



RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-Z7540
Product 5G NR Multi-Mode Digital Mobile Phone
Model Z7540
Report No. R2202A0144-R1
Issue Date March 12, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2021)/ FCC CFR 47 Part 22H (2021)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 / 22.917(a)	PASS
4	Peak-to-Average Power Ratio	22.913(d)/ KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 22.355	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 22.917(a)	PASS
7	Radiates Spurious Emission	2.1053 / 22.917 (a)	PASS

Date of Testing: February 14, 2022 ~ March 11, 2022

Date of Sample Received: February 14, 2022

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City: Shanghai
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E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2.2. General Information

EUT Description		
Model	Z7540	
IMEI	866787060002008	
Hardware Version	Z7540HW1.0	
Software Version	Z7540_CCV1.0.0B02	
Power Supply	Battery / AC adapter	
Antenna Type	Internal Antenna	
Antenna Gain	WCDMA Band V	-2.85 dBi
	LTE Band 5	-2.85 dBi
	NR n5	-2.85 dBi
Test Mode(s)	WCDMA Band	WCDMA Band V
	LTE Band	LTE Band 5
	SA Band	NR n5
	NSA Band	DC_2A_n5A / DC_66A_n5A
Test Modulation	(WCDMA) BPSK, QPSK; (LTE) QPSK, 16QAM, 64QAM; (NR) CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	
HSDPA UE Category	14	
HSUPA UE Category	7	
LTE Category	13	
Maximum E.R.P.	WCDMA Band V	19.09 dBm
	LTE Band 5	18.60 dBm
	NR n5	18.05 dBm
	DC_2A_n5A	18.08 dBm
Rated Power Supply Voltage	3.85V	
Operating Voltage	Minimum: 3.4V Maximum: 4.4V	
Operating Temperature	Lowest: -10°C Highest: +60°C	

Testing Temperature	Lowest: -30°C Highest: +60°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 5	824 ~ 849	869 ~ 894
	NR n5	824 ~ 849	869 ~ 894
EUT Accessory			
Adapter 1	Manufacturer: Shenzhen Ruijing Industrial Co Ltd. Model: STC-A51030A2-Z		
Adapter 2	Manufacturer: Jiangsu Chenyang Electron Co., Ltd. Model: STC-A51030A2-Z		
Battery	Manufacturer: SCUD (Fujian) Electronics Co., LTD. Model: Li3949T44P8h906450		
USB Cable 1	Manufacturer: kingpower-tech Model: USB-TC20-W-100-M-L-HF		
USB Cable 2	Manufacturer: Shenzhen Luxshare Precision Industry Co.,Ltd. Model: USB-TC20-W-100-M-L-HF		
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one Adapter / USB cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 1 / USB Cable 2) will be recorded in this report.			

3. Applied Standards

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

Test standards:

FCC CFR 47 Part 22H (2021)

FCC CFR47 Part 2 (2021)

Reference standard:

ANSI C63.26 (2015)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (X axis, Vertical polarization for WCDMA; Z axis, Vertical polarization for LTE & NR; X axis, Horizontal polarization for NSA) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in WCDMA/LTE/NR is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

Test items	Modes/Modulation
	WCDMA Band V
RF Power Output and Effective Radiated power	RMC/ AMR HSDPA/HSUPA
Occupied Bandwidth	RMC
Band Edge Compliance	RMC
Peak-to-Average Power Ratio	RMC
Frequency Stability	RMC
Spurious Emissions at Antenna Terminals	RMC
Radiates Spurious Emission	RMC

Test modes are chosen as the worst case configuration below for LTE Band 5

Test items	Bandwidth (MHz)				Modulation		RB			Test Channel		
	1.4	3	5	10	QPSK	16QAM/ 64QAM	1	50%	100%	L	M	H
RF power output and Effective Radiated power	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	O	-	O	O	O	-	O	-	-	-	O	-



Note

1. The mark "O" means that this configuration is chosen for testing.
2. The mark "-" means that this configuration is not testing.

Test modes are chosen to be reported as the worst case configuration below for NR n5/ DC_2A_n5A / DC_66A_n5A:

Test items	Mode	Bandwidth (MHz)				Modulation					RB			Test Channel		
		5	10	15	20	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	NR n5	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	DC_2A_n5A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupied Bandwidth	NR n5	-	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	DC_2A_n5A	-	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Band Edge Compliance	NR n5	-	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	DC_2A_n5A	-	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peak-to-Average Power Ratio	NR n5	-	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	DC_2A_n5A	-	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequency Stability	NR n5	O	O	O	O	-	O	O	O	O	O	-	-	-	O	-
	DC_2A_n5A	O	O	O	O	-	O	O	O	O	O	-	-	-	O	-
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spurious Emissions at Antenna Terminals	NR n5	-	-	-	O	O	O	O	O	O	O	-	-	O	O	O
	DC_2A_n5A	-	-	-	O	O	O	O	O	O	O	-	-	O	O	O
	DC_66A_n5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiates Spurious Emission	NR n5	O	O	-	O	-	O	-	-	-	O	-	-	-	O	-
	DC_2A_n5A	O	O	-	O	-	O	-	-	-	O	-	-	-	O	-
	DC_66A_n5A	O	O	-	O	-	O	-	-	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing. 3. Sub 6GHz operates using 15kHz Subcarrier Spacing with both CP-OFDM and DFT-s OFDM waveforms. The band supports PI/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulation. The test data provided in this report represents the worst case configurations.															

5. Test Case

5.1. RF Power Output and Effective Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

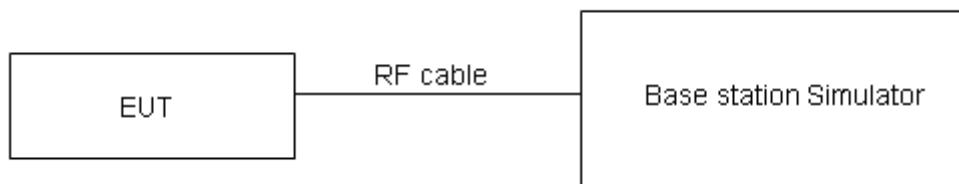
ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where:dBd refers to gain relative to an ideal dipole.

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB)}.$$

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

Limit	$\leq 7 \text{ W}$ (38.45 dBm)
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4 \text{ dB}$ for RF power output, $k = 2$, $U = 1.19 \text{ dB}$ for ERP.

Test Results

Refer to the section 6.1 of this report for test data.

5.2. Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

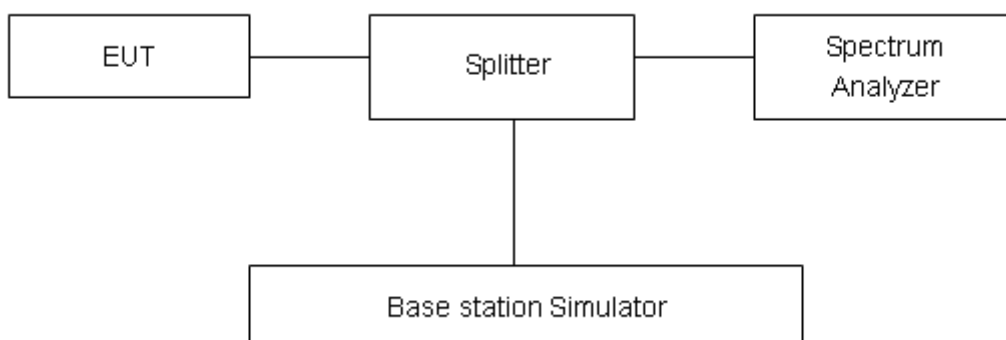
Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to $\geq 1\%EBW$, VBW is set to 3x RBW.

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 624\text{Hz}$.

Test Results

Refer to the section 6.2 of this report for test data.

5.3. Band Edge Compliance

Ambient condition

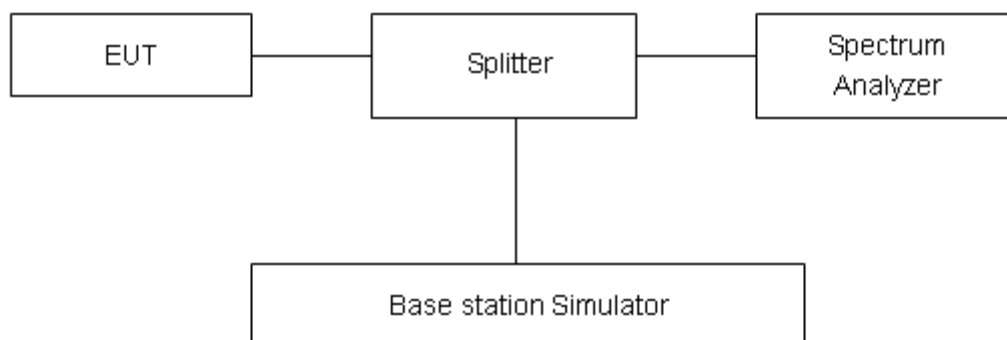
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured. The average detector is used. RBW is set to $\geq 1\%EBW$, VBW is set to 3x RBW.

Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.”

Limit	-13 dBm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684\text{dB}$.

Test Results

Refer to the section 6.3 of this report for test data.

5.4. Peak-to-Average Power Ratio (PAPR)

Ambient condition

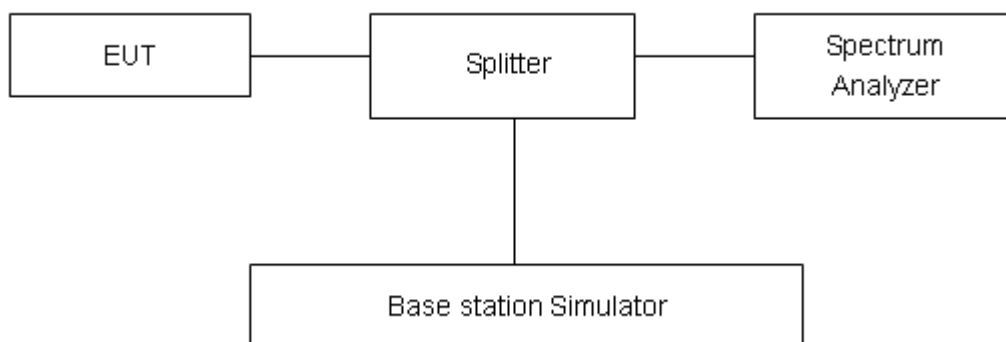
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

Measure the total peak power and record as P_{Pk} . And measure the total average power and record as P_{Avg} . Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

$$PAPR (dB) = P_{Pk} (dBm) - P_{Avg} (dBm).$$

Test Setup



Limits

According to the Sec. 22.913(d), The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.

Test Results

Refer to the section 6.4 of this report for test data.

5.5. Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +60°C in 10°C step size,

(1) With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

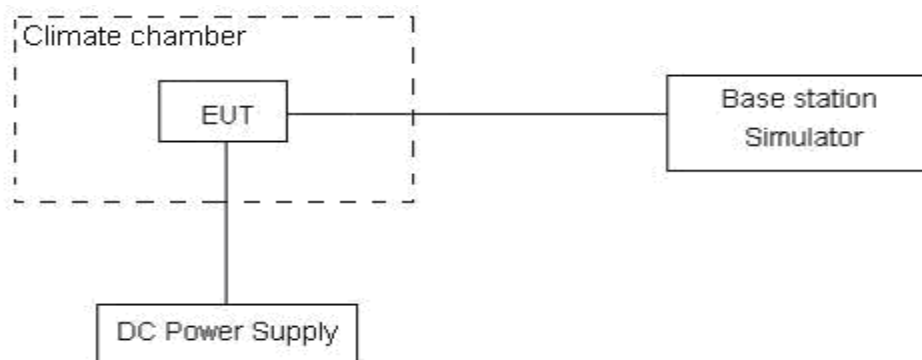
(3) Repeat the above measurements at 10°C increments from -30°C to +60°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements. Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.4 V and 4.4 V, with a nominal voltage of 3.85V.

Test setup



Limits

According to the Sec. 22.355, the frequency stability of the carrier shall be accurate to within 2.5 ppm of the received frequency for mobile stations.

Limits	≤ 2.5 ppm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3$, $U = 0.01\text{ppm}$.

Test Results

Refer to the section 6.5 of this report for test data.

5.6. Spurious Emissions at Antenna Terminals

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier.

The peak detector is used. RBW are set to 100 kHz and VBW are set to 300 kHz for below 1G, RBW are set to 1MHz and VBW are set to 3MHz for above 1G, Sweep is set to ATUO.

RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),

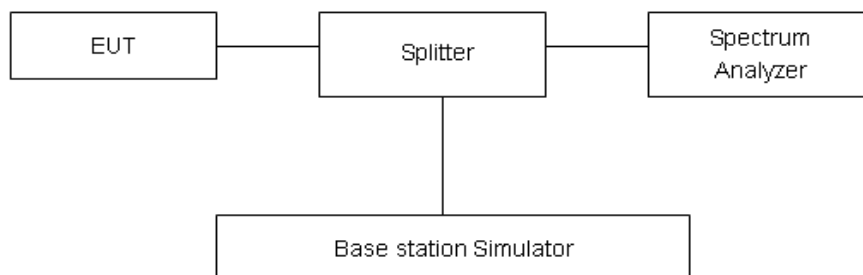
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup



Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.”

Limit	-13 dBm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-20GHz	1.407 dB

Test Results

Refer to the section 6.6 of this report for test data.

5.7. Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz,VBW=300kHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:

$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$
 The measurement results are amend as described below:

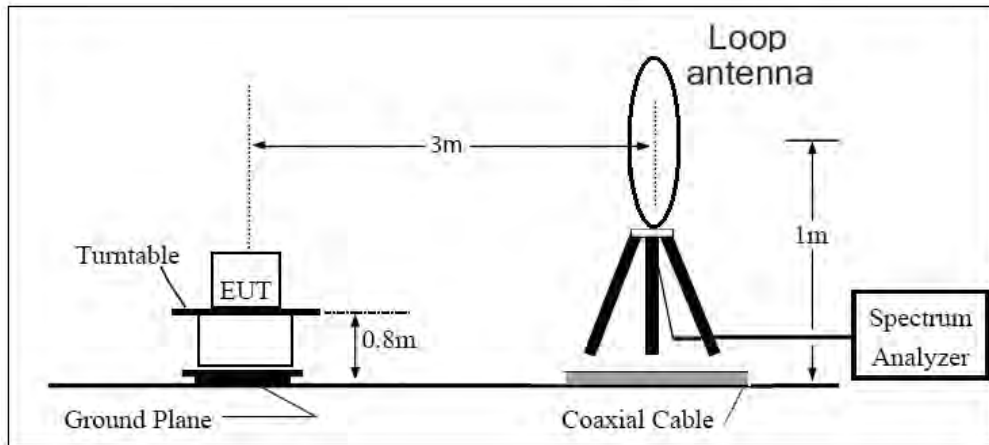
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dB.

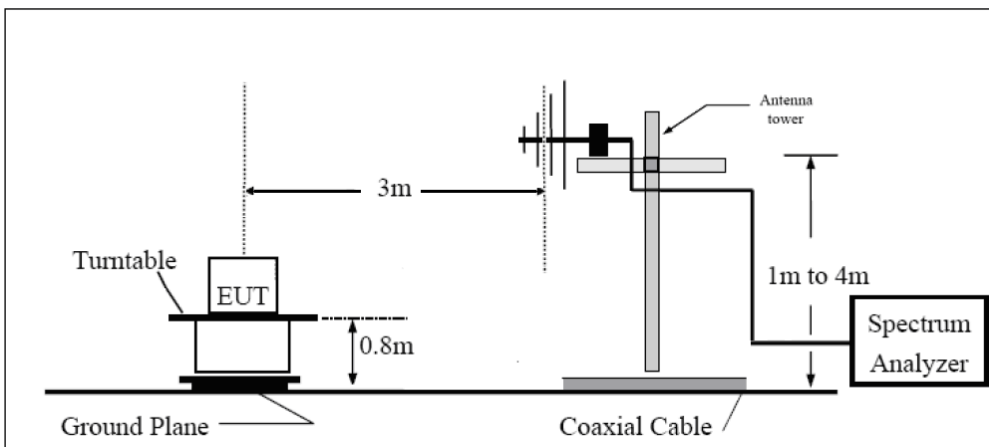
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

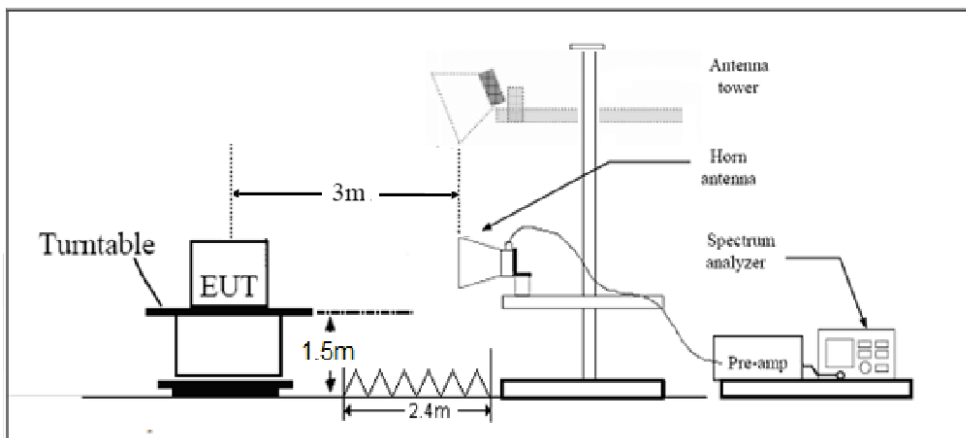
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.”

Limit	-13 dBm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 3.55$ dB.

Test Results

Refer to the section 6.7 of this report for test data.

6. Test Result

6.1. RF Power Output and Effective Radiated Power

WCDMA Band V		Maximum Output Power (dBm)			ERP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
RMC		24.05	24.00	24.03	19.05	19.00	19.03
AMR		24.01	23.84	24.09	19.01	18.84	19.09
HSDPA	Sub - Test 1	23.21	23.12	22.91	18.21	18.12	17.91
	Sub - Test 2	23.11	23.04	23.05	18.11	18.04	18.05
	Sub - Test 3	22.67	22.66	22.57	17.67	17.66	17.57
	Sub - Test 4	22.47	22.56	22.39	17.47	17.56	17.39
HSUPA	Sub - Test 1	21.41	21.62	21.57	16.41	16.62	16.57
	Sub - Test 2	21.05	20.92	21.07	16.05	15.92	16.07
	Sub - Test 3	22.05	21.96	22.09	17.05	16.96	17.09
	Sub - Test 4	20.53	20.46	20.41	15.53	15.46	15.41
	Sub - Test 5	21.99	22.16	22.03	16.99	17.16	17.03

LTE Band 5				Maximum Output Power(dBm)			ERP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3
1.4MHz	QPSK	1	0	23.51	23.57	23.49	18.51	18.57	18.49
		1	2	23.59	23.50	23.46	18.59	18.50	18.46
		1	5	23.49	23.47	23.49	18.49	18.47	18.49
		3	0	23.42	23.39	23.50	18.42	18.39	18.50
		3	2	23.42	23.45	23.45	18.42	18.45	18.45
		3	3	23.55	23.42	23.39	18.55	18.42	18.39
		6	0	22.60	22.53	22.55	17.60	17.53	17.55
	16QAM	1	0	22.84	22.83	22.78	17.84	17.83	17.78
		1	2	22.82	22.77	22.72	17.82	17.77	17.72
		1	5	22.76	22.72	22.74	17.76	17.72	17.74
		3	0	22.39	22.37	22.49	17.39	17.37	17.49
		3	2	22.45	22.44	22.43	17.45	17.44	17.43
		3	3	22.52	22.41	22.40	17.52	17.41	17.40
		6	0	21.55	21.52	21.57	16.55	16.52	16.57



	64QAM	1	0	21.66	21.68	21.67	16.66	16.68	16.67
		1	2	21.72	21.63	21.64	16.72	16.63	16.64
		1	5	21.66	21.72	21.65	16.66	16.72	16.65
		3	0	21.40	21.35	21.45	16.40	16.35	16.45
		3	2	21.44	21.39	21.44	16.44	16.39	16.44
		3	3	21.50	21.43	21.37	16.50	16.43	16.37
		6	0	20.54	20.48	20.55	15.54	15.48	15.55
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20415 /825.5	20525 /836.5	20635 /847.5	20415 /825.5	20525 /836.5	20635 /847.5
3MHz	QPSK	1	0	23.52	23.60	23.51	18.52	18.60	18.51
		1	7	23.58	23.54	23.51	18.58	18.54	18.51
		1	14	23.51	23.51	23.52	18.51	18.51	18.52
		8	0	22.52	22.51	22.63	17.52	17.51	17.63
		8	4	22.55	22.56	22.56	17.55	17.56	17.56
		8	7	22.65	22.55	22.50	17.65	17.55	17.50
		15	0	22.64	22.58	22.60	17.64	17.58	17.60
	16QAM	1	0	22.86	22.84	22.80	17.86	17.84	17.80
		1	7	22.85	22.79	22.76	17.85	17.79	17.76
		1	14	22.78	22.76	22.76	17.78	17.76	17.76
		8	0	21.51	21.51	21.62	16.51	16.51	16.62
		8	4	21.55	21.56	21.54	16.55	16.56	16.54
		8	7	21.62	21.53	21.53	16.62	16.53	16.53
		15	0	21.59	21.57	21.59	16.59	16.57	16.59
	64QAM	1	0	21.68	21.69	21.69	16.68	16.69	16.69
		1	7	21.75	21.65	21.66	16.75	16.65	16.66
		1	14	21.68	21.71	21.67	16.68	16.71	16.67
		8	0	20.52	20.49	20.58	15.52	15.49	15.58
		8	4	20.54	20.51	20.55	15.54	15.51	15.55
		8	7	20.60	20.55	20.50	15.60	15.55	15.50
		15	0	20.58	20.53	20.57	15.58	15.53	15.57
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20425 /826.5	20525 /836.5	20625 /846.5	20425 /826.5	20525 /836.5	20625 /846.5
5MHz	QPSK	1	0	23.51	23.56	23.49	18.51	18.56	18.49
		1	13	23.56	23.53	23.48	18.56	18.53	18.48
		1	24	23.48	23.46	23.48	18.48	18.46	18.48
		12	0	22.50	22.47	22.60	17.50	17.47	17.60
		12	6	22.52	22.51	22.52	17.52	17.51	17.52
		12	13	22.62	22.52	22.46	17.62	17.52	17.46
		25	0	22.62	22.54	22.55	17.62	17.54	17.55
	16QAM	1	0	22.81	22.82	22.78	17.81	17.82	17.78
		1	13	22.83	22.76	22.74	17.83	17.76	17.74



		1	24	22.75	22.72	22.73	17.75	17.72	17.73
		12	0	21.48	21.49	21.59	16.48	16.49	16.59
		12	6	21.52	21.51	21.50	16.52	16.51	16.50
		12	13	21.60	21.49	21.50	16.60	16.49	16.50
		25	0	21.56	21.52	21.55	16.56	16.52	16.55
	64QAM	1	0	21.63	21.67	21.67	16.63	16.67	16.67
		1	13	21.73	21.62	21.64	16.73	16.62	16.64
		1	24	21.69	21.70	21.68	16.69	16.70	16.68
		12	0	20.51	20.51	20.59	15.51	15.51	15.59
		12	6	20.52	20.48	20.54	15.52	15.48	15.54
		12	13	20.58	20.51	20.47	15.58	15.51	15.47
		25	0	20.55	20.48	20.53	15.55	15.48	15.53
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20450 /829	20525 /836.5	20600 /844	20450 /829	20525 /836.5	20600 /844
10MHz	QPSK	1	0	23.48	23.52	23.46	18.48	18.52	18.46
		1	25	23.55	23.49	23.46	18.55	18.49	18.46
		1	49	23.46	23.45	23.45	18.46	18.45	18.45
		25	0	22.47	22.42	22.56	17.47	17.42	17.56
		25	13	22.50	22.47	22.49	17.50	17.47	17.49
		25	25	22.59	22.47	22.42	17.59	17.47	17.42
		50	0	22.59	22.49	22.51	17.59	17.49	17.51
	16QAM	1	0	22.72	22.78	22.73	17.72	17.78	17.73
		1	25	22.79	22.74	22.70	17.79	17.74	17.70
		1	49	22.73	22.69	22.71	17.73	17.69	17.71
		25	0	21.45	21.45	21.56	16.45	16.45	16.56
		25	13	21.49	21.49	21.47	16.49	16.49	16.47
		25	25	21.57	21.44	21.46	16.57	16.44	16.46
		50	0	21.54	21.48	21.52	16.54	16.48	16.52
	64QAM	1	0	21.61	21.63	21.62	16.61	16.63	16.62
		1	25	21.69	21.60	21.60	16.69	16.60	16.60
		1	49	21.63	21.64	21.62	16.63	16.64	16.62
		25	0	20.46	20.43	20.52	15.46	15.43	15.52
		25	13	20.48	20.44	20.48	15.48	15.44	15.48
		25	25	20.55	20.46	20.43	15.55	15.46	15.43
		50	0	20.53	20.44	20.50	15.53	15.44	15.50

NR n5										
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
					165300	167300	169300	165300	167300	169300
					826.5	836.5	846.5	826.5	836.5	846.5
5	PI/2 BPSK	15	1	0	21.90	22.02	21.89	16.90	17.02	16.89
			1	1	22.95	22.95	22.85	17.95	17.95	17.85
			12	6	23.01	23.02	22.97	18.01	18.02	17.97
			25	0	21.92	21.92	21.95	16.92	16.92	16.95
	QPSK		1	0	21.88	21.98	21.92	16.88	16.98	16.92
			1	1	22.97	22.97	22.90	17.97	17.97	17.90
			12	6	22.98	22.92	22.96	17.98	17.92	17.96
			25	0	21.93	22.03	21.94	16.93	17.03	16.94
	16QAM		1	0	21.13	21.23	21.10	16.13	16.23	16.10
			1	1	22.14	22.18	22.07	17.14	17.18	17.07
			12	6	21.96	21.96	22.01	16.96	16.96	17.01
			25	0	20.86	20.96	20.84	15.86	15.96	15.84
	64QAM		1	0	20.38	20.53	20.31	15.38	15.53	15.31
			1	1	20.37	20.44	20.27	15.37	15.44	15.27
			12	6	20.45	20.49	20.38	15.45	15.49	15.38
			25	0	20.41	20.43	20.34	15.41	15.43	15.34
	256QAM		1	0	18.32	18.44	18.28	13.32	13.44	13.28
			1	1	18.33	18.37	18.29	13.33	13.37	13.29
			12	6	18.48	18.49	18.42	13.48	13.49	13.42
			25	0	18.46	18.53	18.36	13.46	13.53	13.36
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
					165800	167300	168800	165800	167300	168800
					829	836.5	844	829	836.5	844
10	PI/2 BPSK	15	1	0	21.72	21.85	21.67	16.72	16.85	16.67
			1	1	22.71	22.78	22.65	17.71	17.78	17.65
			25	12	22.87	22.78	22.72	17.87	17.78	17.72
			50	0	21.77	21.79	21.59	16.77	16.79	16.59
	QPSK		1	0	21.69	21.86	21.70	16.69	16.86	16.70
			1	1	22.74	22.76	22.67	17.74	17.76	17.67
			25	12	22.78	22.86	22.68	17.78	17.86	17.68
			50	0	21.76	21.75	21.60	16.76	16.75	16.60
	16QAM		1	0	20.94	21.02	20.79	15.94	16.02	15.79
			1	1	21.94	22.03	20.90	16.94	17.03	15.90
			25	12	21.76	21.80	21.66	16.76	16.80	16.66
			50	0	20.75	20.79	20.65	15.75	15.79	15.65
	64QAM		1	0	20.19	20.3	20.06	15.19	15.30	15.06



			1	1	20.14	20.25	20.09	15.14	15.25	15.09
			25	12	20.25	20.23	20.18	15.25	15.23	15.18
			50	0	20.34	20.36	20.19	15.34	15.36	15.19
			1	0	18.10	18.22	18.03	13.10	13.22	13.03
			1	1	18.12	18.21	18.04	13.12	13.21	13.04
			25	12	18.36	18.36	18.23	13.36	13.36	13.23
			50	0	18.34	18.34	18.00	13.34	13.34	13.00
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
					166300	167300	168300	166300	167300	168300
					831.5	836.5	841.5	831.5	836.5	841.5
15	PI/2 BPSK	15	1	0	21.83	21.89	21.90	16.83	16.89	16.90
			1	1	22.90	22.95	22.82	17.90	17.95	17.82
			36	18	23.01	22.95	22.96	18.01	17.95	17.96
			75	0	21.99	22.03	21.91	16.99	17.03	16.91
	QPSK		1	0	21.82	21.91	21.90	16.82	16.91	16.90
			1	1	22.87	22.92	22.85	17.87	17.92	17.85
			36	18	23.01	22.96	22.98	18.01	17.96	17.98
			75	0	21.92	21.95	21.85	16.92	16.95	16.85
	16QAM		1	0	21.10	20.87	20.97	16.10	15.87	15.97
			1	1	22.03	21.89	21.98	17.03	16.89	16.98
			36	18	21.92	21.91	21.90	16.92	16.91	16.90
			75	0	20.92	20.98	20.85	15.92	15.98	15.85
	64QAM		1	0	20.30	20.43	20.20	15.30	15.43	15.20
			1	1	20.25	20.44	20.21	15.25	15.44	15.21
			36	18	20.45	20.37	20.40	15.45	15.37	15.40
			75	0	20.42	20.49	20.36	15.42	15.49	15.36
	256QAM		1	0	18.26	18.77	18.26	13.26	13.77	13.26
			1	1	18.22	18.67	18.27	13.22	13.67	13.27
			36	18	18.47	18.51	18.36	13.47	13.51	13.36
			75	0	18.46	18.54	18.41	13.46	13.54	13.41
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
					166800	167300	167800	166800	167300	167800
					834	836.5	839	834	836.5	839
20	PI/2 BPSK	15	1	0	21.78	21.85	21.86	16.78	16.85	16.86
			1	1	22.79	22.97	22.93	17.79	17.97	17.93
			50	25	22.94	22.98	22.94	17.94	17.98	17.94
			100	0	22.03	22.12	21.96	17.03	17.12	16.96
	QPSK		1	0	21.79	21.94	21.85	16.79	16.94	16.85
			1	1	22.74	22.97	22.89	17.74	17.97	17.89
			50	25	22.96	23.05	22.92	17.96	18.05	17.92
			100	0	22.02	22.06	22.00	17.02	17.06	17.00



	16QAM		1	0	20.71	20.79	20.76	15.71	15.79	15.76
			1	1	21.75	21.81	21.85	16.75	16.81	16.85
			50	25	21.93	22.01	22.02	16.93	17.01	17.02
			100	0	20.97	21.09	20.97	15.97	16.09	15.97
	64QAM		1	0	20.35	20.54	20.44	15.35	15.54	15.44
			1	1	20.34	20.44	20.43	15.34	15.44	15.43
			50	25	20.56	20.52	20.52	15.56	15.52	15.52
			100	0	20.49	20.59	20.51	15.49	15.59	15.51
	256QAM		1	0	18.62	18.69	18.70	13.62	13.69	13.70
			1	1	18.59	18.76	18.71	13.59	13.76	13.71
			50	25	18.48	18.56	18.53	13.48	13.56	13.53
			100	0	18.50	18.58	18.52	13.50	13.58	13.52

DC_2A_n5A

DC_2A_n5A											
Bandwidth (MHz)	Modulation	Modulation (LTE)	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
						165300	167300	169300	165300	167300	169300
						826.5	836.5	846.5	826.5	836.5	846.5
5	PI/2 BPSK	Band2- 10MHz- 1880MHz- QPSK-1#0	15	1	0	21.52	21.43	21.24	16.52	16.43	16.24
				1	1	22.47	22.41	22.28	17.47	17.41	17.28
				12	6	23.04	22.94	22.81	18.04	17.94	17.81
				25	0	22.08	21.93	21.84	17.08	16.93	16.84
	QPSK			1	0	21.49	21.44	21.27	16.49	16.44	16.27
				1	1	22.13	21.99	22.20	17.13	16.99	17.20
				12	6	23.01	22.92	22.86	18.01	17.92	17.86
				25	0	22.10	21.93	21.86	17.10	16.93	16.86
	16QAM			1	0	20.64	20.52	20.43	15.64	15.52	15.43
				1	1	21.67	21.55	21.52	16.67	16.55	16.52
				12	6	22.22	22.06	21.32	17.22	17.06	16.32
				25	0	21.17	21.00	20.97	16.17	16.00	15.97
	64QAM			1	0	19.93	19.79	19.71	14.93	14.79	14.71
				1	1	19.89	19.80	19.72	14.89	14.80	14.72
				12	6	20.49	20.35	20.29	15.49	15.35	15.29
				25	0	20.55	20.44	20.37	15.55	15.44	15.37
	256QAM			1	0	18.60	18.54	18.41	13.60	13.54	13.41
				1	1	18.62	18.50	18.39	13.62	13.50	13.39
				12	6	18.56	18.44	18.30	13.56	13.44	13.30
				25	0	18.52	18.42	18.35	13.52	13.42	13.35
Bandwidth (MHz)	Modulation	Modulation (LTE)	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
						165800	167300	168800	165800	167300	168800
						829	836.5	844	829	836.5	844
10	PI/2 BPSK	Band2-	15	1	0	21.37	21.26	21.02	16.37	16.26	16.02



		10MHz- 1880MHz- QPSK-1#0		1	1	22.26	22.25	22.03	17.26	17.25	17.03
				25	12	22.91	22.81	22.65	17.91	17.81	17.65
				50	0	22.00	21.77	21.56	17.00	16.77	16.56
	QPSK			1	0	21.34	21.26	21.08	16.34	16.26	16.08
				1	1	22.29	22.27	22.06	17.29	17.27	17.06
				25	12	22.89	22.76	22.64	17.89	17.76	17.64
	16QAM			50	0	21.97	21.74	21.59	16.97	16.74	16.59
				1	0	20.47	20.43	20.24	15.47	15.43	15.24
				1	1	21.50	21.42	21.28	16.50	16.42	16.28
	64QAM			25	12	21.95	21.90	21.80	16.95	16.90	16.80
				50	0	20.93	20.75	20.60	15.93	15.75	15.60
				1	0	19.75	19.69	19.57	14.75	14.69	14.57
	256QAM			1	1	19.75	19.68	19.54	14.75	14.68	14.54
				25	12	20.44	20.33	20.19	15.44	15.33	15.19
				50	0	10.05	20.26	20.10	5.05	15.26	15.10
				1	0	18.39	18.36	18.22	13.39	13.36	13.22
				1	1	18.44	18.34	18.24	13.44	13.34	13.24
				25	12	18.40	18.24	18.13	13.40	13.24	13.13
	50			0	18.41	18.21	18.00	13.41	13.21	13.00	
Bandwidth (MHz)	Modulation	Modulation (LTE)	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
						166300	167300	168300	166300	167300	168300
						831.5	836.5	841.5	831.5	836.5	841.5
15	PI/2 BPSK	Band2- 10MHz- 1880MHz- QPSK-1#0	15	1	0	21.39	21.38	21.26	16.39	16.38	16.26
				1	1	22.41	22.33	22.26	17.41	17.33	17.26
				36	18	23.00	23.01	22.86	18.00	18.01	17.86
				75	0	22.10	21.27	21.89	17.10	16.27	16.89
	QPSK			1	0	21.42	21.24	21.29	16.42	16.24	16.29
				1	1	22.40	22.36	22.28	17.40	17.36	17.28
				36	18	23.01	22.18	22.88	18.01	17.18	17.88
				75	0	22.07	22.03	21.90	17.07	17.03	16.90
	16QAM			1	0	20.51	21.49	20.52	15.51	16.49	15.52
				1	1	20.18	21.55	21.49	15.18	16.55	16.49
				36	18	22.04	21.99	21.91	17.04	16.99	16.91
				75	0	21.06	20.92	20.75	16.06	15.92	15.75
	64QAM			1	0	19.86	19.76	19.68	14.86	14.76	14.68
				1	1	19.82	19.75	19.72	14.82	14.75	14.72
				36	18	20.56	20.16	20.36	15.56	15.16	15.36
				75	0	20.36	20.49	20.32	15.36	15.49	15.32
	256QAM			1	0	18.56	18.45	18.43	13.56	13.45	13.43
				1	1	18.51	18.46	18.44	13.51	13.46	13.44
				36	18	18.45	18.41	18.28	13.45	13.41	13.28
				75	0	18.49	18.38	18.29	13.49	13.38	13.29



Bandwidth (MHz)	Modulation	Modulation (LTE)	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			ERP (dBm)		
						166800	167300	167800	166800	167300	167800
						834	836.5	839	834	836.5	839
20	PI/2 BPSK	Band2- 10MHz- 1880MHz- QPSK-1#0	15	1	0	21.39	21.39	21.27	16.39	16.39	16.27
				1	1	22.44	22.34	22.21	17.44	17.34	17.21
				50	25	23.08	23.00	22.93	18.08	18.00	17.93
				100	0	22.00	21.20	21.92	17.00	16.20	16.92
	QPSK			1	0	21.39	21.37	21.27	16.39	16.37	16.27
				1	1	22.34	22.35	22.30	17.34	17.35	17.30
				50	25	23.01	22.93	22.94	18.01	17.93	17.94
				100	0	22.00	21.99	21.91	17.00	16.99	16.91
	16QAM			1	0	20.56	20.55	20.42	15.56	15.55	15.42
				1	1	21.53	21.57	21.47	16.53	16.57	16.47
				50	25	21.98	21.94	21.95	16.98	16.94	16.95
				100	0	21.00	20.93	20.90	16.00	15.93	15.90
	64QAM			1	0	19.79	19.77	19.67	14.79	14.77	14.67
				1	1	19.77	19.78	19.69	14.77	14.78	14.69
				50	25	20.51	20.52	20.12	15.51	15.52	15.12
				100	0	20.57	20.57	20.35	15.57	15.57	15.35
	256QAM			1	0	18.50	18.45	18.39	13.50	13.45	13.39
				1	1	18.49	18.47	18.42	13.49	13.47	13.42
				50	25	18.47	18.31	18.40	13.47	13.31	13.40
				100	0	18.53	18.36	18.35	13.53	13.36	13.35

6.2. Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band V (RMC)	4132	826.4	4.145	4.659
	4183	836.6	4.141	4.699
	4233	846.6	4.150	4.678

LTE Band 5						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20407	824.7	1.095	1.274
			20525	836.5	1.091	1.306
			20643	848.3	1.094	1.316
		3	20415	825.5	2.706	2.941
			20525	836.5	2.693	2.947
			20635	847.5	2.712	2.927
		5	20425	826.5	4.513	4.952
			20525	836.5	4.500	4.905
			20625	846.5	4.513	4.898
		10	20450	829	8.983	9.628
			20525	836.5	8.975	9.611
			20600	844	2.975	3.000
	16QAM	1.4	20407	824.7	1.096	1.303
			20525	836.5	1.099	1.309
			20643	848.3	1.090	1.274
		3	20415	825.5	2.695	2.932
			20525	836.5	2.687	2.981
			20635	847.5	2.698	2.940
		5	20425	826.5	4.510	4.892
			20525	836.5	4.516	4.936
			20625	846.5	4.512	4.988
		10	20450	829	8.981	9.726
			20525	836.5	8.982	9.737
			20600	844	8.992	9.817
	64QAM	1.4	20407	824.7	1.098	1.293
			20525	836.5	1.101	1.311
			20643	848.3	1.088	1.275
		3	20415	825.5	2.691	2.966



			20525	836.5	2.689	2.938
			20635	847.5	2.695	2.958
		5	20425	826.5	4.500	4.909
			20525	836.5	4.512	4.929
			20625	846.5	4.502	4.935
		10	20450	829	9.000	9.762
			20525	836.5	8.980	9.785
			20600	844	9.011	9.682

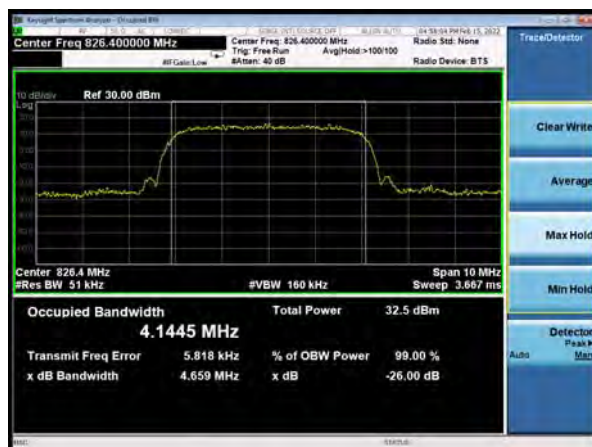
NR n5						
RB	Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	20	P1/2 BPSK	166800	834	18.436	21.20
			167300	836.5	18.420	21.24
			167800	839	18.402	20.52
		QPSK	166800	834	18.454	20.80
			167300	836.5	18.390	20.42
			167800	839	18.385	20.49
		16QAM	166800	834	18.439	20.32
			167300	836.5	18.443	22.48
			167800	839	18.378	20.40
		64QAM	166800	834	18.395	20.40
			167300	836.5	18.380	20.36
			167800	839	18.314	20.42
		256QAM	166800	834	18.434	23.83
			167300	836.5	18.392	20.26
			167800	839	18.356	24.43

DC_2A_n5A						
RB	Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	20	P1/2 BPSK	166800	834	18.497	20.46
			167300	836.5	18.435	20.31
			167800	839	18.408	20.52
		QPSK	166800	834	18.509	20.52
			167300	836.5	18.451	20.28
			167800	839	18.383	20.48
		16QAM	166800	834	18.446	20.43
			167300	836.5	18.374	20.27



			167800	839	18.334	20.29
		64QAM	166800	834	18.439	20.42
			167300	836.5	18.447	20.43
			167800	839	18.363	20.27
		256QAM	166800	834	18.399	20.28
			167300	836.5	18.351	20.33
			167800	839	18.301	20.28

WCDMA Band V CH-Low



WCDMA Band V CH-Middle



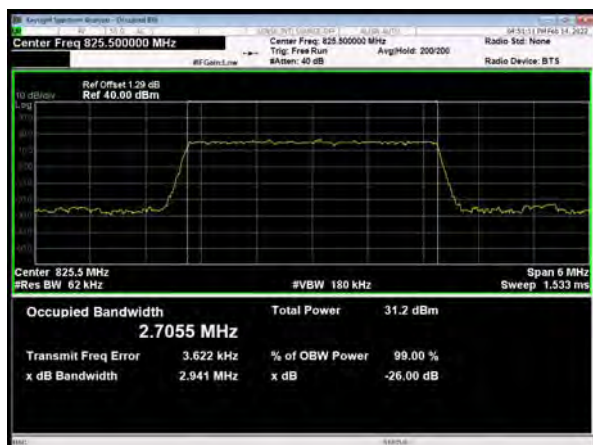
WCDMA Band V CH-High



LTE Band 5 QPSK 1.4MHz CH-Low



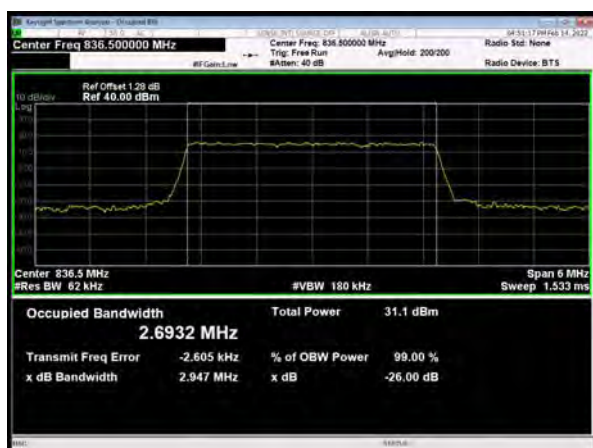
LTE Band 5 QPSK 3MHz CH-Low



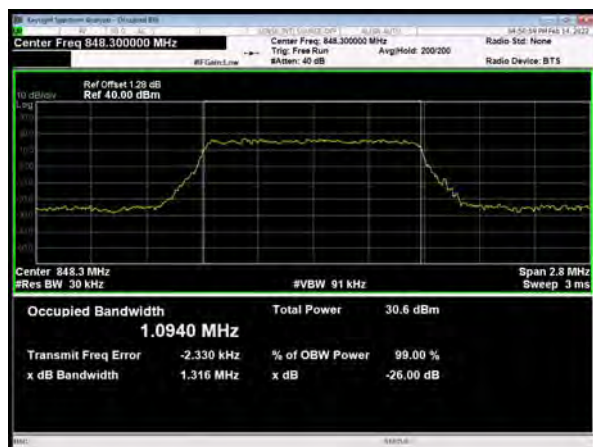
LTE Band 5 QPSK 1.4MHz CH-Middle



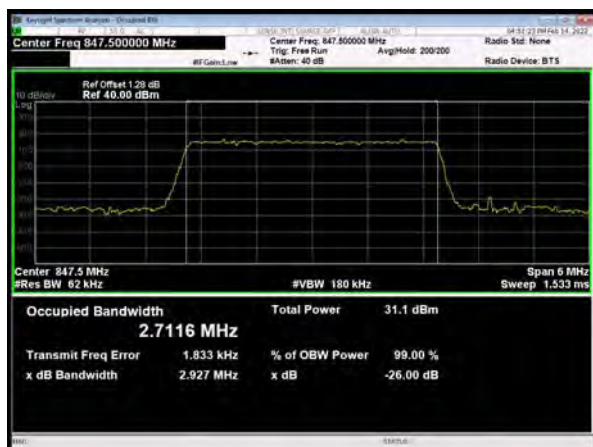
LTE Band 5 QPSK 3MHz CH-Middle



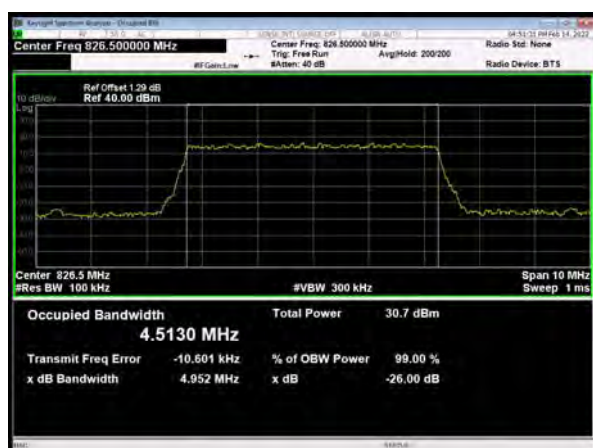
LTE Band 5 QPSK 1.4MHz CH-High



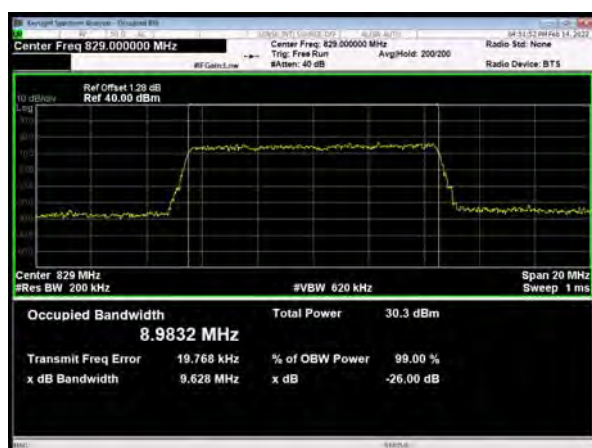
LTE Band 5 QPSK 3MHz CH-High



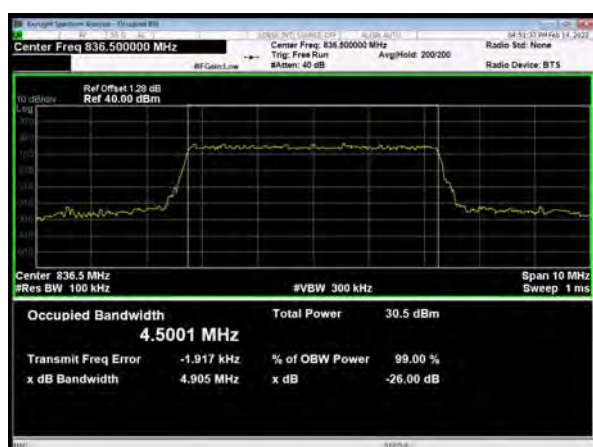
LTE Band 5 QPSK 5MHz CH-Low



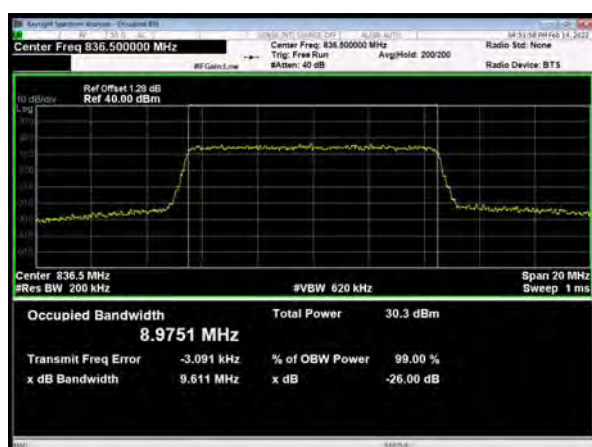
LTE Band 5 QPSK 10MHz CH-Low



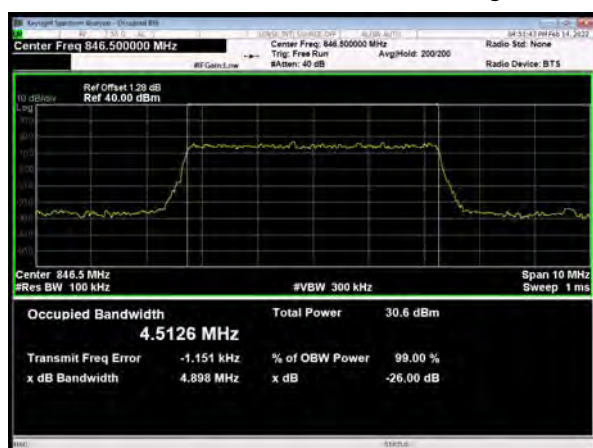
LTE Band 5 QPSK 5MHz CH-Middle



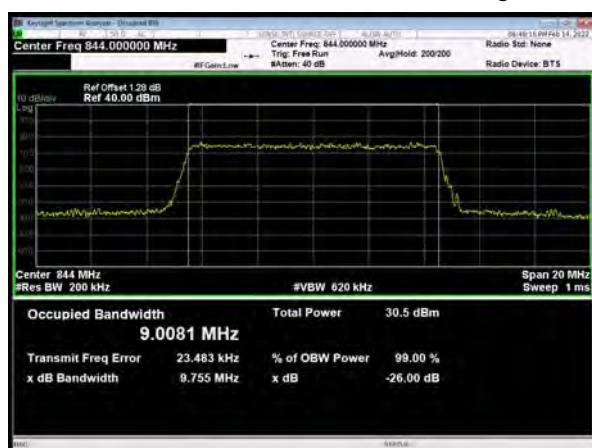
LTE Band 5 QPSK 10MHz CH-Middle



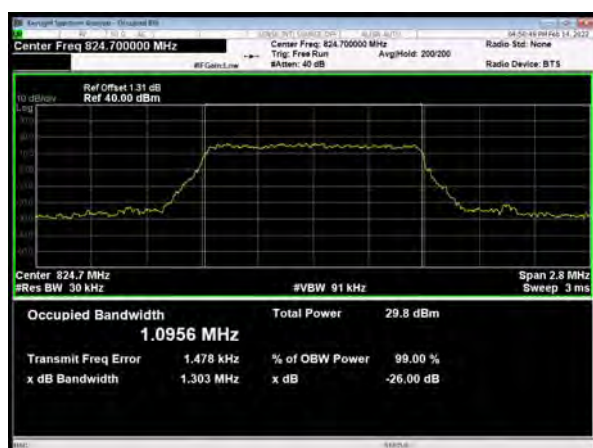
LTE Band 5 QPSK 5MHz CH-High



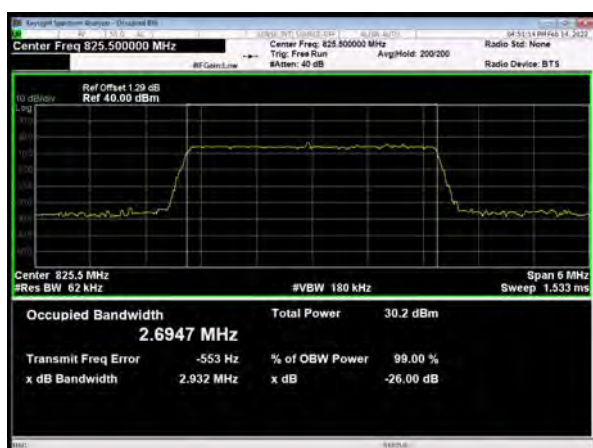
LTE Band 5 QPSK 10MHz CH-High



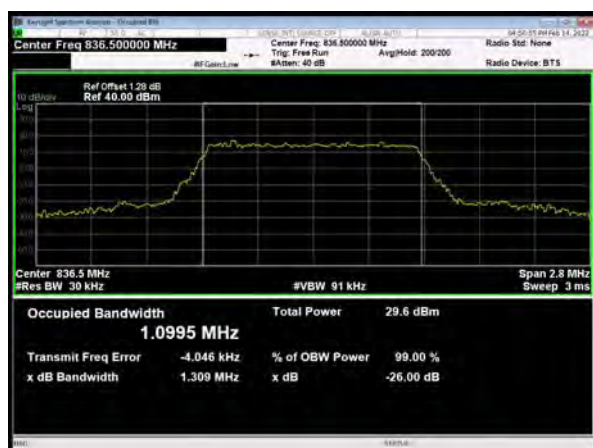
LTE Band 5 16QAM 1.4MHz CH-Low



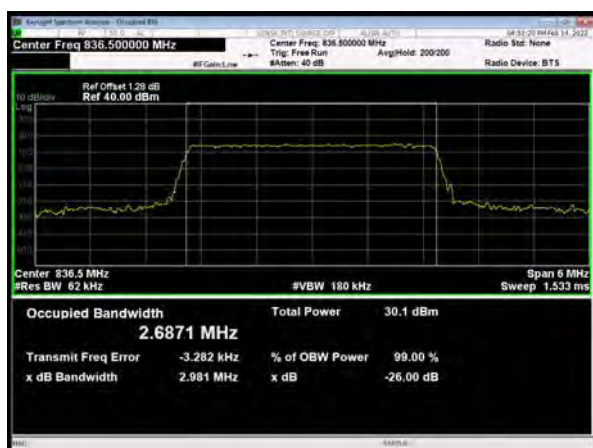
LTE Band 5 16QAM 3MHz CH-Low



LTE Band 5 16QAM 1.4MHz CH-Middle



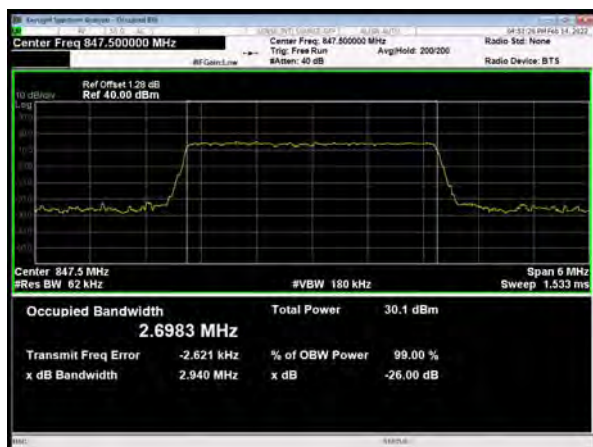
LTE Band 5 16QAM 3MHz CH-Middle



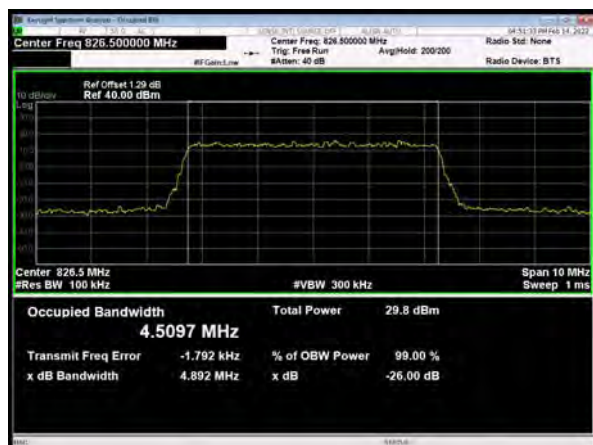
LTE Band 5 16QAM 1.4MHz CH-High



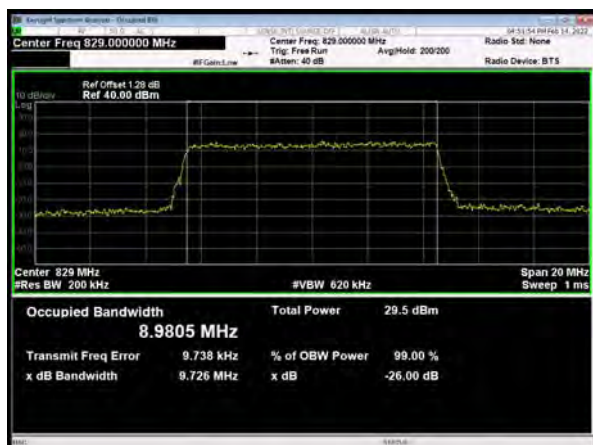
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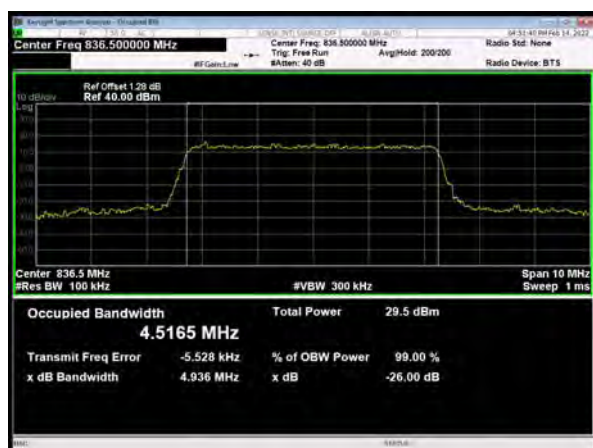
LTE Band 5 16QAM 5MHz CH-Low



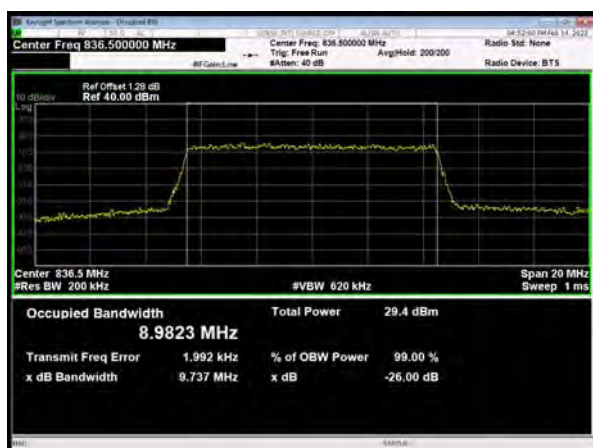
LTE Band 5 16QAM 10MHz CH-Low



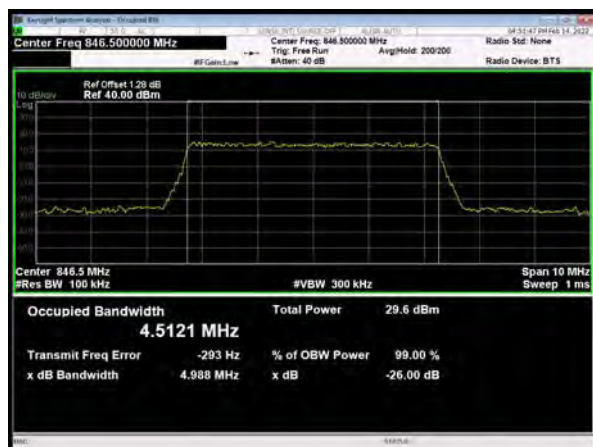
LTE Band 5 16QAM 5MHz CH-Middle



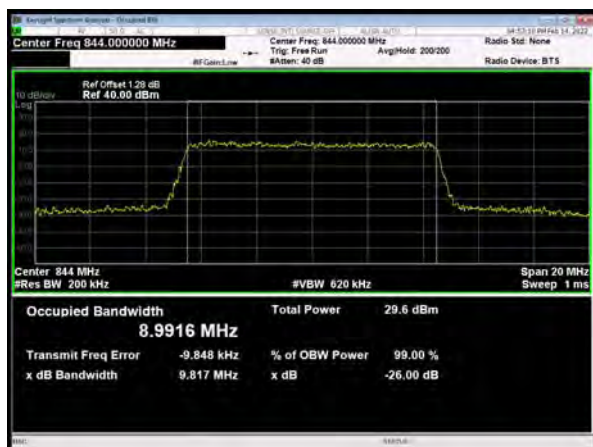
LTE Band 5 16QAM 10MHz CH-Middle



LTE Band 5 16QAM 5MHz CH-High



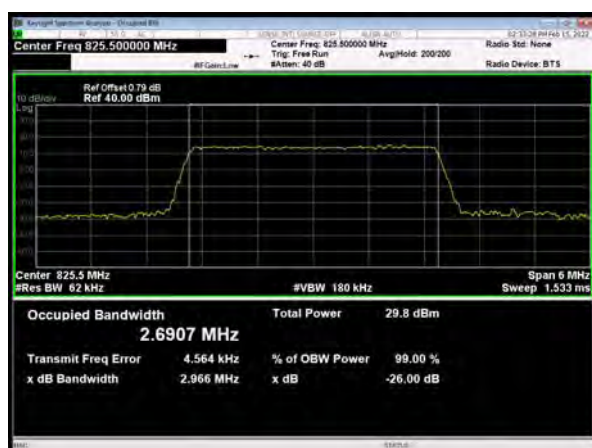
LTE Band 5 16QAM 10MHz CH-High



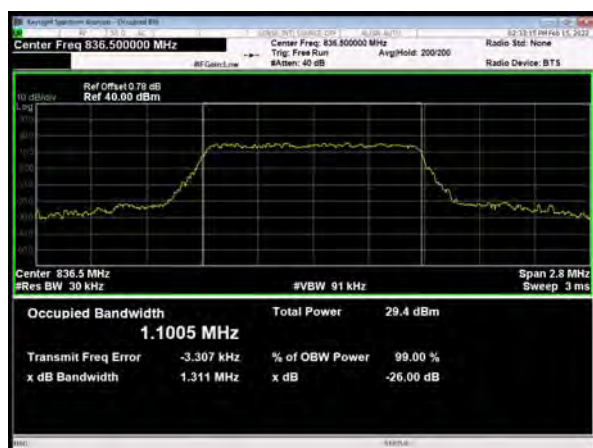
LTE Band 5 64QAM 1.4MHz CH-Low



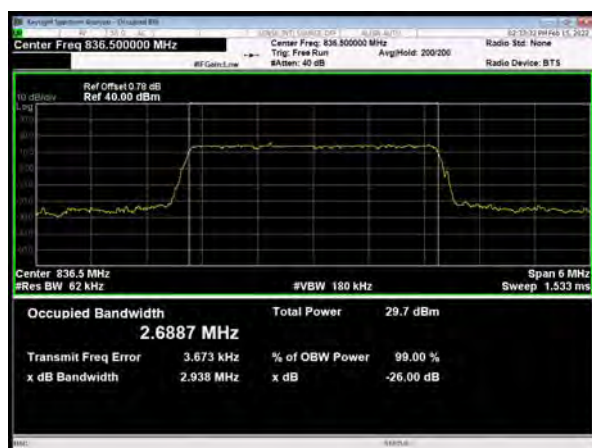
LTE Band 5 64QAM 3MHz CH-Low



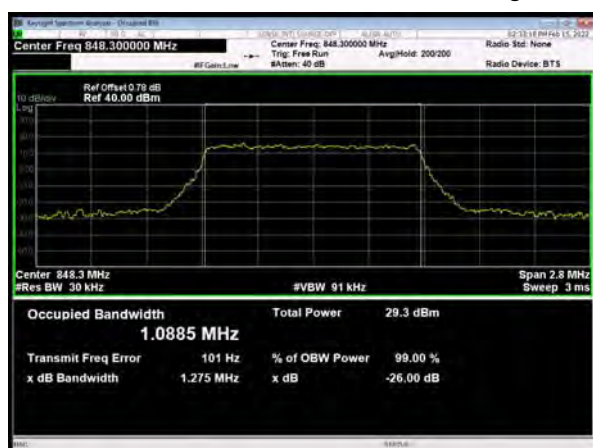
LTE Band 5 64QAM 1.4MHz CH-Middle



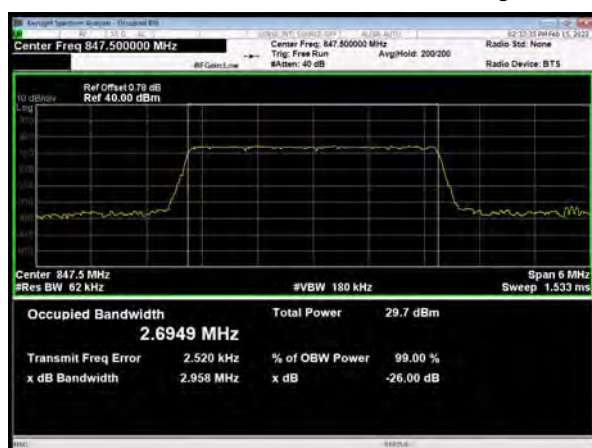
LTE Band 5 64QAM 3MHz CH-Middle



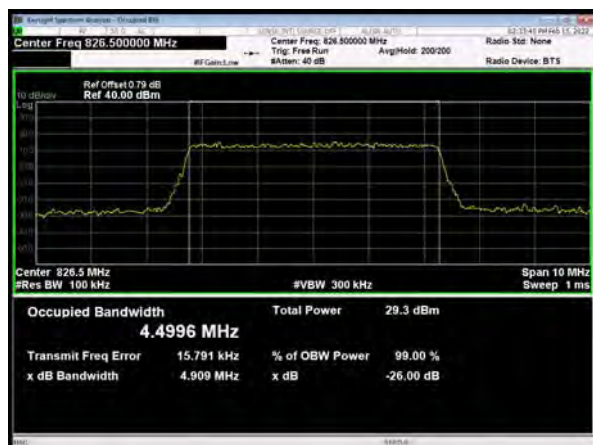
LTE Band 5 64QAM 1.4MHz CH-High



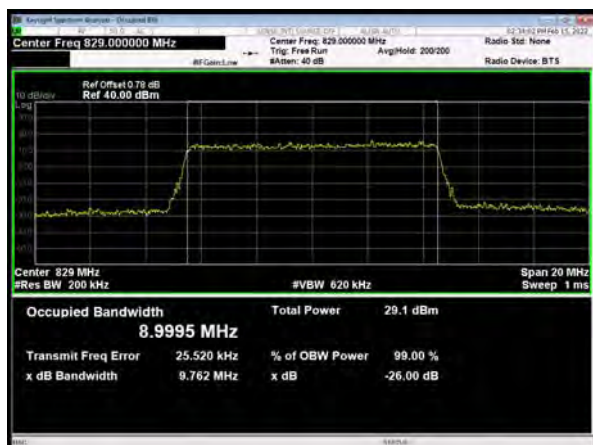
LTE Band 5 64QAM 3MHz CH-High



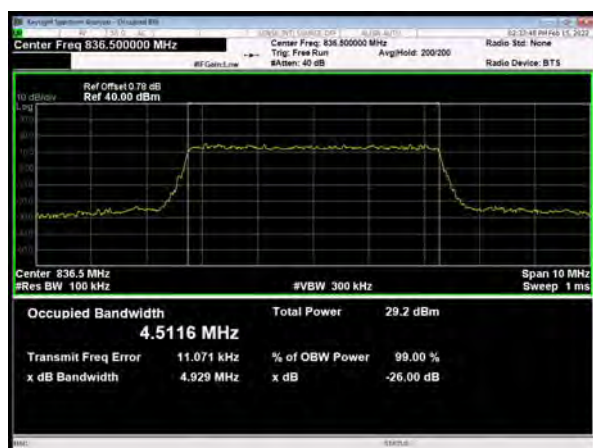
LTE Band 5 64QAM 5MHz CH-Low



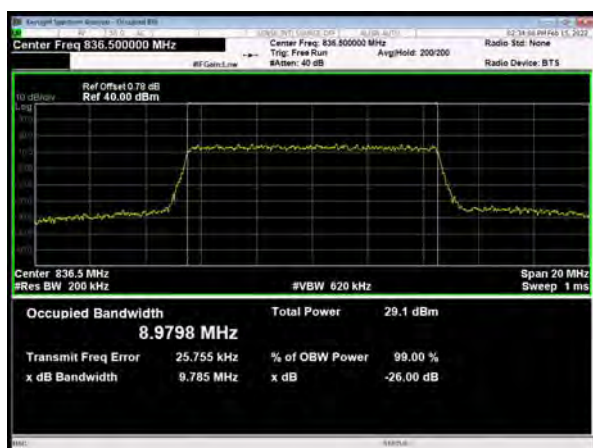
LTE Band 5 64QAM 10MHz CH-Low



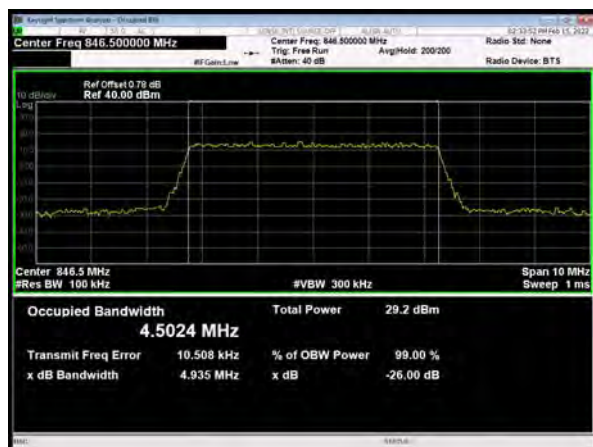
LTE Band 5 64QAM 5MHz CH-Middle



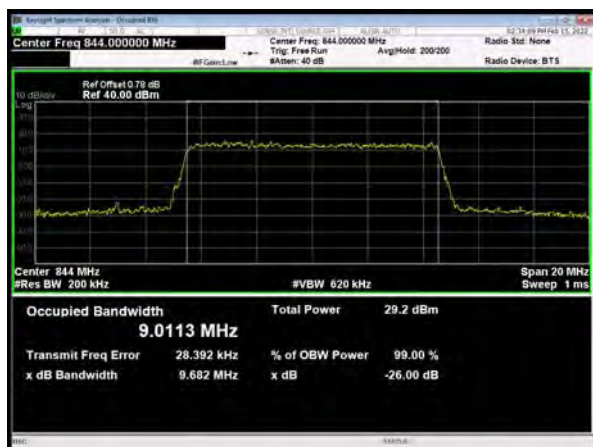
LTE Band 5 64QAM 10MHz CH-Middle



LTE Band 5 64QAM 5MHz CH-High



LTE Band 5 64QAM 10MHz CH-High



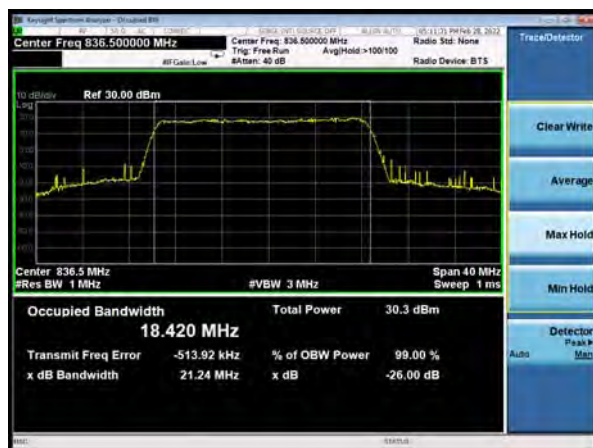
NR n5 P1/2 BPSK 20MHz CH-Low



NR n5 QPSK 20MHz CH-Low



NR n5 P1/2 BPSK 20MHz CH-Middle



NR n5 QPSK 20MHz CH-Middle



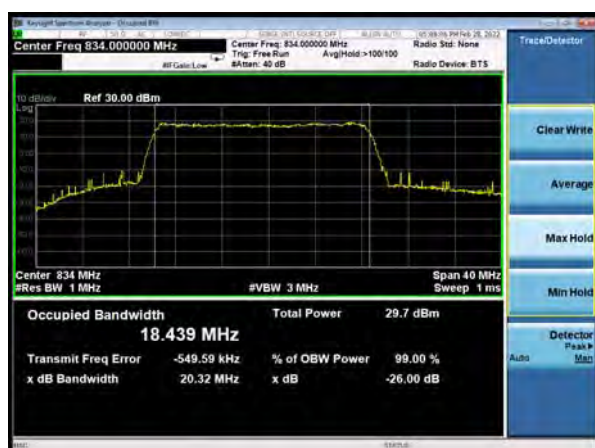
NR n5 P1/2 BPSK 20MHz CH-High



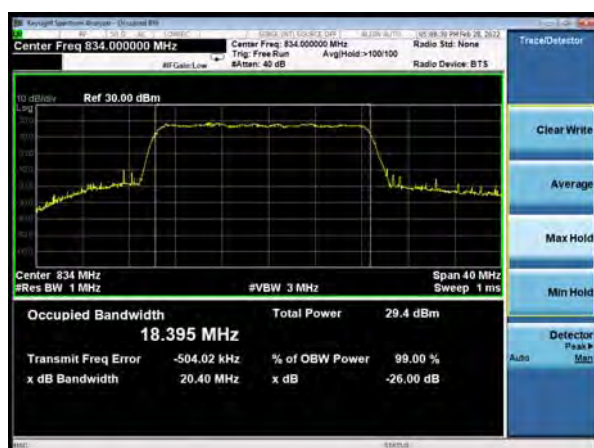
NR n5 QPSK 20MHz CH-High



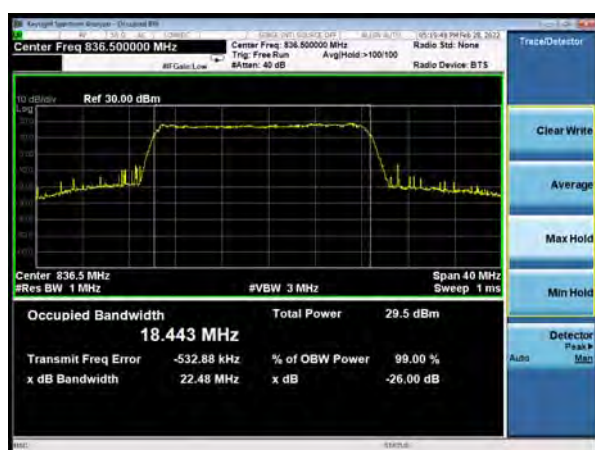
NR n5 16QAM 20MHz CH-Low



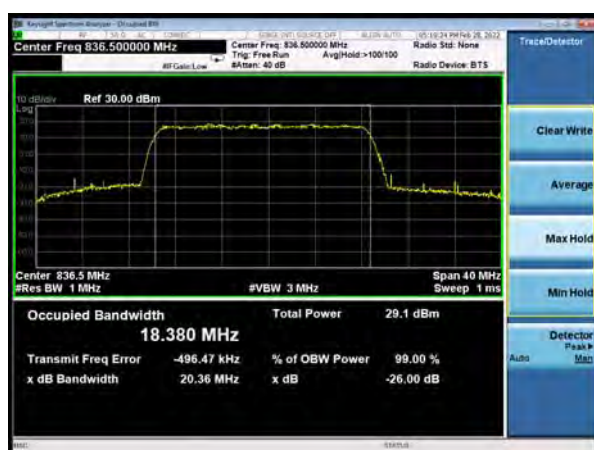
NR n5 64QAM 20MHz CH-Low



NR n5 16QAM 20MHz CH-Middle



NR n5 64QAM 20MHz CH-Middle



NR n5 16QAM 20MHz CH-High



NR n5 64QAM 20MHz CH-High



NR n5 256QAM 20MHz CH-Low



NR n5 256QAM 20MHz CH-Middle



NR n5 256QAM 20MHz CH-High



DC_2A_n5A P1/2 BPSK 20MHz CH-Low



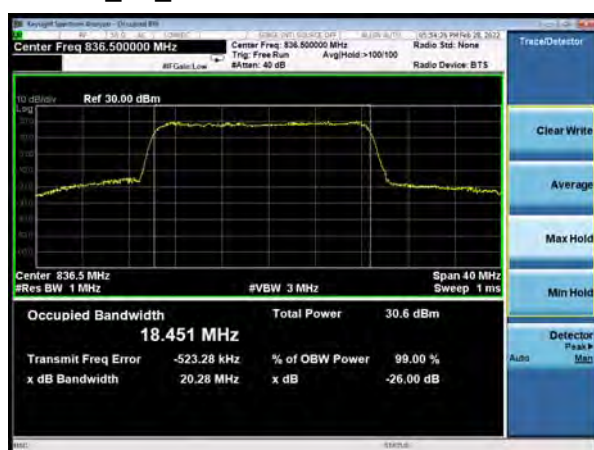
DC_2A_n5A QPSK 20MHz CH-Low



DC_2A_n5A P1/2 BPSK 20MHz CH-Middle



DC_2A_n5A QPSK 20MHz CH-Middle



DC_2A_n5A P1/2 BPSK 20MHz CH-High



DC_2A_n5A QPSK 20MHz CH-High





DC_2A_n5A 256QAM 20MHz CH-Low



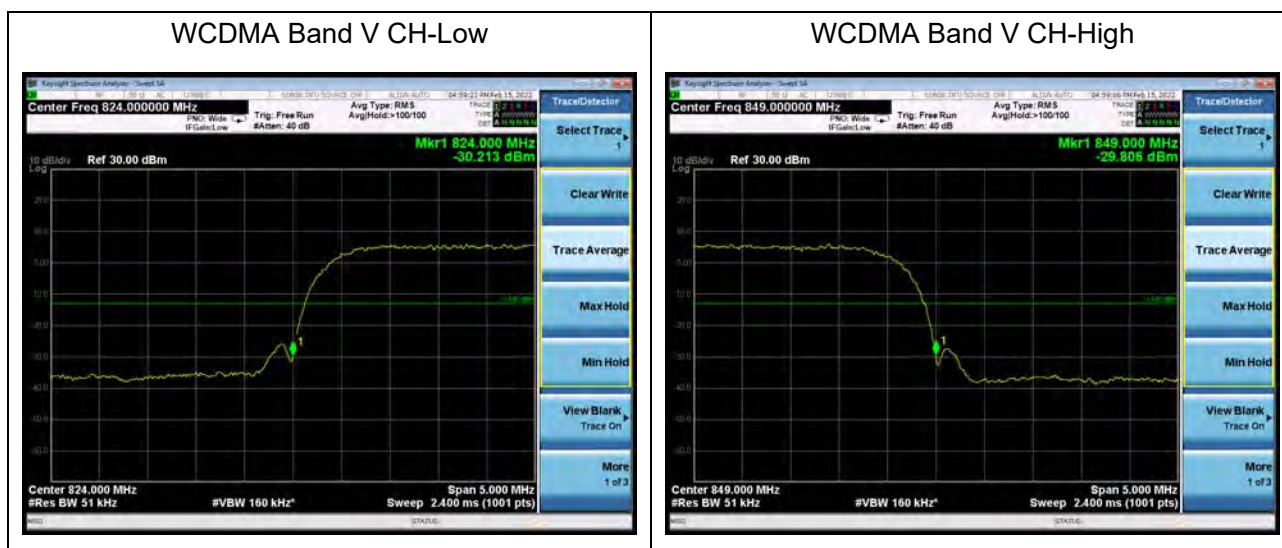
DC_2A_n5A 256QAM 20MHz CH-Middle



DC_2A_n5A 256QAM 20MHz CH-High



6.3. Band Edge Compliance

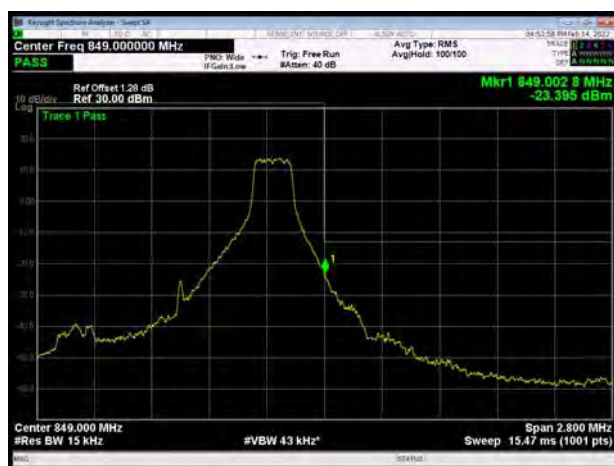




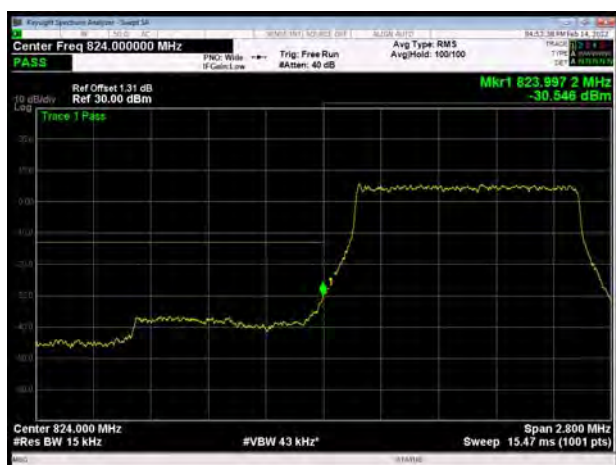
LTE Band 5 QPSK 1.4MHz CH-Low 1RB



LTE Band 5 QPSK 1.4MHz CH-High 1RB



LTE Band 5 QPSK 1.4MHz CH-Low 100%RB



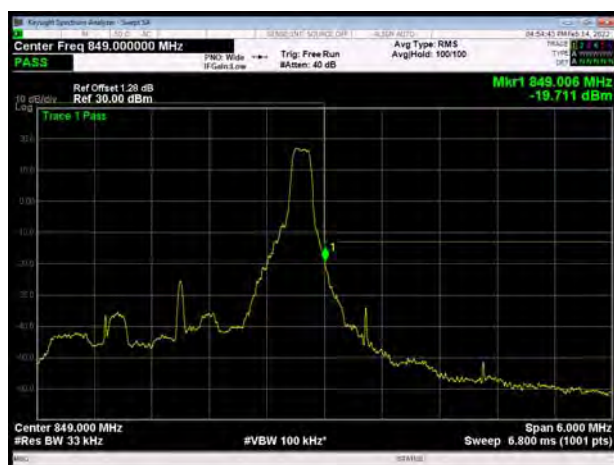
LTE Band 5 QPSK 1.4MHz CH-High 100%RB



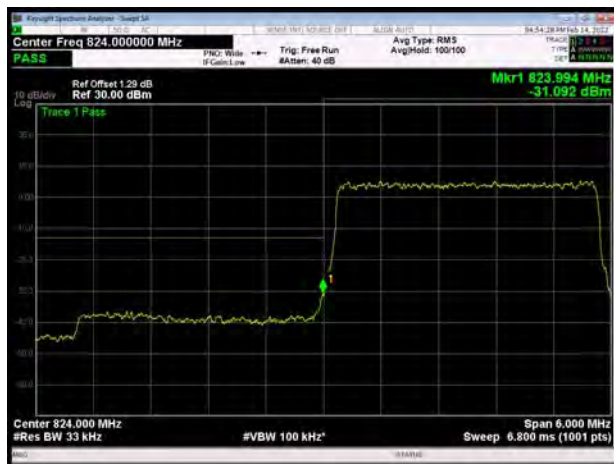
LTE Band 5 QPSK 3MHz CH-Low 1RB



LTE Band 5 QPSK 3MHz CH-High 1RB



LTE Band 5 QPSK 3MHz CH-Low 100%RB



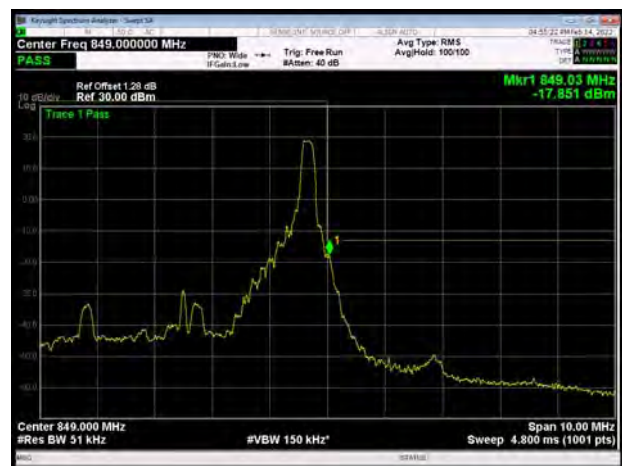
LTE Band 5 QPSK 3MHz CH-High 100%RB



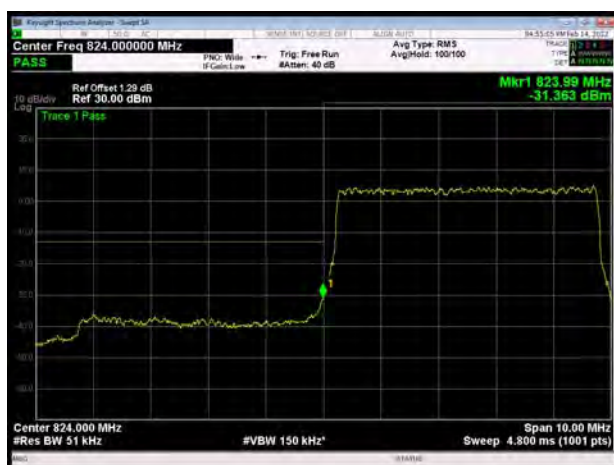
LTE Band 5 QPSK 5MHz CH-Low 1RB



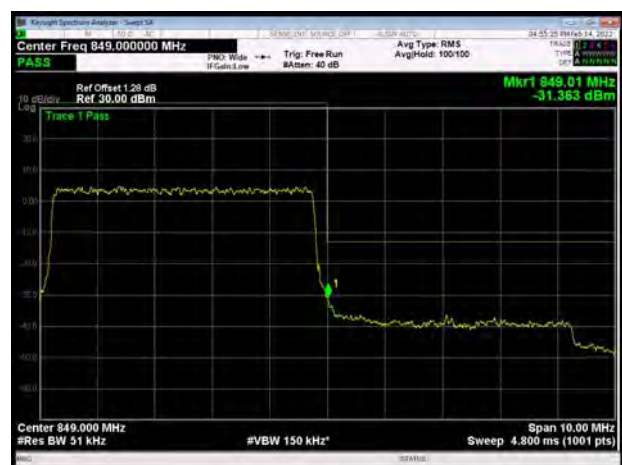
LTE Band 5 QPSK 5MHz CH-High 1RB



LTE Band 5 QPSK 5MHz CH-Low 100%RB



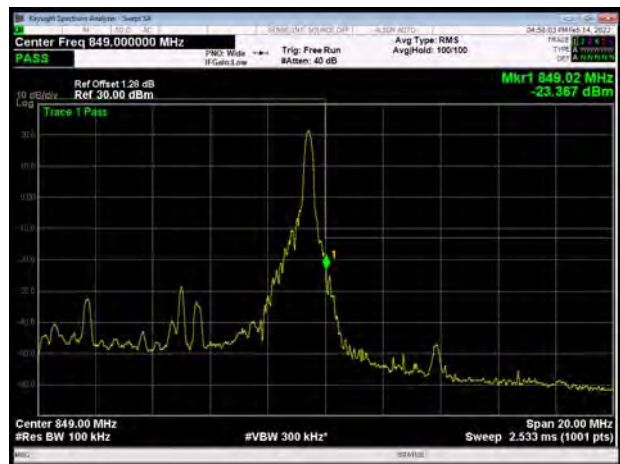
LTE Band 5 QPSK 5MHz CH-High 100%RB



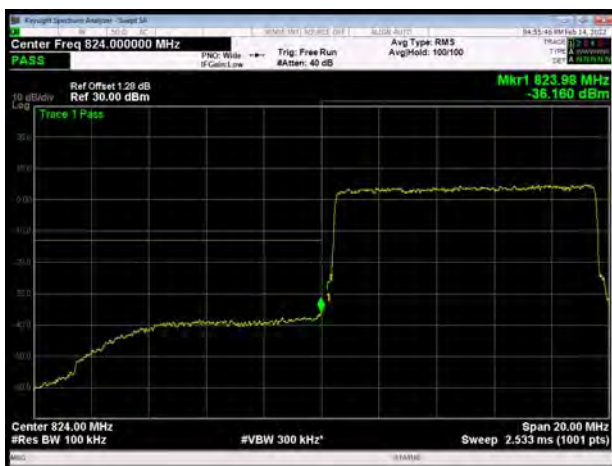
LTE Band 5 QPSK 10MHz CH-Low 1RB



LTE Band 5 QPSK 10MHz CH-High 1RB



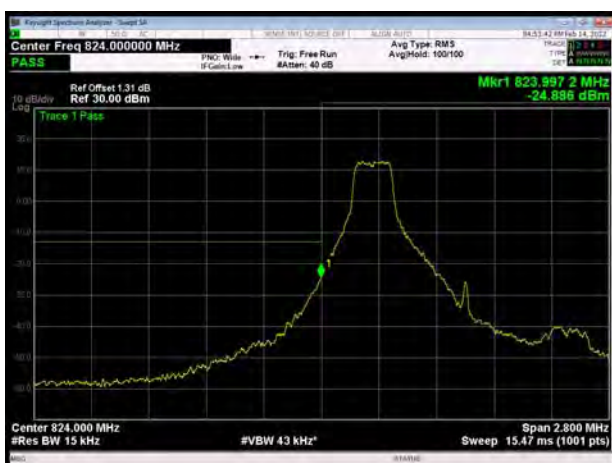
LTE Band 5 QPSK 10MHz CH-Low 100%RB



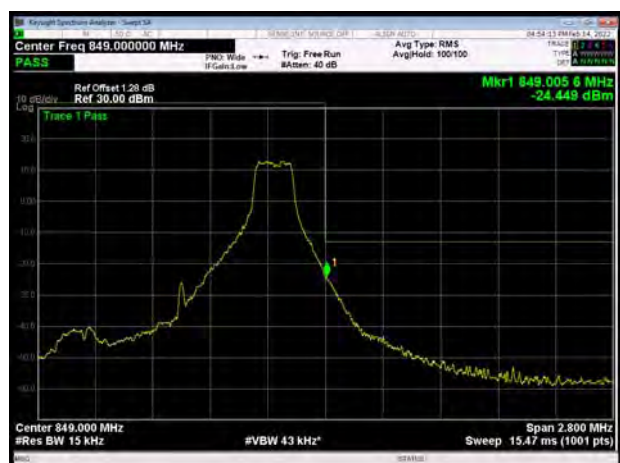
LTE Band 5 QPSK 10MHz CH-High 100%RB



LTE Band 5 16QAM 1.4MHz CH-Low 1RB



LTE Band 5 16QAM 1.4MHz CH-High 1RB



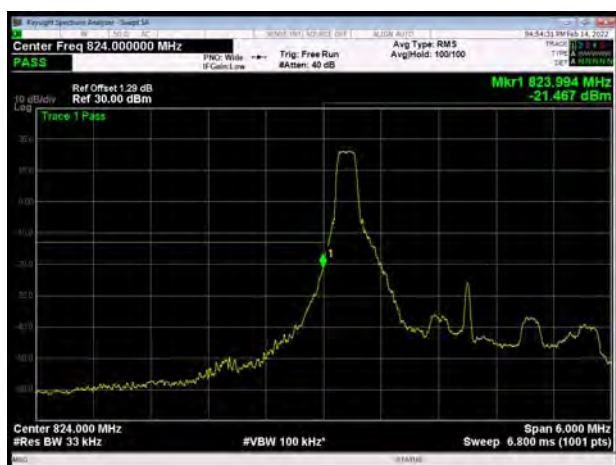
LTE Band 5 16QAM 1.4MHz CH-Low 100%RB



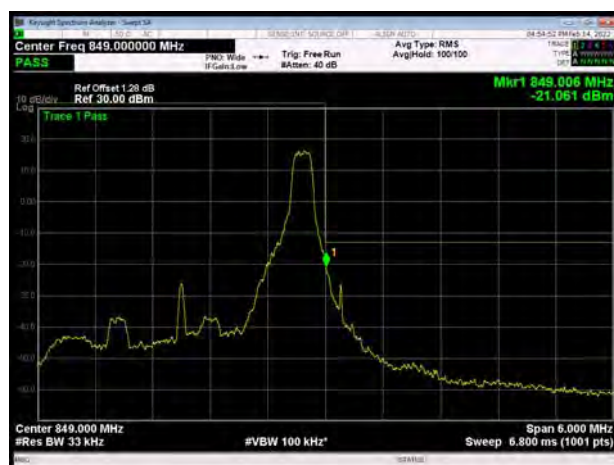
LTE Band 5 16QAM 1.4MHz CH-High 100%RB



LTE Band 5 16QAM 3MHz CH-Low 1RB



LTE Band 5 16QAM 3MHz CH-High 1RB



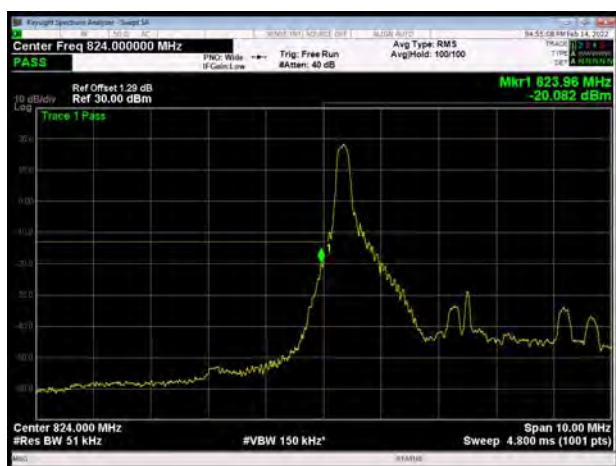
LTE Band 5 16QAM 3MHz CH-Low 100%RB



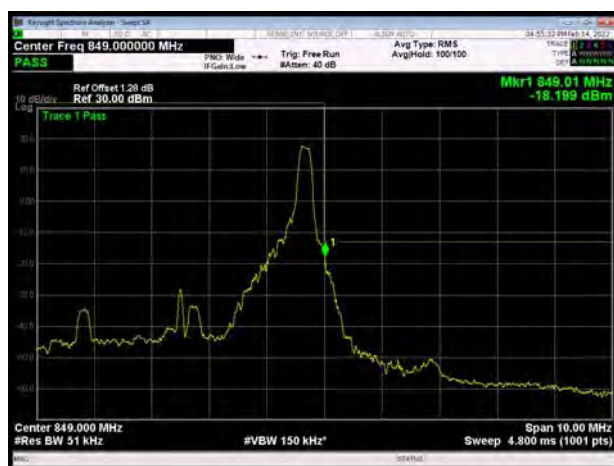
LTE Band 5 16QAM 3MHz CH-High 100%RB



LTE Band 5 16QAM 5MHz CH-Low 1RB



LTE Band 5 16QAM 5MHz CH-High 1RB



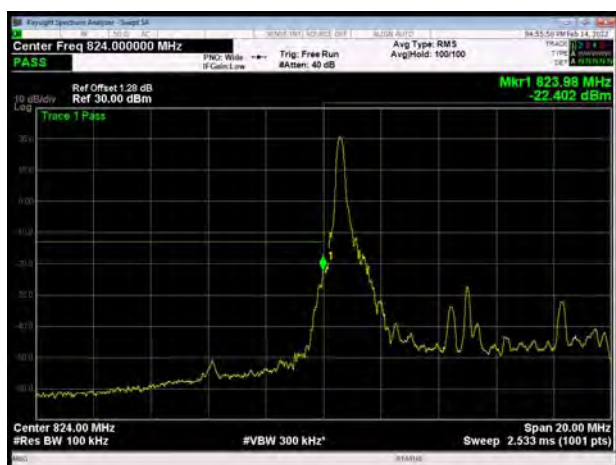
LTE Band 5 16QAM 5MHz CH-Low 100%RB



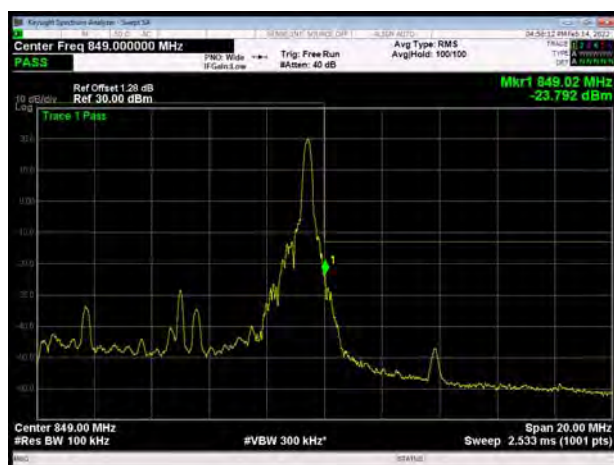
LTE Band 5 16QAM 5MHz CH-High 100%RB



LTE Band 5 16QAM 10MHz CH-Low 1RB



LTE Band 5 16QAM 10MHz CH-High 1RB



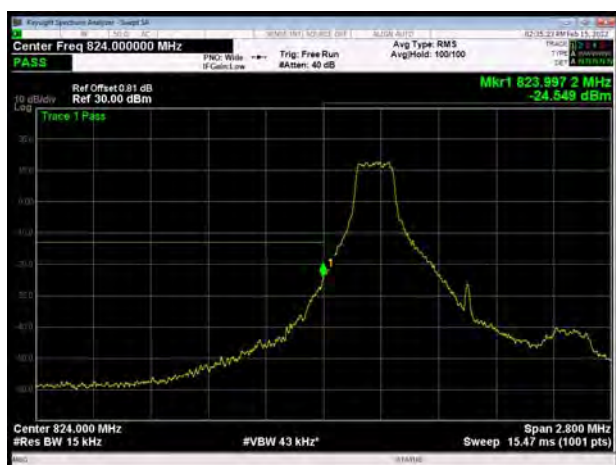
LTE Band 5 16QAM 10MHz CH-Low 100%RB



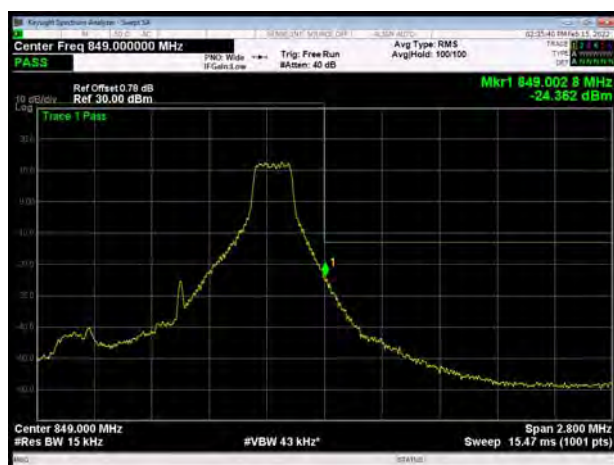
LTE Band 5 16QAM 10MHz CH-High 100%RB



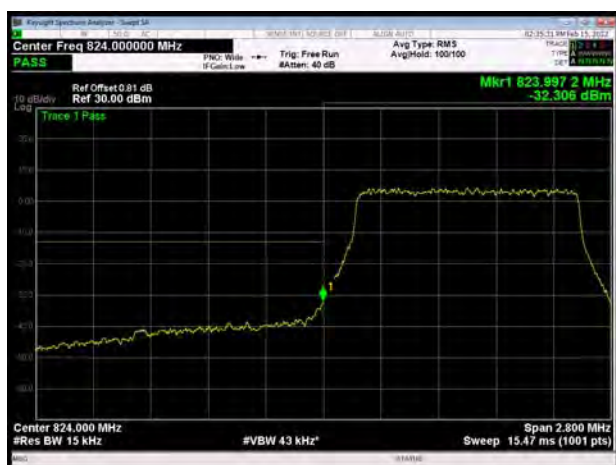
LTE Band 5 64QAM 1.4MHz CH-Low 1RB



LTE Band 5 64QAM 1.4MHz CH-High 1RB



LTE Band 5 64QAM 1.4MHz CH-Low 100%RB



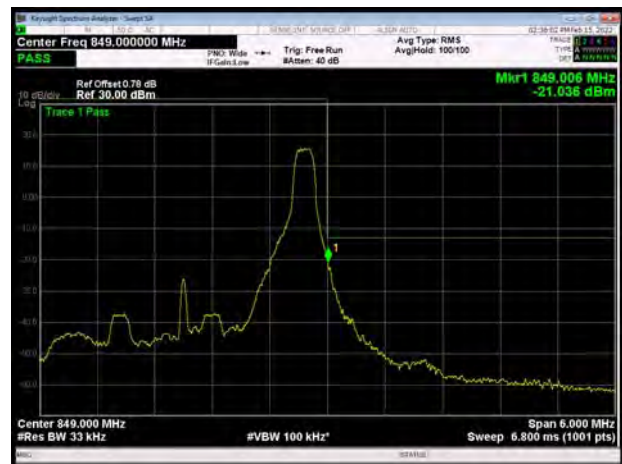
LTE Band 5 64QAM 1.4MHz CH-High 100%RB



LTE Band 5 64QAM 3MHz CH-Low 1RB



LTE Band 5 64QAM 3MHz CH-High 1RB



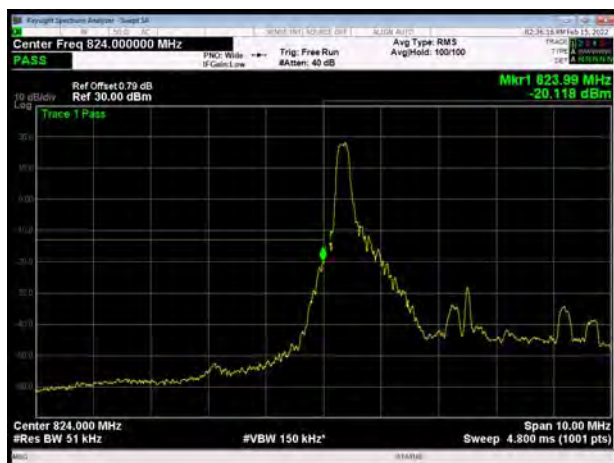
LTE Band 5 64QAM 3MHz CH-Low 100%RB



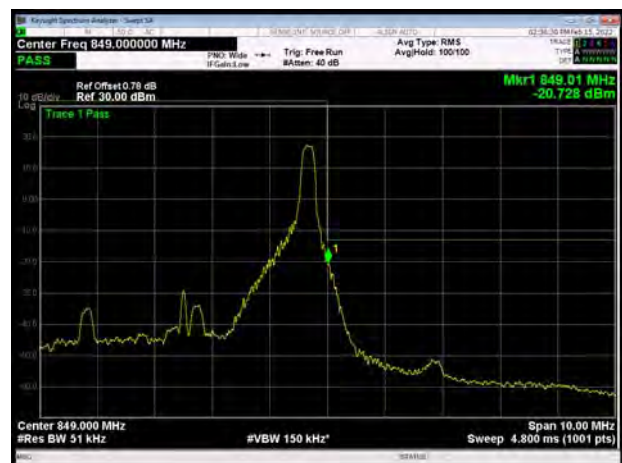
LTE Band 5 64QAM 3MHz CH-High 100%RB



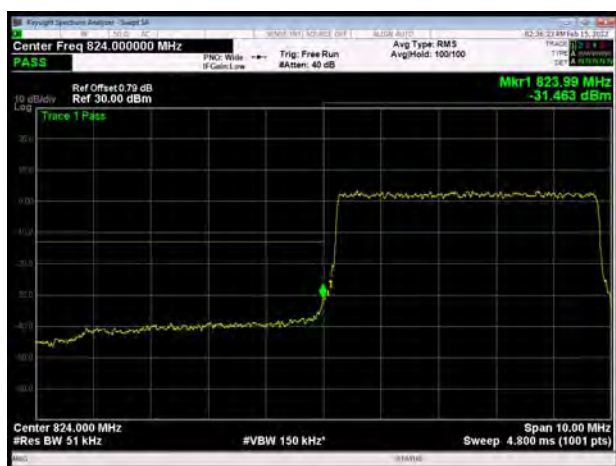
LTE Band 5 64QAM 5MHz CH-Low 1RB



LTE Band 5 64QAM 5MHz CH-High 1RB



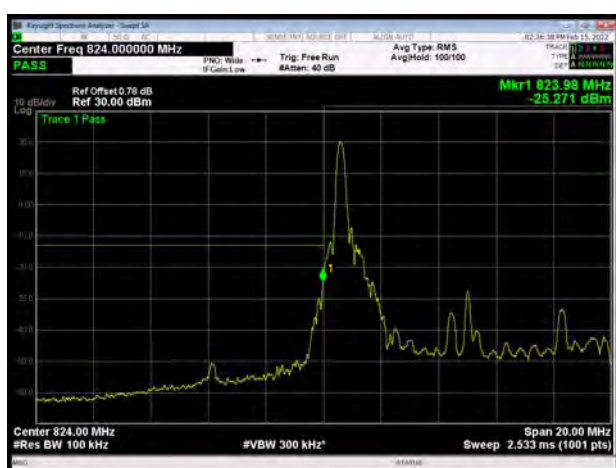
LTE Band 5 64QAM 5MHz CH-Low 100%RB



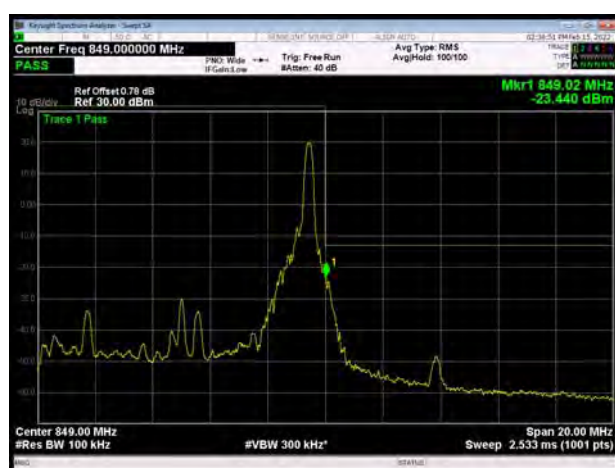
LTE Band 5 64QAM 5MHz CH-High 100%RB



LTE Band 5 64QAM 10MHz CH-Low 1RB



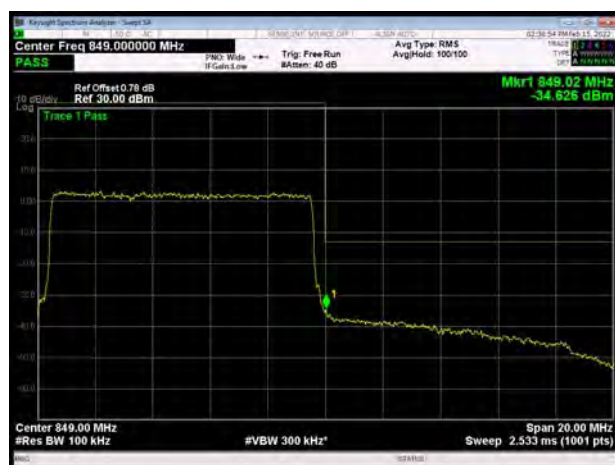
LTE Band 5 64QAM 10MHz CH-High 1RB



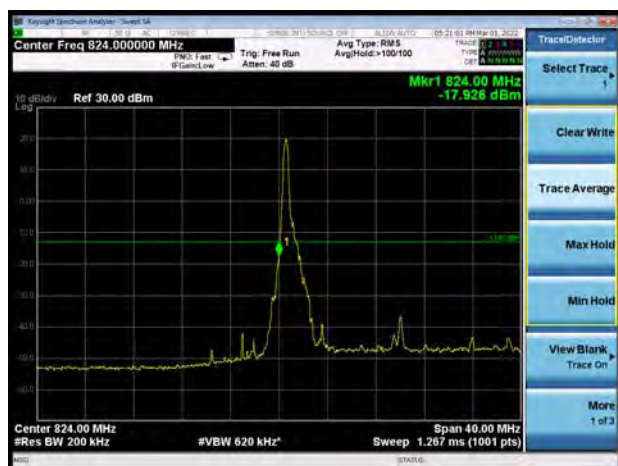
LTE Band 5 64QAM 10MHz CH-Low 100%RB



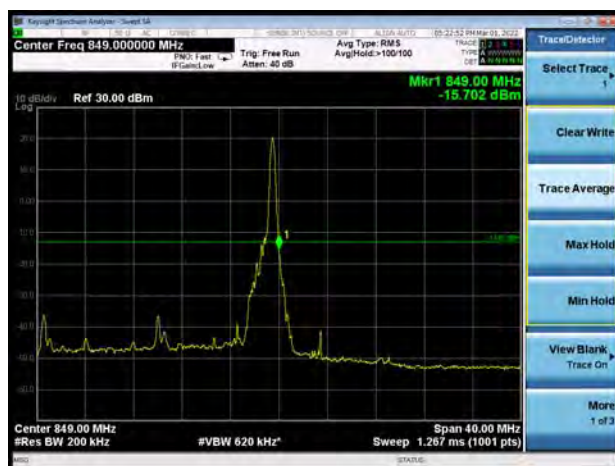
LTE Band 5 64QAM 10MHz CH-High 100%RB



NR n5 P1/2 BPSK 20MHz CH-Low 1RB



NR n5 P1/2 BPSK 20MHz CH-High 1RB



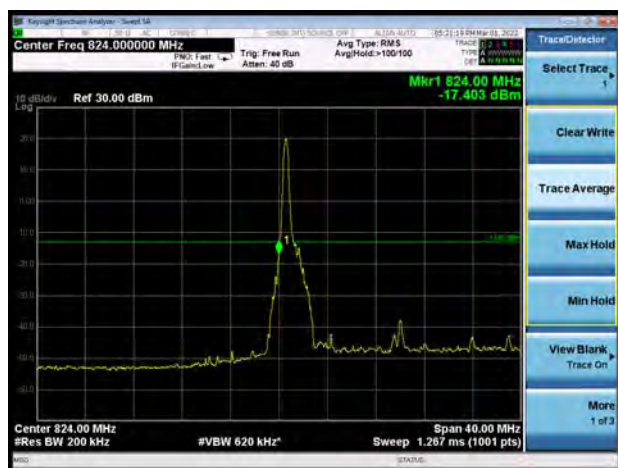
NR n5 P1/2 BPSK 20MHz CH-Low 100%RB



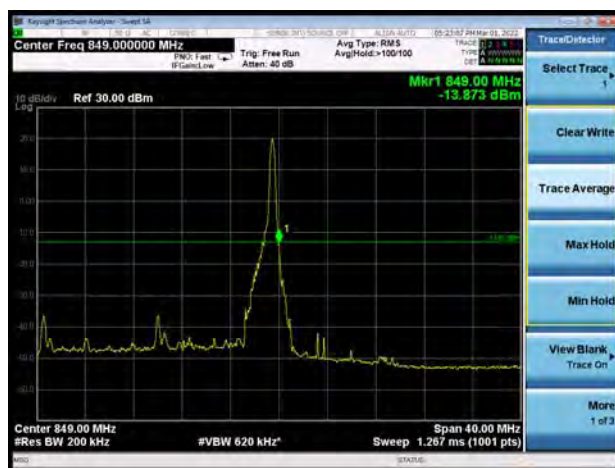
NR n5 P1/2 BPSK 20MHz CH-High 100%RB



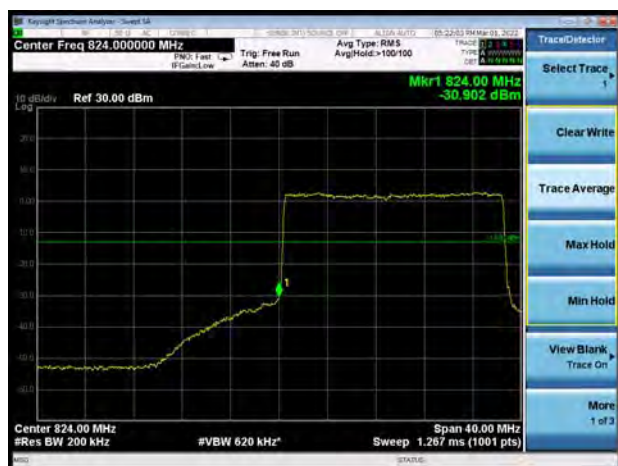
NR n5 QPSK 20MHz CH-Low 1RB



NR n5 QPSK 20MHz CH-High 1RB



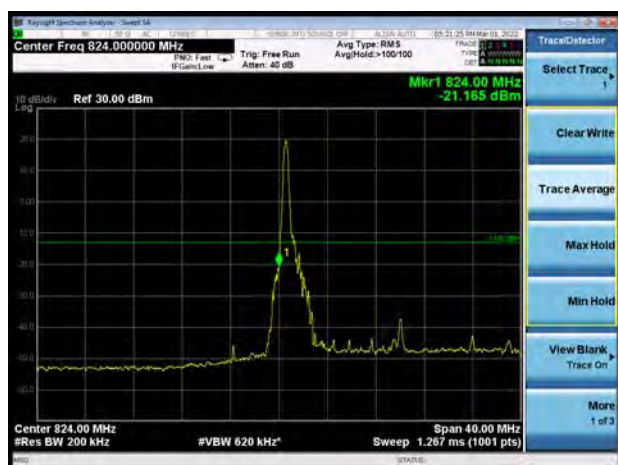
NR n5 QPSK 20MHz CH-Low 100%RB



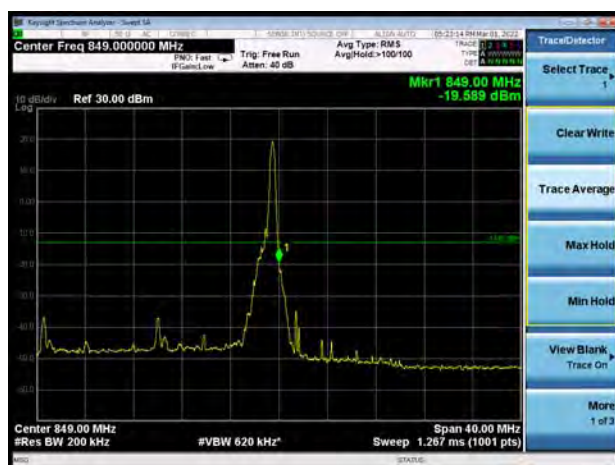
NR n5 QPSK 20MHz CH-High 100%RB



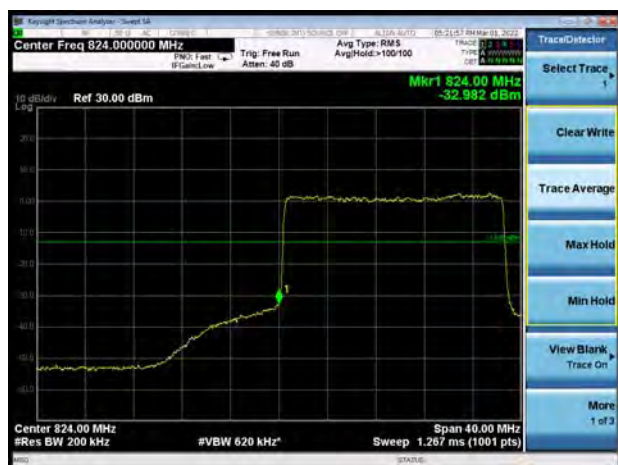
NR n5 16QAM 20MHz CH-Low 1RB



NR n5 16QAM 20MHz CH-High 1RB



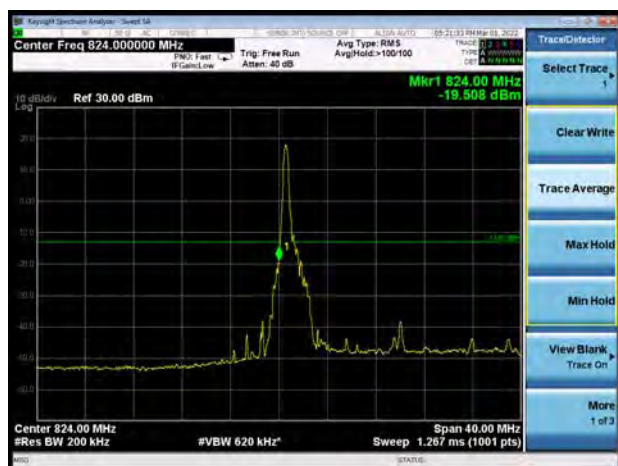
NR n5 16QAM 20MHz CH-Low 100%RB



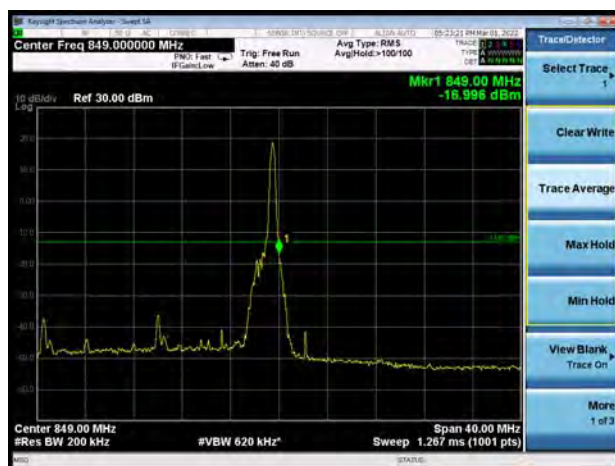
NR n5 16QAM 20MHz CH-High 100%RB



NR n5 64QAM 20MHz CH-Low 1RB



NR n5 64QAM 20MHz CH-High 1RB



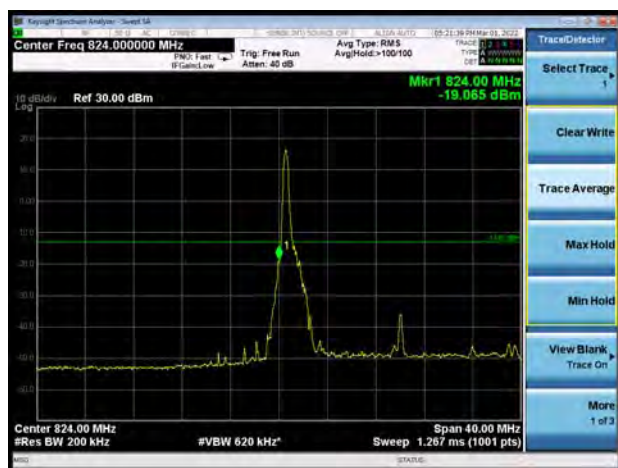
NR n5 64QAM 20MHz CH-Low 100%RB



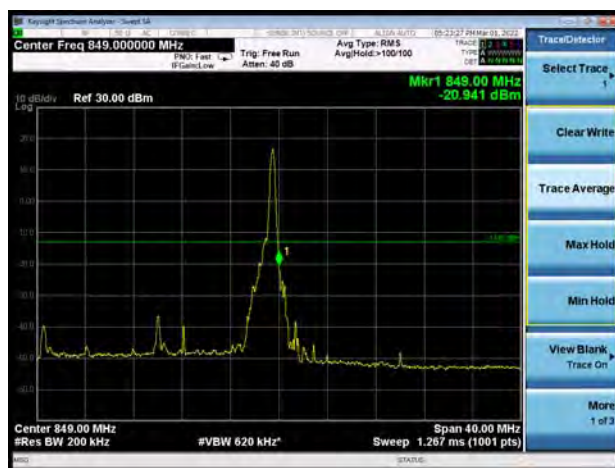
NR n5 64QAM 20MHz CH-High 100%RB



NR n5 256QAM 20MHz CH-Low 1RB



NR n5 256QAM 20MHz CH-High 1RB



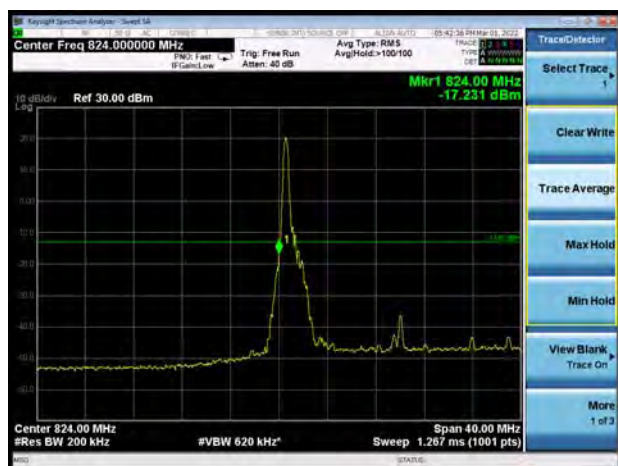
NR n5 256QAM 20MHz CH-Low 100%RB



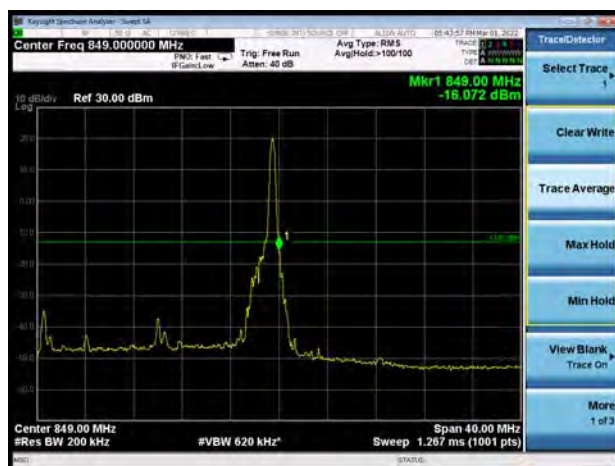
NR n5 256QAM 20MHz CH-High 100%RB



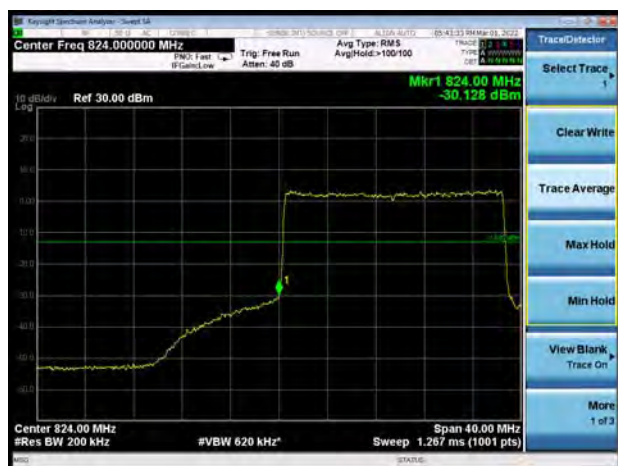
DC_2A_n5A P1/2 BPSK 20MHz CH-Low 1RB



DC_2A_n5A P1/2 BPSK 20MHz CH-High 1RB



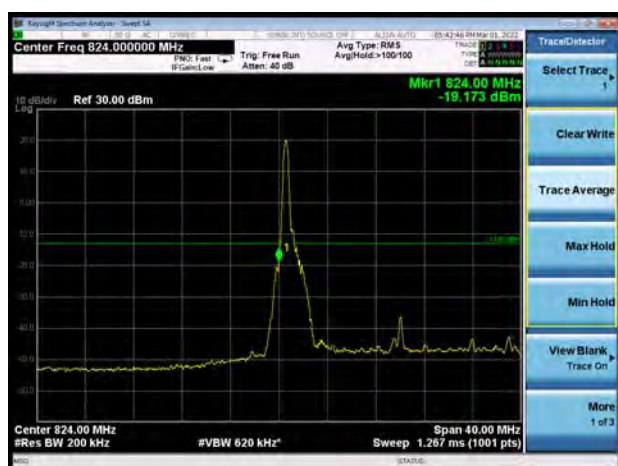
DC_2A_n5A P1/2 BPSK 20MHz CH-Low
100%RB



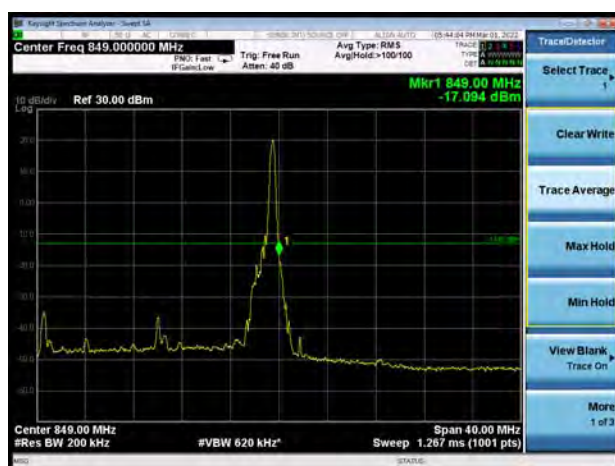
DC_2A_n5A P1/2 BPSK 20MHz CH-High
100%RB



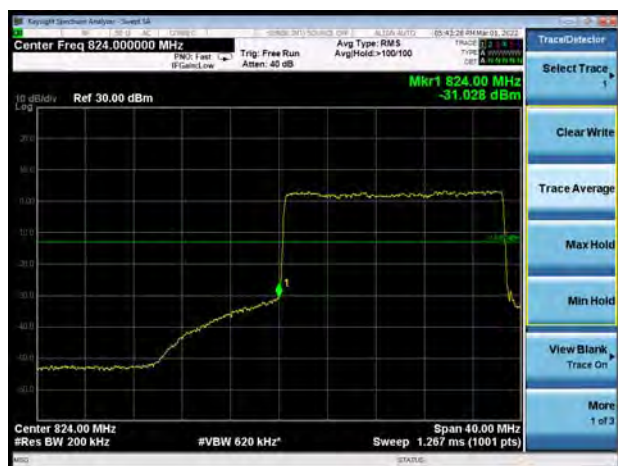
DC_2A_n5A QPSK 20MHz CH-Low 1RB



DC_2A_n5A QPSK 20MHz CH-High 1RB



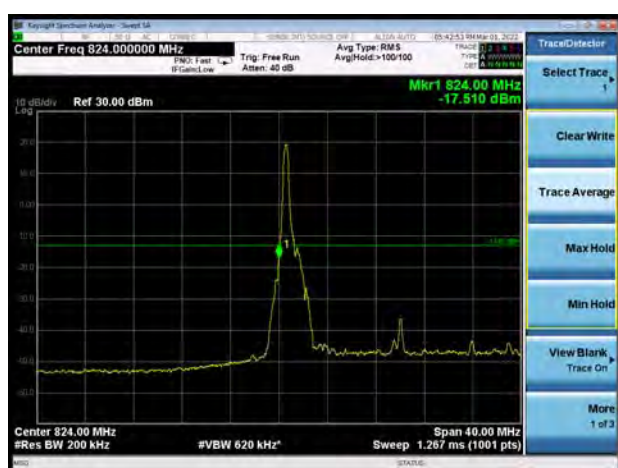
DC_2A_n5A QPSK 20MHz CH-Low 100%RB



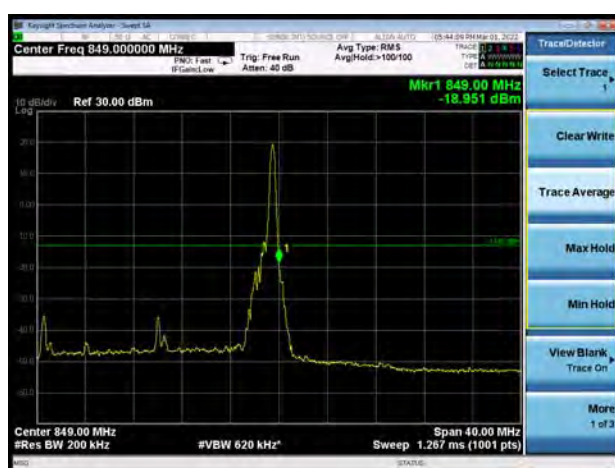
DC_2A_n5A QPSK 20MHz CH-High 100%RB



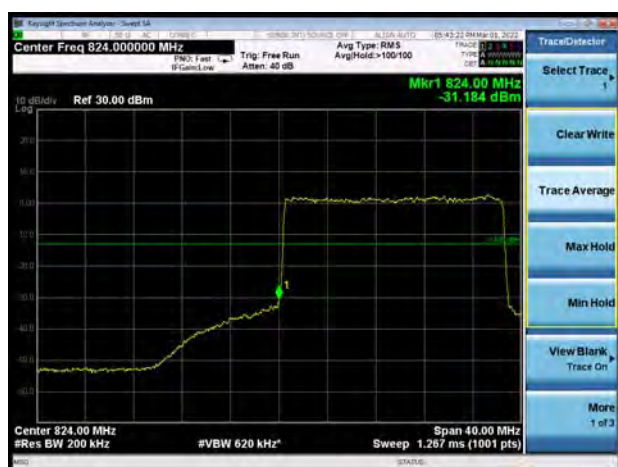
DC_2A_n5A 16QAM 20MHz CH-Low 1RB



DC_2A_n5A 16QAM 20MHz CH-High 1RB



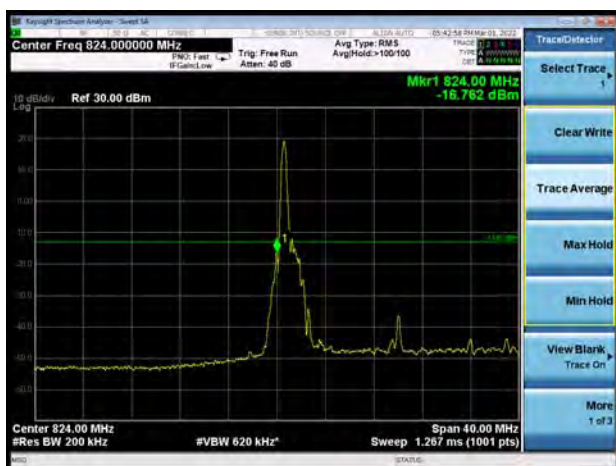
DC_2A_n5A 16QAM 20MHz CH-Low 100%RB



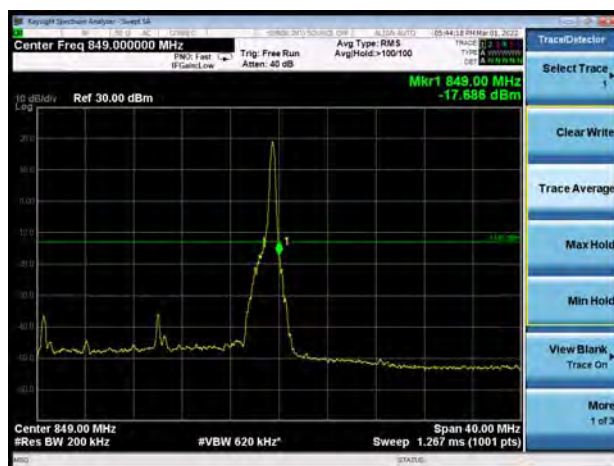
DC_2A_n5A 16QAM 20MHz CH-High 100%RB



DC_2A_n5A 64QAM 20MHz CH-Low 1RB



DC_2A_n5A 64QAM 20MHz CH-High 1RB



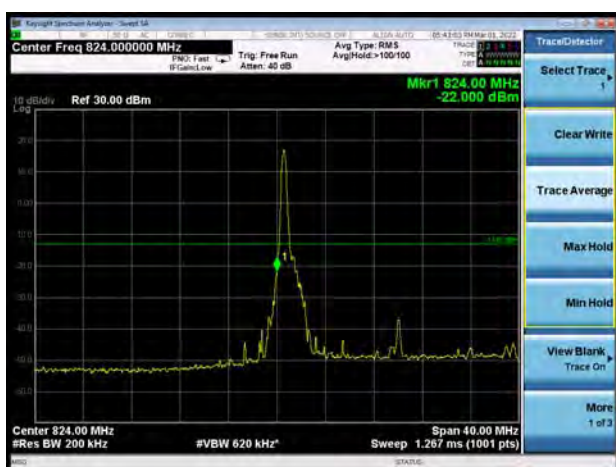
DC_2A_n5A 64QAM 20MHz CH-Low 100%RB



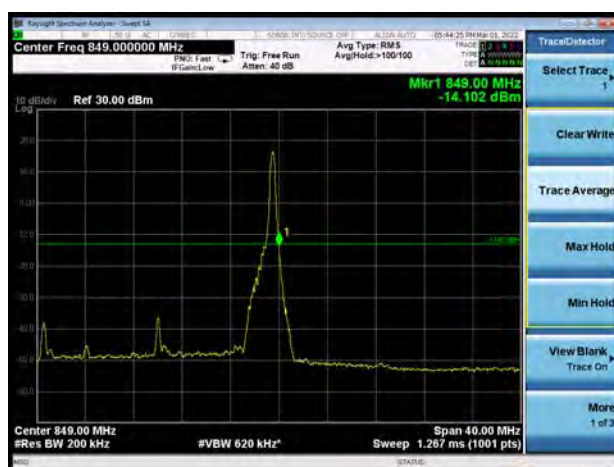
DC_2A_n5A 64QAM 20MHz CH-High 100%RB



DC_2A_n5A 256QAM 20MHz CH-Low 1RB



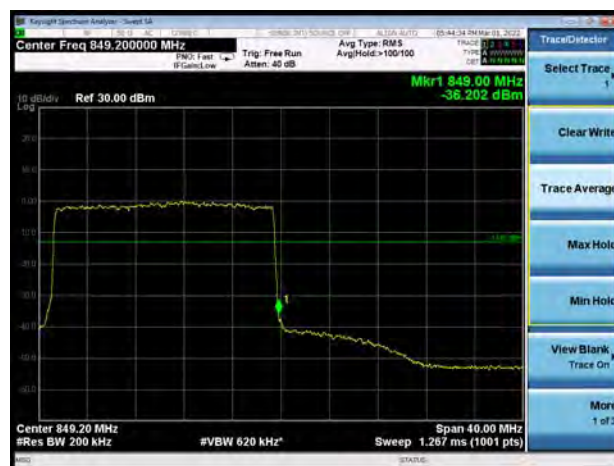
DC_2A_n5A 256QAM 20MHz CH-High 1RB



DC_2A_n5A 256QAM 20MHz CH-Low 100%RB



DC_2A_n5A 256QAM 20MHz CH-High 100%RB



6.4. Peak-to-Average Power Ratio (PAPR)

Mode	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
WCDMA Band V (RMC)	4132	826.4	27.27	23.62	3.65	≤13	PASS
	4183	836.6	26.73	23.51	3.22	≤13	PASS
	4233	846.6	27.01	23.53	3.48	≤13	PASS

LTE Band 5								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	20407	824.7	28.39	22.66	5.73	≤13	PASS
		20525	836.5	27.94	22.51	5.43	≤13	PASS
		20643	848.3	28.18	22.53	5.65	≤13	PASS
	3	20415	825.5	28.43	22.64	5.79	≤13	PASS
		20525	836.5	27.93	22.51	5.42	≤13	PASS
		20635	847.5	28.37	22.51	5.86	≤13	PASS
	5	20425	826.5	28.65	22.66	5.99	≤13	PASS
		20525	836.5	28.21	22.52	5.69	≤13	PASS
		20625	846.5	28.32	22.54	5.78	≤13	PASS
	10	20450	829	28.63	22.66	5.97	≤13	PASS
		20525	836.5	28.01	22.56	5.45	≤13	PASS
		20600	844	28.28	22.64	5.64	≤13	PASS
16QAM	1.4	20407	824.7	28.06	21.64	6.42	≤13	PASS
		20525	836.5	27.73	21.51	6.22	≤13	PASS
		20643	848.3	28.11	21.58	6.53	≤13	PASS
	3	20415	825.5	28.28	21.65	6.63	≤13	PASS
		20525	836.5	27.77	21.52	6.25	≤13	PASS
		20635	847.5	28.15	21.53	6.62	≤13	PASS
	5	20425	826.5	28.33	21.64	6.69	≤13	PASS
		20525	836.5	27.87	21.54	6.33	≤13	PASS
		20625	846.5	28.13	21.57	6.56	≤13	PASS
	10	20450	829	28.37	21.61	6.76	≤13	PASS
		20525	836.5	27.73	21.51	6.22	≤13	PASS
		20600	844	27.97	21.58	6.39	≤13	PASS
64QAM	1.4	20407	824.7	27.76	21.30	6.46	≤13	PASS
		20525	836.5	27.34	21.18	6.16	≤13	PASS
		20643	848.3	27.77	21.26	6.51	≤13	PASS
	3	20415	825.5	28.01	21.32	6.69	≤13	PASS



		20525	836.5	27.51	21.18	6.33	≤13	PASS
		20635	847.5	27.89	21.18	6.71	≤13	PASS
	5	20425	826.5	28.10	21.30	6.80	≤13	PASS
		20525	836.5	27.49	21.20	6.29	≤13	PASS
		20625	846.5	27.82	21.24	6.58	≤13	PASS
	10	20450	829	28.06	21.28	6.78	≤13	PASS
		20525	836.5	27.46	21.18	6.28	≤13	PASS
		20600	844	27.68	21.25	6.43	≤13	PASS

NR n5								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20	P1/2 BPSK	166800	834	27.34	21.60	5.74	≤13	PASS
		167300	836.5	27.07	21.23	5.84	≤13	PASS
		167800	839	26.94	21.38	5.56	≤13	PASS
	QPSK	166800	834	27.29	21.63	5.66	≤13	PASS
		167300	836.5	27.20	21.62	5.58	≤13	PASS
		167800	839	27.01	21.40	5.61	≤13	PASS
	16QAM	166800	834	26.96	20.69	6.27	≤13	PASS
		167300	836.5	26.87	20.55	6.32	≤13	PASS
		167800	839	26.72	20.49	6.23	≤13	PASS
	64QAM	166800	834	26.71	20.13	6.58	≤13	PASS
		167300	836.5	26.63	20.04	6.59	≤13	PASS
		167800	839	26.50	19.89	6.61	≤13	PASS
	256QAM	166800	834	24.73	18.10	6.63	≤13	PASS
		167300	836.5	24.42	17.95	6.47	≤13	PASS
		167800	839	24.33	17.80	6.53	≤13	PASS

DC_2A_n5A								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20	P1/2 BPSK	166800	834	27.54	22.08	5.46	≤13	PASS
		167300	836.5	27.36	21.97	5.39	≤13	PASS
		167800	839	27.19	21.87	5.32	≤13	PASS
	QPSK	166800	834	27.57	22.09	5.48	≤13	PASS
		167300	836.5	27.34	21.95	5.39	≤13	PASS
		167800	839	27.2	21.88	5.32	≤13	PASS
	16QAM	166800	834	27.14	21.05	6.09	≤13	PASS
		167300	836.5	27.03	20.97	6.06	≤13	PASS
		167800	839	26.92	20.88	6.04	≤13	PASS
	64QAM	166800	834	26.85	20.48	6.37	≤13	PASS
		167300	836.5	26.75	20.46	6.29	≤13	PASS
		167800	839	26.64	20.38	6.26	≤13	PASS
	256QAM	166800	834	24.84	18.41	6.43	≤13	PASS
		167300	836.5	24.82	18.44	6.38	≤13	PASS
		167800	839	24.64	18.28	6.36	≤13	PASS

6.5. Frequency Stability

WCDMA Band 5						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25°C)	Normal	2.70	4.08	0.00323	0.00488	PASS
Extreme (60°C)		5.24	4.62	0.00303	0.00266	PASS
Extreme (50°C)		3.00	16.98	0.00359	0.02030	PASS
Extreme (40°C)		9.91	6.75	0.01184	0.00806	PASS
Extreme (30°C)		13.78	5.73	0.01647	0.00685	PASS
Extreme (20°C)		8.53	14.15	0.01019	0.01692	PASS
Extreme (10°C)		8.22	10.32	0.00983	0.01234	PASS
Extreme (0°C)		12.38	13.69	0.01479	0.01636	PASS
Extreme (-10°C)		2.38	15.12	0.00284	0.01808	PASS
Extreme (-20°C)		8.43	5.21	0.01008	0.00623	PASS
Extreme (-30°C)		8.85	16.19	0.01058	0.01935	PASS
25°C	LV	7.93	13.53	0.00948	0.01618	PASS
	HV	9.35	15.20	0.01117	0.01817	PASS

LTE Band 5								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	3.40	1.87	10.69	0.00406	0.00223	0.01277	PASS
Extreme (60°C)		3.93	3.68	9.97	0.00470	0.00440	0.01191	PASS
Extreme (50°C)		7.94	1.24	13.24	0.00949	0.00148	0.01583	PASS
Extreme (40°C)		14.00	11.10	15.41	0.01673	0.01326	0.01842	PASS
Extreme (30°C)		17.06	4.50	6.85	0.02040	0.00538	0.00818	PASS
Extreme (20°C)		7.24	8.26	2.12	0.00865	0.00987	0.00254	PASS
Extreme (10°C)		3.72	16.74	15.19	0.00445	0.02002	0.01816	PASS
Extreme (0°C)		8.88	1.32	5.33	0.01062	0.00157	0.00637	PASS
Extreme (-10°C)		2.05	6.89	17.17	0.00246	0.00824	0.02053	PASS
Extreme (-20°C)		5.11	12.29	4.95	0.00610	0.01469	0.00592	PASS
Extreme (-30°C)		7.38	8.12	9.45	0.00882	0.00970	0.01130	PASS
25°C	LV	5.04	15.95	2.16	0.00602	0.01906	0.00258	PASS
	HV	12.20	14.31	9.52	0.01458	0.01711	0.01138	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							



Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	11.67	13.71	5.08	0.01395	0.01639	0.00607	PASS
Extreme (60℃)		4.57	9.09	11.32	0.00546	0.01087	0.01354	PASS
Extreme (50℃)		15.48	12.85	5.22	0.01850	0.01536	0.00624	PASS
Extreme (40℃)		2.29	14.22	3.09	0.00274	0.01700	0.00370	PASS
Extreme (30℃)		4.55	2.39	14.27	0.00544	0.00285	0.01706	PASS
Extreme (20℃)		8.93	5.67	4.18	0.01068	0.00678	0.00500	PASS
Extreme (10℃)		14.08	15.40	17.15	0.01684	0.01841	0.02050	PASS
Extreme (0℃)		14.05	7.24	9.98	0.01679	0.00865	0.01193	PASS
Extreme (-10℃)		4.48	13.78	12.71	0.00535	0.01647	0.01520	PASS
Extreme (-20℃)		2.42	4.39	13.04	0.00289	0.00525	0.01559	PASS
Extreme (-30℃)		8.74	15.74	3.46	0.01045	0.01881	0.00413	PASS
25℃		LV	2.33	16.41	14.38	0.00278	0.01962	0.01719
	HV	10.06	5.63	8.06	0.01203	0.00673	0.00964	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	13.23	4.59	6.21	0.01582	0.00549	0.00742	PASS
Extreme (60℃)		15.02	2.81	14.21	0.01795	0.00335	0.01698	PASS
Extreme (50℃)		3.79	8.35	8.07	0.00453	0.00998	0.00964	PASS
Extreme (40℃)		3.38	12.51	7.47	0.00404	0.01495	0.00894	PASS
Extreme (30℃)		13.54	6.22	14.07	0.01619	0.00743	0.01682	PASS
Extreme (20℃)		11.03	15.93	8.55	0.01319	0.01905	0.01023	PASS
Extreme (10℃)		13.87	14.63	9.52	0.01658	0.01748	0.01138	PASS
Extreme (0℃)		11.03	16.77	10.42	0.01318	0.02005	0.01245	PASS
Extreme (-10℃)		16.09	3.57	11.14	0.01923	0.00427	0.01332	PASS
Extreme (-20℃)		17.96	4.83	11.08	0.02147	0.00577	0.01325	PASS
Extreme (-30℃)		2.06	3.59	6.04	0.00247	0.00429	0.00722	PASS
25℃		LV	5.05	1.35	6.04	0.00604	0.00162	0.00722
	HV	9.01	14.12	9.44	0.01077	0.01688	0.01129	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	13.75	17.56	4.27	0.01644	0.02099	0.00510	PASS
Extreme (60℃)		3.62	6.35	3.82	0.00433	0.00760	0.00457	PASS
Extreme (50℃)		17.32	11.35	16.02	0.02071	0.01357	0.01916	PASS
Extreme (40℃)		13.29	6.40	10.68	0.01589	0.00766	0.01277	PASS
Extreme (30℃)		8.95	15.49	14.71	0.01070	0.01851	0.01758	PASS
Extreme (20℃)		14.22	11.37	1.98	0.01700	0.01359	0.00236	PASS
Extreme (10℃)		15.61	5.95	5.92	0.01866	0.00711	0.00707	PASS
Extreme (0℃)		15.08	5.67	13.07	0.01803	0.00677	0.01563	PASS



Extreme (-10℃)		16.78	15.99	14.63	0.02006	0.01911	0.01748	PASS
Extreme (-20℃)		7.73	11.63	9.24	0.00924	0.01390	0.01104	PASS
Extreme (-30℃)		2.89	6.17	14.33	0.00346	0.00738	0.01713	PASS
25℃	LV	17.76	4.72	10.52	0.02124	0.00564	0.01258	PASS
	HV	1.50	16.47	1.27	0.00179	0.01968	0.00151	PASS

NR n5										
Condition		Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.51	6.03	14.34	1.51	0.00240	0.00321	0.00763	0.00080	PASS
Extreme (60℃)		8.42	15.93	4.02	13.42	0.00448	0.00847	0.00214	0.00714	PASS
Extreme (50℃)		12.20	13.73	17.81	3.20	0.00649	0.00730	0.00948	0.00170	PASS
Extreme (40℃)		5.37	12.06	1.66	15.37	0.00286	0.00641	0.00088	0.00817	PASS
Extreme (30℃)		17.87	7.35	2.20	5.87	0.00950	0.00391	0.00117	0.00312	PASS
Extreme (20℃)		17.37	17.56	2.92	8.37	0.00924	0.00934	0.00155	0.00445	PASS
Extreme (10℃)		15.95	13.38	8.64	16.95	0.00848	0.00712	0.00459	0.00901	PASS
Extreme (0℃)		5.38	16.74	8.82	5.38	0.00286	0.00891	0.00469	0.00286	PASS
Extreme (-10℃)		10.20	9.75	15.94	16.20	0.00543	0.00519	0.00848	0.00862	PASS
Extreme (-20℃)		16.43	8.15	6.39	7.43	0.00874	0.00434	0.00340	0.00395	PASS
Extreme (-30℃)		3.05	9.16	2.11	11.05	0.00162	0.00487	0.00112	0.00588	PASS
25℃	LV	6.18	17.10	6.92	16.18	0.00329	0.00909	0.00368	0.00861	PASS
	HV	1.09	11.87	12.17	14.09	0.00058	0.00632	0.00647	0.00749	PASS
Condition		Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	14.43	17.49	12.26	12.43	0.00767	0.00930	0.00652	0.00661	PASS
Extreme (60℃)		10.91	11.62	13.43	7.91	0.00580	0.00618	0.00714	0.00421	PASS
Extreme (50℃)		7.93	3.56	11.34	17.93	0.00422	0.00190	0.00603	0.00954	PASS
Extreme (40℃)		13.24	1.50	3.90	16.24	0.00704	0.00080	0.00208	0.00864	PASS
Extreme (30℃)		3.72	14.54	12.79	13.72	0.00198	0.00774	0.00680	0.00730	PASS
Extreme (20℃)		17.30	15.49	7.26	13.30	0.00920	0.00824	0.00386	0.00708	PASS
Extreme (10℃)		4.11	8.88	1.65	17.11	0.00219	0.00473	0.00088	0.00910	PASS
Extreme (0℃)		16.72	3.38	13.62	11.72	0.00889	0.00180	0.00725	0.00623	PASS
Extreme (-10℃)		15.75	16.49	9.59	7.75	0.00838	0.00877	0.00510	0.00412	PASS
Extreme (-20℃)		1.22	3.80	6.89	6.22	0.00065	0.00202	0.00367	0.00331	PASS
Extreme (-30℃)		4.72	11.29	15.03	17.72	0.00251	0.00601	0.00799	0.00942	PASS
25℃	LV	4.22	8.67	14.17	4.22	0.00224	0.00461	0.00754	0.00224	PASS
	HV	12.63	8.20	5.14	6.63	0.00672	0.00436	0.00273	0.00353	PASS
Condition		Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict



BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(ppm)	(ppm)	(ppm)	(ppm)	
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	7.42	5.38	16.34	9.42	0.00395	0.00286	0.00869	0.00501	PASS
Extreme (60°C)		10.59	17.61	13.06	10.59	0.00563	0.00937	0.00695	0.00563	PASS
Extreme (50°C)		5.03	4.93	3.66	5.03	0.00267	0.00262	0.00194	0.00267	PASS
Extreme (40°C)		6.16	9.99	13.76	3.16	0.00327	0.00531	0.00732	0.00168	PASS
Extreme (30°C)		5.35	11.81	15.33	8.35	0.00285	0.00628	0.00815	0.00444	PASS
Extreme (20°C)		15.09	2.99	1.60	17.09	0.00803	0.00159	0.00085	0.00909	PASS
Extreme (10°C)		12.91	8.10	1.96	14.91	0.00687	0.00431	0.00104	0.00793	PASS
Extreme (0°C)		16.78	4.36	6.89	2.78	0.00893	0.00232	0.00367	0.00148	PASS
Extreme (-10°C)		16.37	7.26	1.08	9.37	0.00871	0.00386	0.00058	0.00498	PASS
Extreme (-20°C)		6.24	17.38	4.32	16.24	0.00332	0.00925	0.00230	0.00864	PASS
Extreme (-30°C)		13.66	10.36	17.21	7.66	0.00727	0.00551	0.00915	0.00407	PASS
25°C	LV	16.41	9.09	13.81	6.41	0.00873	0.00483	0.00735	0.00341	PASS
	HV	8.74	13.29	12.20	1.74	0.00465	0.00707	0.00649	0.00092	PASS
Condition		Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Freq. Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(ppm)	(ppm)	(ppm)	(ppm)	
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	14.75	2.92	2.44	5.75	0.00785	0.00155	0.00130	0.00306	PASS
Extreme (60°C)		17.39	16.61	5.63	9.39	0.00925	0.00883	0.00300	0.00500	PASS
Extreme (50°C)		14.00	10.41	4.42	8.00	0.00745	0.00554	0.00235	0.00426	PASS
Extreme (40°C)		8.87	1.26	9.73	3.87	0.00472	0.00067	0.00518	0.00206	PASS
Extreme (30°C)		14.86	16.70	13.93	1.86	0.00791	0.00888	0.00741	0.00099	PASS
Extreme (20°C)		7.87	10.49	13.69	1.87	0.00419	0.00558	0.00728	0.00100	PASS
Extreme (10°C)		14.47	3.96	4.84	13.47	0.00769	0.00211	0.00258	0.00716	PASS
Extreme (0°C)		1.05	3.74	1.00	10.05	0.00056	0.00199	0.00053	0.00535	PASS
Extreme (-10°C)		7.47	4.88	17.66	17.47	0.00397	0.00260	0.00939	0.00929	PASS
Extreme (-20°C)		11.61	4.25	17.30	7.61	0.00618	0.00226	0.00920	0.00405	PASS
Extreme (-30°C)		3.72	16.33	10.90	14.72	0.00198	0.00869	0.00580	0.00783	PASS
25°C	LV	15.70	17.69	8.83	8.70	0.00835	0.00941	0.00470	0.00463	PASS
	HV	15.99	10.74	10.93	1.99	0.00850	0.00571	0.00581	0.00106	PASS

DC_2A_n5										
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	6.67	10.65	7.50	3.67	0.00355	0.00567	0.00399	0.00195	PASS
Extreme (60℃)		15.13	15.57	17.28	17.13	0.00805	0.00828	0.00919	0.00911	PASS
Extreme (50℃)		17.52	1.80	7.52	17.52	0.00932	0.00096	0.00400	0.00932	PASS
Extreme (40℃)		16.64	17.67	6.80	7.64	0.00885	0.00940	0.00362	0.00406	PASS
Extreme (30℃)		14.96	6.92	9.06	13.96	0.00796	0.00368	0.00482	0.00743	PASS
Extreme (20℃)		14.28	14.39	9.59	2.28	0.00760	0.00765	0.00510	0.00121	PASS
Extreme (10℃)		15.86	15.47	9.77	3.86	0.00844	0.00823	0.00520	0.00205	PASS
Extreme (0℃)		16.29	15.80	11.98	9.29	0.00866	0.00840	0.00637	0.00494	PASS
Extreme (-10℃)		13.76	15.44	16.50	11.76	0.00732	0.00821	0.00877	0.00625	PASS
Extreme (-20℃)		11.82	13.21	3.84	10.82	0.00629	0.00702	0.00204	0.00575	PASS
Extreme (-30℃)		7.98	16.33	14.89	10.98	0.00425	0.00869	0.00792	0.00584	PASS
25℃	LV	3.65	13.03	11.61	8.65	0.00194	0.00693	0.00618	0.00460	PASS
	HV	16.58	2.21	13.00	5.58	0.00882	0.00117	0.00691	0.00297	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	9.62	3.61	14.33	3.62	0.00512	0.00192	0.00762	0.00192	PASS
Extreme (60℃)		2.32	5.46	3.88	2.32	0.00123	0.00291	0.00206	0.00123	PASS
Extreme (50℃)		2.88	7.70	10.82	16.88	0.00153	0.00410	0.00576	0.00898	PASS
Extreme (40℃)		13.00	5.14	6.58	9.00	0.00691	0.00273	0.00350	0.00479	PASS
Extreme (30℃)		9.97	5.88	17.27	7.97	0.00531	0.00313	0.00919	0.00424	PASS
Extreme (20℃)		4.84	1.86	13.82	5.84	0.00257	0.00099	0.00735	0.00311	PASS
Extreme (10℃)		15.15	15.69	2.96	16.15	0.00806	0.00835	0.00157	0.00859	PASS
Extreme (0℃)		8.90	12.23	17.65	14.90	0.00473	0.00651	0.00939	0.00792	PASS
Extreme (-10℃)		5.09	12.28	6.26	8.09	0.00271	0.00653	0.00333	0.00430	PASS
Extreme (-20℃)		10.66	7.05	2.19	11.66	0.00567	0.00375	0.00116	0.00620	PASS
Extreme (-30℃)		2.57	1.39	8.41	14.57	0.00137	0.00074	0.00448	0.00775	PASS
25℃	LV	14.79	13.15	1.19	8.79	0.00787	0.00699	0.00063	0.00468	PASS
	HV	17.85	7.09	1.96	3.85	0.00949	0.00377	0.00104	0.00205	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	7.00	15.31	5.04	13.00	0.00372	0.00814	0.00268	0.00691	PASS
Extreme (60℃)		11.70	11.28	17.10	8.70	0.00622	0.00600	0.00909	0.00463	PASS
Extreme (50℃)		11.22	7.81	13.30	2.22	0.00597	0.00416	0.00708	0.00118	PASS

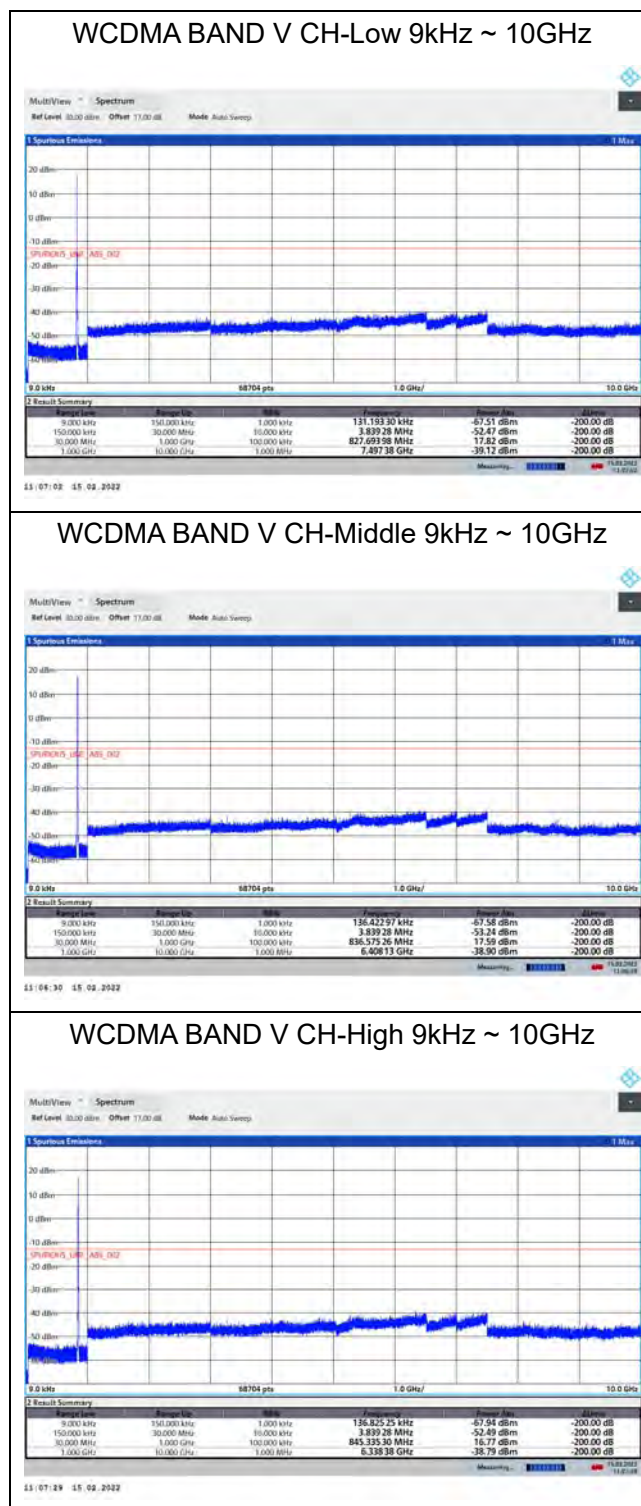


Extreme (40℃)		1.41	1.72	16.99	2.41	0.00075	0.00092	0.00904	0.00128	PASS
Extreme (30℃)		1.78	11.30	15.90	12.78	0.00095	0.00601	0.00846	0.00680	PASS
Extreme (20℃)		11.41	4.49	3.15	3.41	0.00607	0.00239	0.00167	0.00181	PASS
Extreme (10℃)		3.68	8.80	6.73	12.68	0.00196	0.00468	0.00358	0.00674	PASS
Extreme (0℃)		5.92	13.72	10.15	7.92	0.00315	0.00730	0.00540	0.00421	PASS
Extreme (-10℃)		15.75	13.89	4.58	14.75	0.00838	0.00739	0.00244	0.00785	PASS
Extreme (-20℃)		6.52	16.23	9.88	5.52	0.00347	0.00863	0.00525	0.00294	PASS
Extreme (-30℃)		10.88	4.53	7.57	6.88	0.00578	0.00241	0.00403	0.00366	PASS
25℃	LV	5.42	5.71	15.42	16.42	0.00288	0.00304	0.00820	0.00873	PASS
	HV	10.85	13.25	6.15	10.85	0.00577	0.00705	0.00327	0.00577	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz									
Temperature	Voltage	256QAM	64QAM	16QAM	QPSK	256QAM	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	14.34	3.74	5.54	17.34	0.00763	0.00199	0.00295	0.00922	PASS
Extreme (60℃)		2.98	4.72	3.77	15.98	0.00158	0.00251	0.00201	0.00850	PASS
Extreme (50℃)		14.78	14.15	16.85	14.78	0.00786	0.00753	0.00896	0.00786	PASS
Extreme (40℃)		14.86	14.78	16.07	7.86	0.00790	0.00786	0.00855	0.00418	PASS
Extreme (30℃)		14.06	9.08	7.17	3.06	0.00748	0.00483	0.00382	0.00163	PASS
Extreme (20℃)		4.87	13.46	11.09	12.87	0.00259	0.00716	0.00590	0.00684	PASS
Extreme (10℃)		5.47	7.87	10.47	15.47	0.00291	0.00419	0.00557	0.00823	PASS
Extreme (0℃)		6.14	8.93	15.33	7.14	0.00326	0.00475	0.00815	0.00380	PASS
Extreme (-10℃)		11.42	7.62	9.48	12.42	0.00607	0.00405	0.00504	0.00660	PASS
Extreme (-20℃)		12.58	5.00	4.09	8.58	0.00669	0.00266	0.00218	0.00456	PASS
Extreme (-30℃)		13.23	9.35	13.16	10.23	0.00704	0.00497	0.00700	0.00544	PASS
25℃	LV	10.07	13.79	1.47	8.07	0.00536	0.00733	0.00078	0.00429	PASS
	HV	8.10	16.93	7.57	6.10	0.00431	0.00901	0.00402	0.00324	PASS

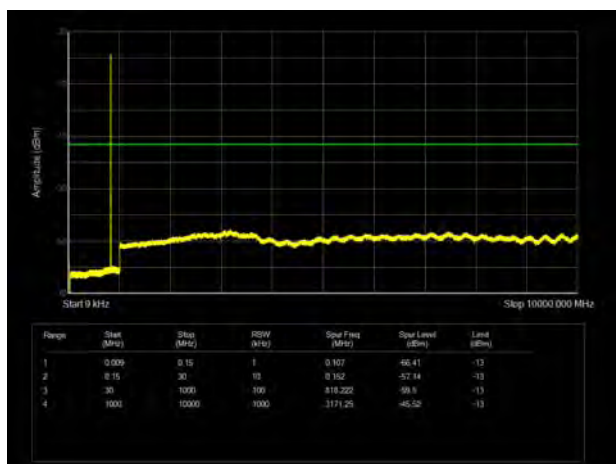
6.6. Spurious Emissions at Antenna Terminals

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

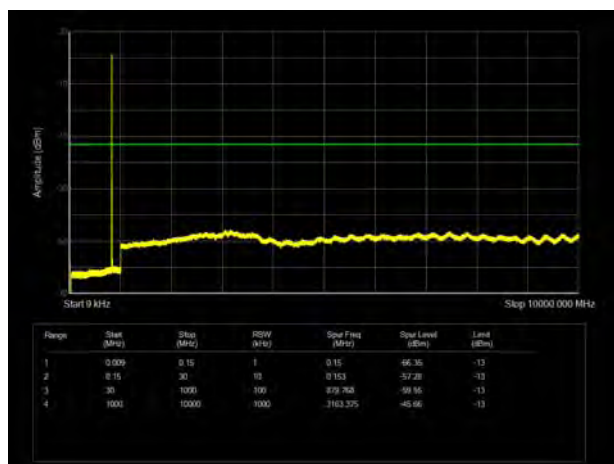
The signal beyond the limit is carrier.



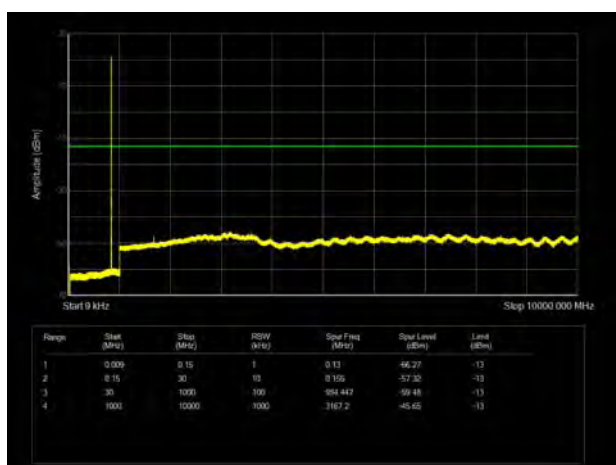
LTE Band 5 1.4MHz CH-Low 9kHz~10GHz



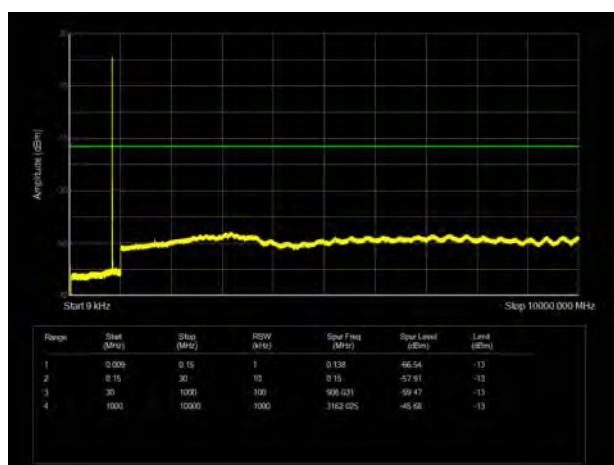
LTE Band 5 3MHz CH-Low 9kHz~10GHz



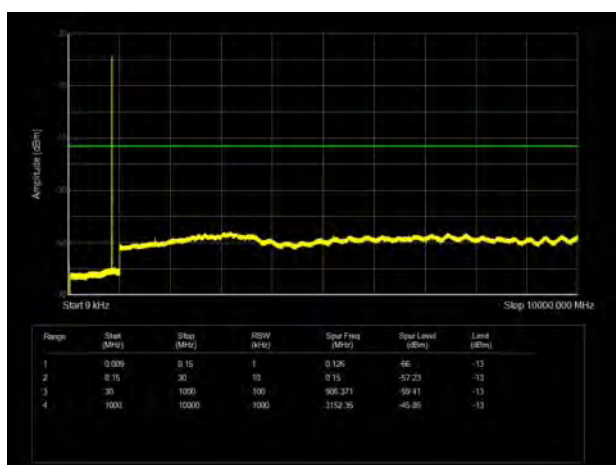
LTE Band 5 1.4MHz CH-Middle 9kHz~10GHz



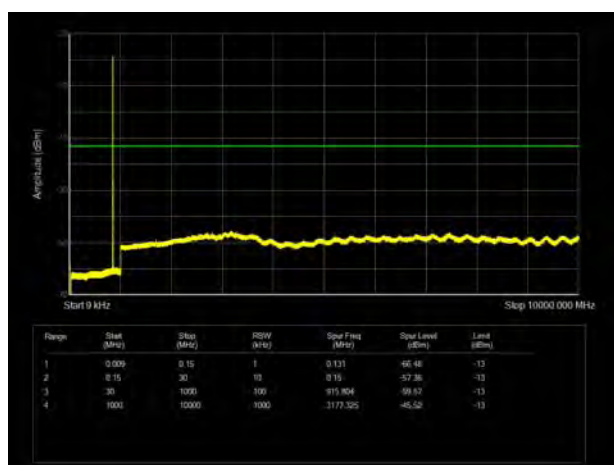
LTE Band 5 3MHz CH-Middle 9kHz~10GHz



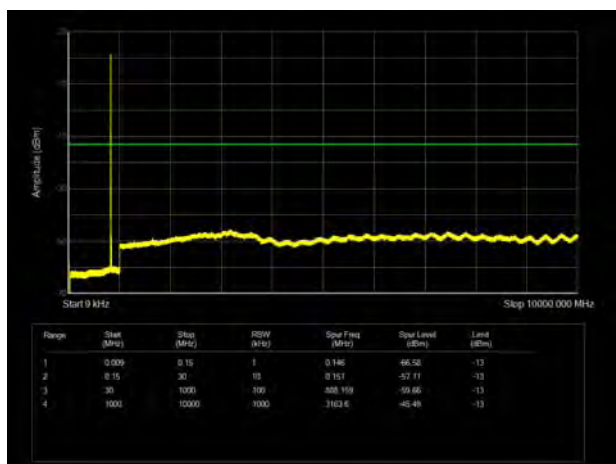
LTE Band 5 1.4MHz CH-High 9kHz~10GHz



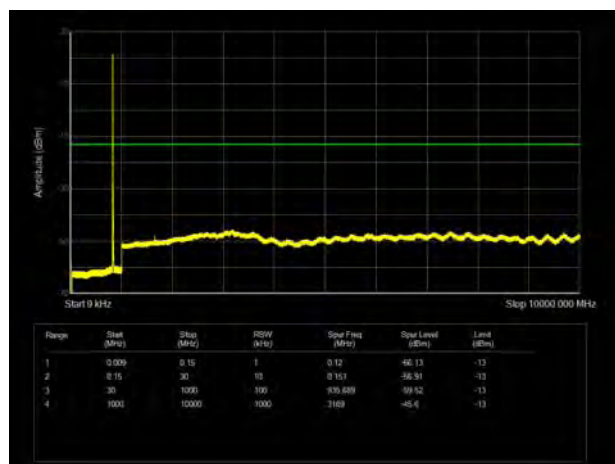
LTE Band 5 3MHz CH-High 9kHz~10GHz



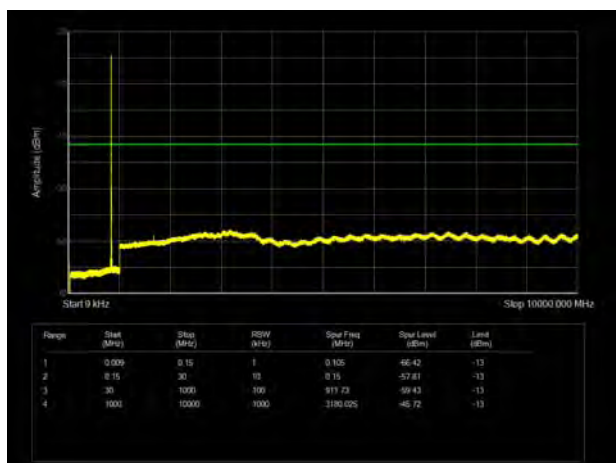
LTE Band 5 5MHz CH-Low 9kHz~10GHz



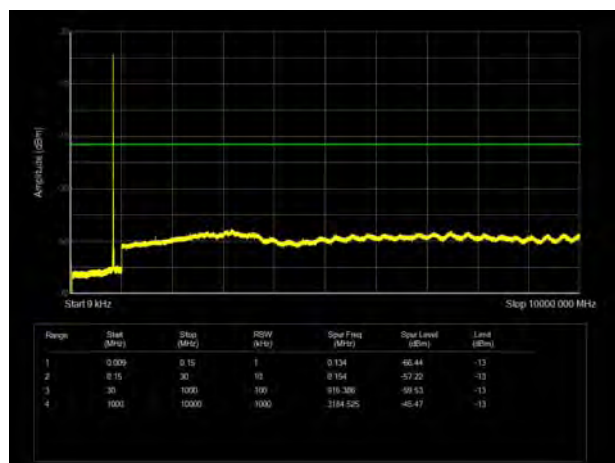
LTE Band 5 10MHz CH-Low 9kHz~10GHz



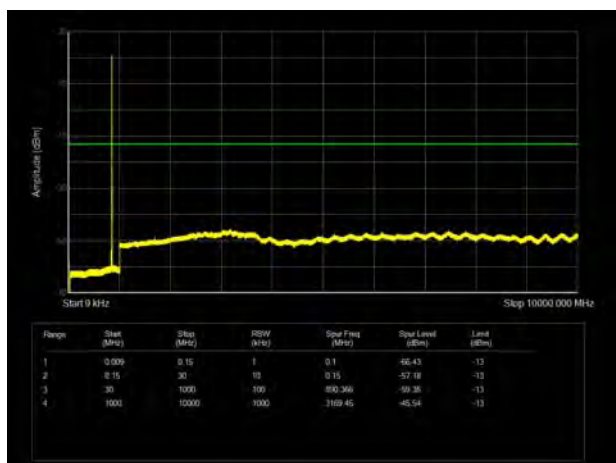
LTE Band 5 5MHz CH-Middle 9kHz~10GHz



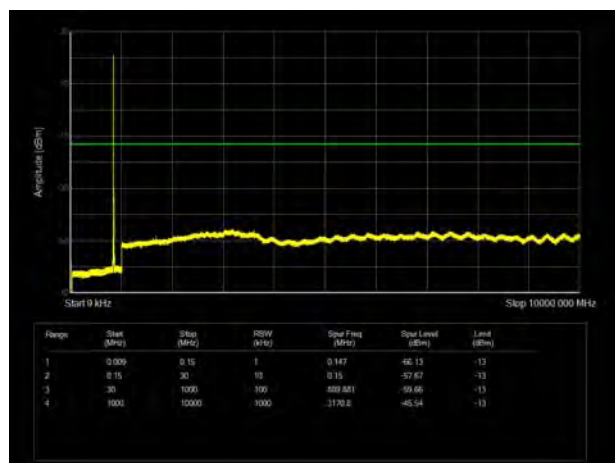
LTE Band 5 10MHz CH-Middle 9kHz~10GHz



LTE Band 5 5MHz CH-High 9kHz~10GHz



LTE Band 5 10MHz CH-High 9kHz~10GHz



NR n5 P1/2 BPSK 20MHz CH-Low 9kHz~20GHz



05/19/2022 25.02.2022

NR n5 QPSK 20MHz CH-Low 9kHz~20GHz



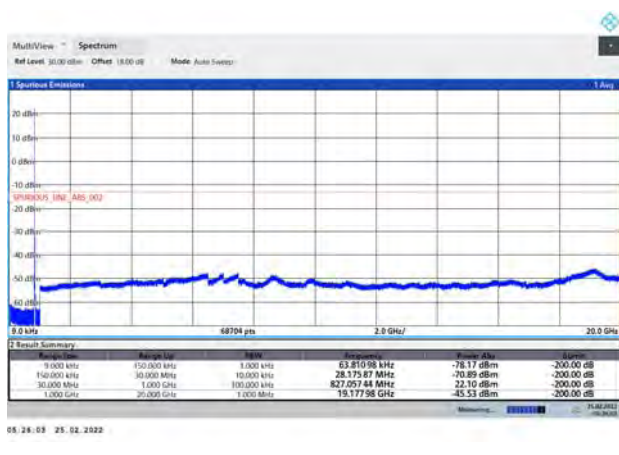
05/23/2022 25.02.2022

NR n5 P1/2 BPSK 20MHz CH-Middle 9kHz~20GHz



05/24/2022 25.02.2022

NR n5 QPSK 20MHz CH-Middle 9kHz~20GHz



05/24/2022 25.02.2022

NR n5 P1/2 BPSK 20MHz CH-High 9kHz~20GHz



05/27/2022 25.02.2022

NR n5 QPSK 20MHz CH-High 9kHz~20GHz



05/27/2022 25.02.2022

NR n5 16QAM 20MHz CH-Low 9kHz~20GHz



05.21.29 25.12.2022

NR n5 64QAM 20MHz CH-Low 9kHz~20GHz



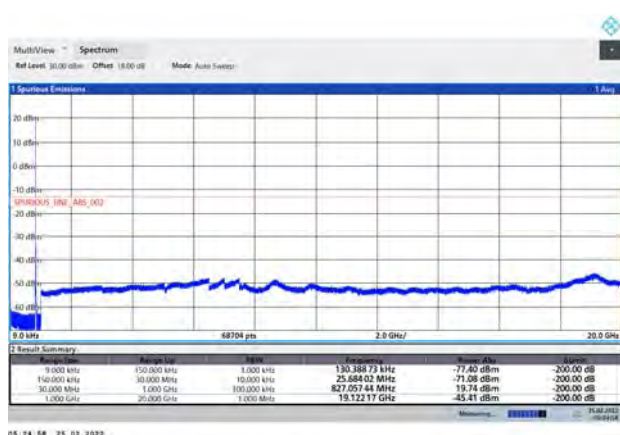
05.22.09 25.12.2022

NR n5 16QAM 20MHz CH-Middle 9kHz~20GHz



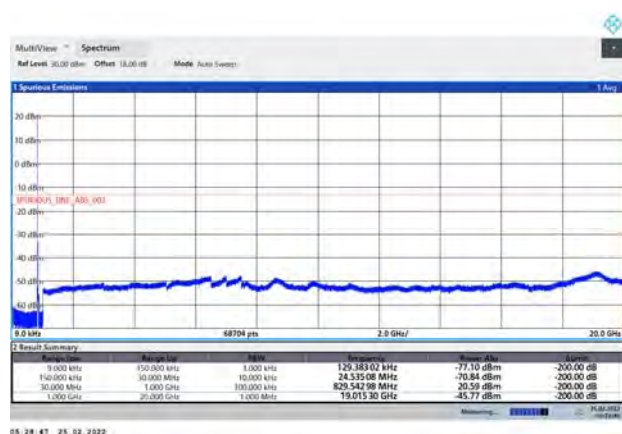
05.25.29 25.12.2022

NR n5 64QAM 20MHz CH-Middle 9kHz~20GHz



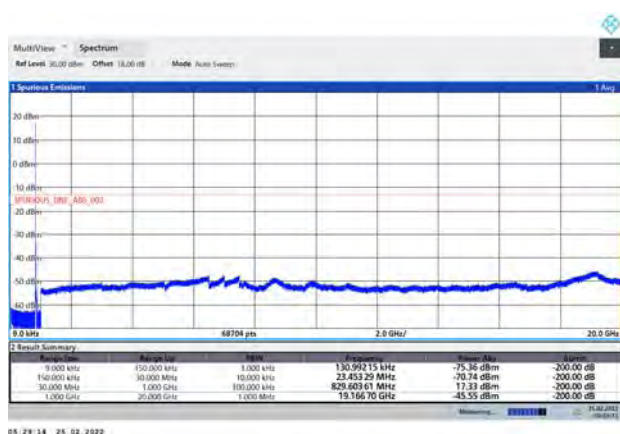
05.24.08 25.12.2022

NR n5 16QAM 20MHz CH-High 9kHz~20GHz



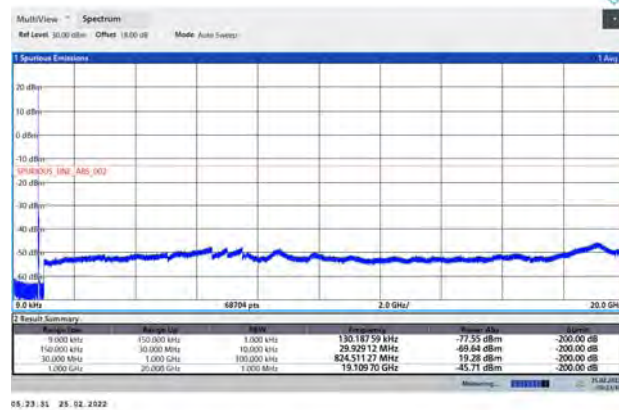
05.29.47 25.12.2022

NR n5 64QAM 20MHz CH-High 9kHz~20GHz

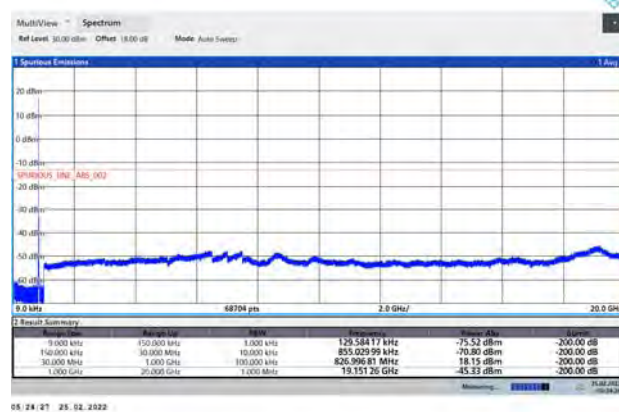


05.29.14 25.12.2022

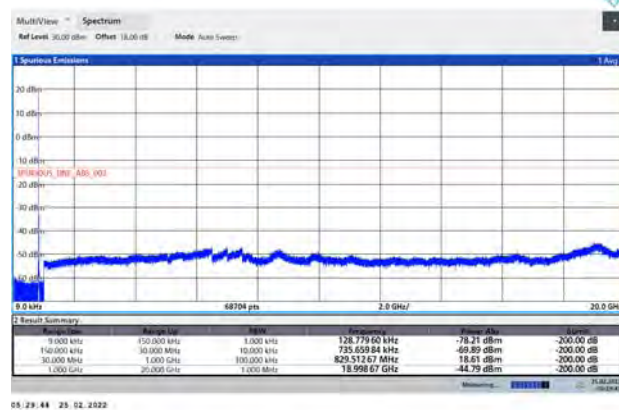
NR n5 256QAM 20MHz CH-Low 9kHz~20GHz



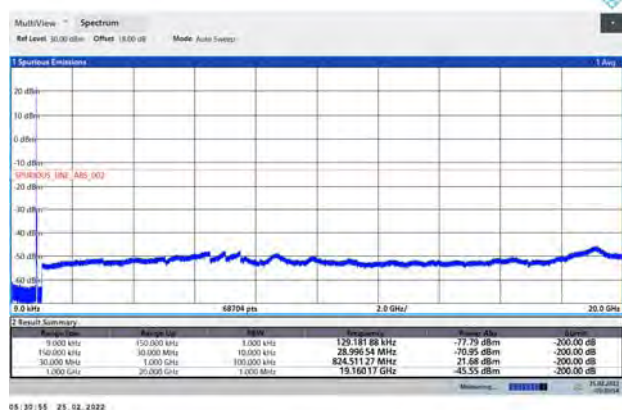
NR n5 256QAM 20MHz CH-Middle 9kHz~20GHz



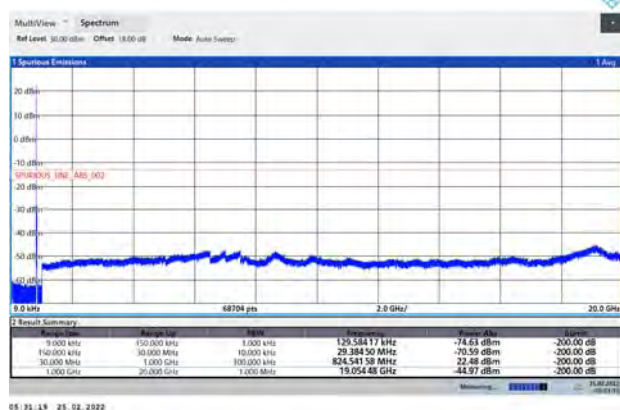
NR n5 256QAM 20MHz CH-High 9kHz~20GHz



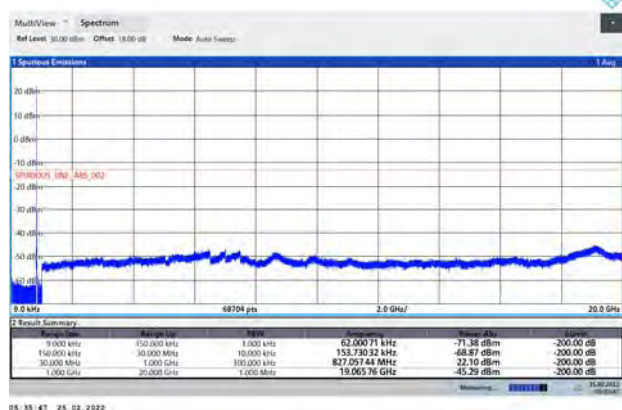
DC_2A_n5A P1/2 BPSK 20MHz CH-Low 9kHz~20GHz



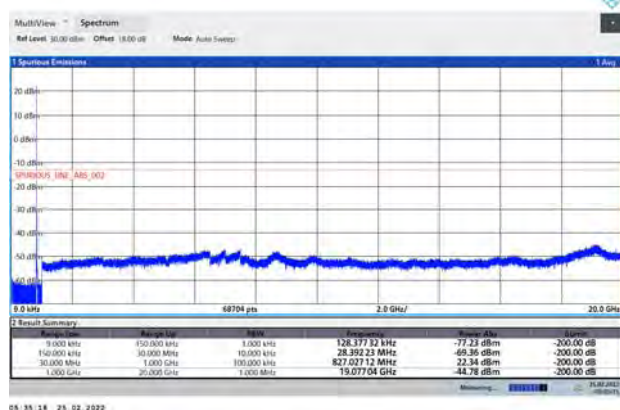
DC_2A_n5A QPSK 20MHz CH-Low 9kHz~20GHz



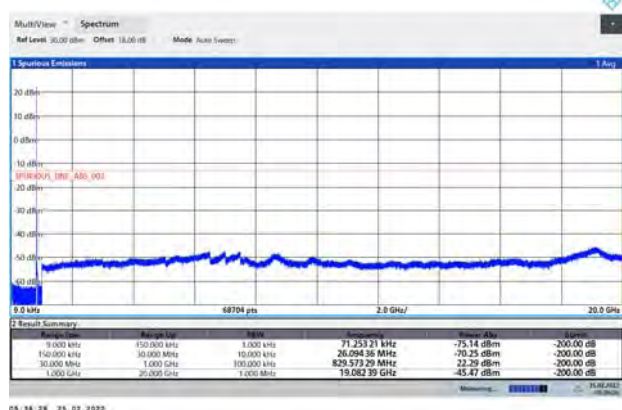
DC_2A_n5A P1/2 BPSK 20MHz CH-Middle 9kHz~20GHz



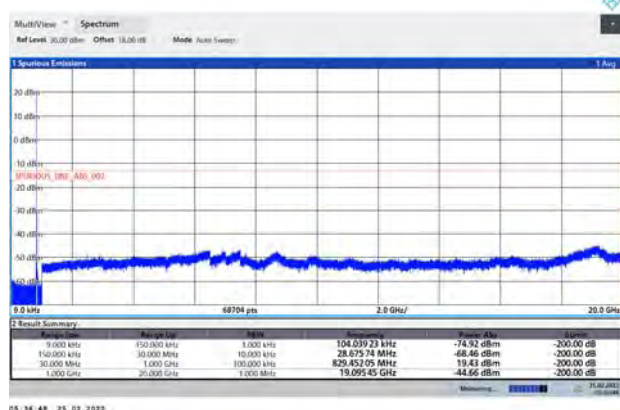
DC_2A_n5A QPSK 20MHz CH-Middle 9kHz~20GHz

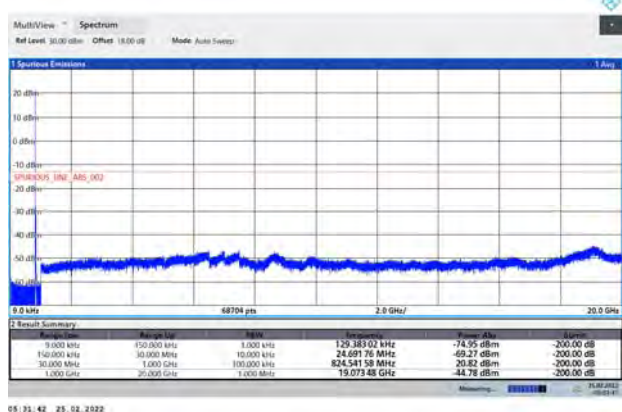
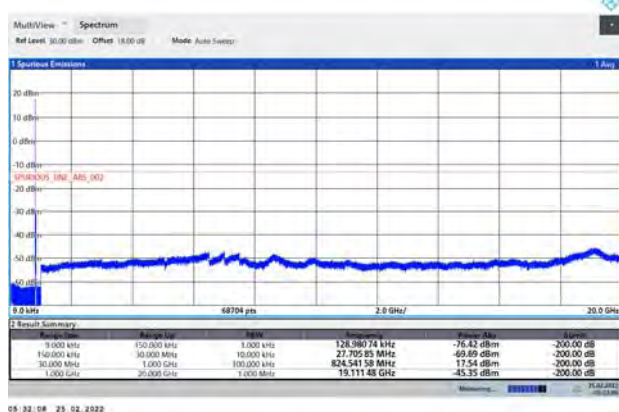
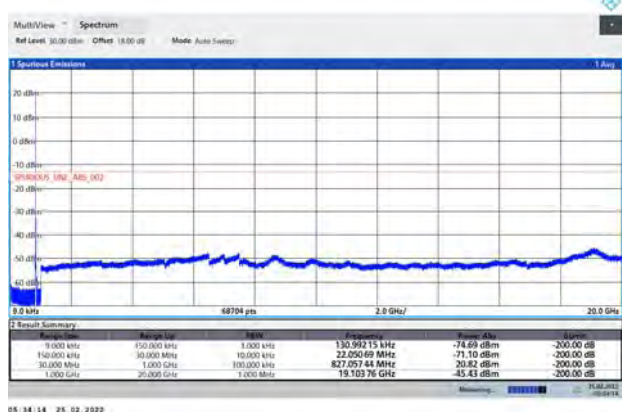
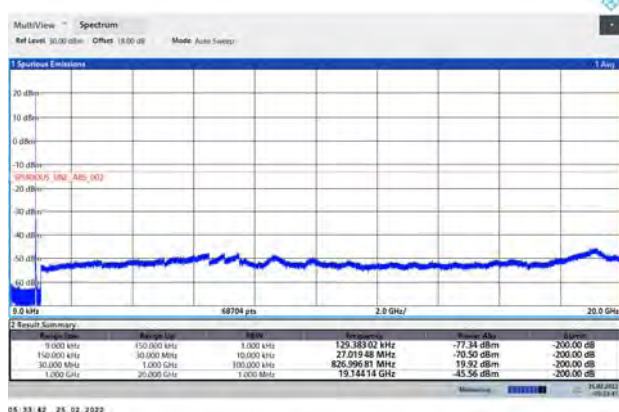
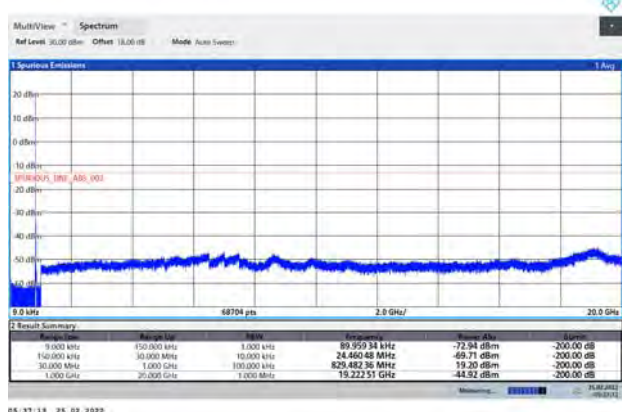
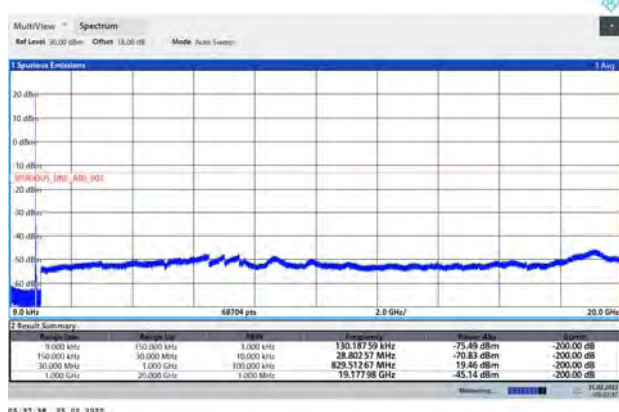


DC_2A_n5A P1/2 BPSK 20MHz CH-High 9kHz~20GHz

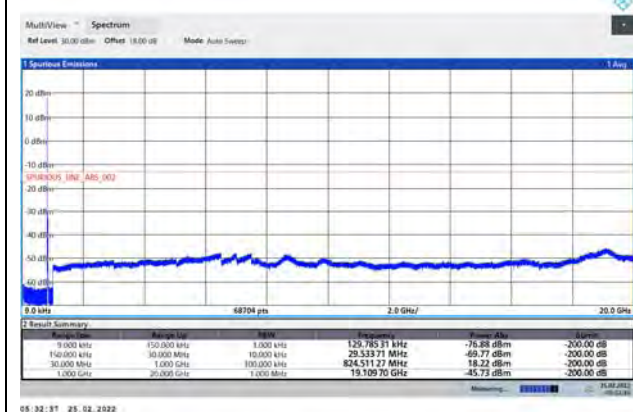


DC_2A_n5A QPSK 20MHz CH-High 9kHz~20GHz

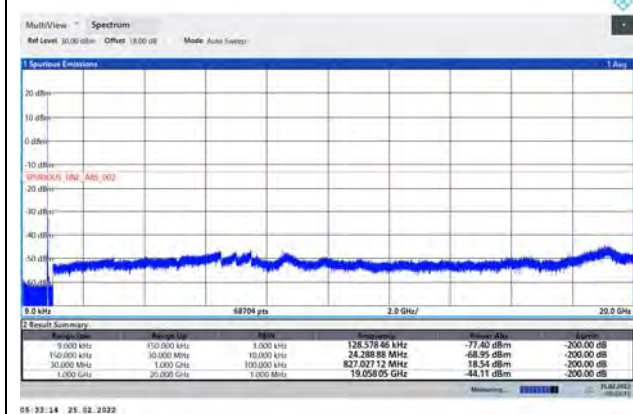


DC_2A_n5A 16QAM 20MHz CH-Low
9kHz~20GHzDC_2A_n5A 64QAM 20MHz CH-Low
9kHz~20GHzDC_2A_n5A 16QAM 20MHz CH-Middle
9kHz~20GHzDC_2A_n5A 64QAM 20MHz CH-Middle
9kHz~20GHzDC_2A_n5A 16QAM 20MHz CH-High
9kHz~20GHzDC_2A_n5A 64QAM 20MHz CH-High
9kHz~20GHz

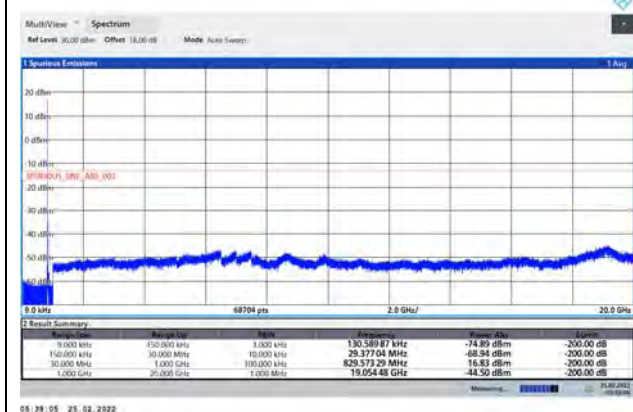
DC_2A_n5A 256QAM 20MHz CH-Low 9kHz~20GHz



DC_2A_n5A 256QAM 20MHz CH-Middle 9kHz~20GHz



DC_2A_n5A 256QAM 20MHz CH-High 9kHz~20GHz



6.7. Radiates Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

WCDMA Band V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1671.20	-66.06	1.70	8.70	Vertical	-61.21	-13.00	48.21	135
3	2510.40	-63.61	2.30	12.00	Vertical	-56.06	-13.00	43.06	225
4	3346.40	-66.75	2.70	12.70	Vertical	-58.90	-13.00	45.90	0
5	4183.00	-64.23	3.00	12.50	Vertical	-56.88	-13.00	43.88	0
6	5019.60	-61.78	3.40	12.50	Vertical	-54.83	-13.00	41.83	45
7	5856.20	-64.66	3.40	12.80	Vertical	-57.41	-13.00	44.41	135
8	6692.80	-60.91	4.10	11.50	Vertical	-55.66	-13.00	42.66	225
9	7529.40	-56.37	4.20	12.20	Vertical	-50.52	-13.00	37.52	0
10	8366.00	-56.62	4.30	12.50	Vertical	-50.57	-13.00	37.57	315

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-59.13	1.70	8.70	Vertical	-54.28	-13.00	41.28	225
3	2509.50	-59.53	2.30	12.00	Vertical	-51.98	-13.00	38.98	45
4	3346.00	-62.05	2.70	12.70	Vertical	-54.20	-13.00	41.20	315
5	4182.50	-61.55	3.00	12.50	Vertical	-54.20	-13.00	41.20	135
6	5019.00	-59.98	3.40	12.50	Vertical	-53.03	-13.00	40.03	225
7	5855.50	-62.37	3.40	12.80	Vertical	-55.12	-13.00	42.12	45
8	6692.00	-57.91	4.10	11.50	Vertical	-52.66	-13.00	39.66	135
9	7528.50	-56.59	4.20	12.20	Vertical	-50.74	-13.00	37.74	225
10	8365.00	-55.59	4.30	12.50	Vertical	-49.54	-13.00	36.54	45

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-60.79	1.70	8.70	Vertical	-55.94	-13.00	42.94	0
3	2503.30	-55.57	2.30	12.00	Vertical	-48.02	-13.00	35.02	135
4	3337.50	-61.41	2.70	12.70	Vertical	-53.56	-13.00	40.56	135
5	4171.88	-60.40	3.00	12.50	Vertical	-53.05	-13.00	40.05	90
6	5006.25	-59.73	3.40	12.50	Vertical	-52.78	-13.00	39.78	0
7	5840.63	-62.84	3.40	12.80	Vertical	-55.59	-13.00	42.59	45
8	6675.00	-58.32	4.10	11.50	Vertical	-53.07	-13.00	40.07	135
9	7509.38	-55.65	4.20	12.20	Vertical	-49.80	-13.00	36.80	225
10	8343.75	-53.17	4.30	12.50	Vertical	-47.12	-13.00	34.12	90

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-60.87	1.70	8.70	Vertical	-56.02	-13.00	43.02	180
3	2496.60	-52.01	2.30	12.00	Vertical	-44.46	-13.00	31.46	45
4	3326.00	-58.84	2.70	12.70	Vertical	-50.99	-13.00	37.99	0
5	4157.50	-58.80	3.00	12.50	Vertical	-51.45	-13.00	38.45	45
6	4989.00	-59.84	3.40	12.50	Vertical	-52.89	-13.00	39.89	135
7	5820.50	-63.05	3.40	12.80	Vertical	-55.80	-13.00	42.80	225
8	6652.00	-55.22	4.10	11.50	Vertical	-49.97	-13.00	36.97	45
9	7483.50	-56.43	4.20	12.20	Vertical	-50.58	-13.00	37.58	0
10	8315.00	-56.10	4.30	12.50	Vertical	-50.05	-13.00	37.05	0

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

NR n5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-64.29	1.70	8.70	Vertical	-59.44	-13.00	46.44	45
3	2509.50	-58.98	2.30	12.00	Vertical	-51.43	-13.00	38.43	0
4	3346.00	-65.34	2.70	12.70	Vertical	-57.49	-13.00	44.49	45
5	4182.50	-64.29	3.00	12.50	Vertical	-56.94	-13.00	43.94	225
6	5019.00	-62.59	3.40	12.50	Vertical	-55.64	-13.00	42.64	90
7	5855.50	-63.64	3.40	12.80	Vertical	-56.39	-13.00	43.39	45
8	6692.00	-58.43	4.10	11.50	Vertical	-53.18	-13.00	40.18	270
9	7528.50	-56.58	4.20	12.20	Vertical	-50.73	-13.00	37.73	90
10	8365.00	-55.70	4.30	12.50	Vertical	-49.65	-13.00	36.65	135

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

NR n5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-65.87	1.70	8.70	Vertical	-61.02	-13.00	48.02	225
3	2503.30	-60.51	2.30	12.00	Vertical	-52.96	-13.00	39.96	135
4	3337.50	-65.65	2.70	12.70	Vertical	-57.80	-13.00	44.80	0
5	4171.88	-64.00	3.00	12.50	Vertical	-56.65	-13.00	43.65	90
6	5006.25	-62.57	3.40	12.50	Vertical	-55.62	-13.00	42.62	45
7	5840.63	-63.65	3.40	12.80	Vertical	-56.40	-13.00	43.40	270
8	6675.00	-57.54	4.10	11.50	Vertical	-52.29	-13.00	39.29	315
9	7509.38	-56.61	4.20	12.20	Vertical	-50.76	-13.00	37.76	90
10	8343.75	-55.75	4.30	12.50	Vertical	-49.70	-13.00	36.70	225

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

NR n5 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-64.73	1.70	8.70	Vertical	-59.88	-13.00	46.88	45
3	2496.60	-59.42	2.30	12.00	Vertical	-51.87	-13.00	38.87	0
4	3326.00	-65.40	2.70	12.70	Vertical	-57.55	-13.00	44.55	315
5	4157.50	-64.43	3.00	12.50	Vertical	-57.08	-13.00	44.08	45
6	4989.00	-63.19	3.40	12.50	Vertical	-56.24	-13.00	43.24	135
7	5820.50	-64.77	3.40	12.80	Vertical	-57.52	-13.00	44.52	90
8	6652.00	-58.30	4.10	11.50	Vertical	-53.05	-13.00	40.05	45
9	7483.50	-54.69	4.20	12.20	Vertical	-48.84	-13.00	35.84	315
10	8315.00	-54.98	4.30	12.50	Vertical	-48.93	-13.00	35.93	225

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

DC_2A_n5A 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-63.12	1.70	8.70	Horizontal	-58.27	-13.00	45.27	45
3	2509.50	-57.37	2.30	12.00	Horizontal	-49.82	-13.00	36.82	0
4	3346.00	-46.38	2.70	12.70	Horizontal	-38.53	-13.00	25.53	45
5	4182.50	-60.45	3.00	12.50	Horizontal	-53.10	-13.00	40.10	225
6	5019.00	-51.27	3.40	12.50	Horizontal	-44.32	-13.00	31.32	90
7	5855.50	-47.89	3.40	12.80	Horizontal	-40.64	-13.00	27.64	90
8	6692.00	-49.06	4.10	11.50	Horizontal	-43.81	-13.00	30.81	45
9	7528.50	-50.23	4.20	12.20	Horizontal	-44.38	-13.00	31.38	225
10	8365.00	-50.23	4.30	12.50	Horizontal	-44.18	-13.00	31.18	315

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

DC_2A_n5A 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-63.78	1.70	8.70	Horizontal	-58.93	-13.00	45.93	315
3	2503.30	-66.55	2.30	12.00	Horizontal	-59.00	-13.00	46.00	225
4	3337.20	-48.27	2.70	12.70	Horizontal	-40.42	-13.00	27.42	45
5	4171.50	-58.70	3.00	12.50	Horizontal	-51.35	-13.00	38.35	135
6	5005.80	-53.06	3.40	12.50	Horizontal	-46.11	-13.00	33.11	225
7	5840.10	-45.24	3.40	12.80	Horizontal	-37.99	-13.00	24.99	45
8	6674.40	-41.23	4.10	11.50	Horizontal	-35.98	-13.00	22.98	0
9	7508.70	-51.22	4.20	12.20	Horizontal	-45.37	-13.00	32.37	0
10	8343.00	-52.47	4.30	12.50	Horizontal	-46.42	-13.00	33.42	0

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

DC_2A_n5A 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-63.37	1.70	8.70	Horizontal	-58.52	-13.00	45.52	45
3	2496.60	-62.41	2.30	12.00	Horizontal	-54.86	-13.00	41.86	0
4	3326.00	-45.65	2.70	12.70	Horizontal	-37.80	-13.00	24.80	315
5	4157.50	-61.82	3.00	12.50	Horizontal	-54.47	-13.00	41.47	225
6	4989.00	-53.19	3.40	12.50	Horizontal	-46.24	-13.00	33.24	90
7	5820.50	-46.82	3.40	12.80	Horizontal	-39.57	-13.00	26.57	180
8	6652.00	-39.21	4.10	11.50	Horizontal	-33.96	-13.00	20.96	180
9	7483.50	-53.14	4.20	12.20	Horizontal	-47.29	-13.00	34.29	45
10	8315.00	-50.59	4.30	12.50	Horizontal	-44.54	-13.00	31.54	180

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113645	2021-05-15	2022-05-14
Base Station Simulator	Anritsu	MT8000A	6261844783	2021-05-15	2022-05-14
Base Station Simulator	Anritsu	MT8821C	6201538758	2021-05-15	2022-05-14
Climate Chamber	WEISS	VT 4002	58226119450010	2021-05-15	2022-05-14
Spectrum Analyzer	Keysight	N9020A	MY52330084	2021-05-15	2022-05-14
Universal Radio Communication Tester	Agilent	E5515C	GB44400275	2021-05-15	2022-05-14
Universal Radio Communication Tester	StarPoint	SP9500	SP9500-20440	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV30	104028	2021-05-15	2022-05-14
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	01111	2019--9-12	2022-09-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Software	R&S	EMC32	10.35.10	/	/

*****END OF REPORT *****

ANNEX A: The EUT Appearance

The EUT Appearance is submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos is submitted separately.