modification of EUT

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

## 1.4 Emission Designator

LTE Band 26		QPSK				16QAM			
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Output Power(dBm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Output Power(dBm)	Maximum ERP(W)
1.4	814.7~823.3	1M09G7D	-	23.18	0.1489	1M10W7D	-	23.22	0.1503
3	815.5~822.5	2M76G7D	-	23.16	0.1483	2M71W7D	-	22.71	0.1337
5	816.5~821.5	4M50G7D	-	23.19	0.1493	4M49W7D	-	22.79	0.1361
10	819.0	9M05G7D	0.0186	23.09	0.1459	9M07W7D	-	22.71	0.1337
15	821.5	13M5G7D	0.0181	23.07	0.1452	13M5W7D	-	22.64	0.1315

LTE Band 26		64QAM			
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Output Power(dBm)	Maximum ERP(W)
1.4	814.7~823.3	1M09W7D	-	21.58	0.1030
3	815.5~822.5	2M73W7D	-	21.53	0.1019
5	816.5~821.5	4M49W7D	-	21.56	0.1026
10	819.0	9M03W7D	-	21.53	0.1019
15	821.5	13M4W7D	-	21.48	0.1007



### 1.5 Testing Site

<b>Test Site</b>	Sporton International Inc. EMC & Wireless Communications Laboratory
<b>Test Site Location</b>	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
<b>Test Site No.</b>	<b>Sporton Site No.</b> TH05-HY
<b>Test Engineer</b>	George Chen
<b>Temperature</b>	22~25°C
<b>Relative Humidity</b>	51~55%
<b>Test Site</b>	Sporton International Inc. Wensan Laboratory
<b>Test Site Location</b>	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
<b>Test Site No.</b>	<b>Sporton Site No.</b> 03CH11-HY (TAF Code: 3786)
<b>Test Engineer</b>	Bill Chang, Fu Chen, Quentin Liu and Troye Hsieh
<b>Temperature</b>	19~22.5°C
<b>Relative Humidity</b>	42.9~59.3%
<b>Remark</b>	The Radiated 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 TW0007



## 1.6 Applied Standards

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

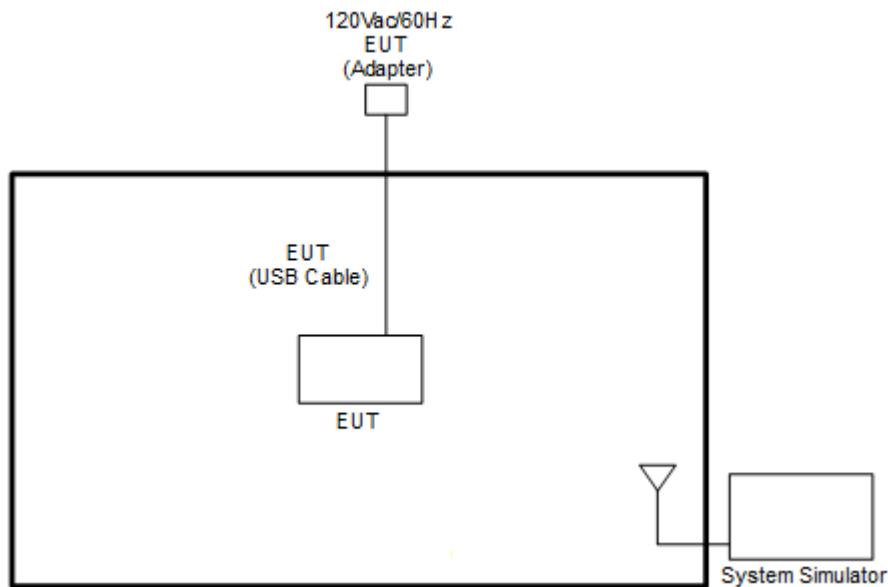
During all testing, EUT is in link mode with base station emulator at maximum power level.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane with Adapter) were recorded 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	
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	
Frequency Stability	26				v	v	-	v					v		v	
E.R.P.	26	v	v	v	v	v	-	v	v	v	v			v	v	v
Radiated Spurious Emission	26	Worst Case											v	v	v	
Remark	<ol style="list-style-type: none"> <li>The mark "v " means that this configuration is chosen for testing</li> <li>The mark "- " means that this bandwidth is not supported.</li> <li>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.</li> <li>All the radiated test cases were performed with USB Cable 1.</li> </ol>															

## 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	MT8820C	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).*

$$= 4.2 + 10 = 14.2 \text{ (dB)}$$



## 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

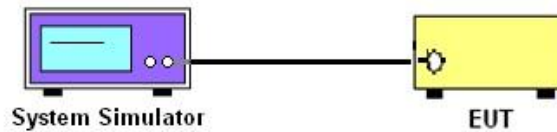
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

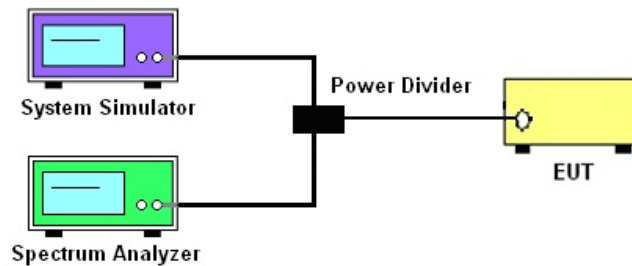
See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

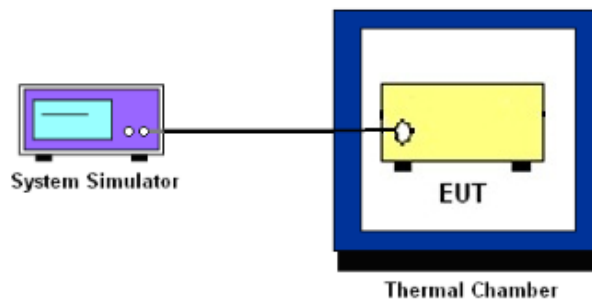
##### 3.1.2 Conducted Output Power



##### 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 ERP of mobile transmitters must not exceed 7 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  $116 \text{ Log}_{10}(f/6.1)$  decibels or  $50 + 10 \text{ Log}_{10}(P)$  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  $43 + 10 \text{ Log}_{10}(P)$  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.

#### 3.5.2 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 10<sup>th</sup> 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  $43 + 10\log(P)$ 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.



## 4 Radiated Test Items

### 4.1 Field Strength of Spurious Radiation Measurement

#### 4.1.1 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.

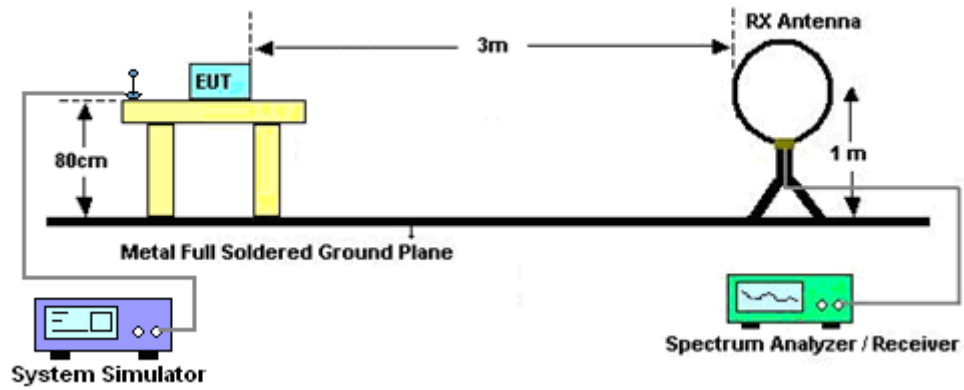
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43+10\log_{10}(P[\text{Watts}])$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

#### 4.1.2 Test Procedures

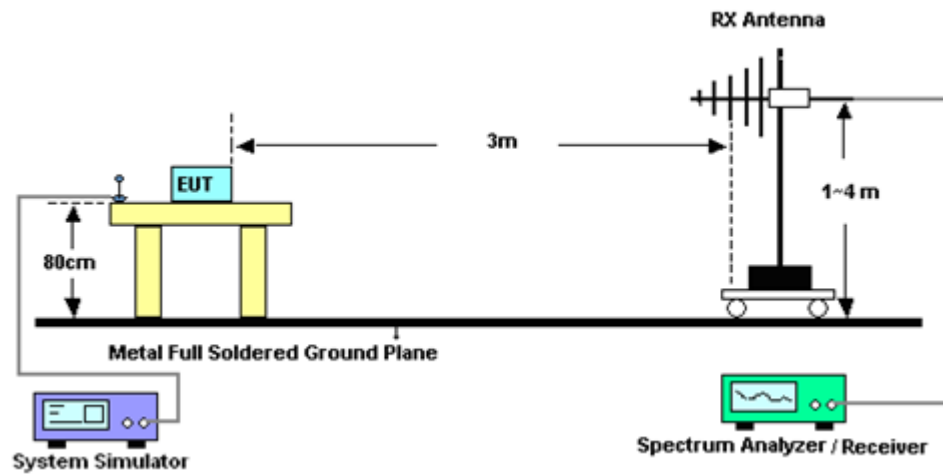
1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position 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.  $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
12.  $\text{ERP (dBm)} = \text{EIRP} - 2.15$
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)

### 4.1.3 Test Setup

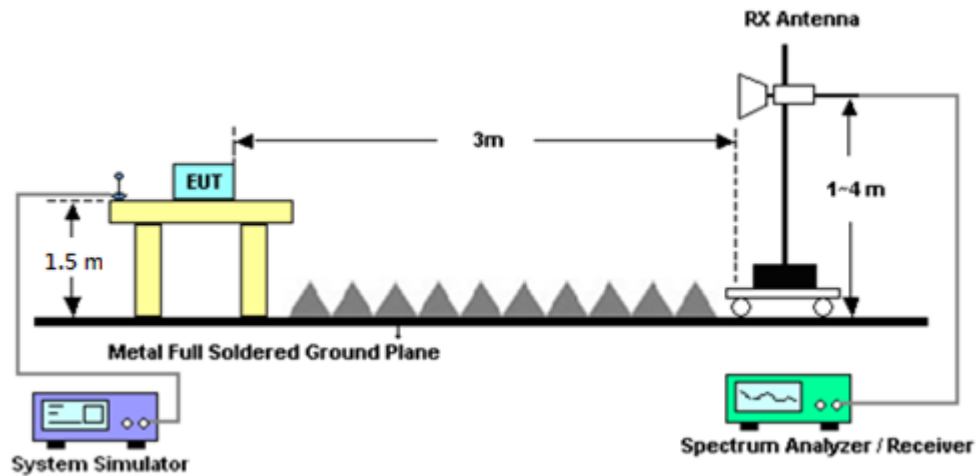
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



#### 4.1.4 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 a comparison data 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.



## 5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Feb. 01, 2021~ Feb. 19, 2021	Jul. 13, 2021	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-132 6	1GHz ~ 18GHz	Nov. 03, 2020	Feb. 01, 2021~ Feb. 19, 2021	Nov. 02, 2021	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-121 2	1GHz ~ 18GHz	May 20, 2020	Feb. 01, 2021~ Feb. 19, 2021	May 19, 2021	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Feb. 01, 2021~ Feb. 19, 2021	Oct. 10, 2021	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01 N-06	37059 & 01	30MHz~1GHz	Oct. 11, 2020	Feb. 01, 2021~ Feb. 19, 2021	Oct. 10, 2021	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY532700 80	1GHz~26.5GHz	Nov. 12, 2020	Feb. 01, 2021~ Feb. 19, 2021	Nov. 11, 2021	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 02, 2020	Feb. 01, 2021~ Feb. 19, 2021	Dec. 01, 2021	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz~44GHz	Oct. 23, 2020	Feb. 01, 2021~ Feb. 19, 2021	Oct. 22, 2021	Radiation (03CH11-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Dec. 14, 2020	Feb. 01, 2021~ Feb. 19, 2021	Dec. 13, 2021	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 01, 2021~ Feb. 19, 2021	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500- B	N/A	1~4m	N/A	Feb. 01, 2021~ Feb. 19, 2021	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Feb. 01, 2021~ Feb. 19, 2021	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-00105 3	N/A	N/A	Feb. 01, 2021~ Feb. 19, 2021	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	9kHz-30MHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 19, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 19, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	30M-18G	Mar. 12, 2020	Feb. 01, 2021~ Feb. 19, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 19, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-108 0-1200-15000 -60SS	SN2	1.2GHz High Pass Filter	Sep. 14, 2020	Feb. 01, 2021~ Feb. 19, 2021	Sep. 13, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-270 0-3000-18000 -60SS	SN3	3GHz High Pass Filter	Sep. 14, 2020	Feb. 01, 2021~ Feb. 19, 2021	Sep. 13, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTM-303B	TP140325	N/A	Nov. 18, 2020	Feb. 01, 2021~ Feb. 19, 2021	Nov. 17, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTM-303B	TP200880	QA-3-031	Oct. 22, 2020	Feb. 01, 2021~ Feb. 19, 2021	Oct. 21, 2021	Radiation (03CH11-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Base Station(Measure)	Anritsu	MT8821C	626200253 41	N/A	Oct. 06, 2020	Feb. 01, 2021~ Feb. 05, 2021	Oct. 05, 2021	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101909	10Hz~40GHz	May 19, 2020	Feb. 01, 2021~ Feb. 05, 2021	May 18, 2021	Conducted (TH05-HY)
Thermal Chamber	ESPEC	SH-641	92013720	-40°C~90°C	Sep. 14, 2020	Feb. 01, 2021~ Feb. 05, 2021	Sep. 13, 2021	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 05, 2020	Feb. 01, 2021~ Feb. 05, 2021	Oct. 04, 2021	Conducted (TH05-HY)
Coupler	MVE	MVE4816	A400014	0.5~18GHz	May 08, 2020	Feb. 01, 2021~ Feb. 05, 2021	May 07, 2021	Conducted (TH05-HY)



## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.29
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.32
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## Appendix A. Test Results of Conducted Test

### Conducted Output Power (Average power & ERP)

LTE Band 26 Maximum Average Power [dBm] (GT - LC = 0.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0	QPSK	23.05	-	-	21.62	0.1452
15	1	37		23.01	-	-		
15	1	74		23.07	-	-		
15	36	0		22.00	-	-		
15	36	20		22.15	-	-		
15	36	39		22.13	-	-		
15	75	0		22.17	-	-		
15	1	0	16-QAM	22.10	-	-	21.19	0.1315
15	1	37		22.47	-	-		
15	1	74		22.64	-	-		
15	36	0		21.19	-	-		
15	36	20		21.23	-	-		
15	36	39		21.18	-	-		
15	75	0		21.22	-	-		
15	1	0	64-QAM	21.48	-	-	20.03	0.1007
15	1	37		21.20	-	-		
15	1	74		21.27	-	-		
15	36	0		20.18	-	-		
15	36	20		20.29	-	-		
15	36	39		20.15	-	-		
15	75	0		20.15	-	-		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm] (GT - LC = 0.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	23.09	-	21.64	0.1459
10	1	25		-	23.06	-		
10	1	49		-	23.03	-		
10	25	0		-	22.09	-		
10	25	12		-	22.09	-		
10	25	25		-	22.00	-		
10	50	0		-	22.14	-		
10	1	0	16-QAM	-	22.08	-	21.26	0.1337
10	1	25		-	22.71	-		
10	1	49		-	22.37	-		
10	25	0		-	21.18	-		
10	25	12		-	21.09	-		
10	25	25		-	21.11	-		
10	50	0		-	21.20	-		
10	1	0	64-QAM	-	21.30	-	20.08	0.1019
10	1	25		-	21.43	-		
10	1	49		-	21.53	-		
10	25	0		-	20.23	-		
10	25	12		-	20.21	-		
10	25	25		-	20.11	-		
10	50	0		-	20.21	-		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm] (GT - LC = 0.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.96	23.09	23.16	21.74	0.1493
5	1	12		23.01	23.08	23.04		
5	1	24		23.06	23.03	23.19		
5	12	0		21.95	22.16	22.09		
5	12	7		22.07	22.10	22.20		
5	12	13		22.04	21.98	22.09		
5	25	0		22.08	22.10	22.20		
5	1	0	16-QAM	22.06	22.17	22.37	21.34	0.1361
5	1	12		22.45	22.72	22.52		
5	1	24		22.64	22.39	22.79		
5	12	0		21.18	21.19	21.14		
5	12	7		21.14	21.11	21.35		
5	12	13		21.18	21.17	21.28		
5	25	0		21.13	21.18	21.17		
5	1	0	64-QAM	21.40	21.33	21.20	20.11	0.1026
5	1	12		21.18	21.53	21.43		
5	1	24		21.20	21.56	21.32		
5	12	0		20.12	20.23	20.13		
5	12	7		20.28	20.21	20.38		
5	12	13		20.14	20.13	20.23		
5	25	0		20.13	20.12	20.29		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm] (GT - LC = 0.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	22.98	23.09	23.16	21.71	0.1483
3	1	8		22.92	23.01	23.03		
3	1	14		23.03	23.01	23.16		
3	8	0		21.96	22.09	22.09		
3	8	4		22.10	22.11	22.11		
3	8	7		22.08	21.99	22.13		
3	15	0		22.14	22.14	22.15		
3	1	0	16-QAM	22.07	22.16	22.37	21.26	0.1337
3	1	8		22.43	22.70	22.49		
3	1	14		22.58	22.38	22.71		
3	8	0		21.18	21.27	21.10		
3	8	4		21.15	21.13	21.31		
3	8	7		21.14	21.13	21.22		
3	15	0		21.14	21.21	21.16		
3	1	0	64-QAM	21.39	21.28	21.26	20.08	0.1019
3	1	8		21.16	21.50	21.50		
3	1	14		21.18	21.53	21.35		
3	8	0		20.15	20.21	20.14		
3	8	4		20.21	20.23	20.34		
3	8	7		20.14	20.16	20.20		
3	15	0		20.09	20.14	20.20		
Limit	ERP < 7W			Result			Pass	



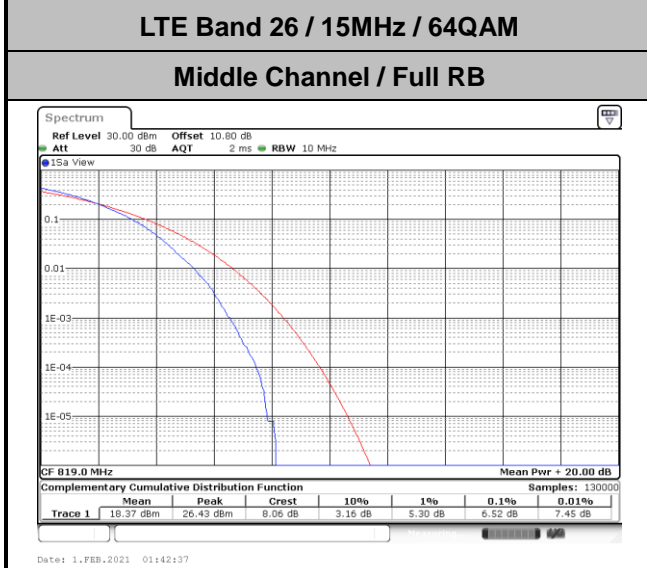
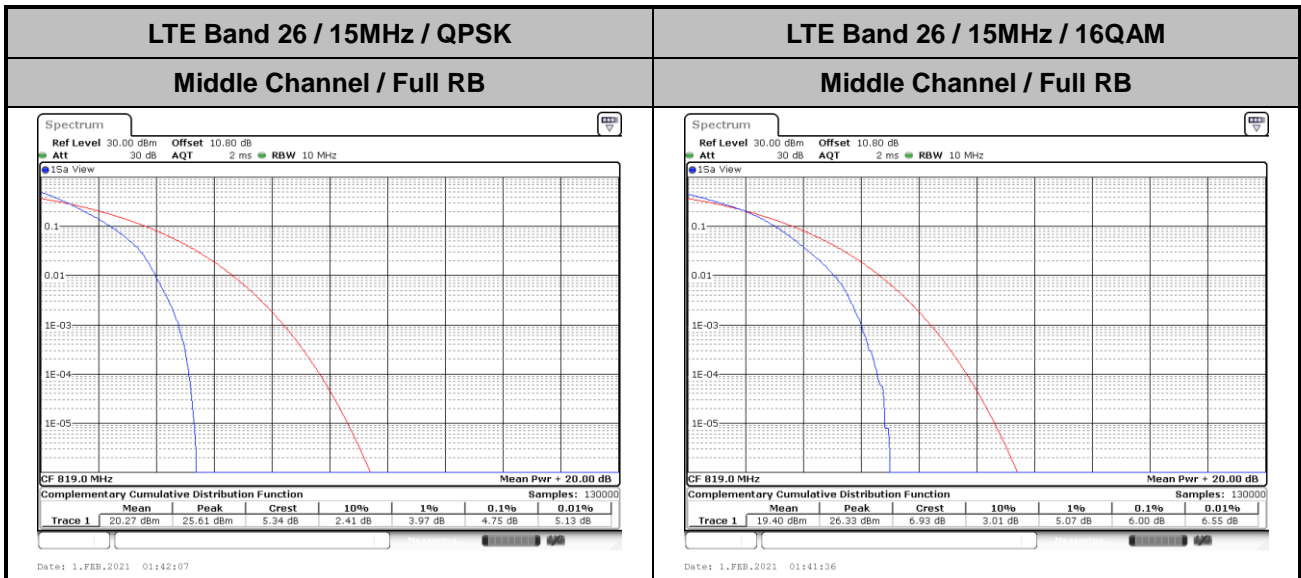
LTE Band 26 Maximum Average Power [dBm] (GT - LC = 0.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	23.02	23.04	23.18	21.73	0.1489
1.4	1	3		22.97	23.05	23.10		
1.4	1	5		23.05	23.02	23.13		
1.4	3	0		23.01	22.99	23.18		
1.4	3	1		22.95	23.05	23.03		
1.4	3	3		23.05	23.04	23.18		
1.4	6	0		22.07	22.10	22.22		
1.4	1	0	16-QAM	22.07	22.09	22.35	21.77	0.1503
1.4	1	3		22.40	22.64	22.51		
1.4	1	5		22.61	22.43	22.70		
1.4	3	0		23.02	23.09	23.22		
1.4	3	1		22.99	23.03	23.13		
1.4	3	3		23.06	23.01	23.15		
1.4	6	0		21.12	21.13	21.16		
1.4	1	0	64-QAM	21.41	21.28	21.29	20.13	0.1030
1.4	1	3		21.18	21.52	21.44		
1.4	1	5		21.19	21.48	21.32		
1.4	3	0		21.47	21.35	21.24		
1.4	3	1		21.14	21.47	21.45		
1.4	3	3		21.25	21.58	21.34		
1.4	6	0		20.07	20.19	20.26		
Limit	ERP < 7W			Result			Pass	



# LTE Band 26

## 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	4.75	6.00	6.52	PASS





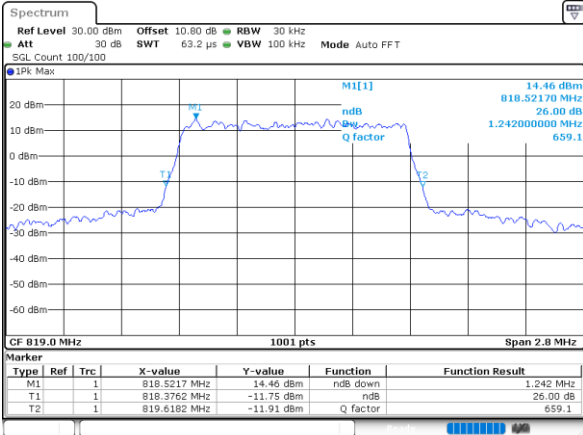
**26dB Bandwidth**

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	1.24	1.23	3.02	3.05	4.93	4.90	9.83	9.77	14.57	14.45	-	-
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.23	-	3.02	-	4.91	-	9.65	-	14.39	-	-	-



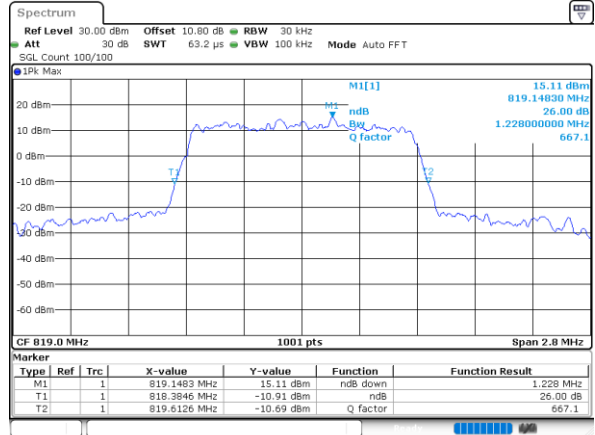
LTE Band 26

Middle Channel / 1.4MHz / QPSK



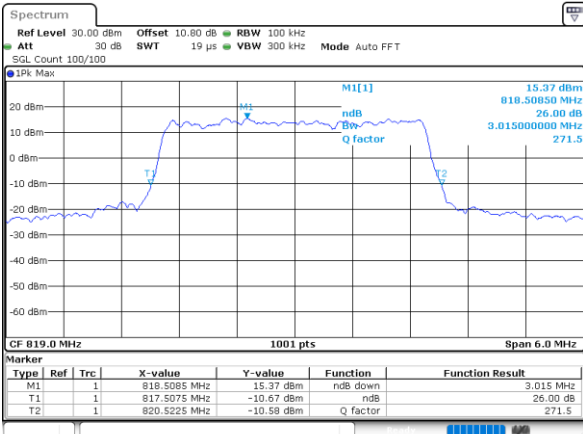
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Middle Channel / 1.4MHz / 16QAM



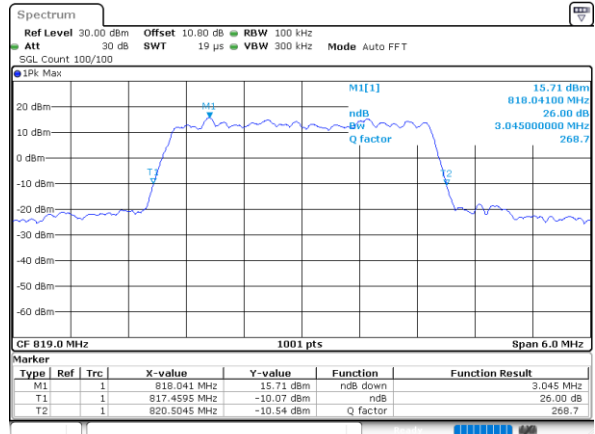
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Middle Channel / 3MHz / QPSK



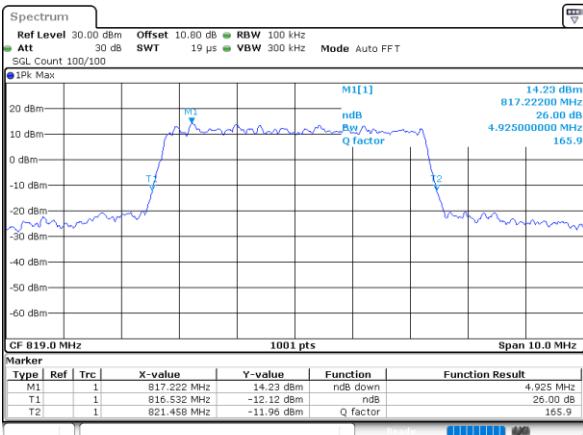
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Middle Channel / 3MHz / 16QAM



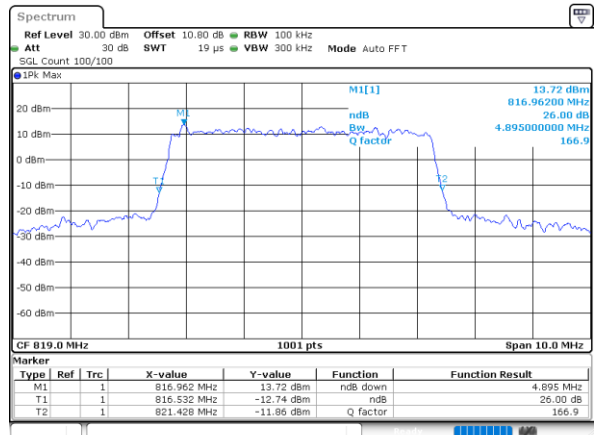
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Middle Channel / 5MHz / QPSK



Date: 1.FEB.2021 01:33:59

Middle Channel / 5MHz / 16QAM



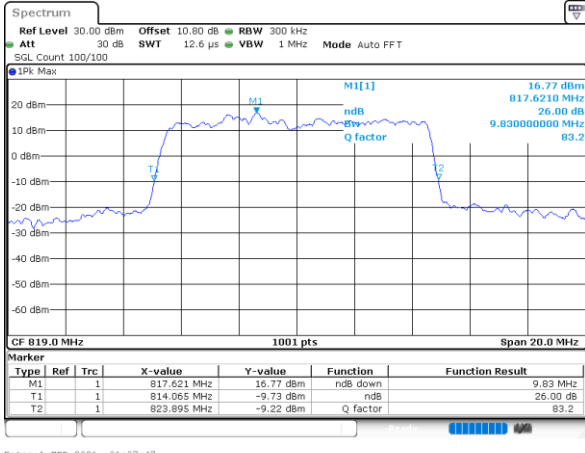
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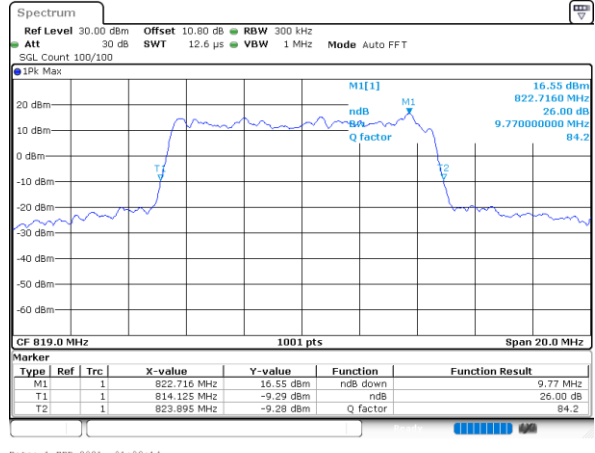
LTE Band 26

Middle Channel / 10MHz / QPSK



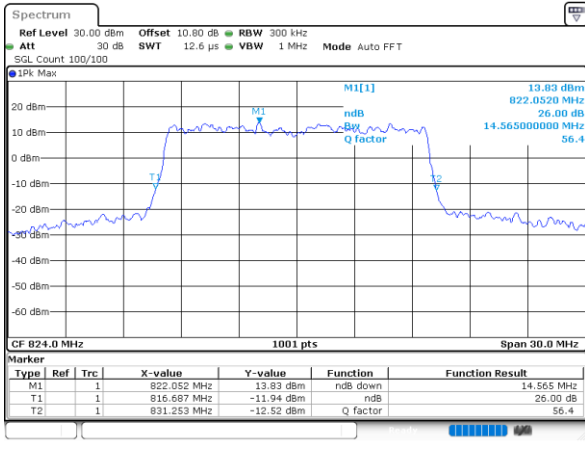
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Middle Channel / 10MHz / 16QAM



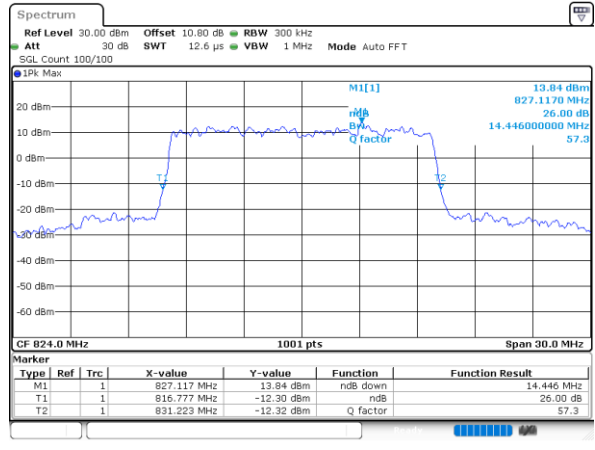
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Middle Channel / 15MHz / QPSK



Date: 3.FEB.2021 15:52:31

Middle Channel / 15MHz / 16QAM

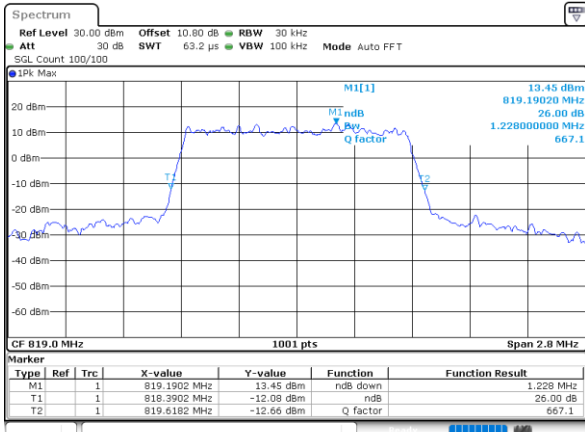


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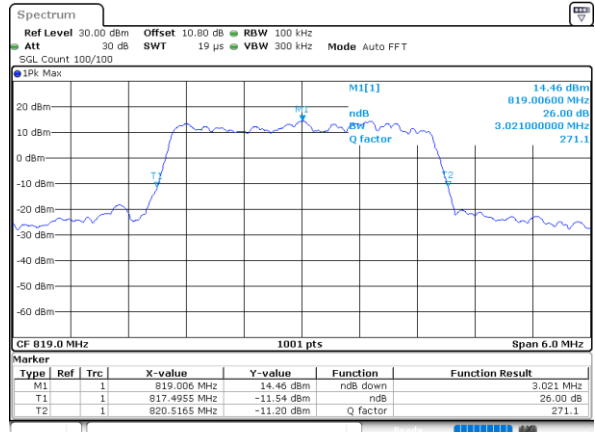
LTE Band 26

Middle Channel / 1.4MHz / 64QAM



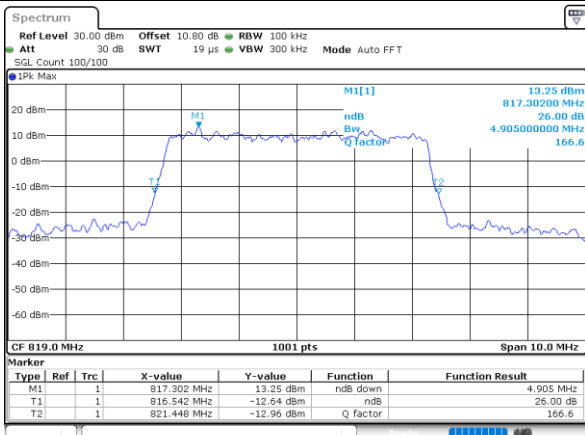
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Middle Channel / 3MHz / 64QAM



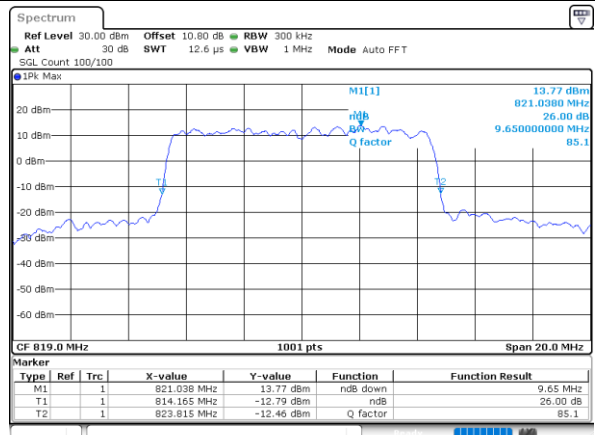
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Middle Channel / 5MHz / 64QAM



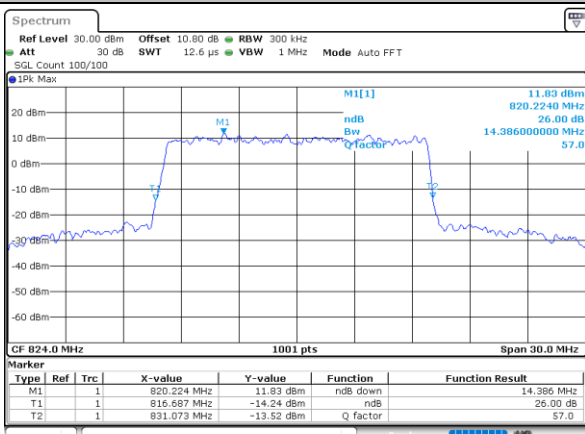
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Middle Channel / 10MHz / 64QAM



Date: 1.FEB.2021 01:26:50

Middle Channel / 15MHz / 64QAM



Date: 3.FEB.2021 15:53:29

N/A



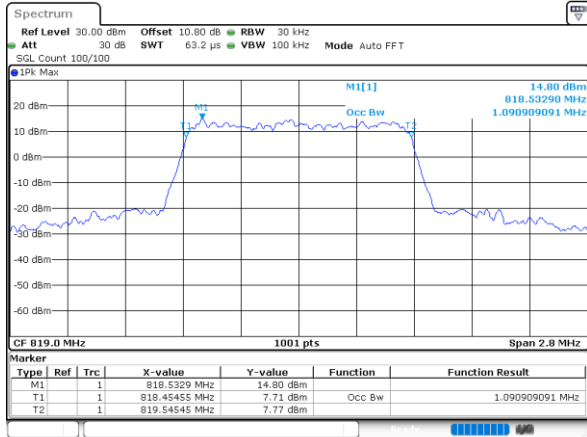
**Occupied Bandwidth**

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
Middle CH	1.09	1.10	2.76	2.71	4.50	4.49	9.05	9.07	13.52	13.46	-	-
Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.09	-	2.73	-	4.49	-	9.03	-	13.43	-	-	-

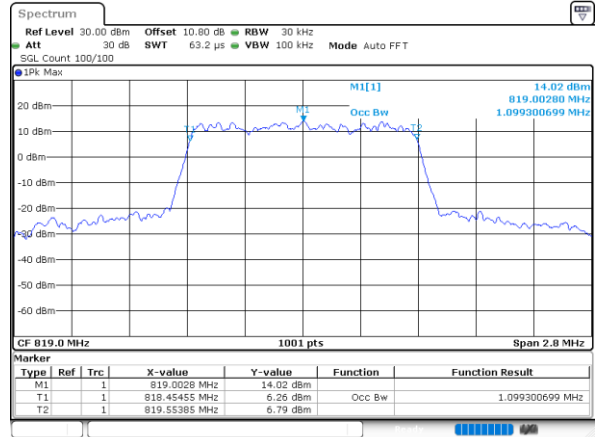


LTE Band 26

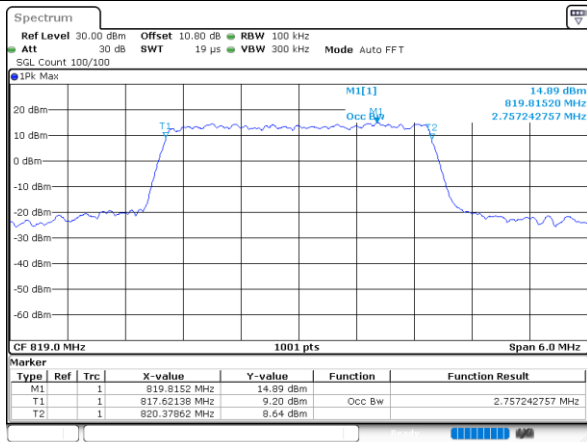
Middle Channel / 1.4MHz / QPSK



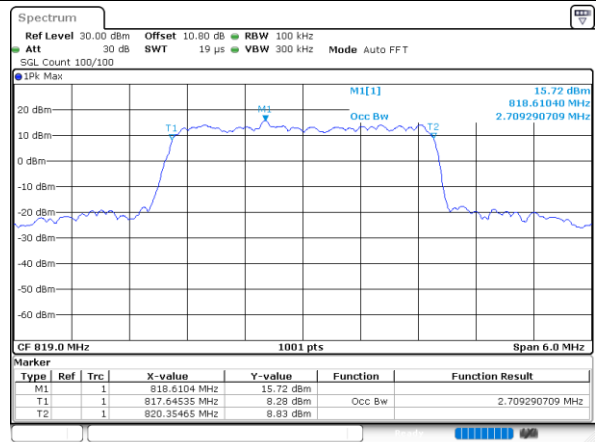
Middle Channel / 1.4MHz / 16QAM



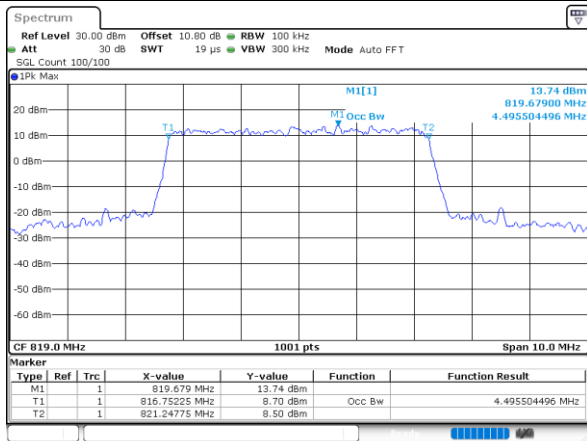
Middle Channel / 3MHz / QPSK



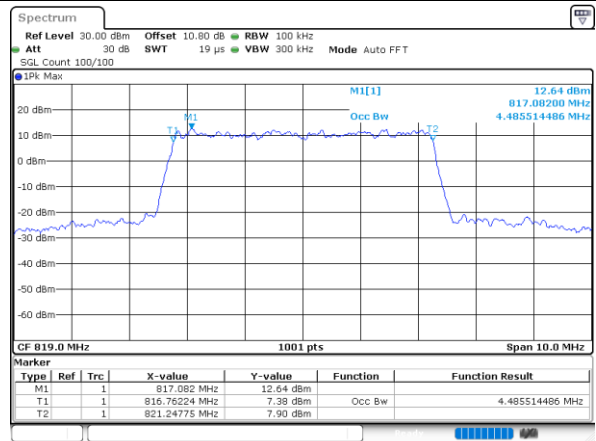
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Middle Channel / 5MHz / QPSK



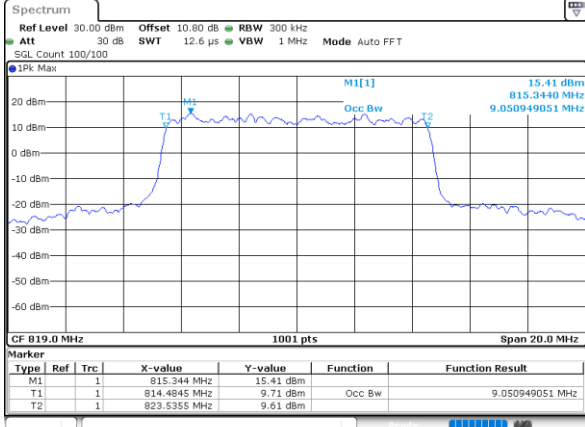
Middle Channel / 5MHz / 16QAM





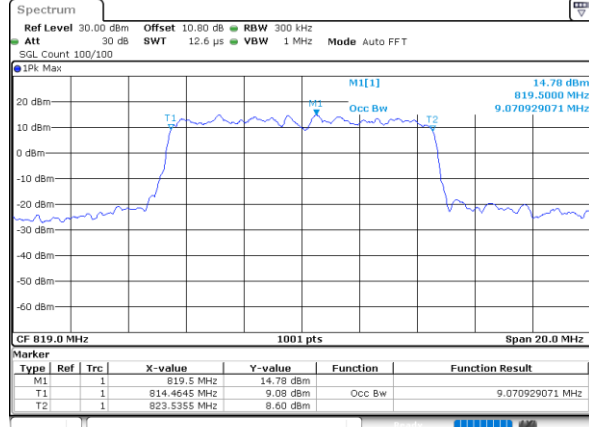
LTE Band 26

Middle Channel / 10MHz / QPSK



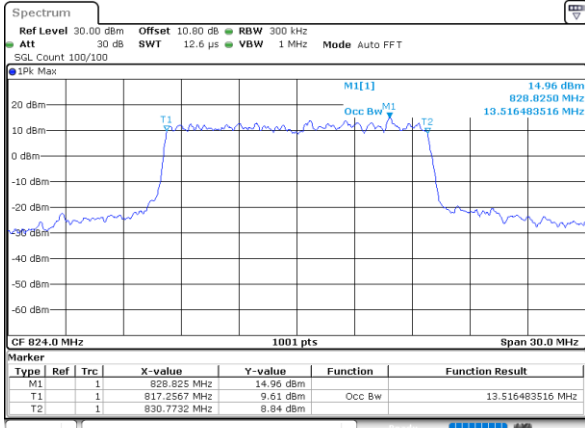
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Middle Channel / 10MHz / 16QAM



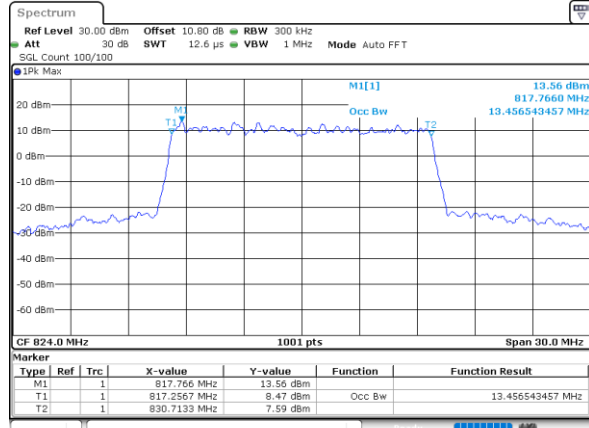
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Middle Channel / 15MHz / QPSK



Date: 3.FEB.2021 15:52:17

Middle Channel / 15MHz / 16QAM

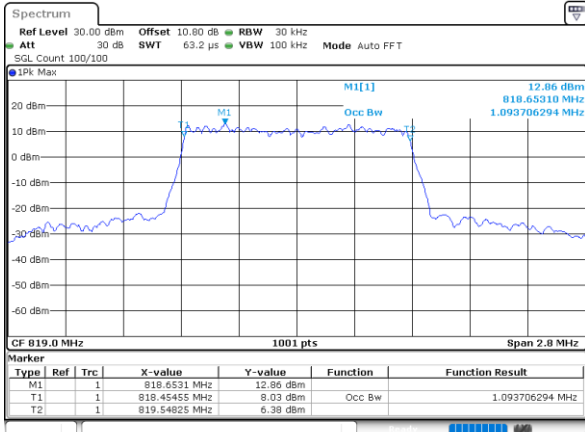


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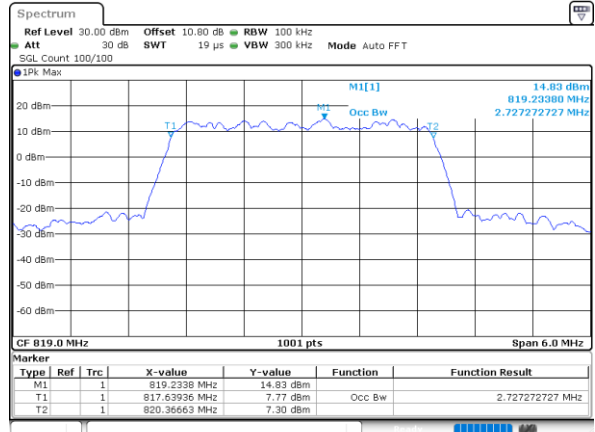
LTE Band 26

Middle Channel / 1.4MHz / 64QAM



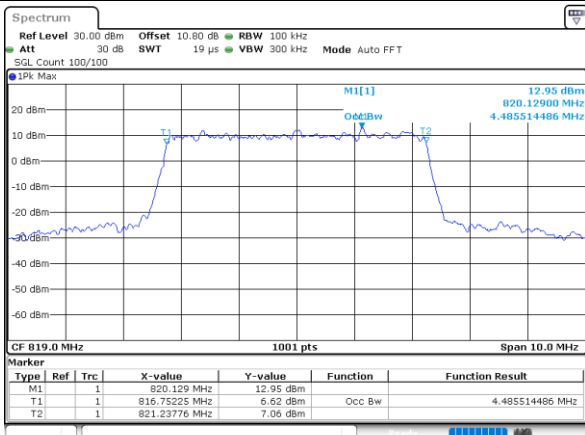
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Middle Channel / 3MHz / 64QAM



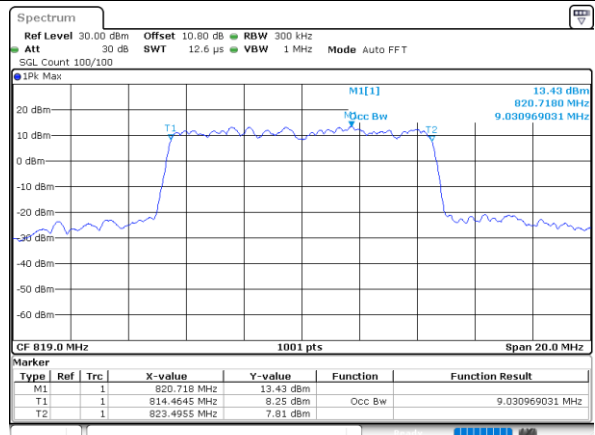
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Middle Channel / 5MHz / 64QAM



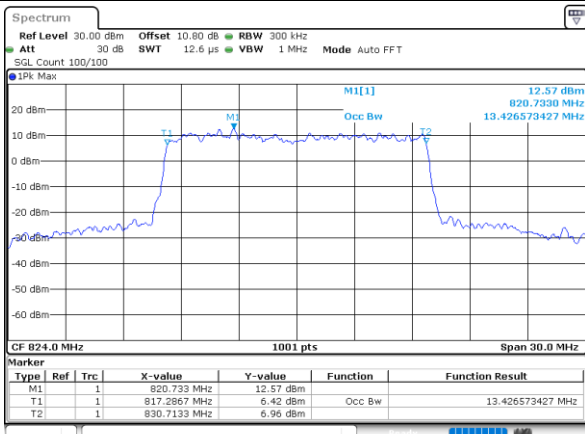
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Middle Channel / 10MHz / 64QAM



Date: 1.FEB.2021 01:26:34

Middle Channel / 15MHz / 64QAM

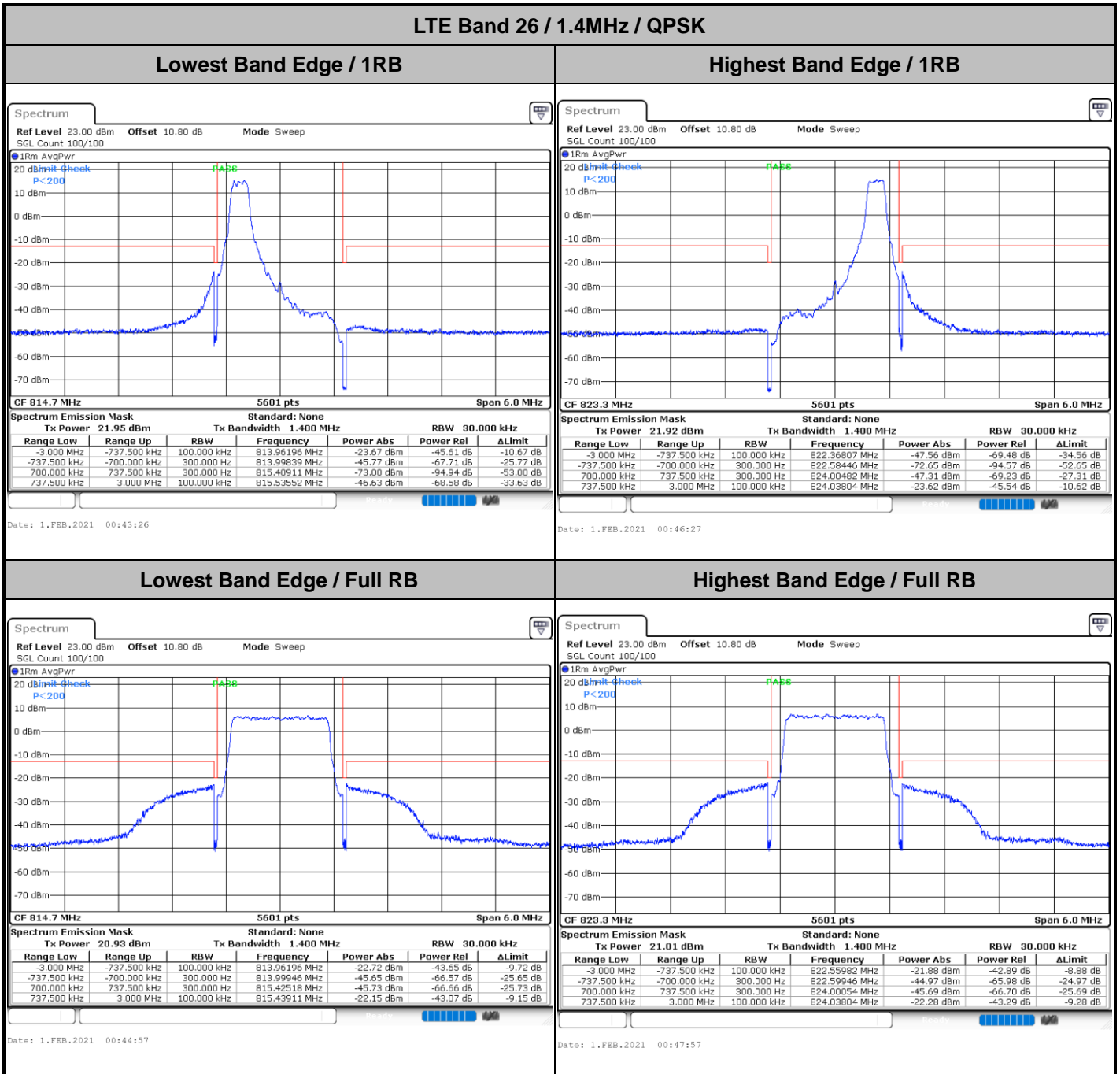


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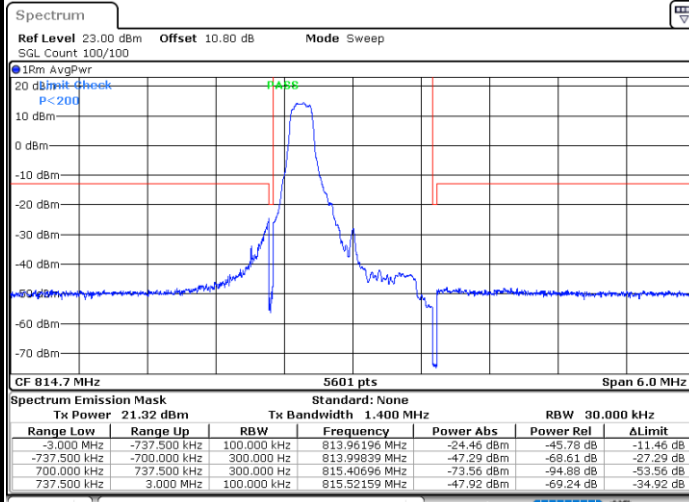
# Emission masks – In-band emissions





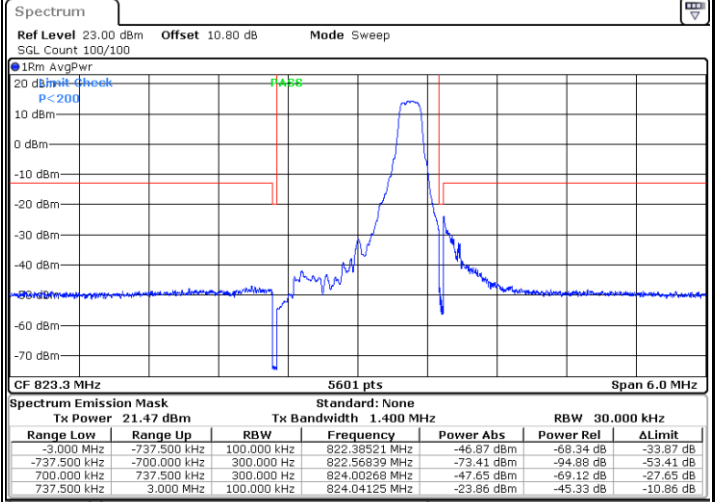
LTE Band 26 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



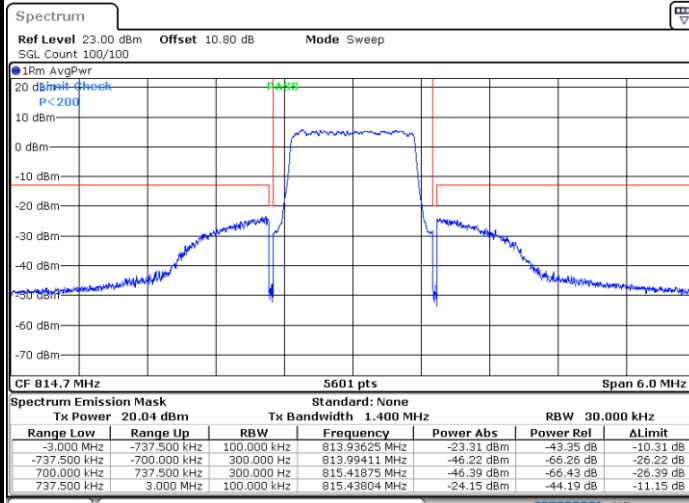
Date: 1.FEB.2021 00:44:12

Highest Band Edge / 1 RB



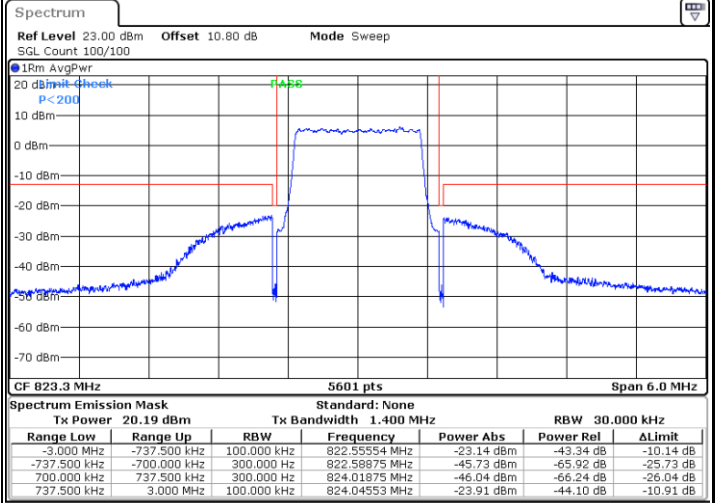
Date: 1.FEB.2021 00:47:12

Lowest Band Edge / Full RB



Date: 1.FEB.2021 00:45:42

Highest Band Edge / Full RB



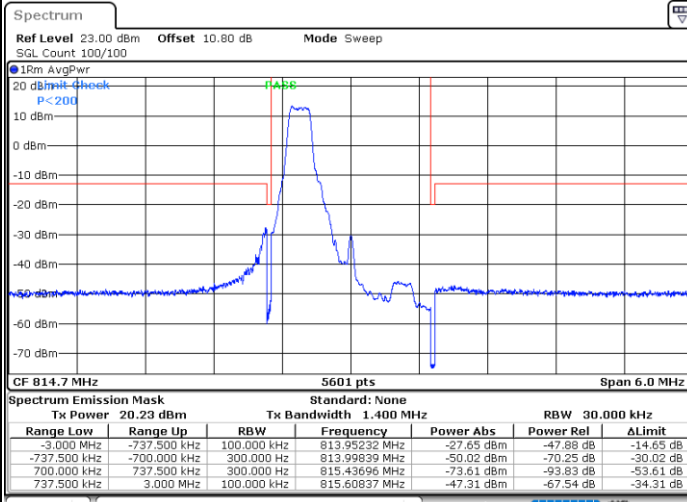
Date: 1.FEB.2021 00:46:42





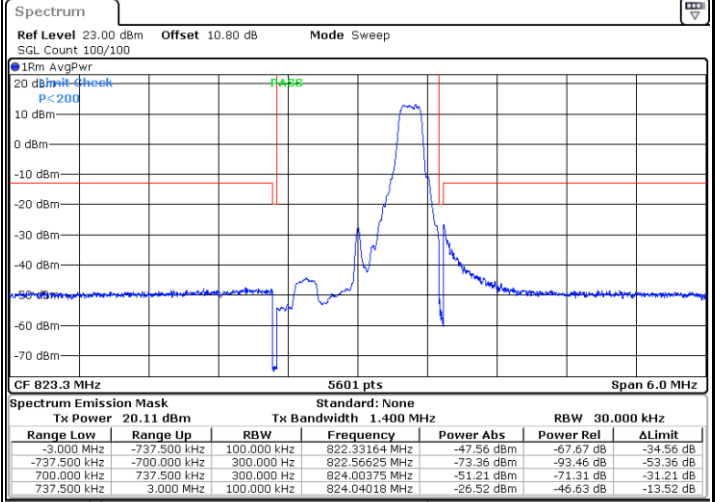
LTE Band 26 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



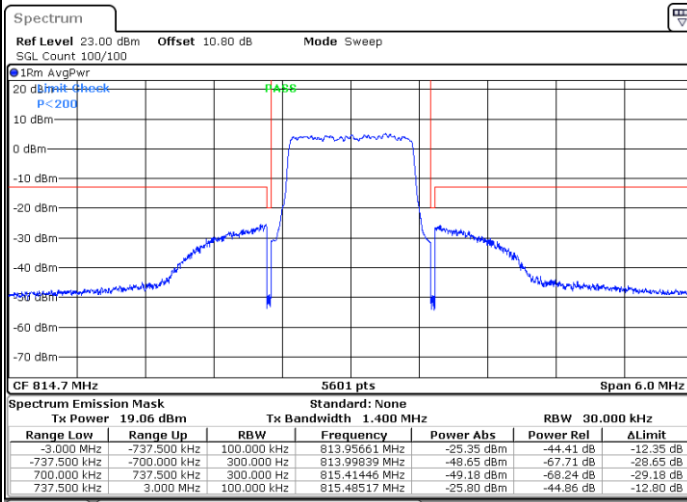
Date: 1.FEB.2021 00:49:28

Highest Band Edge / 1 RB



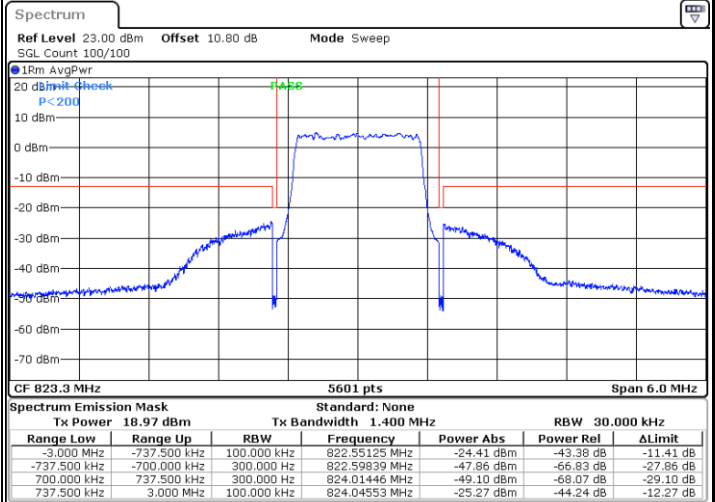
Date: 1.FEB.2021 00:50:58

Lowest Band Edge / Full RB



Date: 1.FEB.2021 00:50:13

Highest Band Edge / Full RB

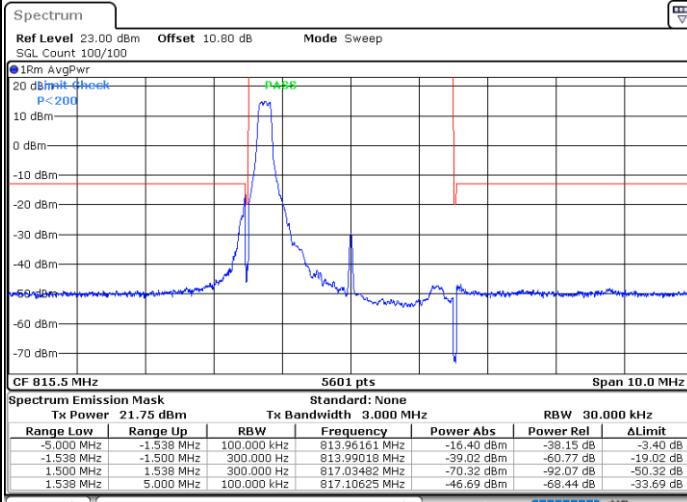


Date: 1.FEB.2021 00:51:43



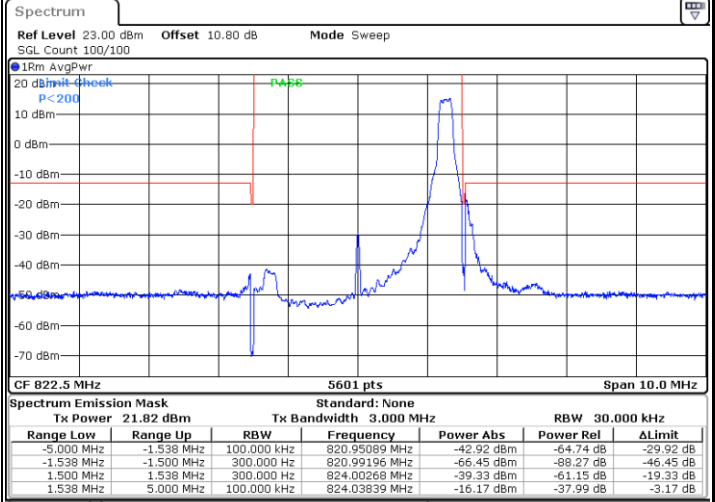
LTE Band 26 / 3MHz / QPSK

Lowest Band Edge / 1RB



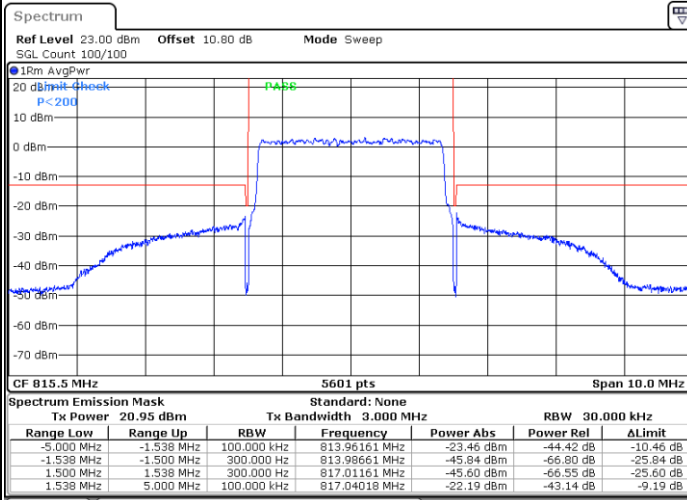
Date: 1.FEB.2021 00:52:29

Highest Band Edge / 1 RB



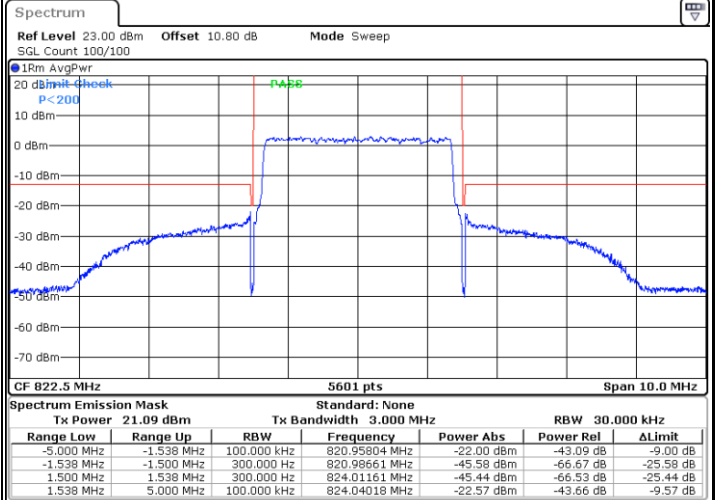
Date: 1.FEB.2021 00:55:31

Lowest Band Edge / Full RB



Date: 1.FEB.2021 00:54:00

Highest Band Edge / Full RB

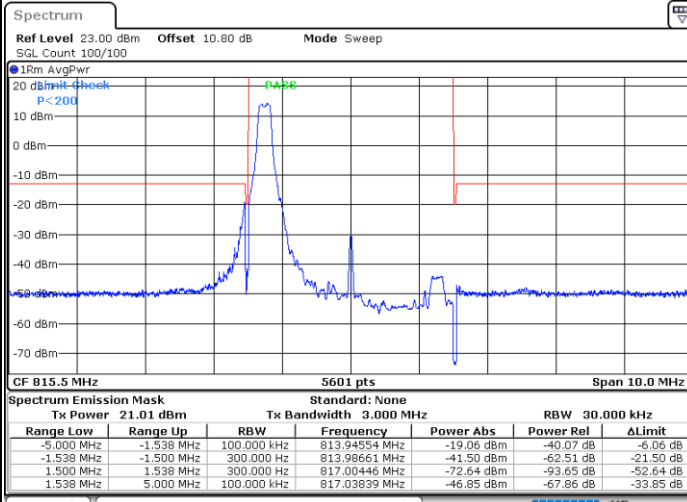


Date: 1.FEB.2021 00:57:02



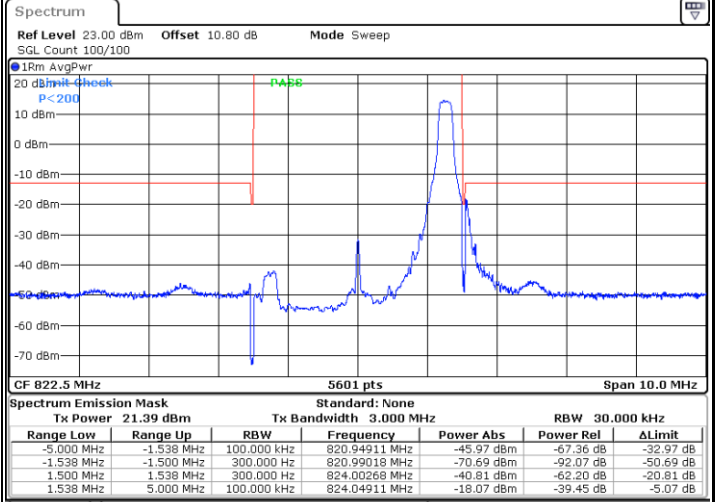
LTE Band 26 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



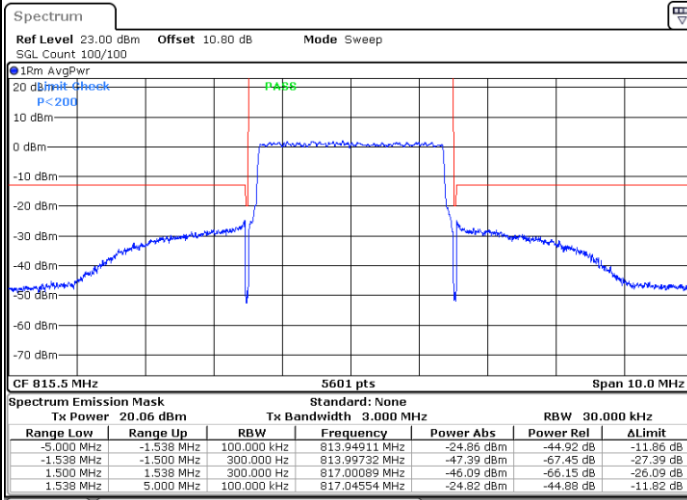
Date: 1.FEB.2021 00:53:15

Highest Band Edge / 1 RB



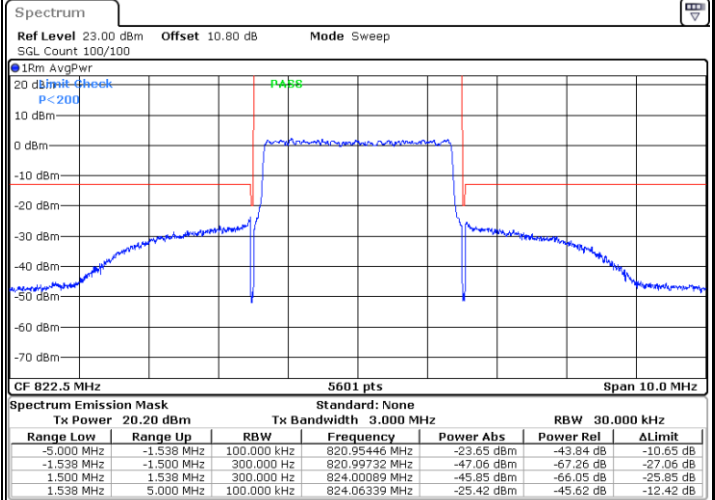
Date: 1.FEB.2021 00:56:17

Lowest Band Edge / Full RB



Date: 1.FEB.2021 00:54:46

Highest Band Edge / Full RB

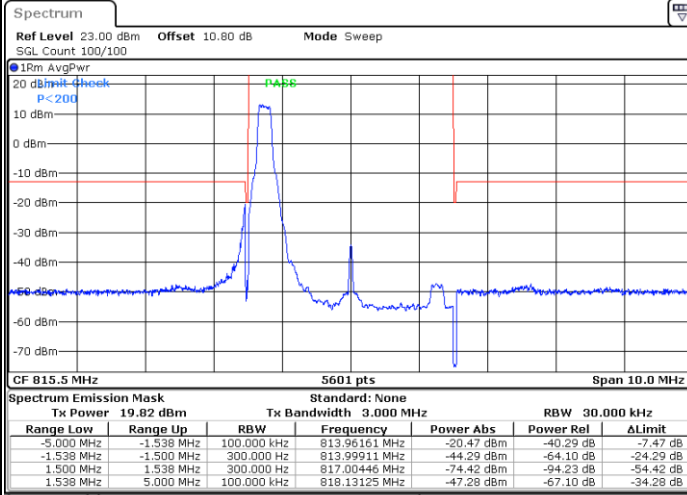


Date: 1.FEB.2021 00:58:30



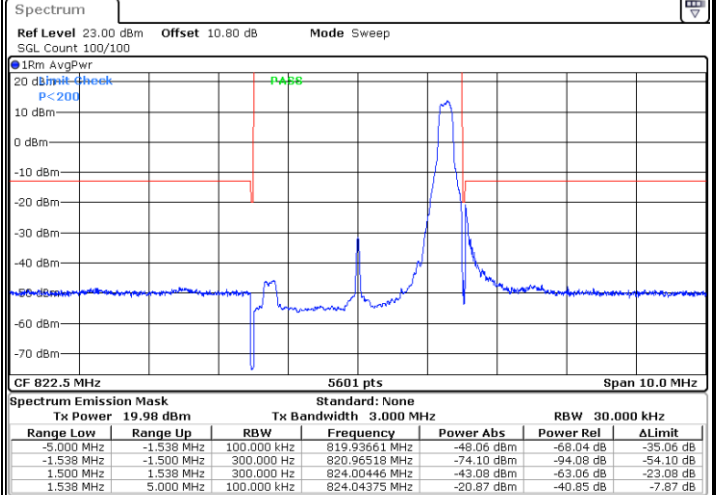
LTE Band 26 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



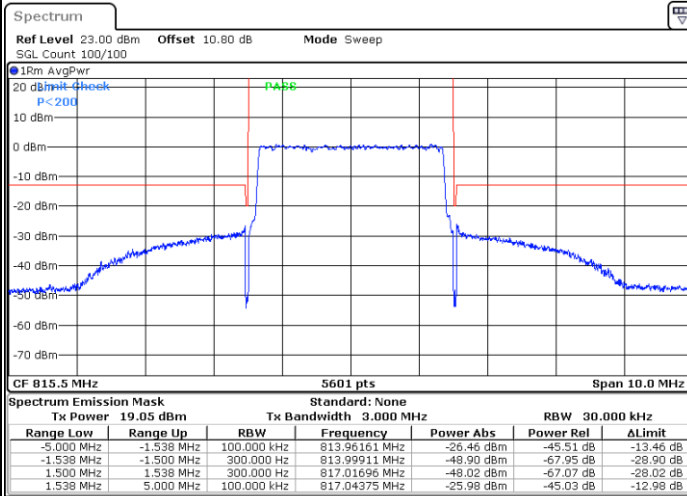
Date: 1.FEB.2021 01:14:20

Highest Band Edge / 1 RB



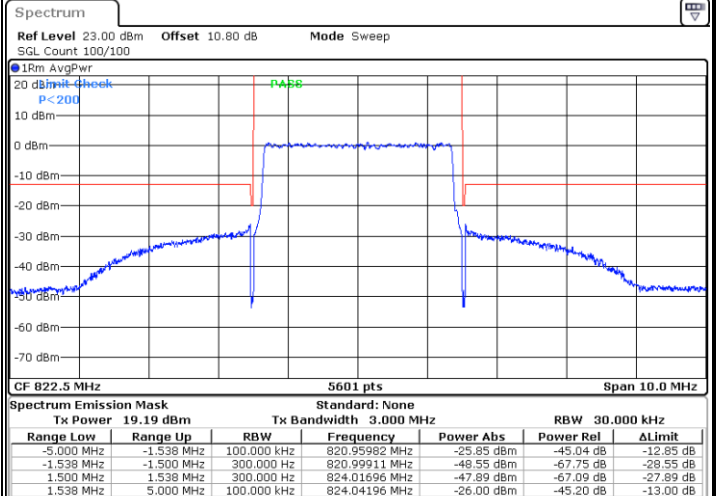
Date: 1.FEB.2021 01:15:50

Lowest Band Edge / Full RB



Date: 1.FEB.2021 01:15:05

Highest Band Edge / Full RB

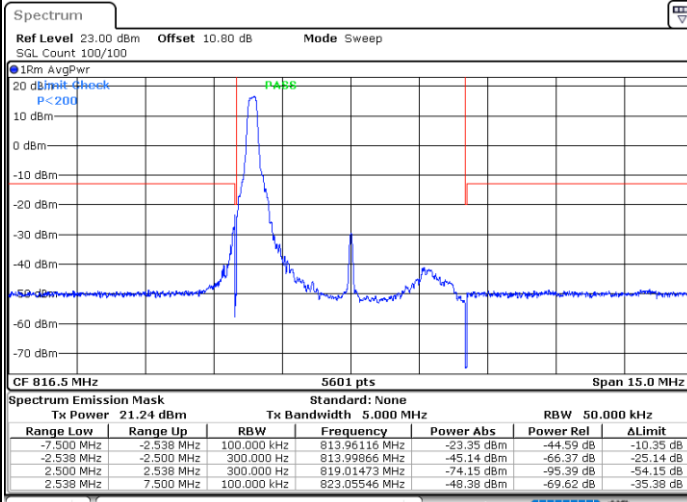


Date: 1.FEB.2021 01:16:36



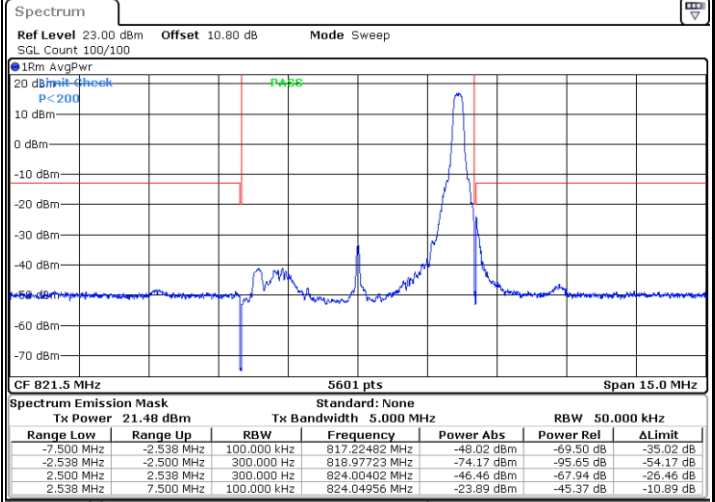
LTE Band 26 / 5MHz / QPSK

Lowest Band Edge / 1 RB



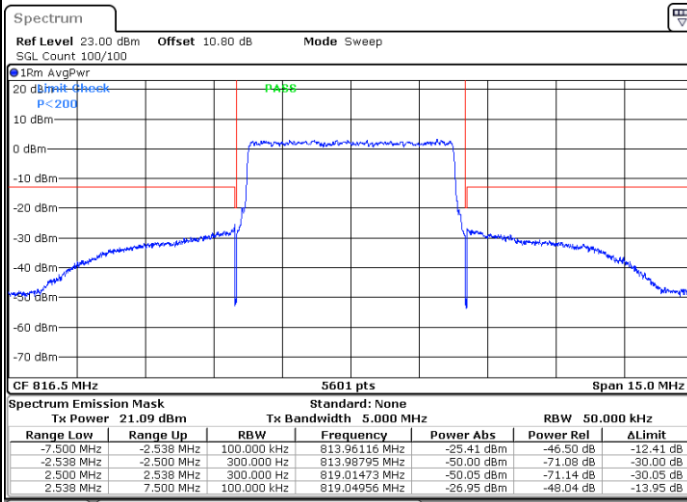
Date: 1.FEB.2021 00:59:15

Highest Band Edge / 1 RB



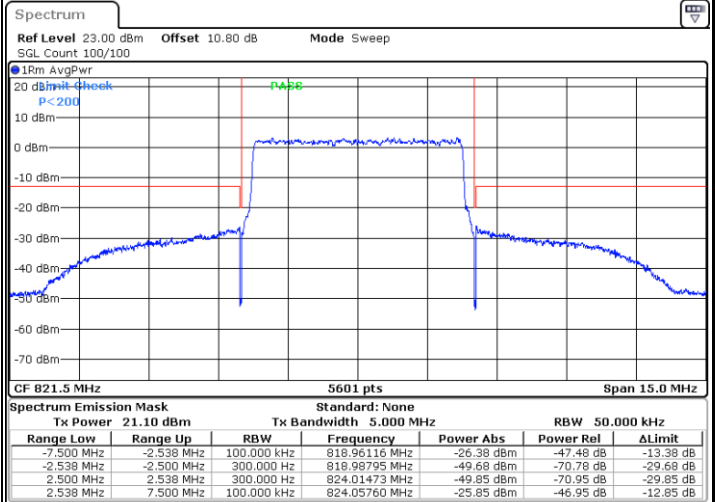
Date: 1.FEB.2021 01:02:16

Lowest Band Edge / Full RB



Date: 1.FEB.2021 01:00:46

Highest Band Edge / Full RB

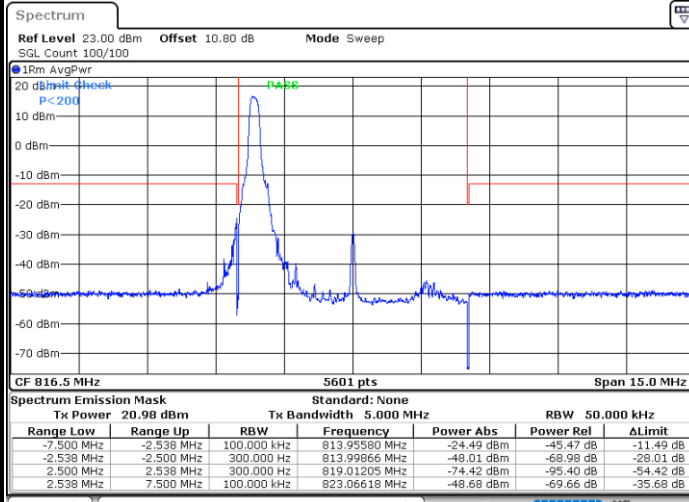


Date: 1.FEB.2021 01:03:47



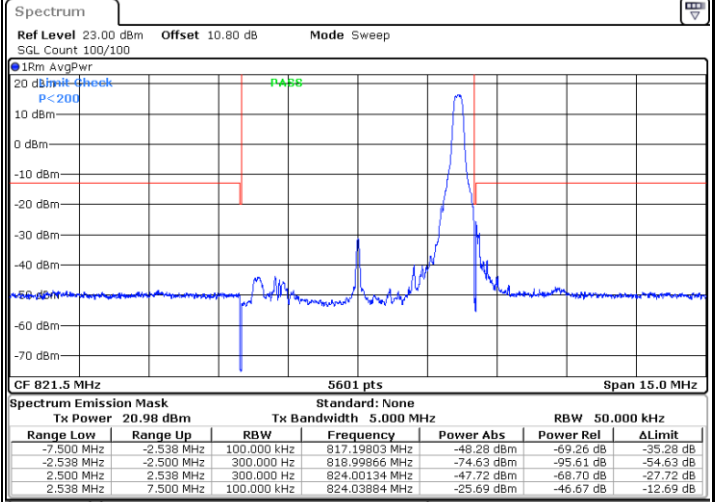
LTE Band 26 / 5MHz / 16QAM

Lowest Band Edge / 1RB



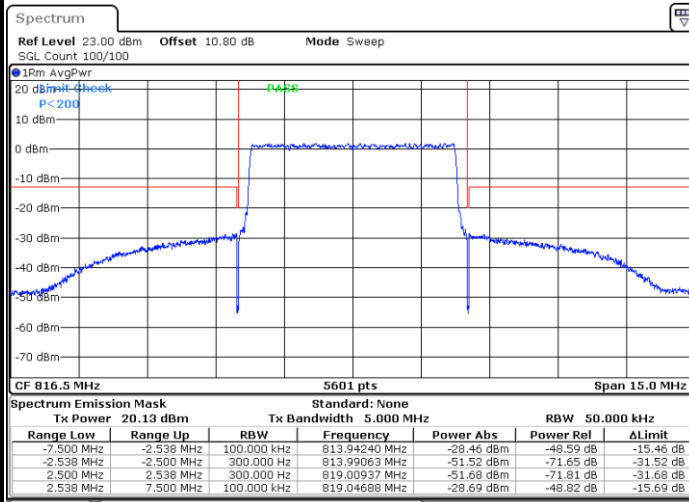
Date: 1.FEB.2021 01:00:01

Highest Band Edge / 1 RB



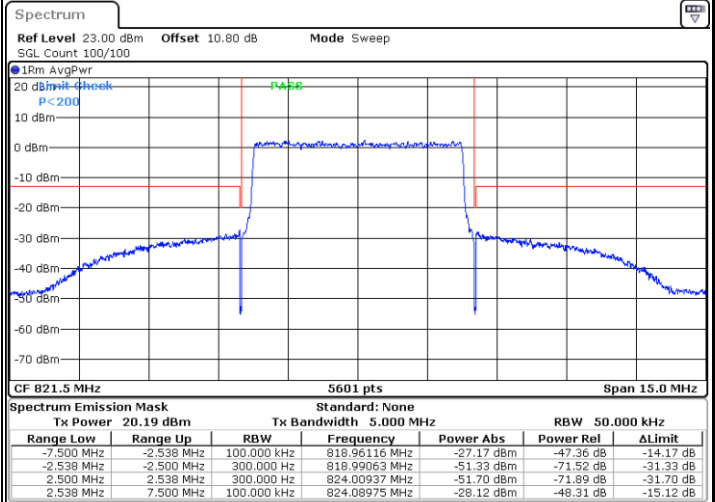
Date: 1.FEB.2021 01:03:01

Lowest Band Edge / Full RB



Date: 1.FEB.2021 01:01:31

Highest Band Edge / Full RB

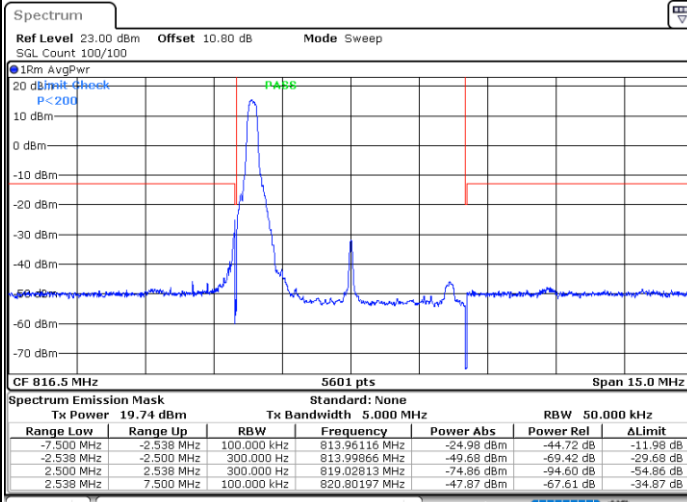


Date: 1.FEB.2021 01:04:32



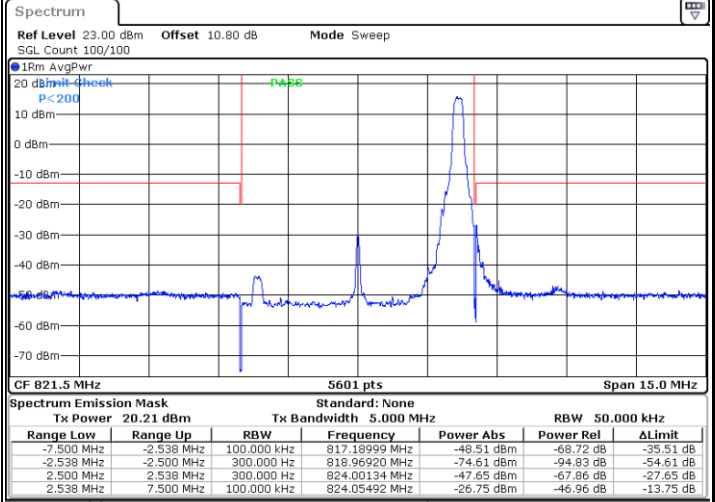
LTE Band 26 / 5MHz / 64QAM

Lowest Band Edge / 1RB



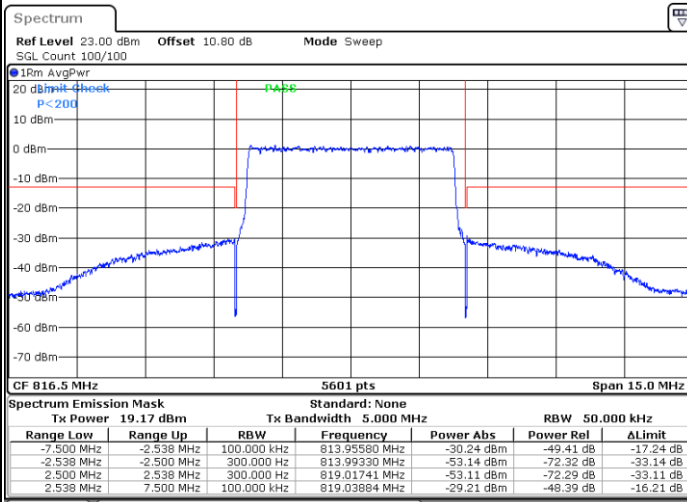
Date: 1.FEB.2021 01:17:21

Highest Band Edge / 1 RB



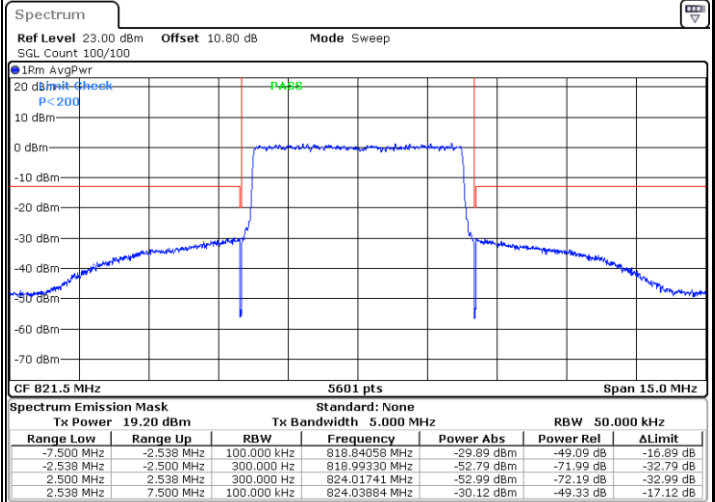
Date: 1.FEB.2021 01:18:52

Lowest Band Edge / Full RB



Date: 1.FEB.2021 01:18:07

Highest Band Edge / Full RB

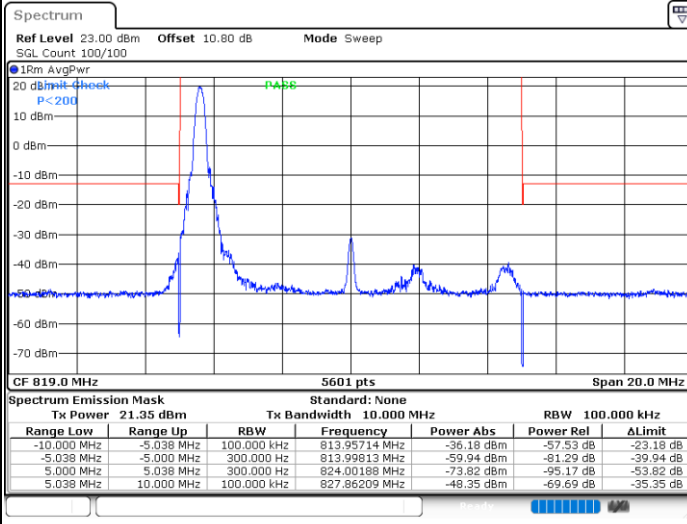


Date: 1.FEB.2021 01:19:37



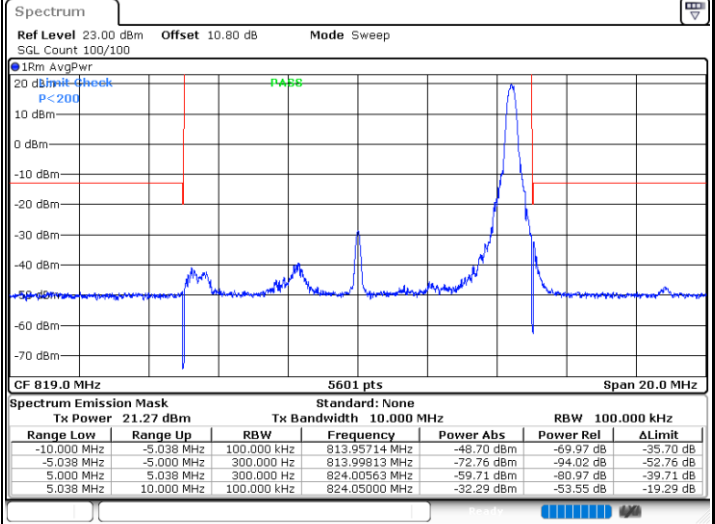
LTE Band 26 / 10MHz / QPSK

Lowest Band Edge / 1 RB



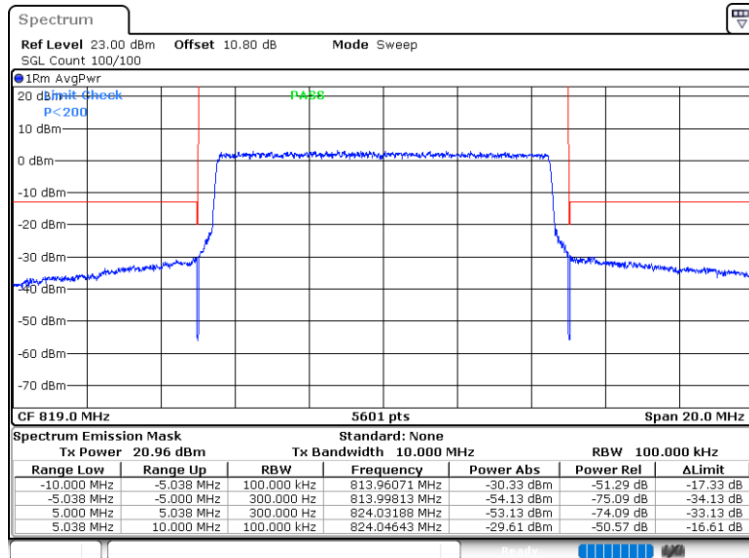
Date: 1.FEB.2021 01:05:17

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:06:48

Lowest Band Edge / Full RB



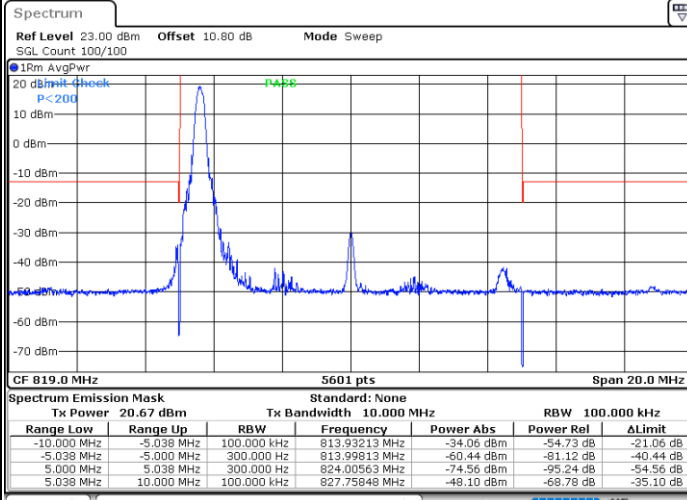
Date: 1.FEB.2021 01:08:18





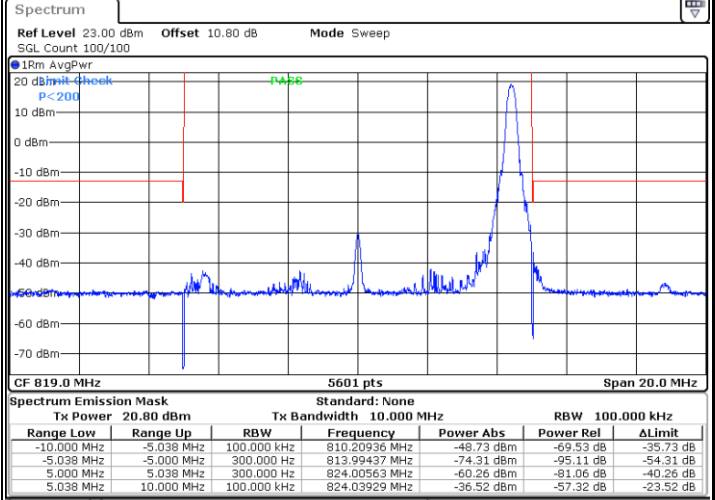
LTE Band 26 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



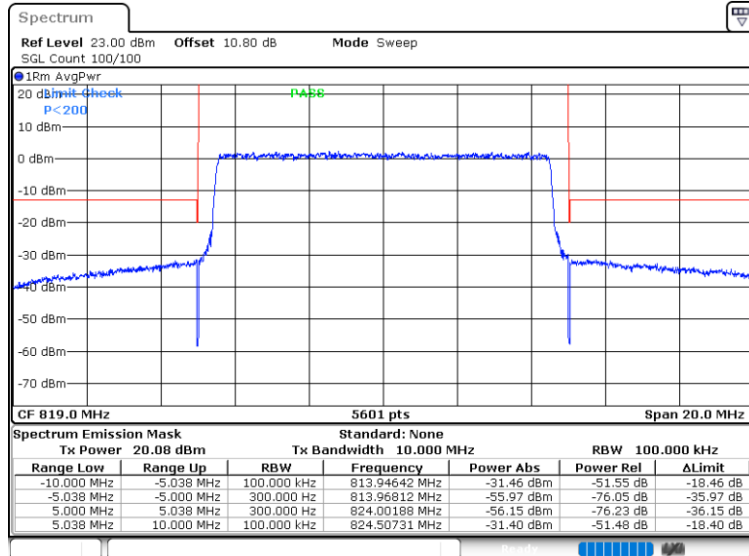
Date: 1.FEB.2021 01:06:02

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:07:33

Lowest Band Edge / Full RB

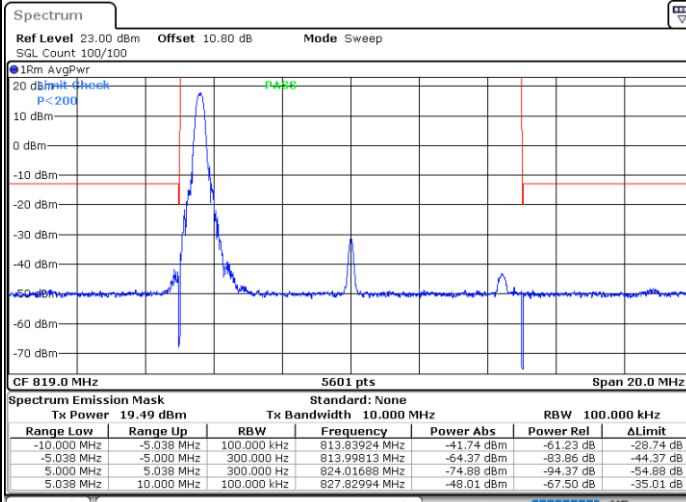


Date: 1.FEB.2021 01:09:03



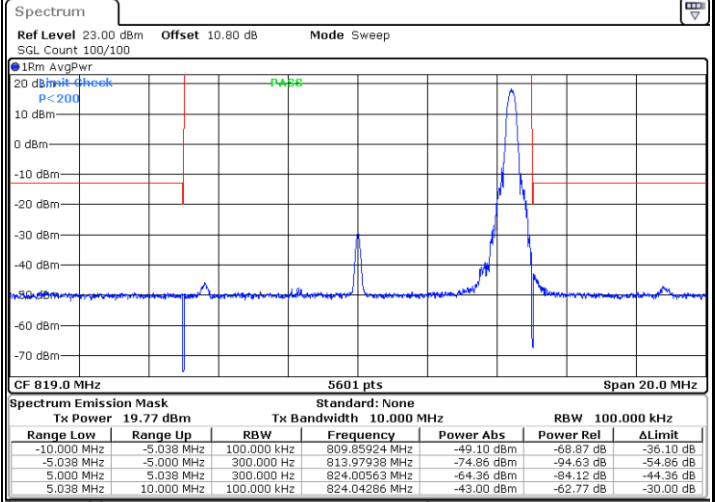
LTE Band 26 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



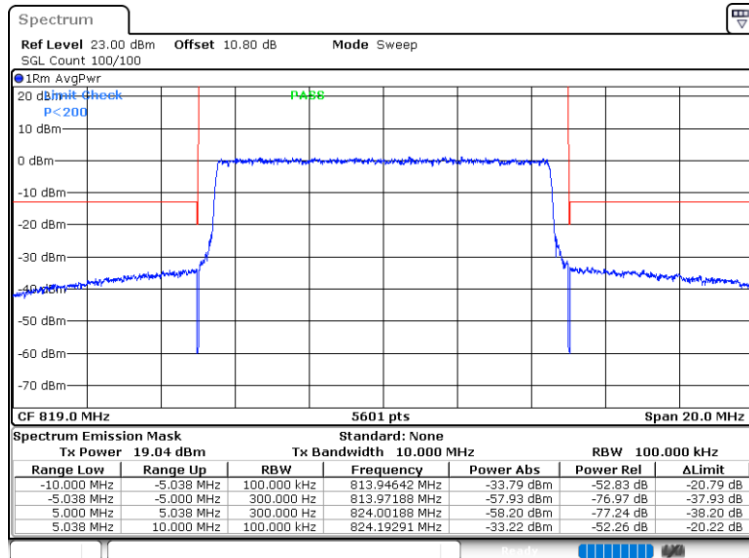
Date: 1.FEB.2021 01:20:22

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:21:07

Lowest Band Edge / Full RB

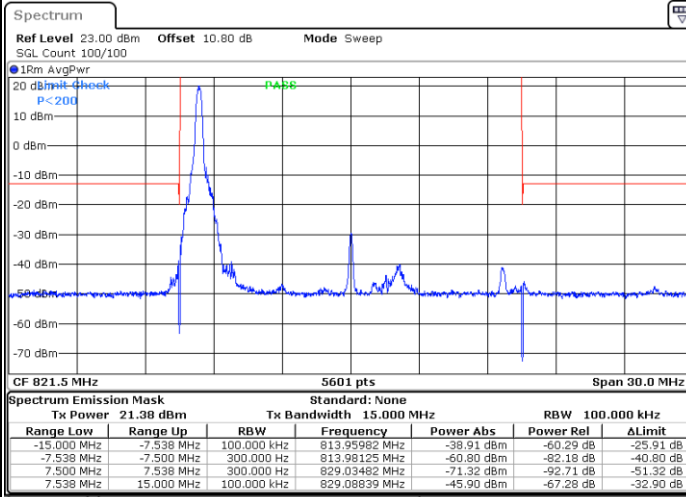


Date: 1.FEB.2021 01:21:52



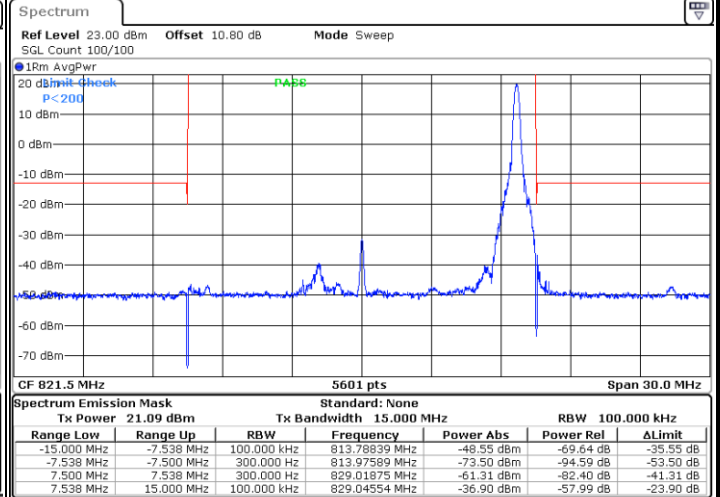
LTE Band 26 / 15MHz / QPSK

Lowest Band Edge / 1 RB



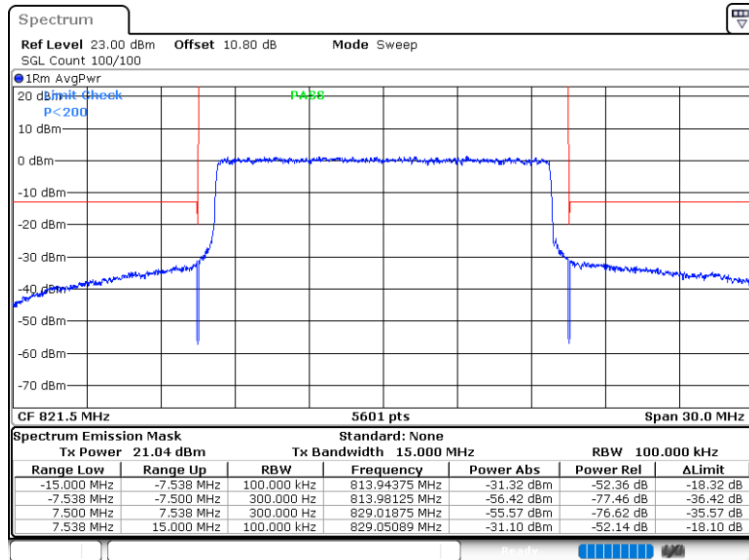
Date: 1.FEB.2021 01:09:49

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:11:19

Lowest Band Edge / Full RB

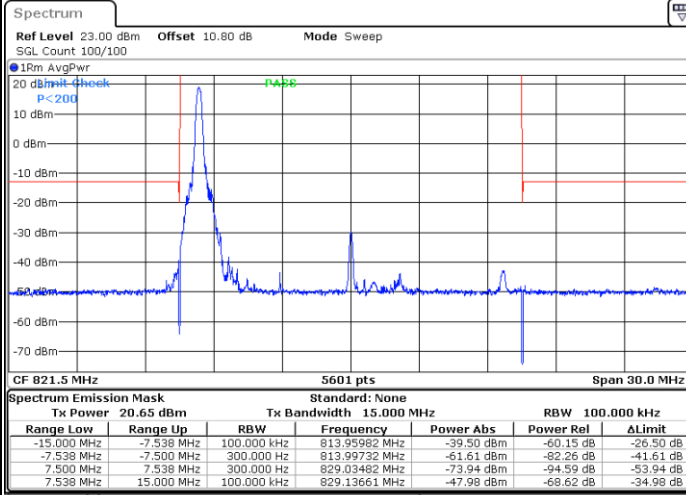


Date: 1.FEB.2021 01:12:49



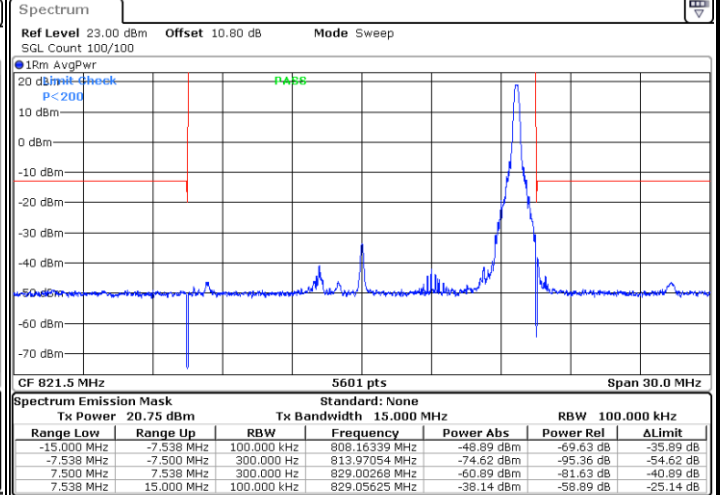
LTE Band 26 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



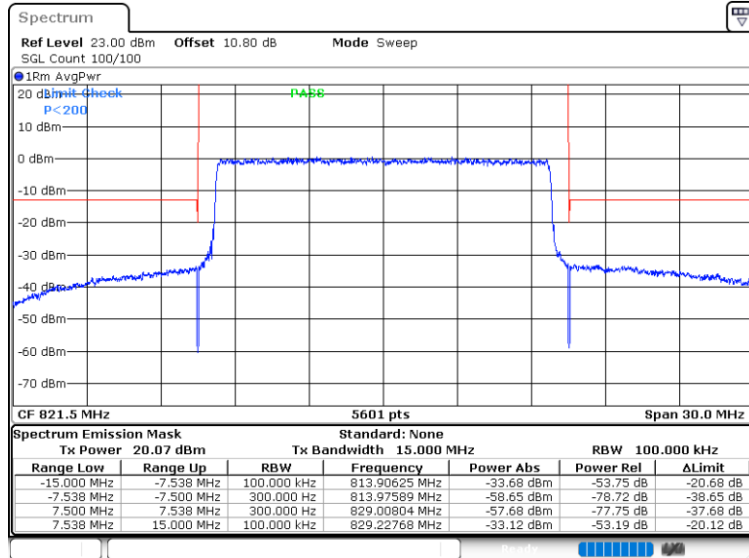
Date: 1.FEB.2021 01:10:34

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:12:04

Lowest Band Edge / Full RB

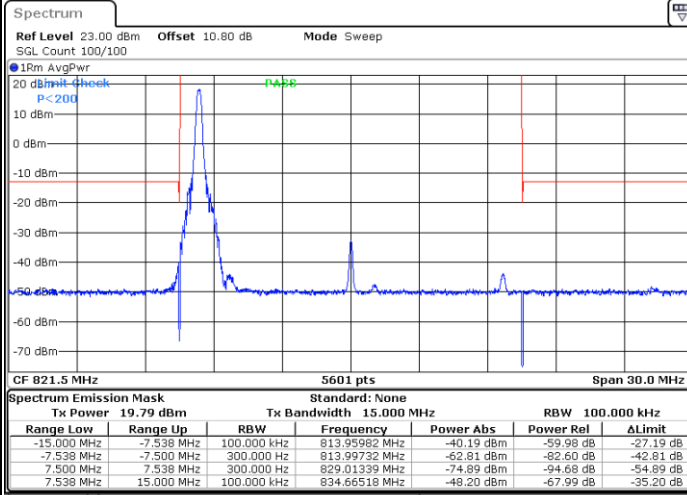


Date: 1.FEB.2021 01:13:34



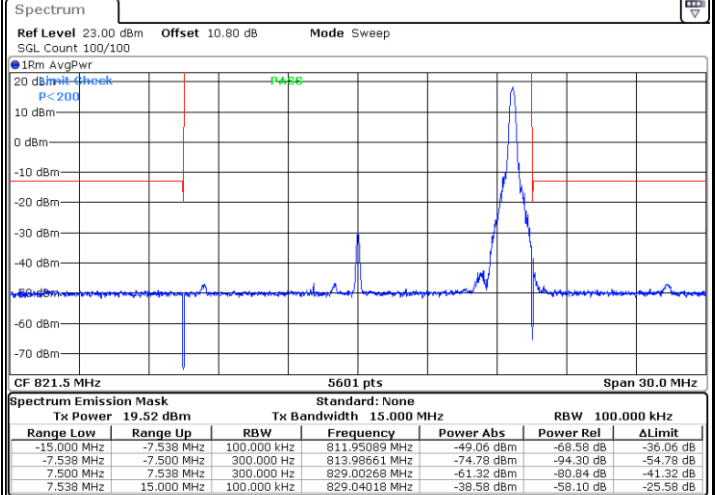
LTE Band 26 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



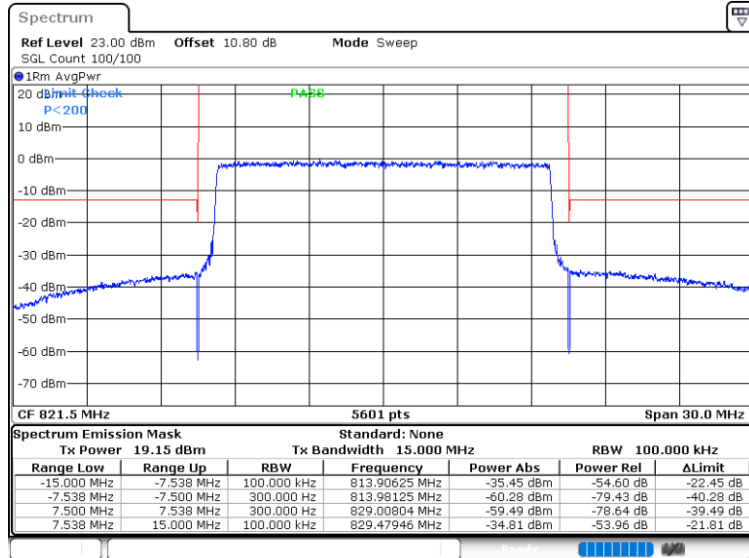
Date: 1.FEB.2021 01:22:38

Highest Band Edge / 1 RB



Date: 1.FEB.2021 01:23:23

Lowest Band Edge / Full RB



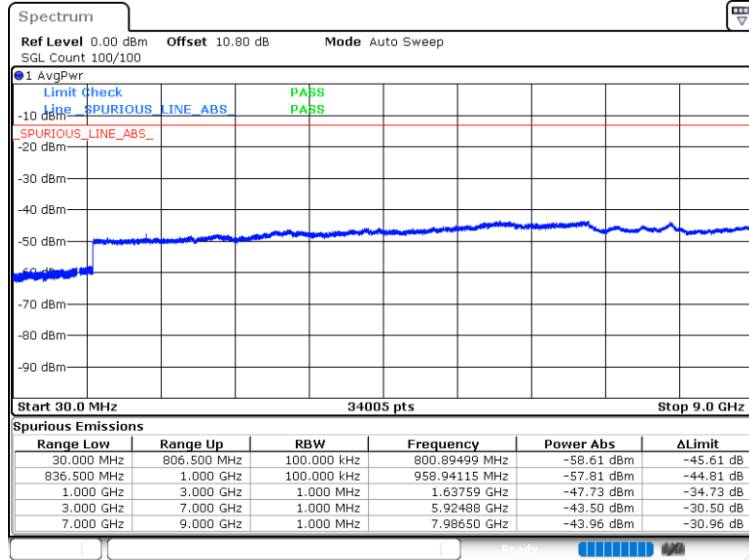
Date: 1.FEB.2021 01:24:08



# Emission masks – Out of band emissions

## LTE Band 26 / 1.4MHz

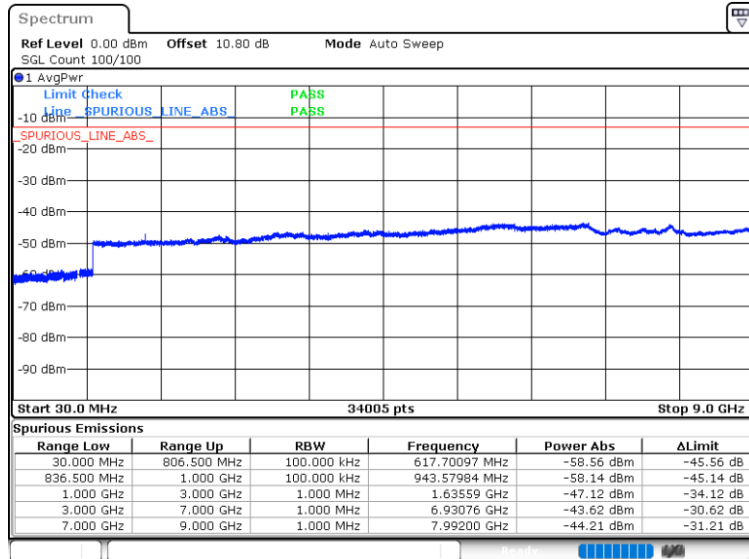
### Middle Channel / QPSK



Date: 1.FEB.2021 00:41:44

## LTE Band 26 / 3MHz

### Middle Channel / QPSK

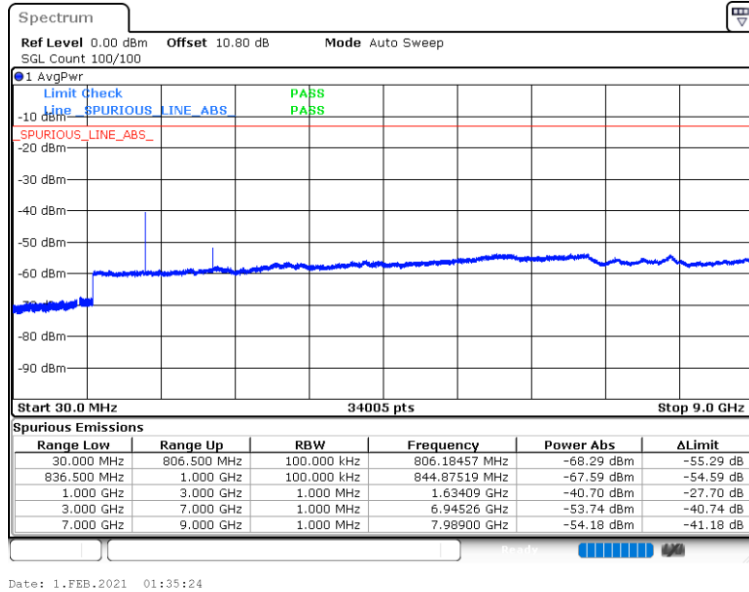


Date: 1.FEB.2021 01:30:40



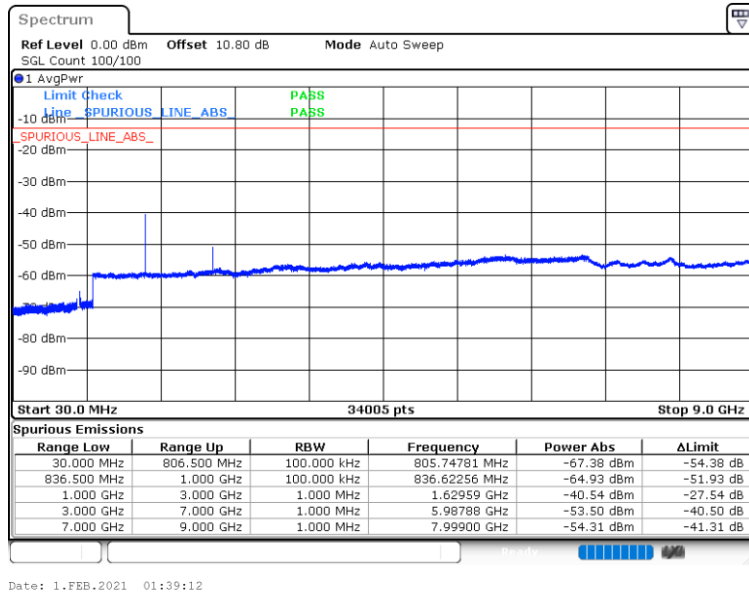
LTE Band 26 / 5MHz

Middle Channel / QPSK



LTE Band 26 / 10MHz

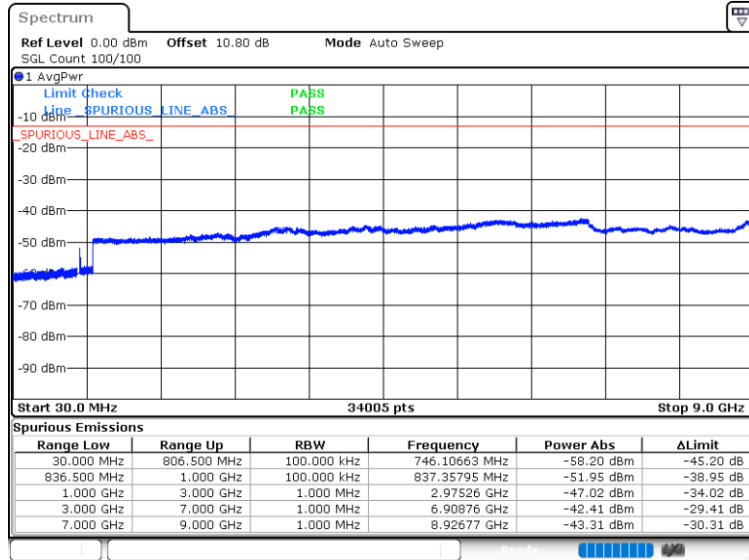
Middle Channel / QPSK





LTE Band 26 / 15MHz

Middle Channel / QPSK



Date: 3.FEB.2021 15:59:39





### 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	0.0128	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0121	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0050	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0186	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 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	0.0164	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0082	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0103	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0113	
20	Maximum Voltage	0.0146	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0181	

**Note:**

- 1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of Radiated Test

### LTE Band 26

LTE Band 26 / 1.4MHz / 16QAM									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1628	-64.10	-13	-51.10	-73.05	-71.01	0.52	9.58	H
	2443	-61.25	-13	-48.25	-74.02	-69.21	0.64	10.75	H
	3258	-59.69	-13	-46.69	-74.98	-68.66	0.75	11.87	H
									H
									H
									H
	1628	-63.25	-13	-50.25	-73.01	-70.16	0.52	9.58	V
	2443	-59.69	-13	-46.69	-74.06	-67.65	0.64	10.75	V
	3258	-58.18	-13	-45.18	-74.61	-67.15	0.75	11.87	V
									V
									V
									V
Middle	1637	-61.83	-13	-48.83	-71.79	-68.76	0.52	9.60	H
	2456	-59.72	-13	-46.72	-73.45	-67.69	0.65	10.76	H
	3275	-58.41	-13	-45.41	-74.73	-67.43	0.75	11.93	H
									H
									H
									H
	1637	-63.10	-13	-50.10	-72.89	-70.03	0.52	9.60	V
	2456	-59.24	-13	-46.24	-73.54	-67.21	0.65	10.76	V
	3275	-58.45	-13	-45.45	-74.84	-67.47	0.75	11.93	V
									V
									V
									V



Highest	1648	-62.08	-13	-49.08	-72.17	-69.03	0.53	9.63	H
	2469	61.92	-13	74.92	-73.6	53.94	0.65	10.78	H
	3292	-58.54	-13	-45.54	-74.9	-67.61	0.76	11.98	H
									H
									H
									H
									H
	1648	-63.38	-13	-50.38	-73.17	-70.33	0.53	9.63	V
	2469	-59.78	-13	-46.78	-74.01	-67.76	0.65	10.78	V
	3292	-58.23	-13	-45.23	-74.57	-67.3	0.76	11.98	V
									V
									V
									V
									V

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