RF TEST REPORT

Applicant	ZTE Corporation
FCC ID	SRQ-ZTEA2322G
Product	5G Digital Mobile Phone
Model	ZTE A2322G
Report No.	R2105A447-R5
Issue Date	August 11, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2020)/ FCC CFR 47 Part 90S (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046/90.635(b)	PASS
2	Occupied Bandwidth	2.1049/ 90.209	PASS
3	Emission Masks	2.1051 / 90.691	PASS
4	Peak-to-Average Power Ratio	KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 90.213	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 90.691	PASS
7	Radiates Spurious Emission	2.1053 /90.691	PASS
Date of Testing: May 26, 2021 ~ July 19, 2020 Date of Sample Received: May 25, 2021			
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 electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Xu Kai
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	http://www.ta-shanghai.com
E-mail:	xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.3. 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

2.4. General Information

EUT Description			
Model	ZTE A2322G		
IMEI	IMEI1:867210050001095 IMEI2:867210050002697		
Hardware Version	ZTE A2322GHW1.0		
Software Version 1	GEN_NA_A2322G_V1.0		
Software Version 2	TEL_MX_ZTE_A2322G_V1.0		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Antenna 1	-5.5dBi	
	Antenna 2	-6.4dBi	
Test Mode(s)	LTE Band 26;		
Test Modulation	QPSK, 16QAM, 64QAM;		
LTE Category	M1		
Maximum E.R.P.	LTE Band 26:	17.53dBm	
Rated Power Supply Voltage	3.87V		
Operating Voltage	Minimum: 3.6V Maximum: 4.2V		
Operating Temperature	Lowest: -10°C Highest: +45°C		
Extreme Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	LTE Band 26	814 ~ 824	859 ~ 869
EUT Accessory			
Adapter	Manufacturer: Shenzhen KunXing Industrial Co Ltd Model: STC-A59152050AC-Z		
Battery	Manufacturer: Ningde Amperex Technology Limited Model: Li3941T44PGh836548		
Earphone 1	Manufacturer: Shen zhen FDC Electronic Co.,Ltd. Model: DEM-9B		

Earphone 2	Manufacturer: JUWEI ELECTRONICS CO.,LTD Model: JWEP1092-Z01
USB Cable 1	Manufacturer: King Power Electronics Co.,Ltd Model: TC20-TC20-W-100-M-6A-HSF
USB Cable 2	Manufacturer: Luxshare-ICT Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF
Type-C to 3.5 mm Headphone Jack Adapter	Manufacture: HUIZHOU JUWEI ELECTRONICS CO. ,LTD Model: JWUB1389-Z01
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 USB cable/ Earphone, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 1/ Earphone 2) will be recorded in this report. 3. The two different software versions are for different market requirement.	

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 90S (2020)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2020)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

There is more than one SIM card slot, each one should be applied throughout the compliance test re spectively, and however, only the worst case (SIM 1) will be recorded in this report.
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 (Z axis, vertical polarization) and the worst case was recorded.

All mode and data rates and positions were investigated.
The following testing in LTE is set based on the maximum RF Output Power.

Test modes are chosen as the worst case configuration below for LTE Band 26

Test items	Bandwidth (MHz)					Modulation		RB			Test Channel		
	1.4	3	5	10	15	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	O
Occupied Bandwidth	O	O	O	O	O	O	O	-	-	O	O	O	O
Emission Mask	O	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	O
Frequency Stability	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	O	O	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.												

5. Test Case Results

5.1. RF Power Output and Effective Radiated Power

Ambient condition

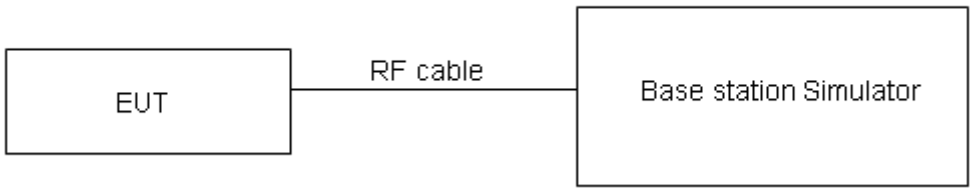
Temperature	Relative humidity
21°C ~25°C	40%~60%

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:
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)
where:dBd refers to gain relative to an ideal dipole.
EIRP (dBm) = ERP (dBm) + 2.15 (dB.)

Test Setup



Limits

Part 90.635 (b) the maximum output power of the transmitter for mobile stations is 100 watts.

Rule Part 90.635(b) specifies that “The maximum output power of the transmitter for mobile stations is 100 watts”.

Limit	≤ 100 W (50 dBm)

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 for RF power output, k = 2, U= 1.19 dB for ERP.

Test Results

LTE Band 26				Channel/Frequency(MHz)			Antenna 1 ERP (dBm)			Antenna 2 ERP (dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)					
				26697	26740	26783	26697	26740	26783	26697	26740	26783
1.4MHz	QPSK	1	0	25.18	25.06	24.94	17.53	17.41	17.29	16.63	16.51	16.39
		1	2	25.06	25.06	24.96	17.41	17.41	17.31	16.51	16.51	16.41
		1	5	25.01	24.99	24.93	17.36	17.34	17.28	16.46	16.44	16.38
		3	0	24.06	24.09	24.00	16.41	16.44	16.35	15.51	15.54	15.45
		3	2	24.08	24.07	24.01	16.43	16.42	16.36	15.53	15.52	15.46
		3	3	24.08	24.03	23.99	16.43	16.38	16.34	15.53	15.48	15.44
		6	0	24.04	24.07	24.01	16.39	16.42	16.36	15.49	15.52	15.46
	16QAM	1	0	24.15	24.08	24.25	16.50	16.43	16.60	15.60	15.53	15.70
		1	2	24.14	24.00	24.27	16.49	16.35	16.62	15.59	15.45	15.72
		1	5	24.11	24.06	24.20	16.46	16.41	16.55	15.56	15.51	15.65
		3	0	23.09	23.10	23.02	15.44	15.45	15.37	14.54	14.55	14.47
		3	2	23.11	23.07	23.00	15.46	15.42	15.35	14.56	14.52	14.45
		3	3	23.00	23.10	23.02	15.35	15.45	15.37	14.45	14.55	14.47
		6	0	23.02	23.09	23.04	15.37	15.44	15.39	14.47	14.54	14.49
	64QAM	1	0	23.87	23.88	24.11	16.22	16.23	16.46	15.32	15.33	15.56
		1	2	23.82	23.83	24.05	16.17	16.18	16.40	15.27	15.28	15.50
		1	5	23.85	23.81	24.08	16.20	16.16	16.43	15.30	15.26	15.53
		3	0	21.95	21.98	21.87	14.30	14.33	14.22	13.40	13.43	13.32
		3	2	21.94	21.97	21.90	14.29	14.32	14.25	13.39	13.42	13.35
		3	3	21.89	21.92	21.96	14.24	14.27	14.31	13.34	13.37	13.41
		6	0	21.92	21.97	21.99	14.27	14.32	14.34	13.37	13.42	13.44
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				26705	26740	26775	26705	26740	26775	26705	26740	26775
3MHz	QPSK	1	0	25.17	25.02	24.92	17.52	17.37	17.27	16.62	16.47	16.37

		1	7	25.04	25.05	24.93	17.39	17.40	17.28	16.49	16.50	16.38
		1	14	24.98	24.94	24.89	17.33	17.29	17.24	16.43	16.39	16.34
		8	0	24.04	24.05	23.97	16.39	16.40	16.32	15.49	15.50	15.42
		8	4	24.05	24.02	23.97	16.40	16.37	16.32	15.50	15.47	15.42
		8	7	24.05	24.00	23.95	16.40	16.35	16.30	15.50	15.45	15.40
		15	0	24.02	24.03	23.96	16.37	16.38	16.31	15.47	15.48	15.41
	16QAM	1	0	24.10	24.06	24.23	16.45	16.41	16.58	15.55	15.51	15.68
		1	7	24.12	23.97	24.25	16.47	16.32	16.60	15.57	15.42	15.70
		1	14	24.08	24.02	24.17	16.43	16.37	16.52	15.53	15.47	15.62
		8	0	23.06	23.08	22.99	15.41	15.43	15.34	14.51	14.53	14.44
		8	4	23.08	23.02	22.96	15.43	15.37	15.31	14.53	14.47	14.41
		8	7	22.98	23.06	22.99	15.33	15.41	15.34	14.43	14.51	14.44
		15	0	22.99	23.04	23.00	15.34	15.39	15.35	14.44	14.49	14.45
	64QAM	1	0	23.82	23.86	24.09	16.17	16.21	16.44	15.27	15.31	15.54
		1	7	23.80	23.80	24.03	16.15	16.15	16.38	15.25	15.25	15.48
		1	14	23.82	23.77	24.05	16.17	16.12	16.40	15.27	15.22	15.50
		8	0	21.92	21.96	21.84	14.27	14.31	14.19	13.37	13.41	13.29
		8	4	21.91	21.92	21.86	14.26	14.27	14.21	13.36	13.37	13.31
		8	7	21.87	21.88	21.93	14.22	14.23	14.28	13.32	13.33	13.38
		15	0	21.89	21.92	21.95	14.24	14.27	14.30	13.34	13.37	13.40
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				26715	26740	26765	26715	26740	26765	26715	26740	26765
5MHz	QPSK	1	0	25.14	24.98	24.89	17.49	17.33	17.24	16.59	16.43	16.34
		1	13	25.03	25.01	24.91	17.38	17.36	17.26	16.48	16.46	16.36
		1	24	24.96	24.93	24.86	17.31	17.28	17.21	16.41	16.38	16.31
		12	0	24.01	24.00	23.93	16.36	16.35	16.28	15.46	15.45	15.38
		12	6	24.03	23.98	23.94	16.38	16.33	16.29	15.48	15.43	15.39
		12	13	24.02	23.95	23.91	16.37	16.30	16.26	15.47	15.40	15.36

		25	0	23.99	23.98	23.92	16.34	16.33	16.27	15.44	15.43	15.37
	16QAM	1	0	24.10	24.02	24.18	16.45	16.37	16.53	15.55	15.47	15.63
		1	13	24.08	23.95	24.21	16.43	16.30	16.56	15.53	15.40	15.66
		1	24	24.06	23.99	24.15	16.41	16.34	16.50	15.51	15.44	15.60
		12	0	23.03	23.04	22.96	15.38	15.39	15.31	14.48	14.49	14.41
		12	6	23.05	23.00	22.93	15.40	15.35	15.28	14.50	14.45	14.38
		12	13	22.95	23.01	22.95	15.30	15.36	15.30	14.40	14.46	14.40
		25	0	22.97	23.00	22.97	15.32	15.35	15.32	14.42	14.45	14.42
	64QAM	1	0	23.80	23.82	24.04	16.15	16.17	16.39	15.25	15.27	15.49
		1	13	23.76	23.78	23.99	16.11	16.13	16.34	15.21	15.23	15.44
		1	24	23.80	23.74	24.03	16.15	16.09	16.38	15.25	15.19	15.48
		12	0	21.89	21.92	21.81	14.24	14.27	14.16	13.34	13.37	13.26
		12	6	21.88	21.90	21.83	14.23	14.25	14.18	13.33	13.35	13.28
		12	13	21.84	21.83	21.89	14.19	14.18	14.24	13.29	13.28	13.34
		25	0	21.87	21.88	21.92	14.22	14.23	14.27	13.32	13.33	13.37

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				Channel/Frequency(MHz)	Antenna 1 ERP (dBm)	Antenna 2 ERP (dBm)
				26740	26740	26740
10MHz	QPSK	1	0	24.90	17.25	16.35
		1	25	24.96	17.31	16.41
		1	49	24.86	17.21	16.31
		25	0	23.70	16.05	15.15
		25	13	23.92	16.27	15.37
		25	25	23.97	16.32	15.42
		50	0	23.99	16.34	15.44
	16QAM	1	0	24.00	16.35	15.45
		1	25	24.21	16.56	15.66
		1	49	24.06	16.41	15.51
		25	0	22.98	15.33	14.43

		25	13	23.95	16.30	15.40
		25	25	23.01	15.36	14.46
		50	0	23.00	15.35	14.45
	64QAM	1	0	23.89	16.24	15.34
		1	25	23.95	16.30	15.40
		1	49	23.87	16.22	15.32
		25	0	21.91	14.26	13.36
		25	13	21.94	14.29	13.39
		25	25	21.93	14.28	13.38
		50	0	21.90	14.25	13.35

5.2. Occupied Bandwidth

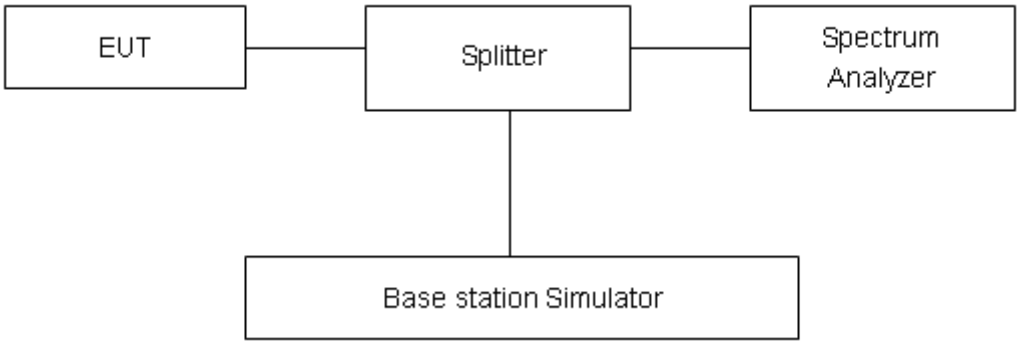
Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

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 30 kHz, VBW is set to 91 kHz for LTE Band 26 (1.4MHz),
RBW is set to 62 kHz, VBW is set to 180 kHz for LTE Band 26 (3MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 26 (5MHz).
RBW is set to 200 kHz, VBW is set to 620kHz for LTE Band 26 (10MHz). .
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.
Part 90.209 (a) Each authorization issued to a station licensed under this part will show an emission designator representing the class of emission authorized. The designator will be prefixed by a specified necessary bandwidth. This number does not necessarily indicate the bandwidth occupied by the emission at any instant. In those cases where part 2.202 of this chapter does not provide a formula for the computation of necessary bandwidth, the occupied bandwidth, as defined in part 2 of this chapter, may be used in lieu of the necessary bandwidth.

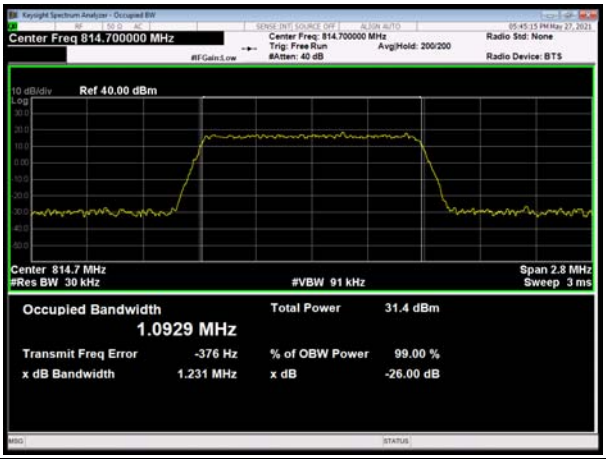
Measurement Uncertainty

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

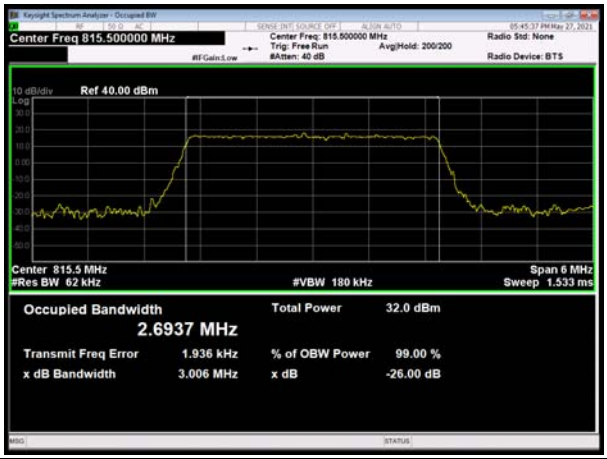
Test Result

LTE Band 26						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	26697	814.7	1.093	1.231
			26740	819	1.086	1.243
			26783	823.3	1.088	1.232
		3	26705	815.5	2.694	3.006
			26740	819	2.699	3.002
			26775	822.5	2.701	3.011
		5	26715	816.5	4.515	4.907
			26740	819	4.501	4.969
			26765	821.5	4.509	4.903
		10	26740	819	8.982	9.757
	16QAM	1.4	26697	814.7	1.095	1.241
			26740	819	1.094	1.246
			26783	823.3	1.094	1.234
		3	26705	815.5	2.693	2.992
			26740	819	2.694	2.995
			26775	822.5	2.693	2.997
		5	26715	816.5	4.501	4.911
			26740	819	4.519	4.977
			26765	821.5	4.526	4.950
		10	26740	819	8.994	9.688
	64QAM	1.4	26697	814.7	1.094	1.236
			26740	819	1.090	1.240
			26783	823.3	1.087	1.230
		3	26705	815.5	2.699	2.999
			26740	819	2.703	3.006
			26775	822.5	2.693	3.013
		5	26715	816.5	4.495	4.924
			26740	819	4.497	4.940
			26765	821.5	4.515	4.903
		10	26740	819	8.957	9.785

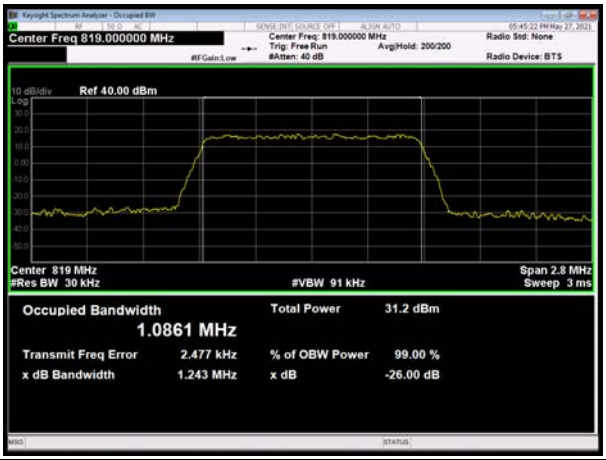
LTE Band 26 QPSK 1.4MHz CH Low



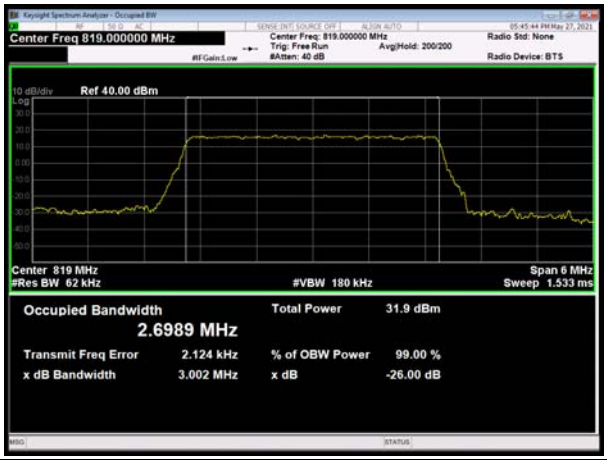
LTE Band 26 QPSK 3MHz CH Low



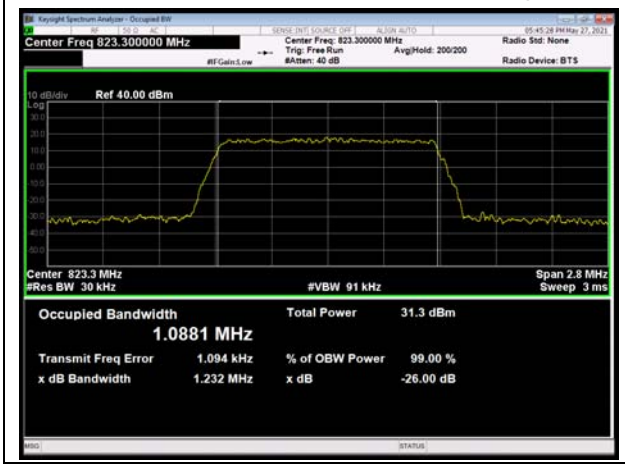
LTE Band 26 QPSK 1.4MHz CH Middle



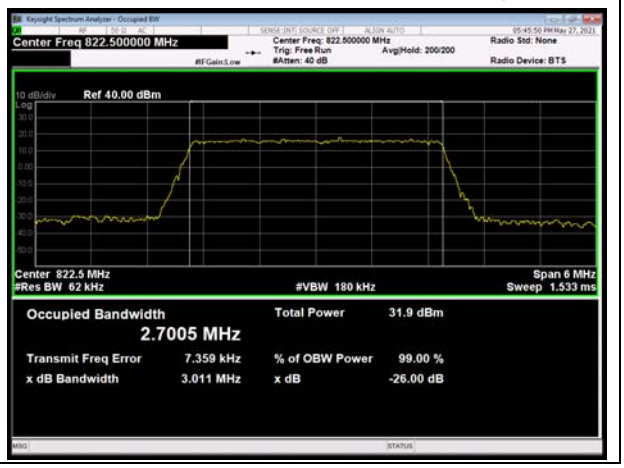
LTE Band 26 QPSK 3MHz CH Middle



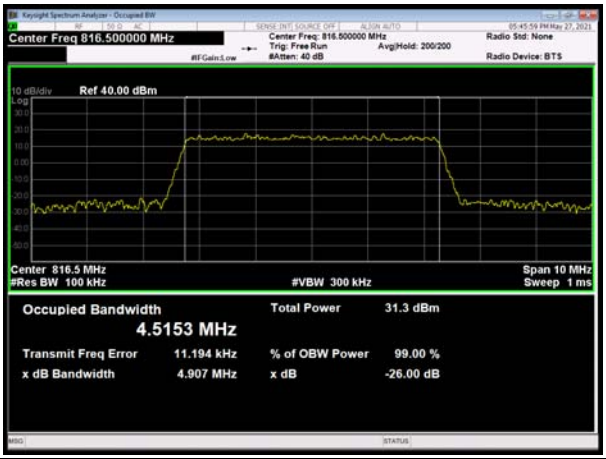
LTE Band 26 QPSK 1.4MHz CH High



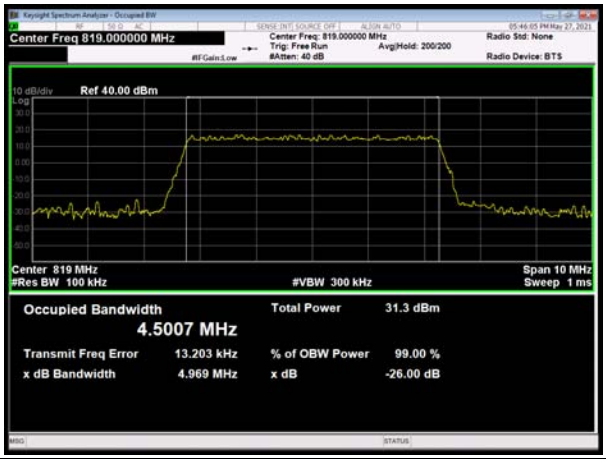
LTE Band 26 QPSK 3MHz CH High



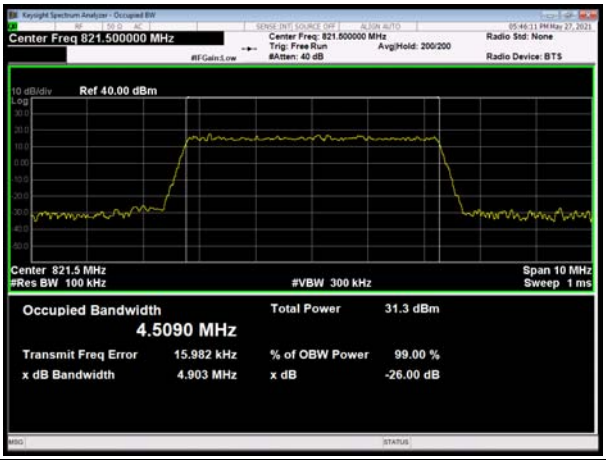
LTE Band 26 QPSK 5MHz CH Low



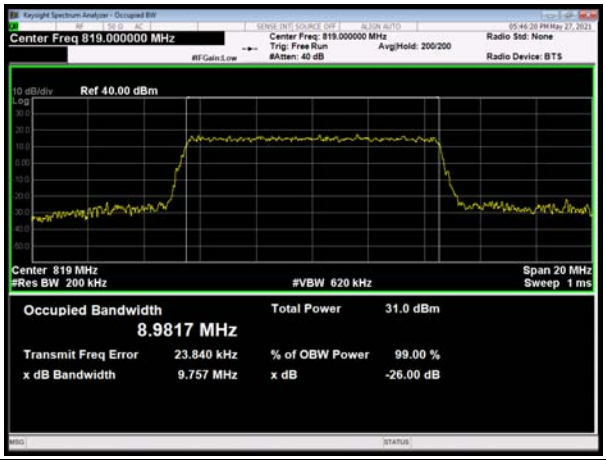
LTE Band 26 QPSK 5MHz CH Middle



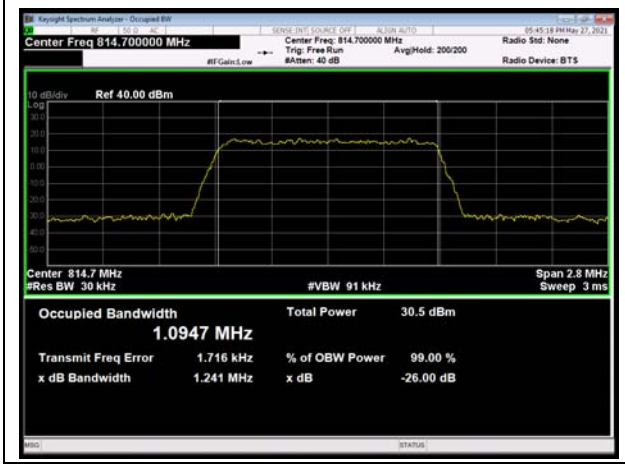
LTE Band 26 QPSK 5MHz CH High



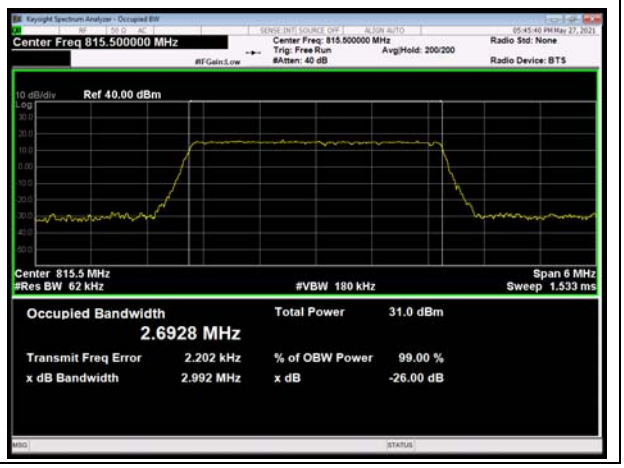
LTE Band 26 QPSK 10MHz CH Middle



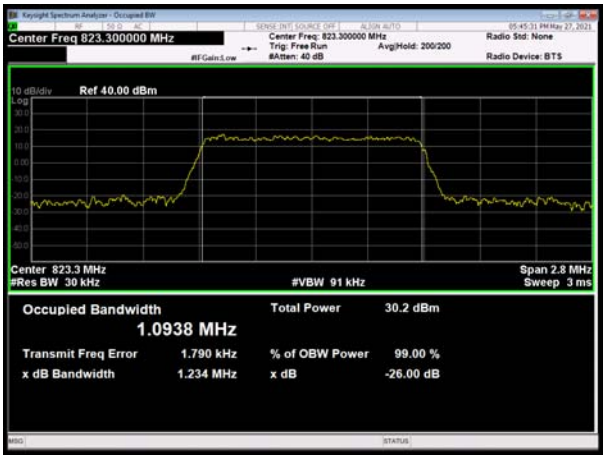
LTE Band 26 16QAM 1.4MHz CH Low



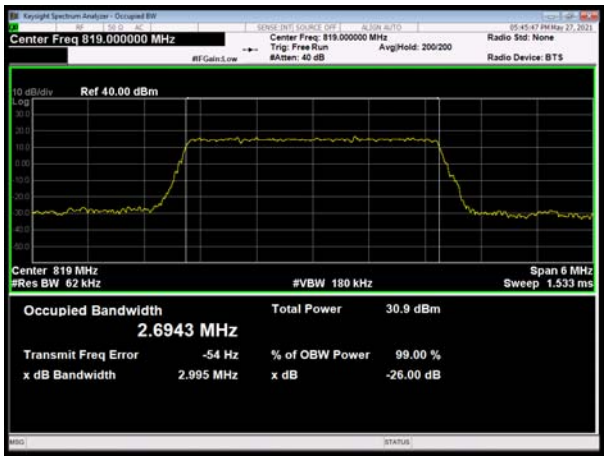
LTE Band 26 16QAM 3MHz CH Low



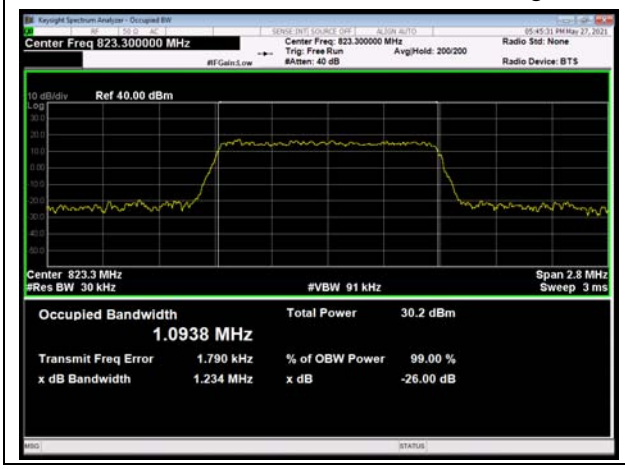
LTE Band 26 16QAM 1.4MHz CH Middle



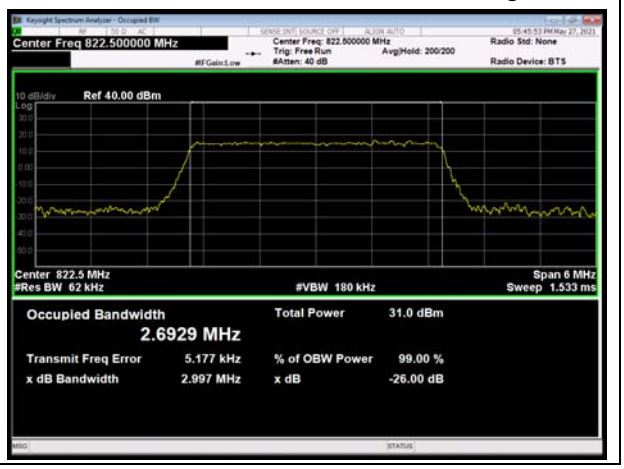
LTE Band 26 16QAM 3MHz CH Middle



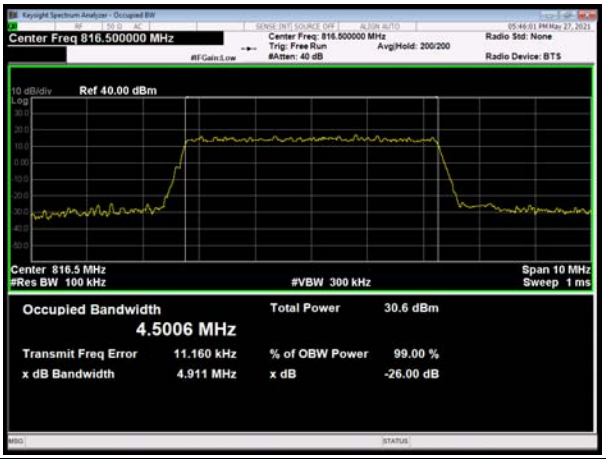
LTE Band 26 16QAM 1.4MHz CH High



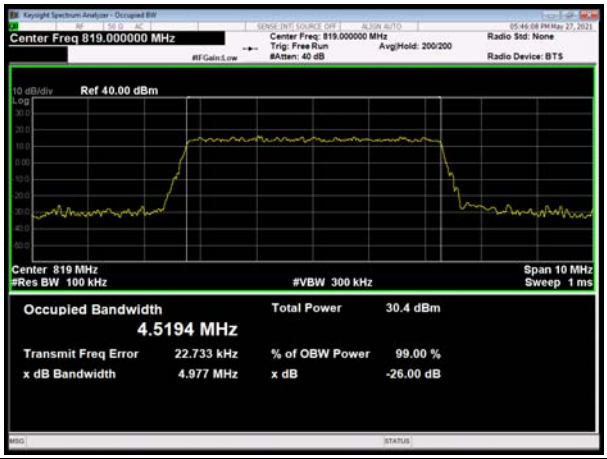
LTE Band 26 16QAM 3MHz CH High



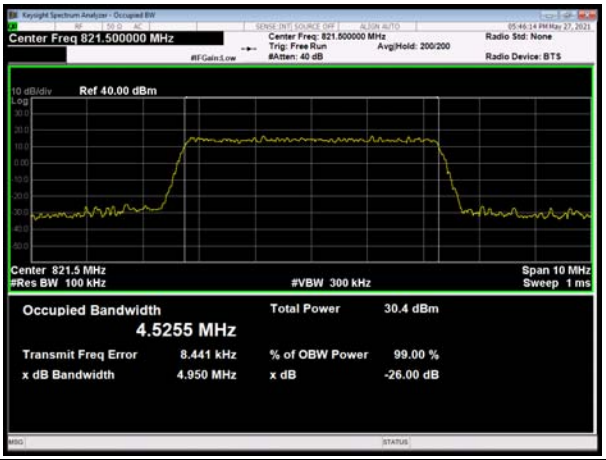
LTE Band 26 16QAM 5MHz CH Low



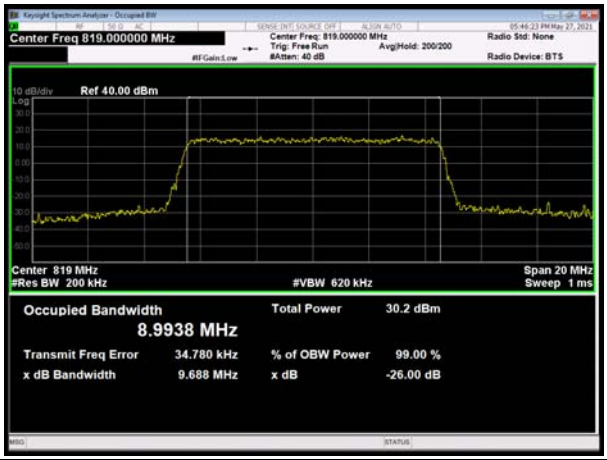
LTE Band 26 16QAM 5MHz CH Middle



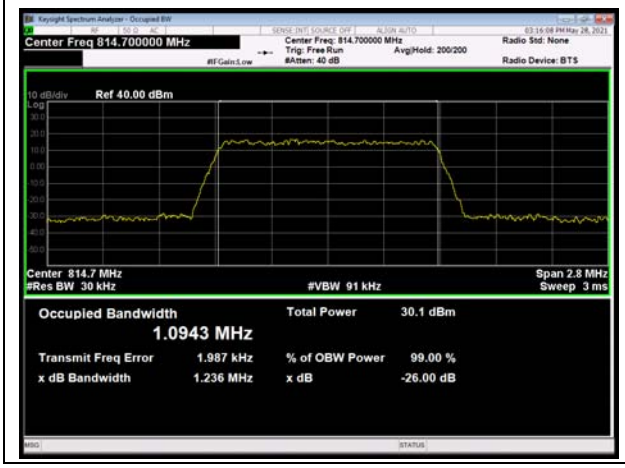
LTE Band 26 16QAM 5MHz CH High



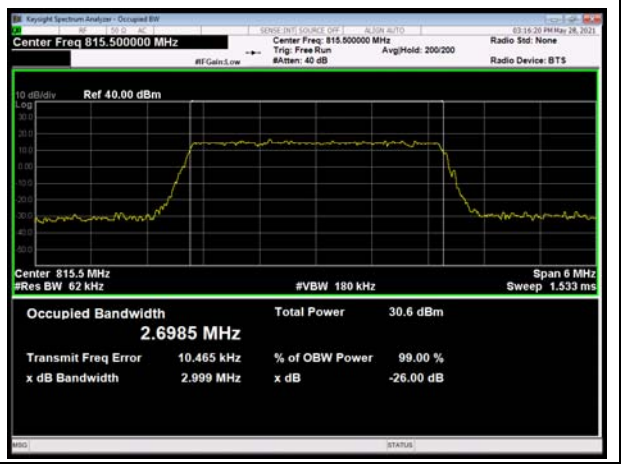
LTE Band 26 16QAM 10MHz CH Middle



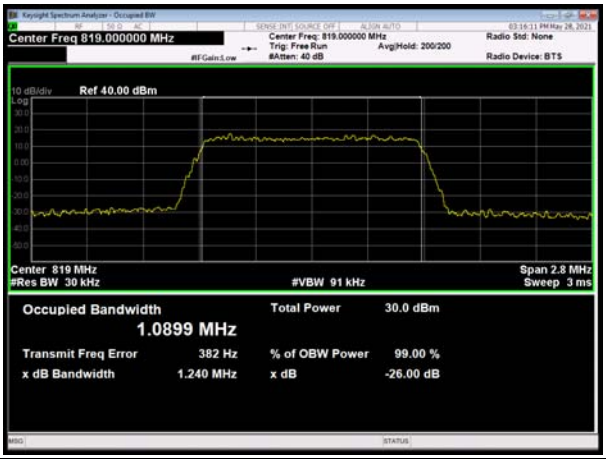
LTE Band 26 64QAM 1.4MHz CH Low



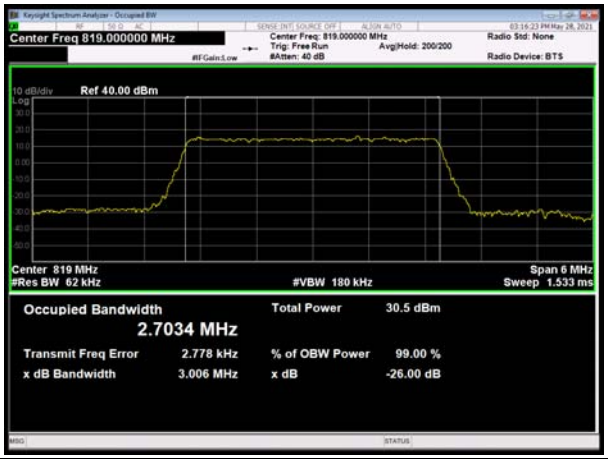
LTE Band 26 64QAM 3MHz CH Low



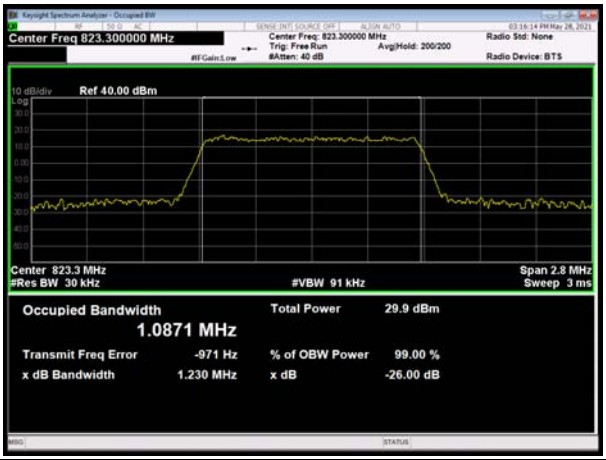
LTE Band 26 64QAM 1.4MHz CH Middle



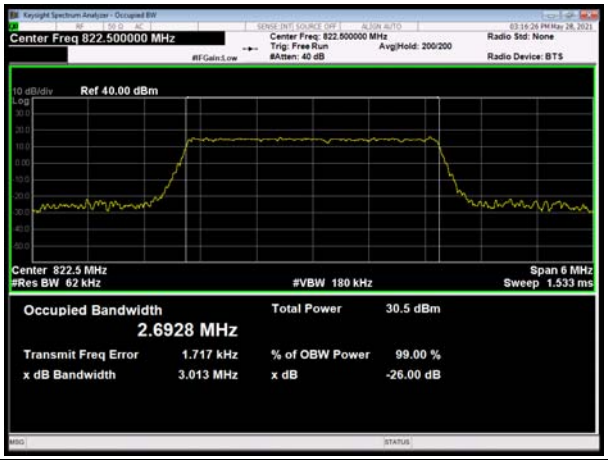
LTE Band 26 64QAM 3MHz CH Middle



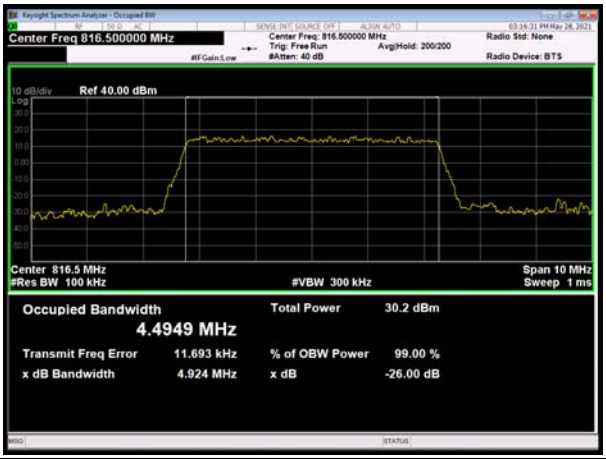
LTE Band 26 64QAM 1.4MHz CH High



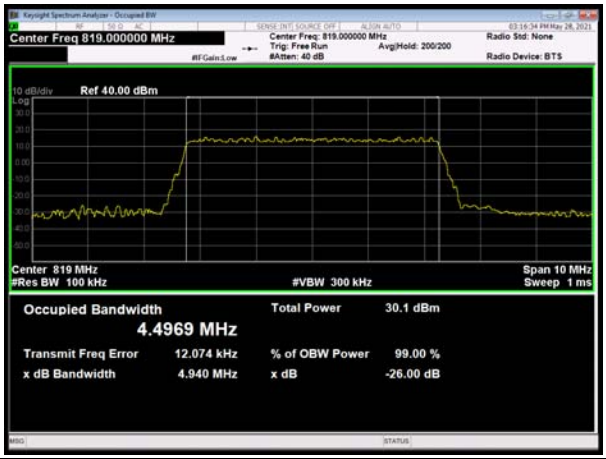
LTE Band 26 64QAM 3MHz CH High



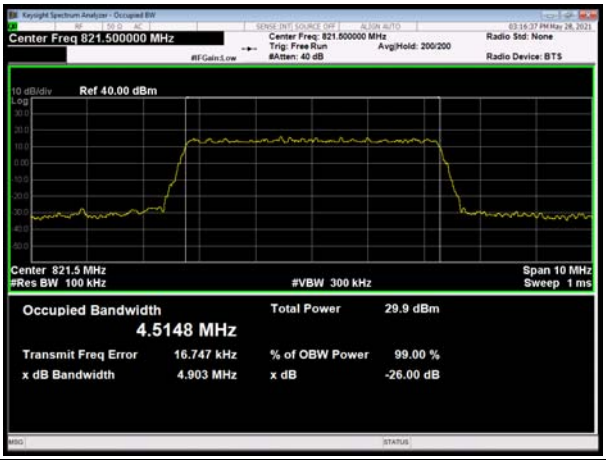
LTE Band 26 64QAM 5MHz CH Low



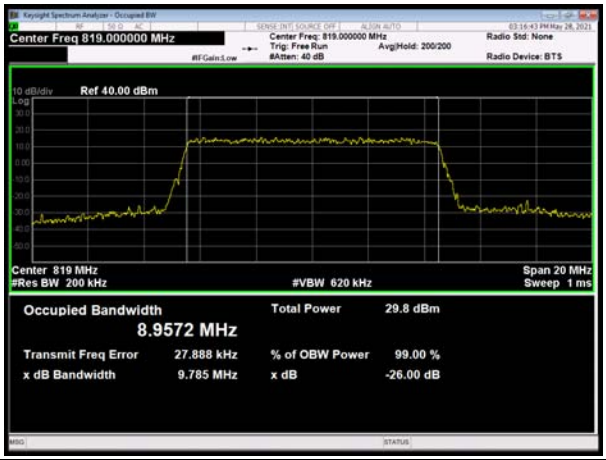
LTE Band 26 64QAM 5MHz CH Middle



LTE Band 26 64QAM 5MHz CH High



LTE Band 26 64QAM 10MHz CH Middle



5.3. Emission Mask

Ambient condition

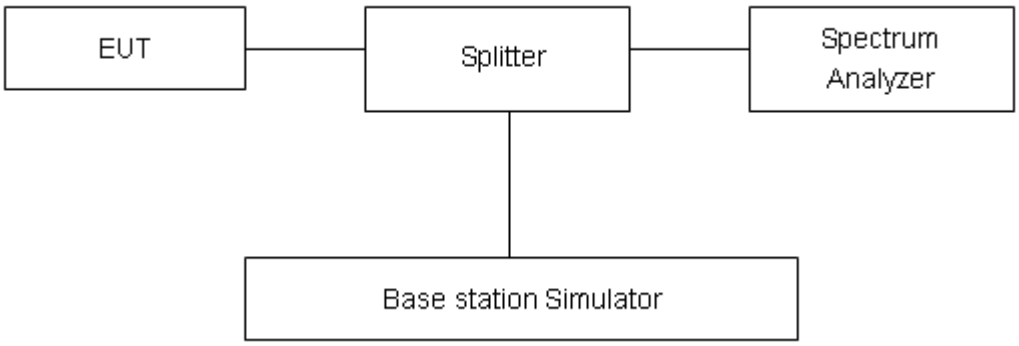
Temperature	Relative humidity
21°C ~25°C	40%~60%

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.
For Section 90.691(a) compliance testing, use RBW = 300 Hz for offsets less than 37.5 kHz from a channel edge; RBW = 100 kHz for offsets greater than 37.5 kHz is allowed.

Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

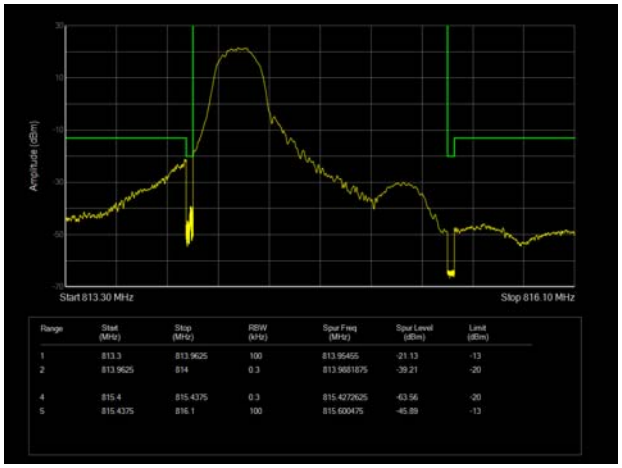
Rule Part 90.691(a) specifies that " For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $Log_{10}(f/6.1)$ decibels or 50 + 10 $Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz."

Measurement Uncertainty

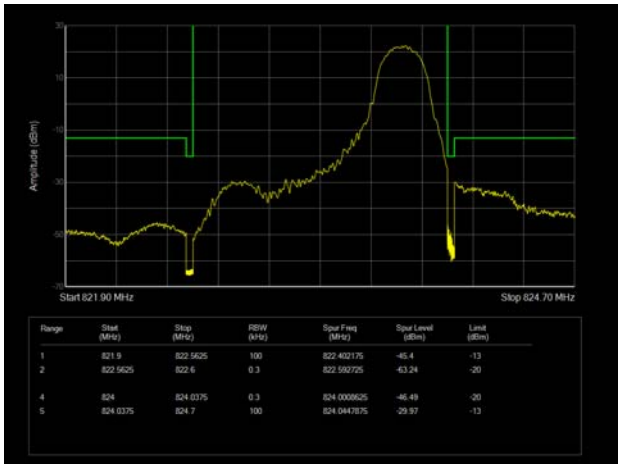
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U=0.684dB.

Test Result:

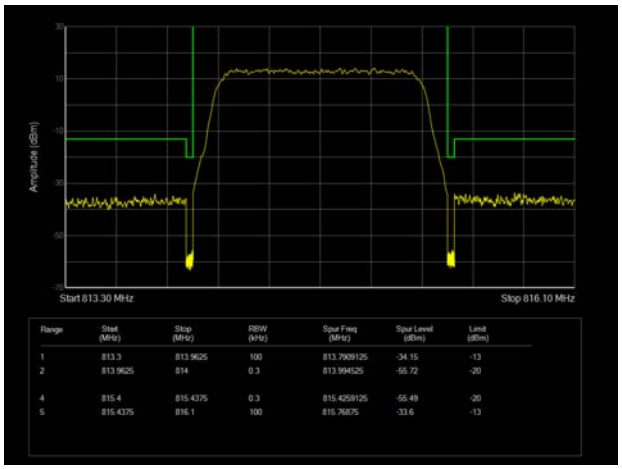
LTE Band 26 QPSK 1.4MHz CH-Low 1RB



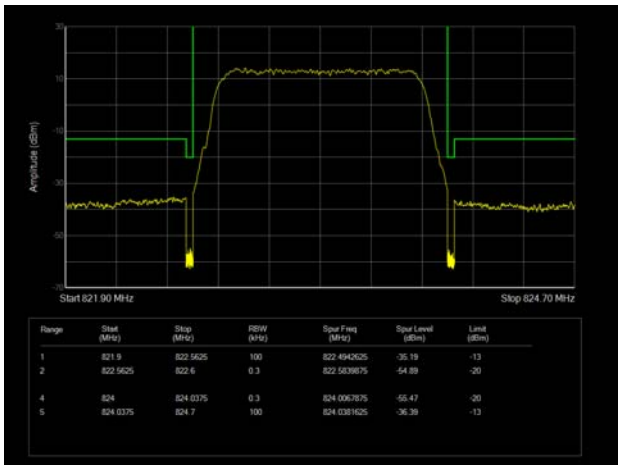
LTE Band 26 QPSK 1.4MHz CH-High 1RB



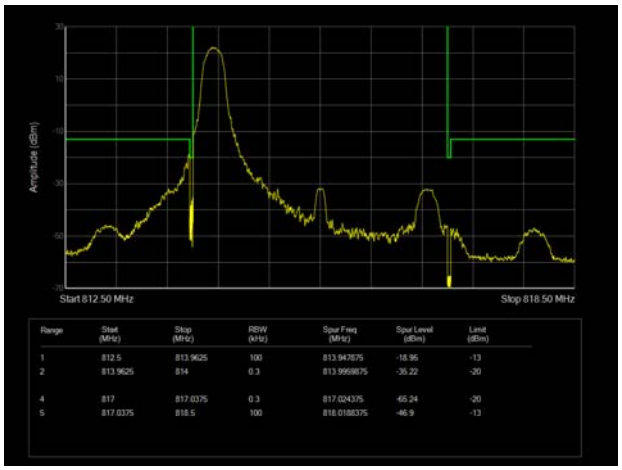
LTE Band 26 QPSK 1.4MHz CH-Low 100%RB



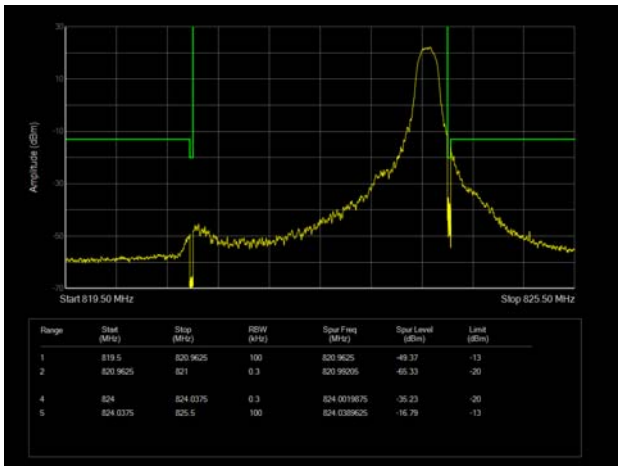
LTE Band 26 QPSK 1.4MHz CH-High 100%RB



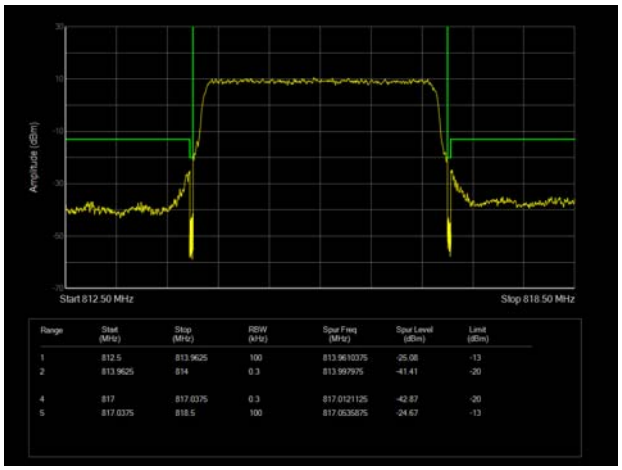
LTE Band 26 QPSK 3MHz CH-Low 1RB



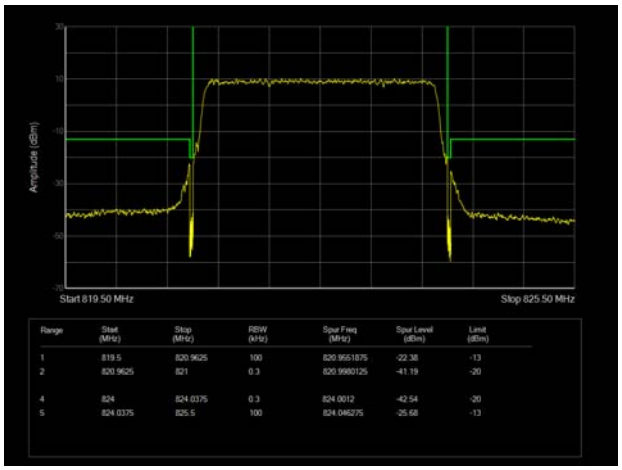
LTE Band 26 QPSK 3MHz CH-High 1RB



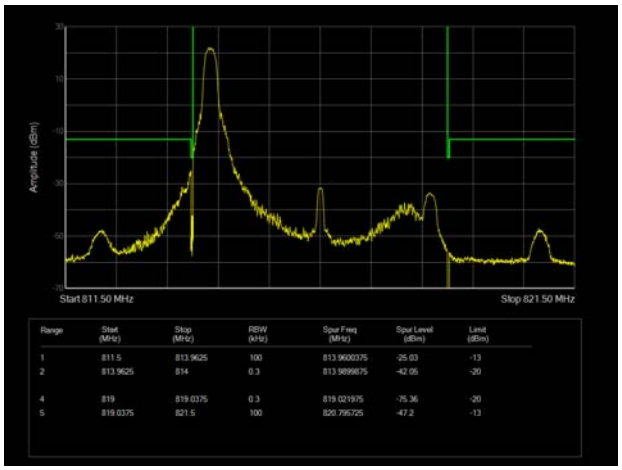
LTE Band 26 QPSK 3MHz CH-Low 100%RB



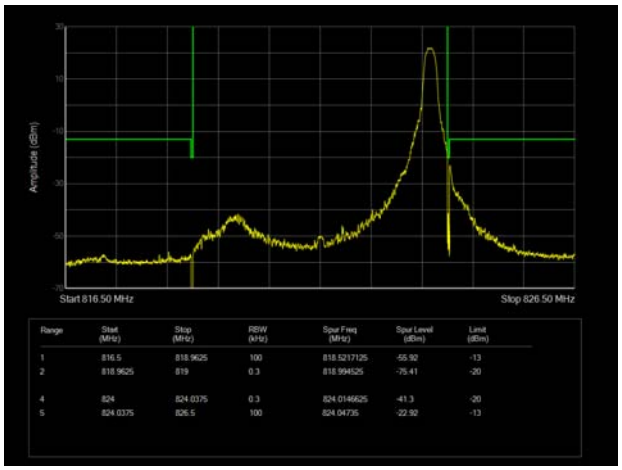
LTE Band 26 QPSK 3MHz CH-High 100%RB



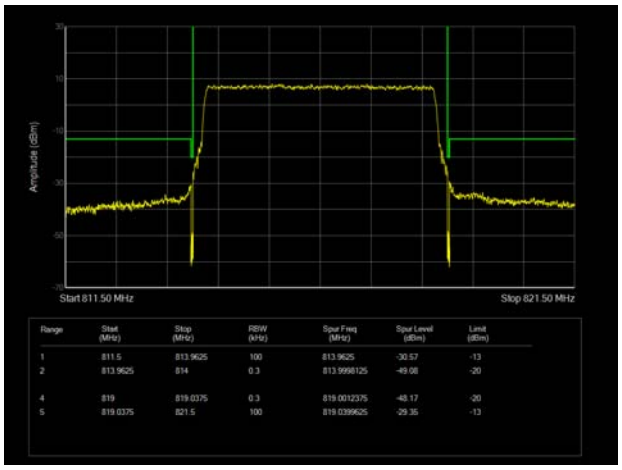
LTE Band 26 QPSK 5MHz CH-Low 1RB



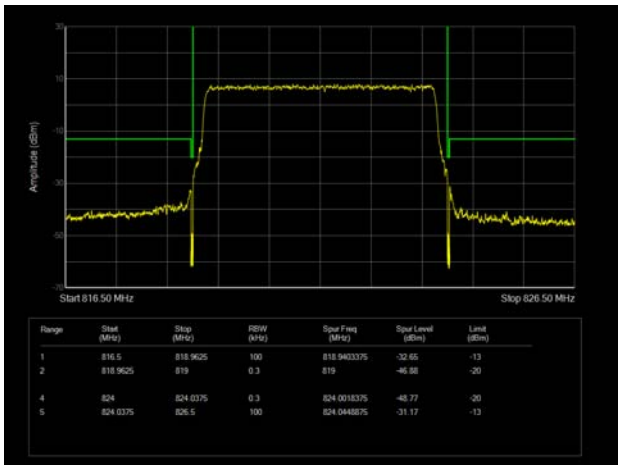
LTE Band 26 QPSK 5MHz CH-High 1RB



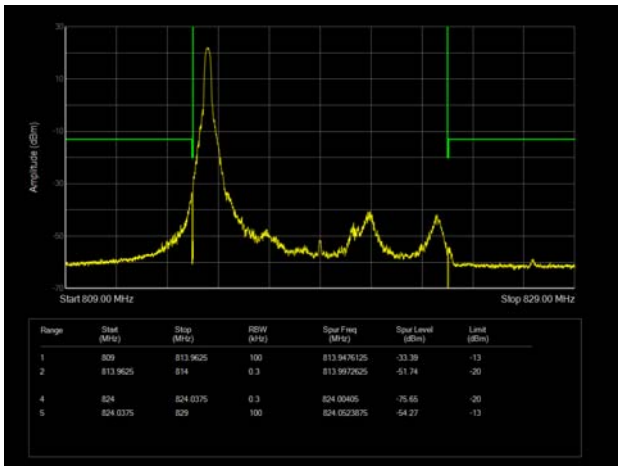
LTE Band 26 QPSK 5MHz CH-Low 100%RB



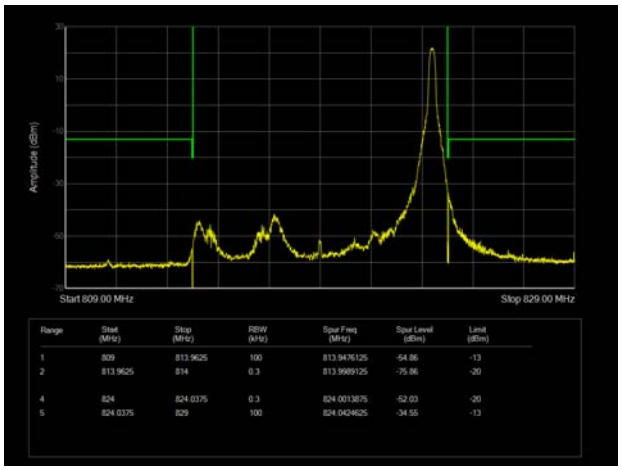
LTE Band 26 QPSK 5MHz CH-High 100%RB



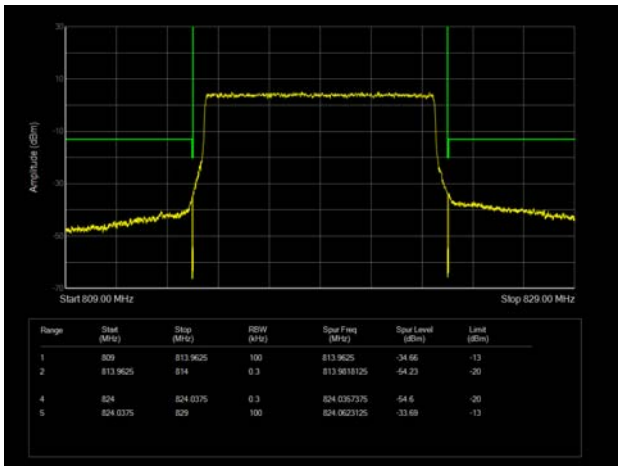
LTE Band 26 QPSK 10MHz CH-Low 1RB



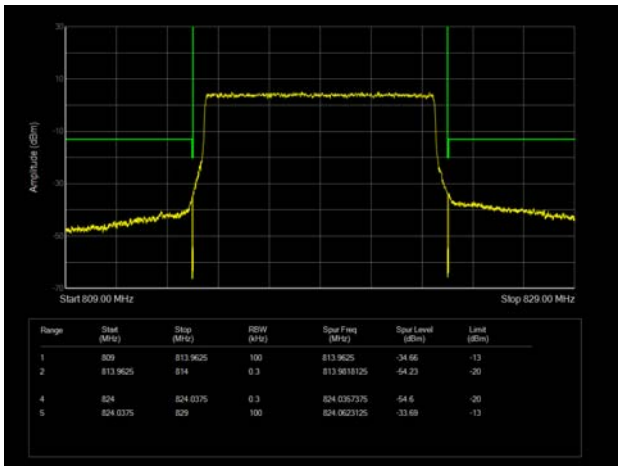
LTE Band 26 QPSK 10MHz CH-High 1RB



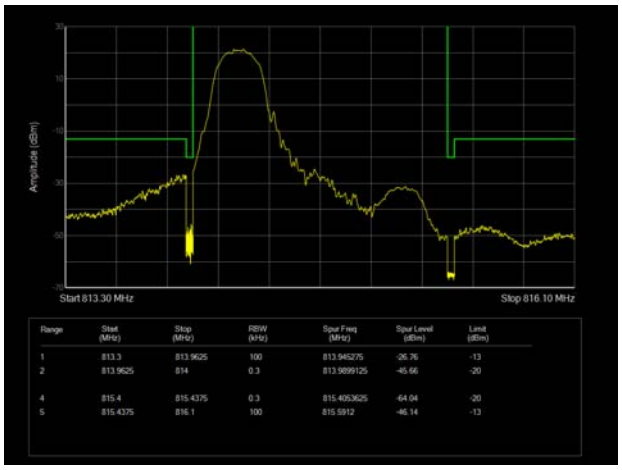
LTE Band 26 QPSK 10MHz CH-Low 100%RB



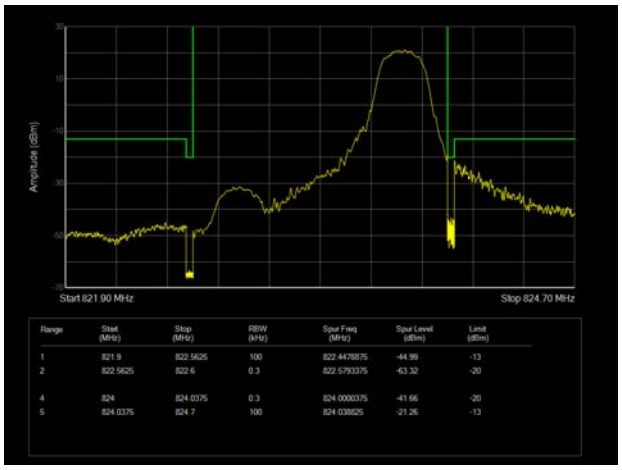
LTE Band 26 QPSK 10MHz CH-High 100%RB



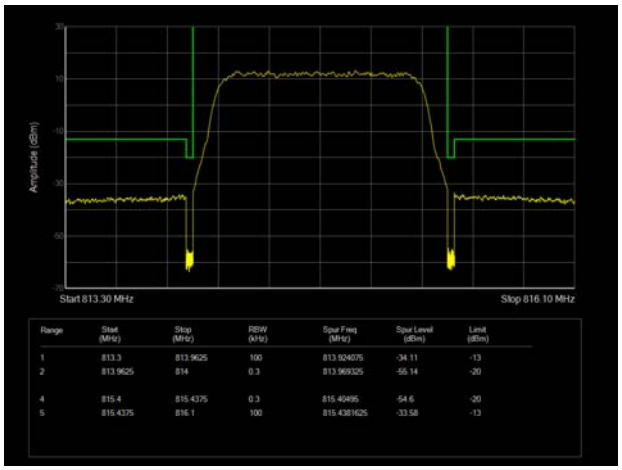
LTE Band 26 16QAM 1.4MHz CH-Low 1RB



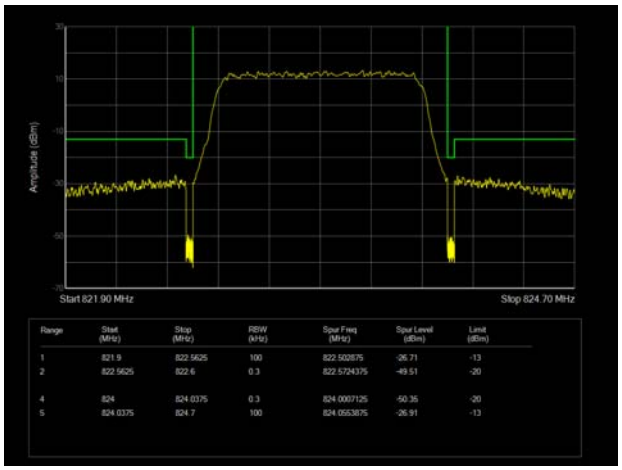
LTE Band 26 16QAM 1.4MHz CH-High 1RB



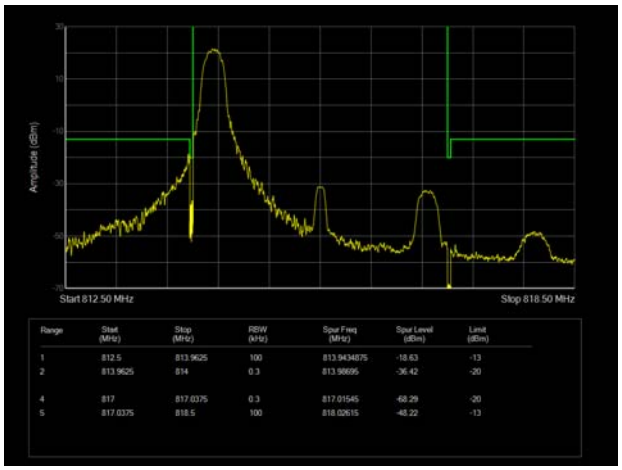
LTE Band 26 16QAM 1.4MHz CH-Low 100%RB



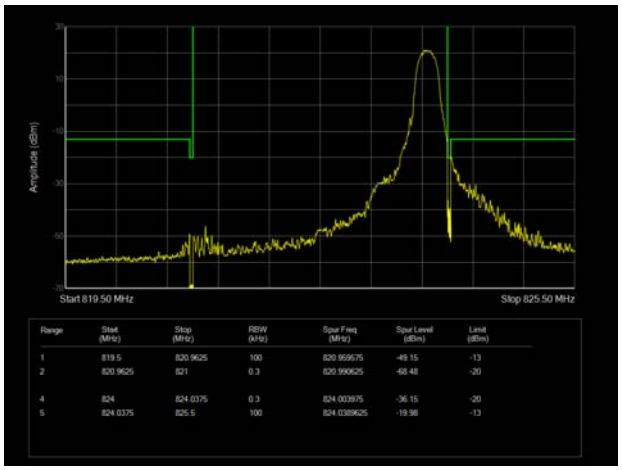
LTE Band 26 16QAM 1.4MHz CH-High 100%RB



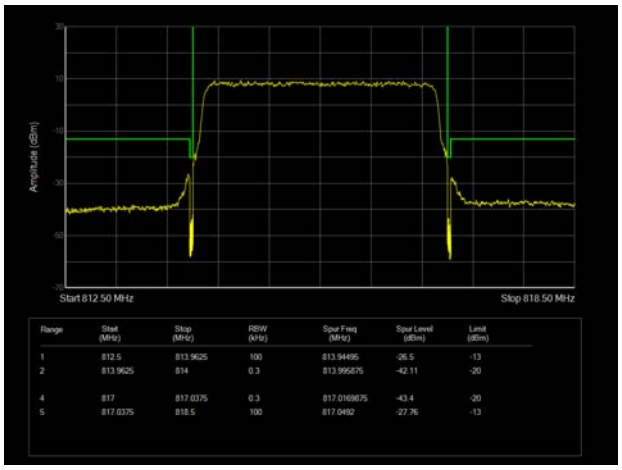
LTE Band 26 16QAM 3MHz CH-Low 1RB



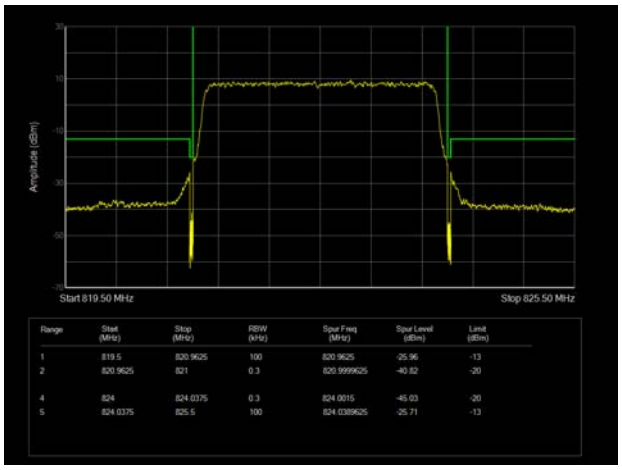
LTE Band 26 16QAM 3MHz CH-High 1RB



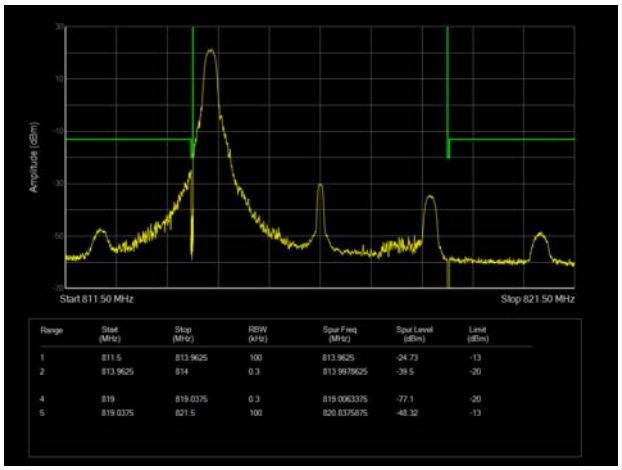
LTE Band 26 16QAM 3MHz CH-Low 100%RB



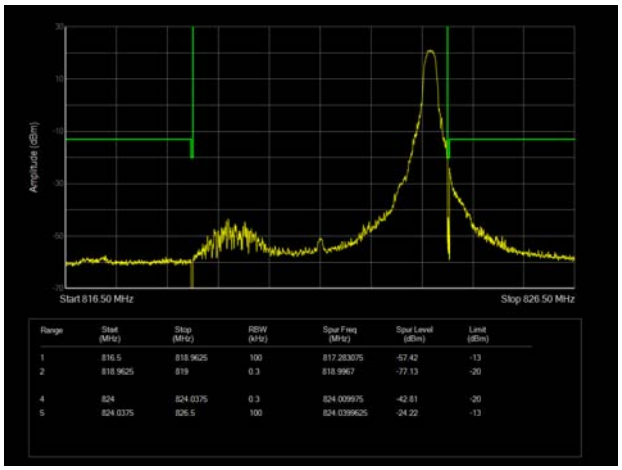
LTE Band 26 16QAM 3MHz CH-High 100%RB



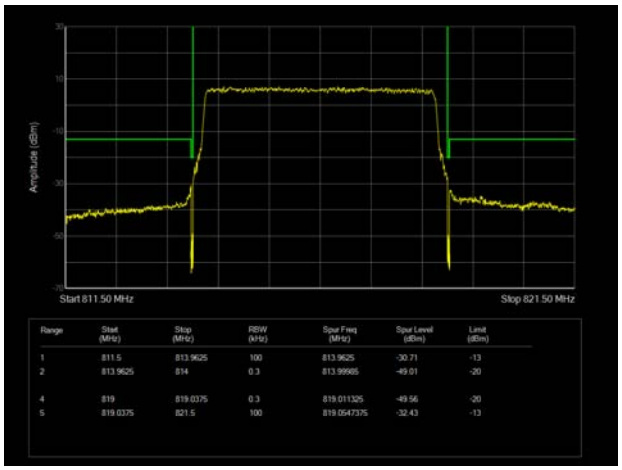
LTE Band 26 16QAM 5MHz CH-Low 1RB



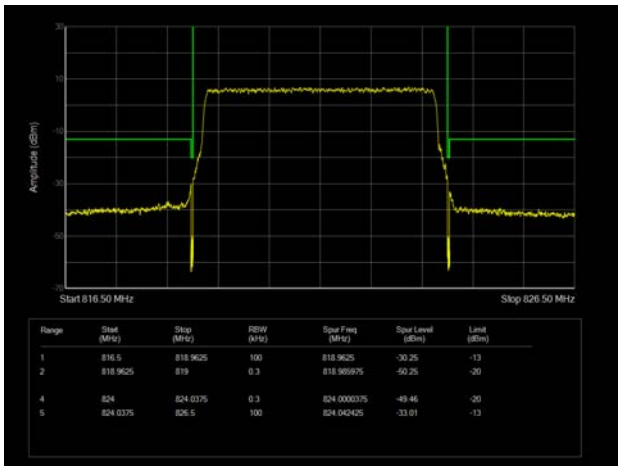
LTE Band 26 16QAM 5MHz CH-High 1RB



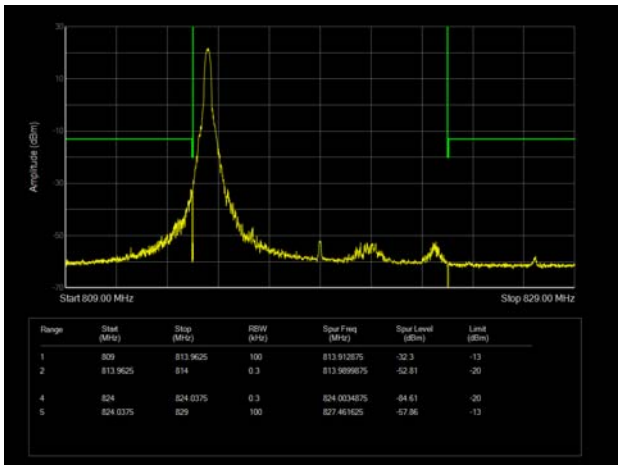
LTE Band 26 16QAM 5MHz CH-Low 100%RB



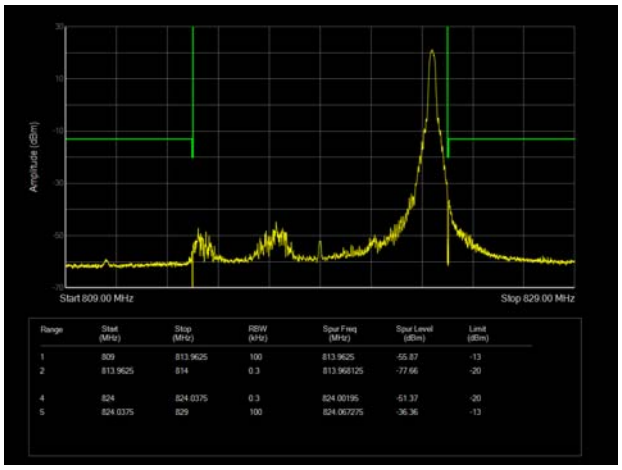
LTE Band 26 16QAM 5MHz CH-High 100%RB



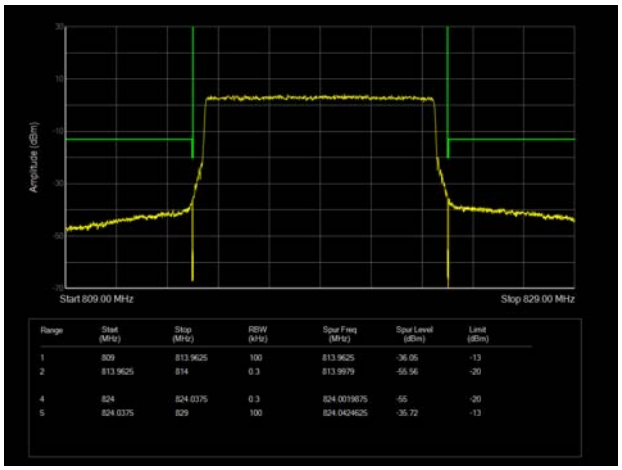
LTE Band 26 16QAM 10MHz CH-Low 1RB



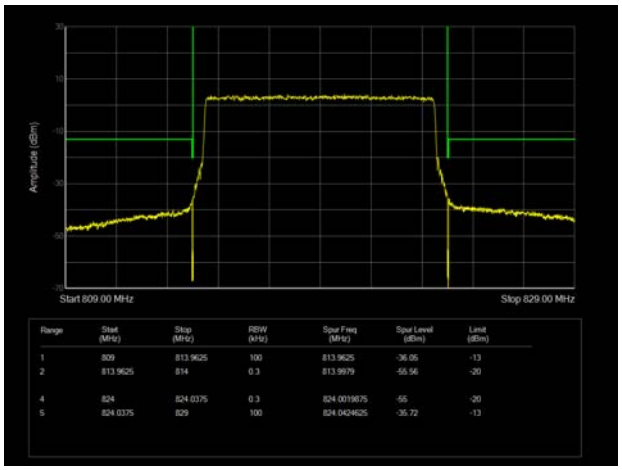
LTE Band 26 16QAM 10MHz CH-High 1RB



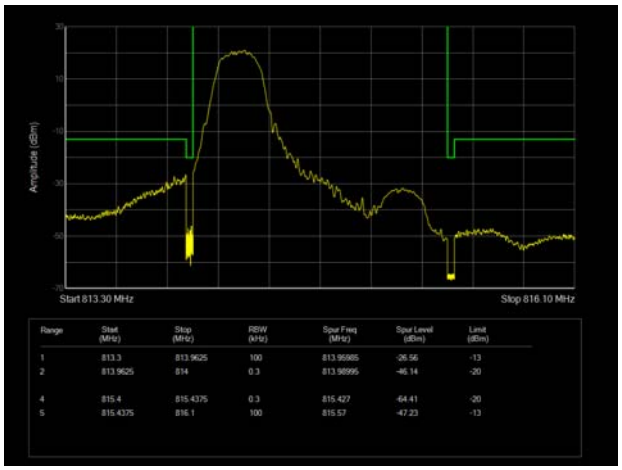
LTE Band 26 16QAM 10MHz CH-Low 100%RB



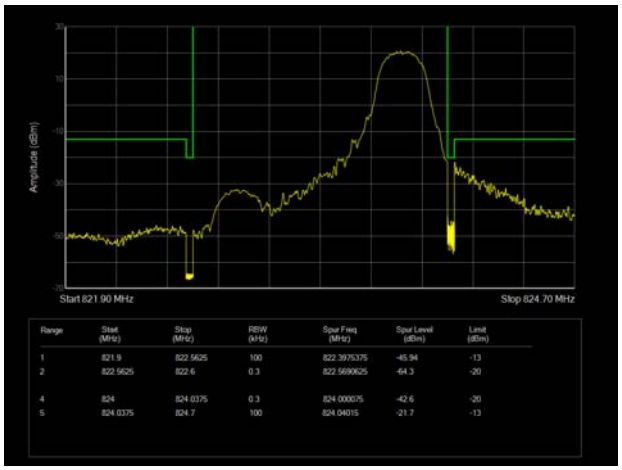
LTE Band 26 16QAM 10MHz CH-High 100%RB



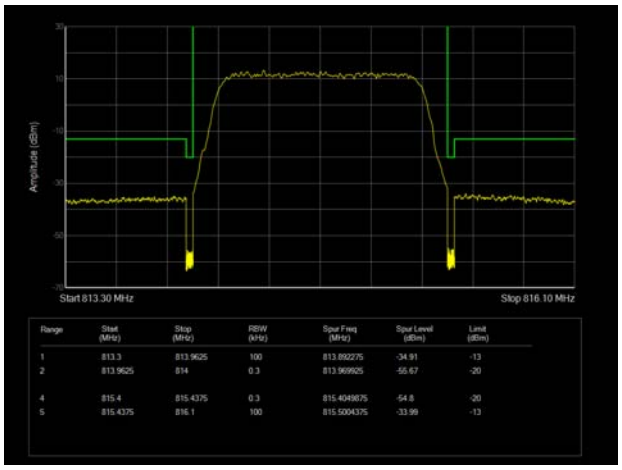
LTE Band 26 64QAM 1.4MHz CH-Low 1RB



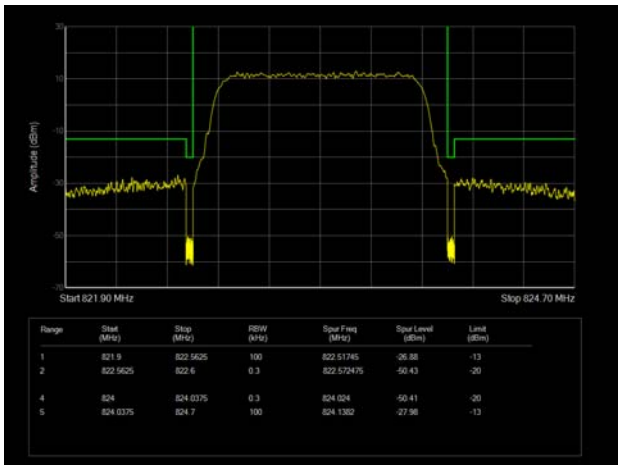
LTE Band 26 64QAM 1.4MHz CH-High 1RB



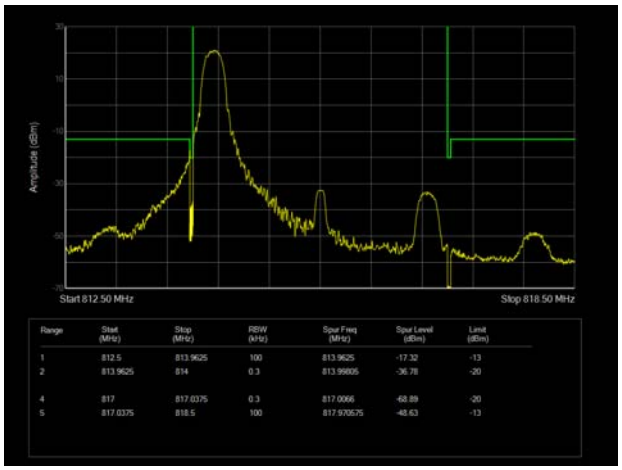
LTE Band 26 64QAM 1.4MHz CH-Low 100%RB



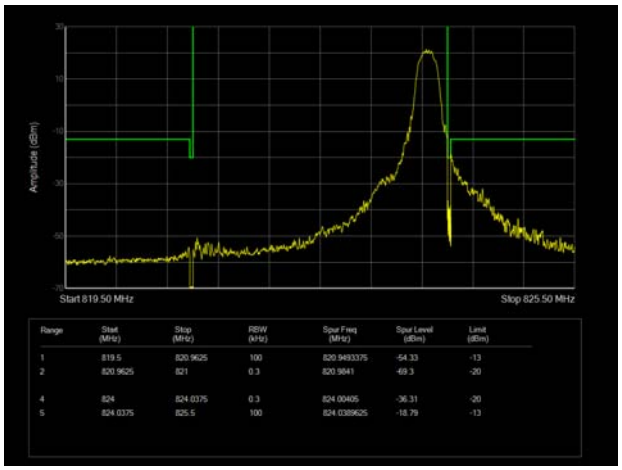
LTE Band 26 64QAM 1.4MHz CH-High 100%RB



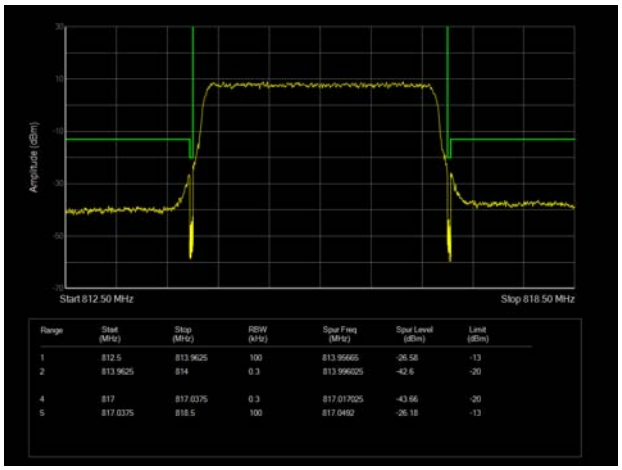
LTE Band 26 64QAM 3MHz CH-Low 1RB



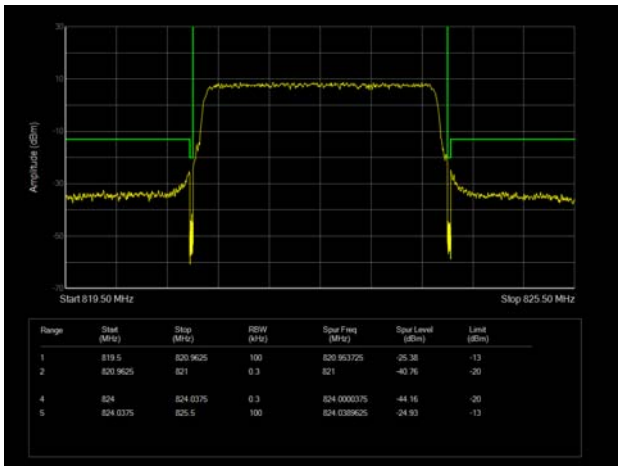
LTE Band 26 64QAM 3MHz CH-High 1RB



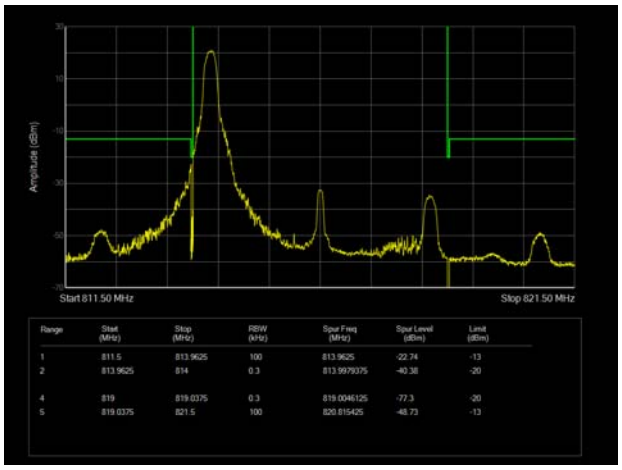
LTE Band 26 64QAM 3MHz CH-Low 100%RB



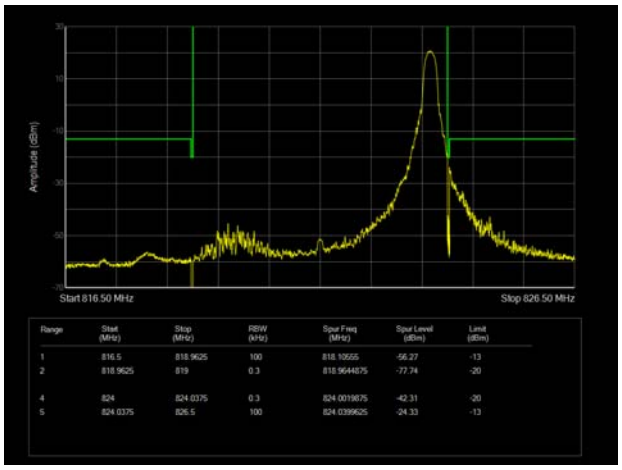
LTE Band 26 64QAM 3MHz CH-High 100%RB



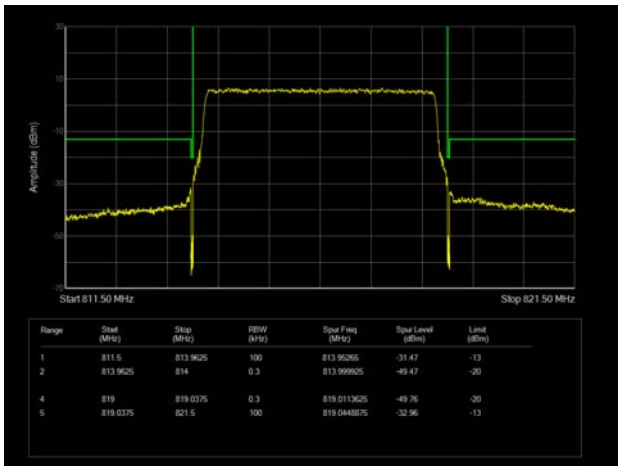
LTE Band 26 64QAM 5MHz CH-Low 1RB



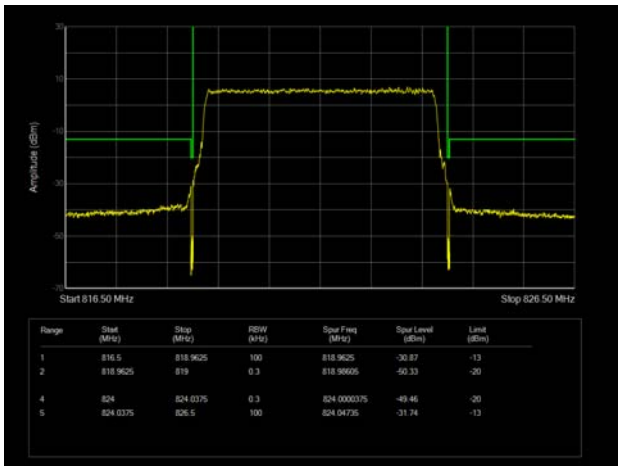
LTE Band 26 64QAM 5MHz CH-High 1RB



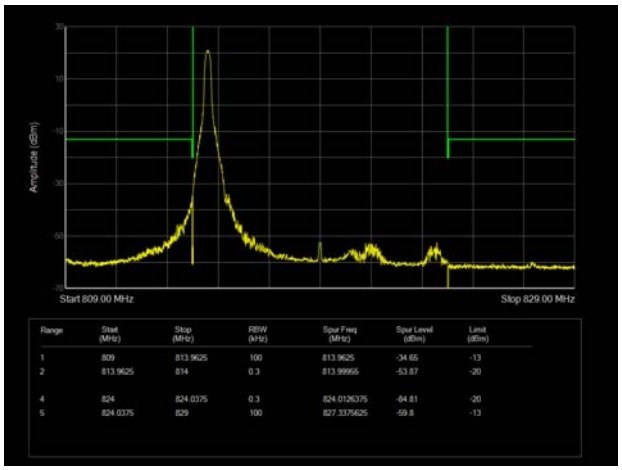
LTE Band 26 64QAM 5MHz CH-Low 100%RB



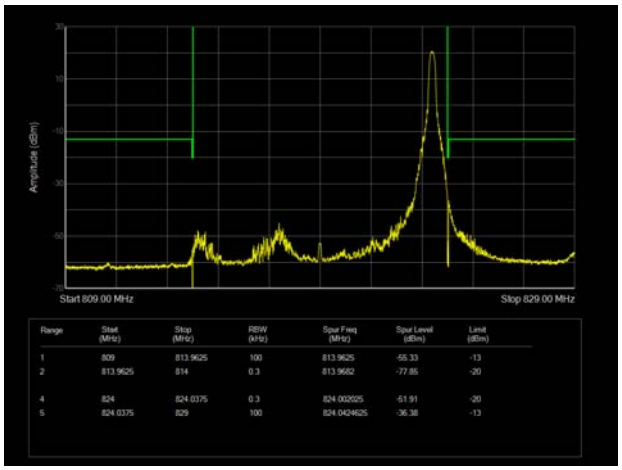
LTE Band 26 64QAM 5MHz CH-High 100%RB



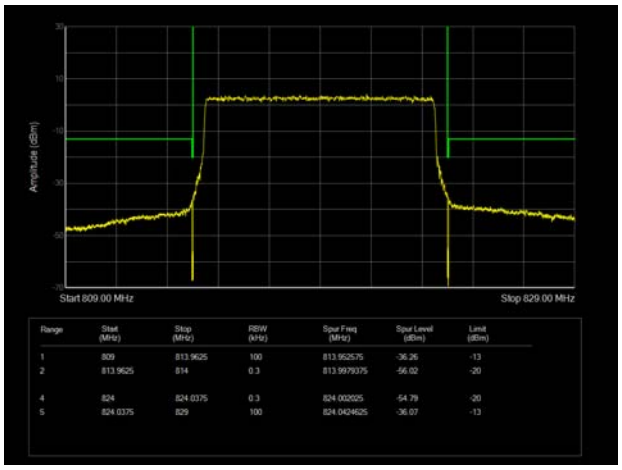
LTE Band 26 64QAM 10MHz CH-Low 1RB



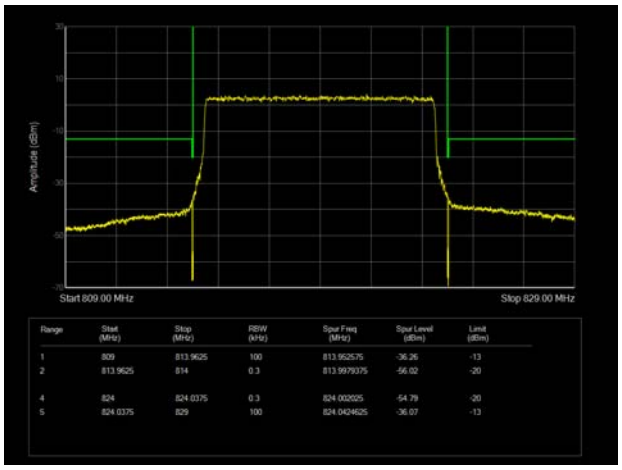
LTE Band 26 64QAM 10MHz CH-High 1RB



LTE Band 26 64QAM 10MHz CH-Low 100%RB



LTE Band 26 64QAM 10MHz CH-High 100%RB



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

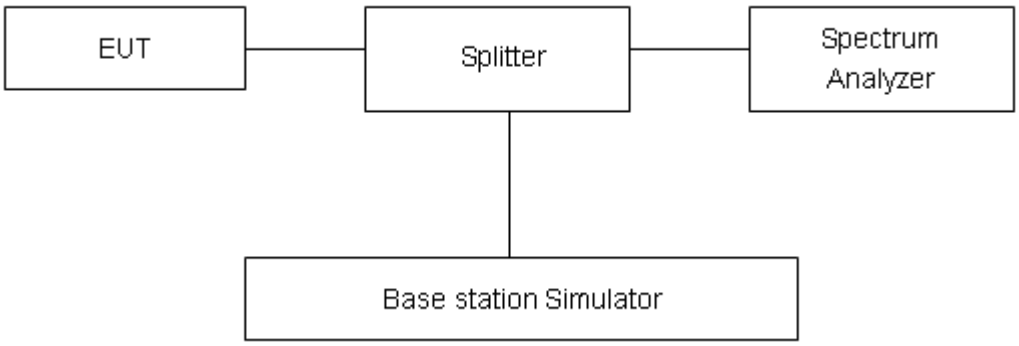
Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

Methods of Measurement

Measure the total peak power and record as PPk. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (*e.g.*, dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

Test Setup



Limits

In measuring transmissions in this band using an average power technique, the peakto-average ratio (PAR) of the transmission may not exceed 13 dB in 24.232(d).

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

Mode	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Limit(dB)	Conclusion
1.4 MHz (QPSK)	26697	814.7	28.50	23.37	5.13	13	PASS
	26740	819	28.62	23.29	5.33	13	PASS
	26783	823.3	28.60	23.27	5.33	13	PASS
3 MHz (QPSK)	26697	814.7	28.43	23.41	5.02	13	PASS
	26740	819	28.55	23.35	5.20	13	PASS
	26783	823.3	28.61	23.40	5.21	13	PASS
5 MHz (QPSK)	26697	814.7	28.23	23.41	4.82	13	PASS
	26740	819	28.53	23.36	5.17	13	PASS
	26783	823.3	28.58	23.33	5.25	13	PASS
10 MHz (QPSK)	26740	819	28.49	23.35	5.14	13	PASS

Mode	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Limit(dB)	Conclusion
1.4 MHz (16QAM)	26697	814.7	28.45	22.36	6.09	13	PASS
	26740	819	28.41	22.29	6.12	13	PASS
	26783	823.3	27.71	22.32	5.39	13	PASS
3 MHz (16QAM)	26697	814.7	28.42	22.44	5.98	13	PASS
	26740	819	28.46	22.39	6.07	13	PASS
	26783	823.3	27.62	22.37	5.25	13	PASS
5 MHz (16QAM)	26697	814.7	28.37	22.42	5.95	13	PASS
	26740	819	28.43	22.38	6.05	13	PASS
	26783	823.3	28.43	22.41	6.02	13	PASS
10 MHz (16QAM)	26740	819	28.36	22.35	6.01	13	PASS

Mode	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Limit(dB)	Conclusion
1.4 MHz (64QAM)	26697	814.7	28.08	21.99	6.09	13	PASS
	26740	819	28.02	21.92	6.10	13	PASS
	26783	823.3	27.33	21.97	5.36	13	PASS
3 MHz (64QAM)	26697	814.7	28.09	22.08	6.01	13	PASS
	26740	819	28.05	21.98	6.07	13	PASS
	26783	823.3	27.25	22.00	5.25	13	PASS
5 MHz (64QAM)	26697	814.7	28.02	22.06	5.96	13	PASS
	26740	819	28.06	22.00	6.06	13	PASS
	26783	823.3	28.02	22.00	6.02	13	PASS
10 MHz (64QAM)	26740	819	28.00	22.00	6.00	13	PASS

5.5. Frequency Stability

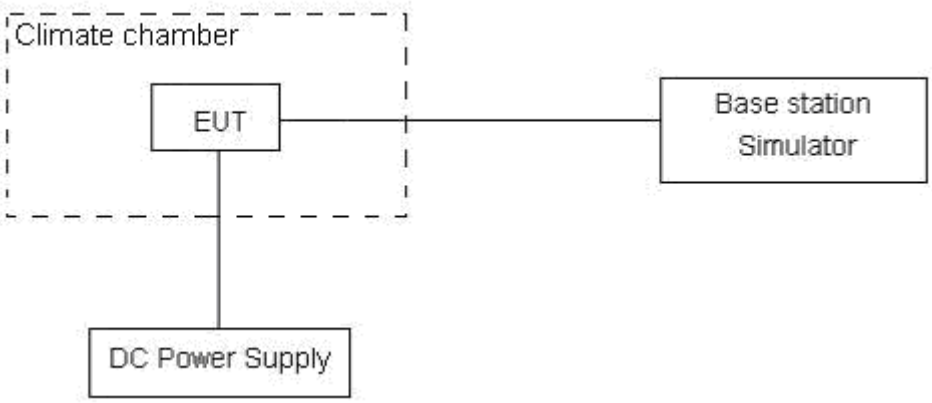
Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

Method of Measurement

1. Frequency Stability (Temperature Variation)
   The temperature inside the climate chamber is varied from -30°C to +50°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 +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.
2. 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 3.56V and 4.2 V, with a nominal voltage of 3.87V.

Test setup



Limits

According to the Sec. 90.213.(a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table.
Minimum Frequency Stability
[Parts per million (ppm)]

Frequency range (MHz)	Fixed and base stations	Mobile stations	
		Over 2 watts output power	2 watts or less output power
814 ~ 824	1.5	2.5	2.5

Measurement Uncertainty

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

Test Result

LTE Band 26								
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℃）	Normal	16.54	1.33	17.70	0.00880	0.00071	0.00941	PASS
Extreme（50℃）		11.43	10.87	1.72	0.00608	0.00578	0.00091	PASS
Extreme（40℃）		10.93	4.54	8.42	0.00581	0.00242	0.00448	PASS
Extreme（30℃）		16.46	5.99	13.57	0.00876	0.00319	0.00722	PASS
Extreme（20℃）		3.88	16.09	7.59	0.00206	0.00856	0.00404	PASS
Extreme（10℃）		12.48	13.50	4.37	0.00664	0.00718	0.00233	PASS
Extreme（0℃）		7.89	8.21	1.91	0.00419	0.00437	0.00101	PASS
Extreme（-10℃）		2.41	3.02	16.68	0.00128	0.00160	0.00887	PASS
Extreme（-20℃）		3.47	17.85	14.91	0.00185	0.00949	0.00793	PASS
Extreme（-30℃）		16.86	10.26	9.42	0.00897	0.00546	0.00501	PASS
25℃	LV	1.78	1.07	10.41	0.00095	0.00057	0.00554	PASS
	HV	13.08	7.70	3.40	0.00696	0.00410	0.00181	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	16.86	2.94	4.55	0.00897	0.00156	0.00242	PASS
Extreme（50℃）		6.03	5.86	1.44	0.00321	0.00312	0.00076	PASS
Extreme（40℃）		13.68	16.79	2.04	0.00728	0.00893	0.00108	PASS
Extreme（30℃）		15.68	4.11	15.13	0.00834	0.00218	0.00805	PASS
Extreme（20℃）		6.21	2.42	6.32	0.00330	0.00129	0.00336	PASS
Extreme（10℃）		8.81	3.68	3.82	0.00468	0.00196	0.00203	PASS
Extreme（0℃）		12.29	11.35	17.34	0.00654	0.00604	0.00922	PASS
Extreme（-10℃）		17.63	11.74	1.96	0.00938	0.00625	0.00104	PASS
Extreme（-20℃）		12.08	11.64	4.13	0.00643	0.00619	0.00220	PASS
Extreme（-30℃）		4.81	14.02	12.73	0.00256	0.00746	0.00677	PASS
25℃	LV	4.41	2.68	6.95	0.00235	0.00143	0.00370	PASS
	HV	4.74	14.31	1.10	0.00252	0.00761	0.00059	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	16.52	8.90	3.49	0.00879	0.00474	0.00185	PASS
Extreme（50℃）		5.96	5.72	3.40	0.00317	0.00304	0.00181	PASS
Extreme（40℃）		10.26	6.79	8.19	0.00546	0.00361	0.00436	PASS
Extreme（30℃）		6.36	6.90	12.80	0.00338	0.00367	0.00681	PASS
Extreme（20℃）		17.93	12.20	13.33	0.00954	0.00649	0.00709	PASS
Extreme（10℃）		3.88	8.58	11.65	0.00206	0.00456	0.00620	PASS
Extreme（0℃）		6.05	14.49	9.91	0.00322	0.00771	0.00527	PASS
Extreme（-10℃）		13.49	9.87	10.51	0.00718	0.00525	0.00559	PASS
Extreme（-20℃）		5.77	8.60	5.26	0.00307	0.00458	0.00280	PASS
Extreme（-30℃）		16.01	4.04	2.28	0.00851	0.00215	0.00121	PASS
25℃	LV	17.63	3.72	8.50	0.00938	0.00198	0.00452	PASS
	HV	1.11	14.52	2.02	0.00059	0.00772	0.00107	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	1.17	7.90	10.05	0.00062	0.00420	0.00535	PASS
Extreme（50℃）		3.24	5.12	6.24	0.00172	0.00272	0.00332	PASS
Extreme（40℃）		11.78	16.67	4.60	0.00627	0.00887	0.00245	PASS
Extreme（30℃）		3.84	17.94	3.73	0.00204	0.00954	0.00199	PASS
Extreme（20℃）		2.48	1.32	4.89	0.00132	0.00070	0.00260	PASS
Extreme（10℃）		12.28	15.90	4.78	0.00653	0.00846	0.00254	PASS
Extreme（0℃）		12.91	8.71	17.28	0.00687	0.00463	0.00919	PASS
Extreme（-10℃）		7.17	3.63	15.99	0.00381	0.00193	0.00851	PASS
Extreme（-20℃）		1.42	8.98	15.13	0.00075	0.00478	0.00805	PASS
Extreme（-30℃）		2.51	17.92	11.15	0.00133	0.00953	0.00593	PASS
25℃	LV	5.88	10.48	14.49	0.00313	0.00558	0.00771	PASS
	HV	10.08	12.37	12.31	0.00536	0.00658	0.00655	PASS

5.6. Spurious Emissions at Antenna Terminals

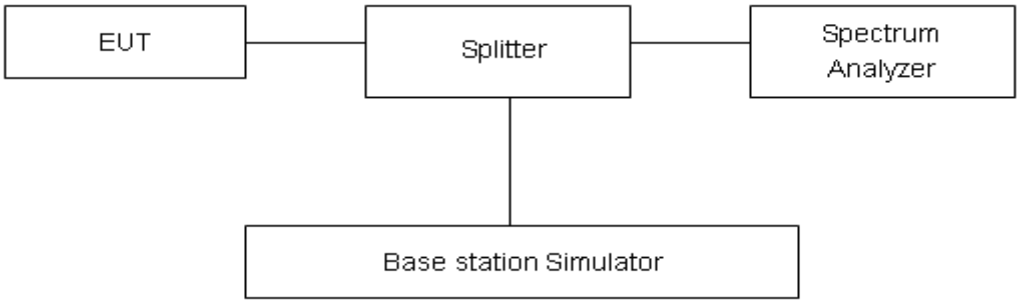
Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

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 30MHz to the 10th harmonic of the carrier. The peak detector is used. RBW and VBW are set to 100 kHz,
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)
Sweep is set to ATUO.

Test setup



Limits

Rule Part 90.691 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

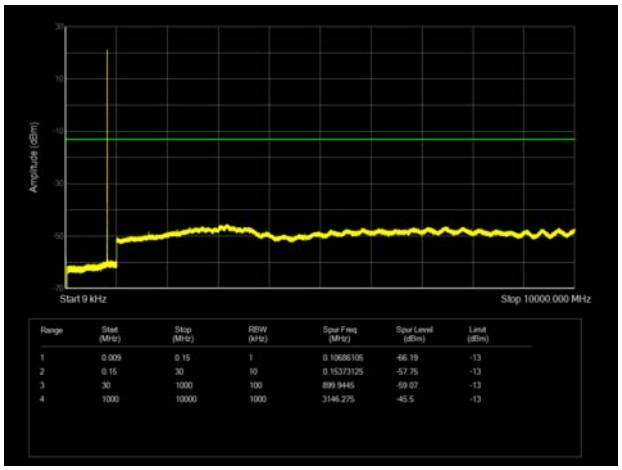
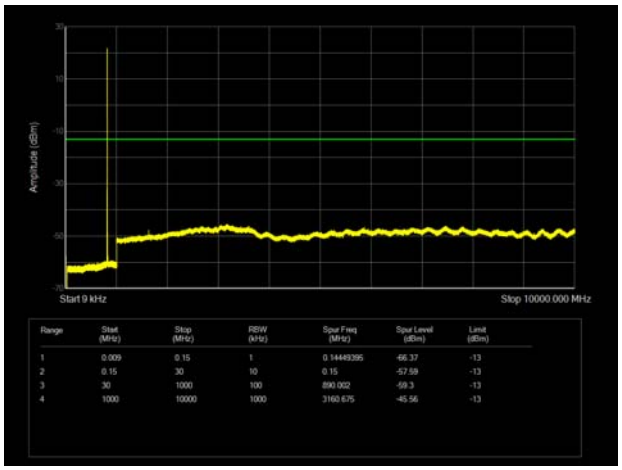
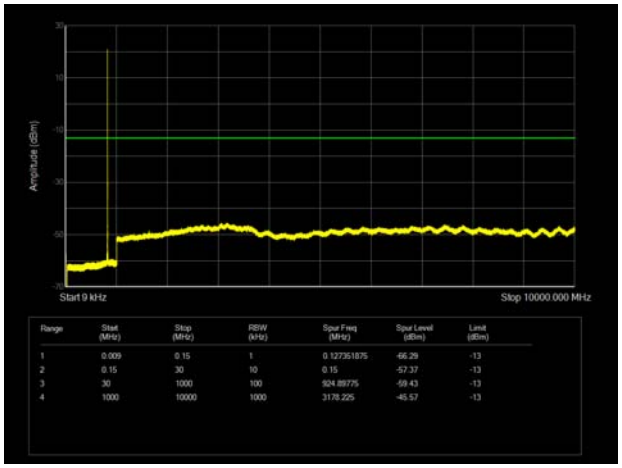
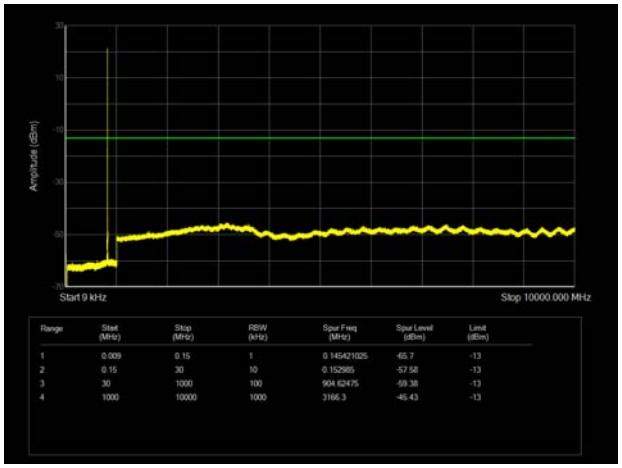
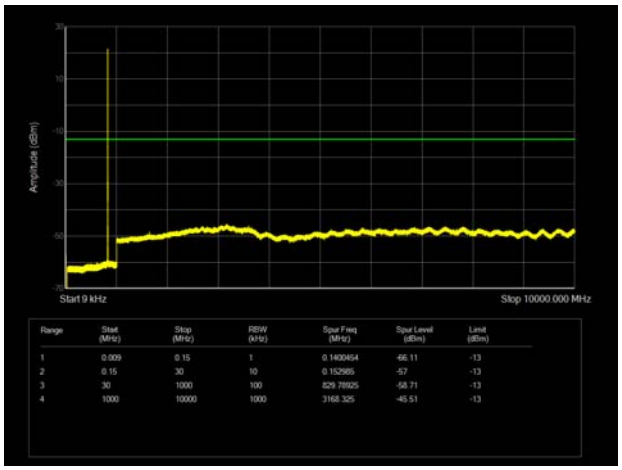
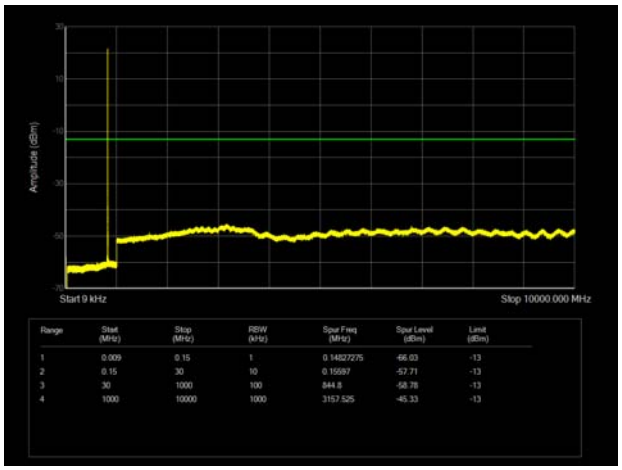
Measurement Uncertainty

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

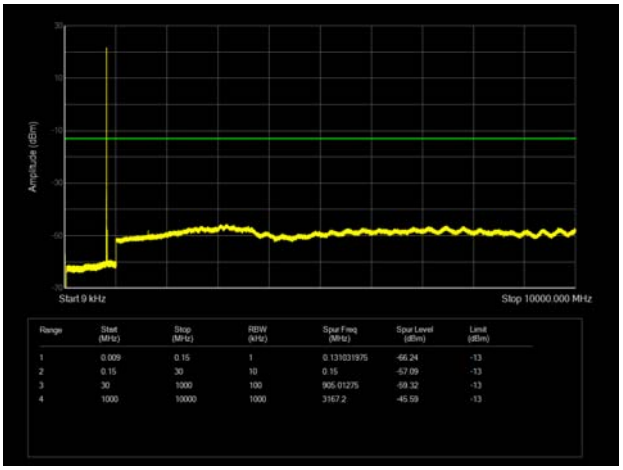
Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-12.75GHz	1.407 dB

Test Result

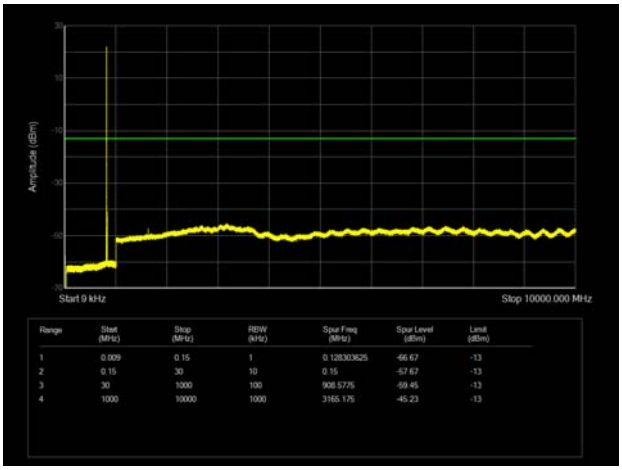
If disturbances were found more than 20dB below limit line, the mark is not required for the EUT. The signal beyond the limit is carrier.

LTE Band 26 1.4MHz CH Low 9MHz~10GHz	LTE Band 26 3MHz CH Low 9MHz~10GHz
	
LTE Band 26 1.4MHz CH Middle 9MHz~10GHz	LTE Band 26 3MHz CH Middle 9MHz~10GHz
	
LTE Band 26 1.4MHz CH High 9MHz~1GHz	LTE Band 26 3MHz CH High 9MHz~1GHz
	

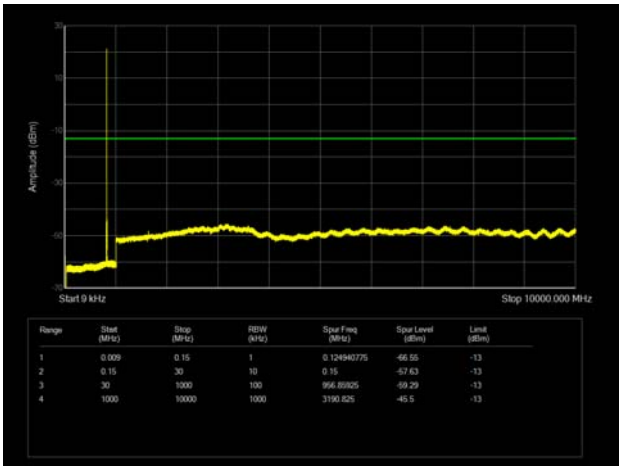
LTE Band 26 5MHz CH Low 9MHz~10GHz



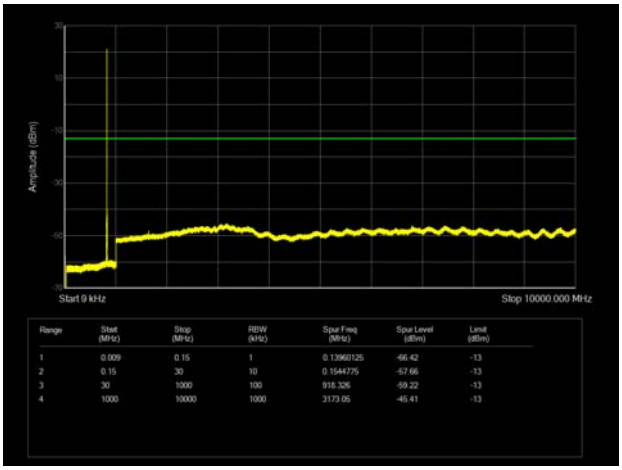
LTE Band 26 10MHz CH Middle 9MHz~10GHz



LTE Band 26 5MHz CH Middle 9MHz~10GHz



LTE Band 26 5MHz CH High 9MHz~10GHz



5.7. Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

Method of Measurement

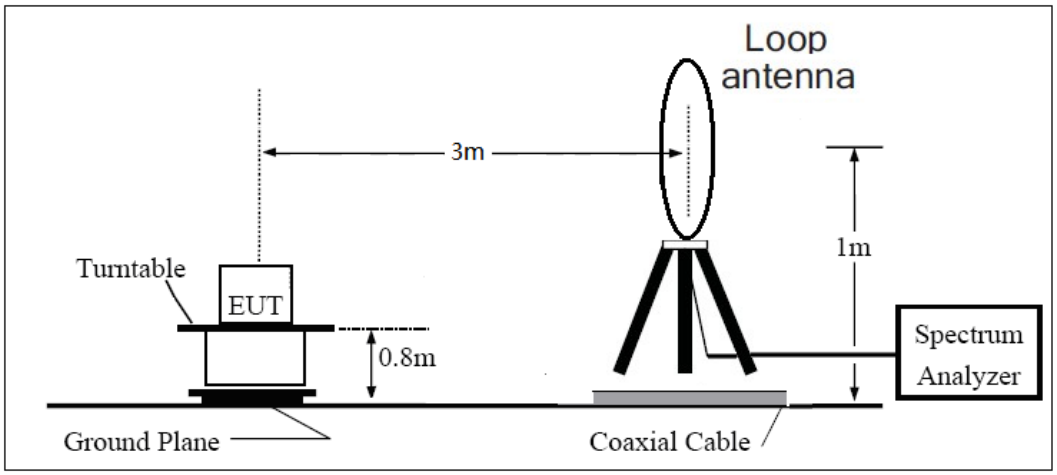
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable 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:
Power(EIRP)=PMea- PAg - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dBi.

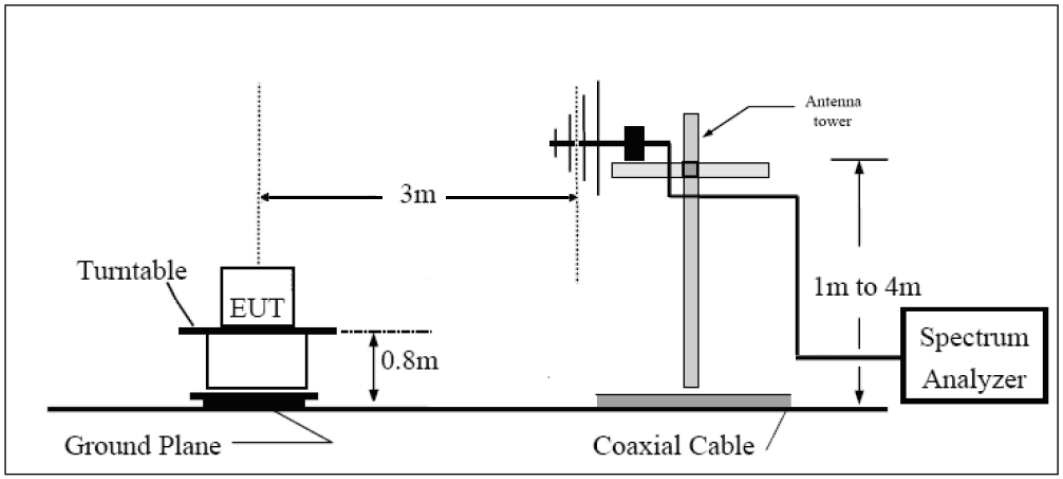
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

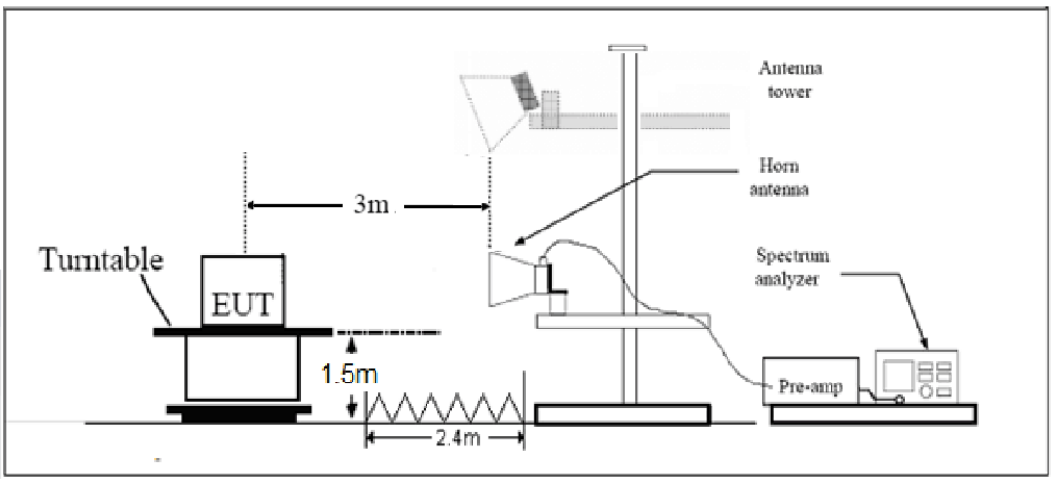
9KHz ~ 30MHz



30MHz~~~ 1GHz



Above 1GHz



Limits

Rule Part 90.691 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

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 Result

Sweep the whole frequency band through the range from 30MHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

Antenna 1

LTE Band 26 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	1638.00	-66.61	1.70	8.70	vertical	-61.76	-13.00	48.76	45
3	2455.80	-50.50	2.30	12.00	vertical	-42.95	-13.00	29.95	90
4	3276.00	-65.77	2.20	13.10	vertical	-57.02	-13.00	44.02	90
5	4095.00	-63.30	3.00	12.50	vertical	-55.95	-13.00	42.95	180
6	4914.00	-61.21	3.10	12.50	vertical	-53.96	-13.00	40.96	180
7	5733.00	-57.94	3.40	12.50	vertical	-50.99	-13.00	37.99	180
8	6552.00	-57.26	3.80	11.50	vertical	-51.71	-13.00	38.71	45
9	7371.00	-55.36	4.20	12.20	vertical	-49.51	-13.00	36.51	135
10	8190.00	-53.63	4.30	12.30	vertical	-47.78	-13.00	34.78	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.									

LTE Band 26 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	1638.00	-63.65	1.70	8.70	vertical	-58.80	-13.00	45.80	135
3	2461.90	-53.30	2.30	12.00	vertical	-45.75	-13.00	32.75	135
4	3276.00	-64.87	2.20	13.10	vertical	-56.12	-13.00	43.12	45
5	4095.00	-64.77	3.00	12.50	vertical	-57.42	-13.00	44.42	45
6	4914.00	-61.93	3.10	12.50	vertical	-54.68	-13.00	41.68	135
7	5733.00	-59.04	3.40	12.50	vertical	-52.09	-13.00	39.09	225
8	6552.00	-59.06	3.80	11.50	vertical	-53.51	-13.00	40.51	90
9	7371.00	-57.37	4.20	12.20	vertical	-51.52	-13.00	38.52	90
10	8190.00	-53.87	4.30	12.30	vertical	-48.02	-13.00	35.02	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 26 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	1638.00	-64.44	1.70	8.70	vertical	-59.59	-13.00	46.59	0
3	2466.60	-55.92	2.30	12.00	vertical	-48.37	-13.00	35.37	0
4	3276.00	-63.87	2.20	13.10	vertical	-55.12	-13.00	42.12	180
5	4095.00	-63.10	3.00	12.50	vertical	-55.75	-13.00	42.75	45
6	4914.00	-60.07	3.10	12.50	vertical	-52.82	-13.00	39.82	45
7	5733.00	-58.81	3.40	12.50	vertical	-51.86	-13.00	38.86	0
8	6552.00	-58.18	3.80	11.50	vertical	-52.63	-13.00	39.63	0
9	7371.00	-56.18	4.20	12.20	vertical	-50.33	-13.00	37.33	135
10	8190.00	-53.69	4.30	12.30	vertical	-47.84	-13.00	34.84	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.									

Antenna 2

LTE Band 26 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	1638.55	-66.63	1.70	8.70	vertical	-61.78	-13.00	48.78	180
3	2455.40	-63.05	2.30	12.00	vertical	-55.50	-13.00	42.50	180
4	3276.00	-66.21	2.20	13.10	vertical	-57.46	-13.00	44.46	315
5	4095.00	-63.42	3.00	12.50	vertical	-56.07	-13.00	43.07	0
6	4914.00	-60.59	3.10	12.50	vertical	-53.34	-13.00	40.34	315
7	5733.00	-58.57	3.40	12.50	vertical	-51.62	-13.00	38.62	45
8	6552.00	-57.85	3.80	11.50	vertical	-52.30	-13.00	39.30	135
9	7371.00	-54.98	4.20	12.20	vertical	-49.13	-13.00	36.13	270
10	8190.00	-54.55	4.30	12.30	vertical	-48.70	-13.00	35.70	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 vertical position.									

LTE Band 26 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	1638.85	-66.44	1.70	8.70	vertical	-61.59	-13.00	48.59	45
3	2450.60	-62.97	2.30	12.00	vertical	-55.42	-13.00	42.42	135
4	3276.00	-66.06	2.20	13.10	vertical	-57.31	-13.00	44.31	270
5	4095.00	-63.14	3.00	12.50	vertical	-55.79	-13.00	42.79	45
6	4914.00	-60.42	3.10	12.50	vertical	-53.17	-13.00	40.17	45
7	5733.00	-59.03	3.40	12.50	vertical	-52.08	-13.00	39.08	135
8	6552.00	-58.08	3.80	11.50	vertical	-52.53	-13.00	39.53	270
9	7371.00	-54.53	4.20	12.20	vertical	-48.68	-13.00	35.68	45
10	8190.00	-53.99	4.30	12.30	vertical	-48.14	-13.00	35.14	270
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 26 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	1638.00	-66.94	1.70	8.70	vertical	-62.09	-13.00	49.09	0
3	2466.60	-65.40	2.30	12.00	vertical	-57.85	-13.00	44.85	315
4	3276.00	-66.73	2.20	13.10	vertical	-57.98	-13.00	44.98	180
5	4095.00	-63.05	3.00	12.50	vertical	-55.70	-13.00	42.70	90
6	4914.00	-60.60	3.10	12.50	vertical	-53.35	-13.00	40.35	180
7	5733.00	-58.30	3.40	12.50	vertical	-51.35	-13.00	38.35	135
8	6552.00	-58.71	3.80	11.50	vertical	-53.16	-13.00	40.16	90
9	7371.00	-54.31	4.20	12.20	vertical	-48.46	-13.00	35.46	90
10	8190.00	-54.48	4.30	12.30	vertical	-48.63	-13.00	35.63	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.

6. 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
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Agilent	N9010A	MY47191109	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV30	100815	2020-12-13	2021-12-12
Trilog Antenna	SCHWARZBECK	VULB9163	391	2019-12-16	2022-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
Signal generator	R&S	SMB 100A	180235	2021-05-15	2022-05-14
Climatic Chamber	ESPEC	SU-242	93000506	2020-12-13	2021-12-12
RF Cable	Agilent	SMA 15cm	0001	2021-06-09	2021-12-08
Software	R&S	EMC32	9.26.0	/	/

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

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.