



RF TEST REPORT

Applicant Xiaomi Communications Co., Ltd.
FCC ID 2AFZZ3QL
Product Mobile Phone
Brand Redmi
Model 220333QL
Report No. R2111A1057-R10
Issue Date January 28, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2020)/ FCC CFR 47 Part 22H (2020)**. 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: December 30, 2021 and January 24, 2022

Date of Sample Received: December 27, 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 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
Post code: 201201
Country: P. R. China
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Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2. General Information

EUT Description			
Model	220333QL		
IMEI	IMEI 1: 860223060033583 IMEI 2: 860223060033591		
Hardware Version	P1.1		
Software Version	MIUI13		
Antenna Type	PIFA Antenna		
Antenna Gain	Band	Low Antenna	Upper Antenna
	LTE Band 26	-4 dBi	-3 dBi
Test Mode(s)	LTE Band 26;		
Test Modulation	QPSK, 16QAM, 64QAM;		
LTE Category	5		
Maximum E.R.P.	19.83 dBm		
Rated Power Supply Voltage	3.87V		
Operating Voltage	Minimum: 3.6V Maximum: 4.2V		
Operating Temperature	Lowest: 0°C Highest: +40°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	LTE Band 26	824 ~ 849	869 ~ 894
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.			



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 (2020)

FCC CFR47 Part 2 (2020)

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 (Z axis, vertical polarization) 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 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	Modes	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	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 26	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 26	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 26	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 26	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	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.

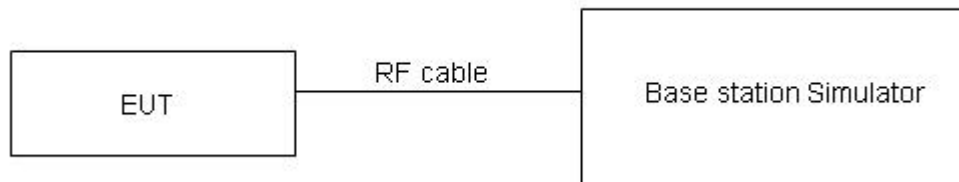
ERP can then be calculated as follows:

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

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	≤ 7 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 $k = 2$, $U = 0.4$ dB for RF power output, $k = 2$, $U = 1.19$ dB for ERP.



Test Results

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Low Antenna ERP(dBm)	Upper Antenna ERP(dBm)
LTE Band26	1.4	26797	1	#0	QPSK	24.82	18.67	19.67
LTE Band26	1.4	26797	1	#Mid	QPSK	24.98	18.83	19.83
LTE Band26	1.4	26797	1	#Max	QPSK	24.87	18.72	19.72
LTE Band26	1.4	26797	3	#0	QPSK	24.62	18.47	19.47
LTE Band26	1.4	26797	3	#Mid	QPSK	24.61	18.46	19.46
LTE Band26	1.4	26797	3	#Max	QPSK	24.52	18.37	19.37
LTE Band26	1.4	26797	6	#0	QPSK	23.58	17.43	18.43
LTE Band26	1.4	26797	1	#0	QAM16	23.84	17.69	18.69
LTE Band26	1.4	26797	1	#Mid	QAM16	23.97	17.82	18.82
LTE Band26	1.4	26797	1	#Max	QAM16	23.67	17.52	18.52
LTE Band26	1.4	26797	3	#0	QAM16	23.47	17.32	18.32
LTE Band26	1.4	26797	3	#Mid	QAM16	23.35	17.20	18.20
LTE Band26	1.4	26797	3	#Max	QAM16	23.49	17.34	18.34
LTE Band26	1.4	26797	6	#0	QAM16	22.39	16.24	17.24
LTE Band26	1.4	26915	1	#0	QPSK	24.29	18.14	19.14
LTE Band26	1.4	26915	1	#Mid	QPSK	24.47	18.32	19.32
LTE Band26	1.4	26915	1	#Max	QPSK	24.35	18.20	19.20
LTE Band26	1.4	26915	3	#0	QPSK	24.29	18.14	19.14
LTE Band26	1.4	26915	3	#Mid	QPSK	24.29	18.14	19.14
LTE Band26	1.4	26915	3	#Max	QPSK	24.45	18.30	19.30
LTE Band26	1.4	26915	6	#0	QPSK	23.55	17.40	18.40
LTE Band26	1.4	26915	1	#0	QAM16	23.59	17.44	18.44
LTE Band26	1.4	26915	1	#Mid	QAM16	23.79	17.64	18.64
LTE Band26	1.4	26915	1	#Max	QAM16	24.17	18.02	19.02
LTE Band26	1.4	26915	3	#0	QAM16	23.37	17.22	18.22
LTE Band26	1.4	26915	3	#Mid	QAM16	23.38	17.23	18.23
LTE Band26	1.4	26915	3	#Max	QAM16	23.48	17.33	18.33
LTE Band26	1.4	26915	6	#0	QAM16	22.45	16.30	17.30
LTE Band26	1.4	27033	1	#0	QPSK	24.29	18.14	19.14
LTE Band26	1.4	27033	1	#Mid	QPSK	24.71	18.56	19.56
LTE Band26	1.4	27033	1	#Max	QPSK	24.42	18.27	19.27
LTE Band26	1.4	27033	3	#0	QPSK	24.45	18.30	19.30
LTE Band26	1.4	27033	3	#Mid	QPSK	24.51	18.36	19.36
LTE Band26	1.4	27033	3	#Max	QPSK	24.37	18.22	19.22
LTE Band26	1.4	27033	6	#0	QPSK	23.32	17.17	18.17
LTE Band26	1.4	27033	1	#0	QAM16	22.94	16.79	17.79
LTE Band26	1.4	27033	1	#Mid	QAM16	23.26	17.11	18.11
LTE Band26	1.4	27033	1	#Max	QAM16	23.25	17.10	18.10



LTE Band26	1.4	27033	3	#0	QAM16	23.41	17.26	18.26
LTE Band26	1.4	27033	3	#Mid	QAM16	23.45	17.30	18.30
LTE Band26	1.4	27033	3	#Max	QAM16	23.29	17.14	18.14
LTE Band26	1.4	27033	6	#0	QAM16	22.18	16.03	17.03
LTE Band26	3	26805	1	#0	QPSK	24.42	18.27	19.27
LTE Band26	3	26805	1	#Mid	QPSK	24.27	18.12	19.12
LTE Band26	3	26805	1	#Max	QPSK	24.37	18.22	19.22
LTE Band26	3	26805	8	#0	QPSK	23.60	17.45	18.45
LTE Band26	3	26805	8	#Mid	QPSK	23.60	17.45	18.45
LTE Band26	3	26805	8	#Max	QPSK	23.48	17.33	18.33
LTE Band26	3	26805	15	#0	QPSK	23.55	17.40	18.40
LTE Band26	3	26805	1	#0	QAM16	23.58	17.43	18.43
LTE Band26	3	26805	1	#Mid	QAM16	23.48	17.33	18.33
LTE Band26	3	26805	1	#Max	QAM16	23.40	17.25	18.25
LTE Band26	3	26805	8	#0	QAM16	22.71	16.56	17.56
LTE Band26	3	26805	8	#Mid	QAM16	22.72	16.57	17.57
LTE Band26	3	26805	8	#Max	QAM16	22.68	16.53	17.53
LTE Band26	3	26805	15	#0	QAM16	22.45	16.30	17.30
LTE Band26	3	26915	1	#0	QPSK	24.50	18.35	19.35
LTE Band26	3	26915	1	#Mid	QPSK	24.47	18.32	19.32
LTE Band26	3	26915	1	#Max	QPSK	24.30	18.15	19.15
LTE Band26	3	26915	8	#0	QPSK	23.52	17.37	18.37
LTE Band26	3	26915	8	#Mid	QPSK	23.54	17.39	18.39
LTE Band26	3	26915	8	#Max	QPSK	23.52	17.37	18.37
LTE Band26	3	26915	15	#0	QPSK	23.52	17.37	18.37
LTE Band26	3	26915	1	#0	QAM16	24.08	17.93	18.93
LTE Band26	3	26915	1	#Mid	QAM16	23.88	17.73	18.73
LTE Band26	3	26915	1	#Max	QAM16	24.19	18.04	19.04
LTE Band26	3	26915	8	#0	QAM16	22.58	16.43	17.43
LTE Band26	3	26915	8	#Mid	QAM16	22.60	16.45	17.45
LTE Band26	3	26915	8	#Max	QAM16	22.78	16.63	17.63
LTE Band26	3	26915	15	#0	QAM16	22.70	16.55	17.55
LTE Band26	3	27025	1	#0	QPSK	24.32	18.17	19.17
LTE Band26	3	27025	1	#Mid	QPSK	24.27	18.12	19.12
LTE Band26	3	27025	1	#Max	QPSK	24.31	18.16	19.16
LTE Band26	3	27025	8	#0	QPSK	23.37	17.22	18.22
LTE Band26	3	27025	8	#Mid	QPSK	23.38	17.23	18.23
LTE Band26	3	27025	8	#Max	QPSK	23.40	17.25	18.25
LTE Band26	3	27025	15	#0	QPSK	23.35	17.20	18.20
LTE Band26	3	27025	1	#0	QAM16	23.09	16.94	17.94
LTE Band26	3	27025	1	#Mid	QAM16	22.98	16.83	17.83
LTE Band26	3	27025	1	#Max	QAM16	23.03	16.88	17.88
LTE Band26	3	27025	8	#0	QAM16	22.60	16.45	17.45



LTE Band26	3	27025	8	#Mid	QAM16	22.61	16.46	17.46
LTE Band26	3	27025	8	#Max	QAM16	22.19	16.04	17.04
LTE Band26	3	27025	15	#0	QAM16	22.17	16.02	17.02
LTE Band26	5	26815	1	#0	QPSK	24.45	18.30	19.30
LTE Band26	5	26815	1	#Mid	QPSK	24.29	18.14	19.14
LTE Band26	5	26815	1	#Max	QPSK	24.32	18.17	19.17
LTE Band26	5	26815	12	#0	QPSK	23.50	17.35	18.35
LTE Band26	5	26815	12	#Mid	QPSK	23.59	17.44	18.44
LTE Band26	5	26815	12	#Max	QPSK	23.54	17.39	18.39
LTE Band26	5	26815	25	#0	QPSK	23.49	17.34	18.34
LTE Band26	5	26815	1	#0	QAM16	23.51	17.36	18.36
LTE Band26	5	26815	1	#Mid	QAM16	23.51	17.36	18.36
LTE Band26	5	26815	1	#Max	QAM16	23.15	17.00	18.00
LTE Band26	5	26815	12	#0	QAM16	22.19	16.04	17.04
LTE Band26	5	26815	12	#Mid	QAM16	22.20	16.05	17.05
LTE Band26	5	26815	12	#Max	QAM16	22.12	15.97	16.97
LTE Band26	5	26815	25	#0	QAM16	22.44	16.29	17.29
LTE Band26	5	26915	1	#0	QPSK	24.11	17.96	18.96
LTE Band26	5	26915	1	#Mid	QPSK	24.17	18.02	19.02
LTE Band26	5	26915	1	#Max	QPSK	24.31	18.16	19.16
LTE Band26	5	26915	12	#0	QPSK	23.54	17.39	18.39
LTE Band26	5	26915	12	#Mid	QPSK	23.55	17.40	18.40
LTE Band26	5	26915	12	#Max	QPSK	23.55	17.40	18.40
LTE Band26	5	26915	25	#0	QPSK	23.40	17.25	18.25
LTE Band26	5	26915	1	#0	QAM16	23.73	17.58	18.58
LTE Band26	5	26915	1	#Mid	QAM16	24.08	17.93	18.93
LTE Band26	5	26915	1	#Max	QAM16	23.56	17.41	18.41
LTE Band26	5	26915	12	#0	QAM16	22.33	16.18	17.18
LTE Band26	5	26915	12	#Mid	QAM16	22.35	16.20	17.20
LTE Band26	5	26915	12	#Max	QAM16	22.27	16.12	17.12
LTE Band26	5	26915	25	#0	QAM16	22.51	16.36	17.36
LTE Band26	5	27015	1	#0	QPSK	24.32	18.17	19.17
LTE Band26	5	27015	1	#Mid	QPSK	24.32	18.17	19.17
LTE Band26	5	27015	1	#Max	QPSK	23.99	17.84	18.84
LTE Band26	5	27015	12	#0	QPSK	23.37	17.22	18.22
LTE Band26	5	27015	12	#Mid	QPSK	23.30	17.15	18.15
LTE Band26	5	27015	12	#Max	QPSK	23.32	17.17	18.17
LTE Band26	5	27015	25	#0	QPSK	23.38	17.23	18.23
LTE Band26	5	27015	1	#0	QAM16	23.39	17.24	18.24
LTE Band26	5	27015	1	#Mid	QAM16	23.20	17.05	18.05
LTE Band26	5	27015	1	#Max	QAM16	22.89	16.74	17.74
LTE Band26	5	27015	12	#0	QAM16	22.48	16.33	17.33
LTE Band26	5	27015	12	#Mid	QAM16	22.51	16.36	17.36



LTE Band26	5	27015	12	#Max	QAM16	22.15	16.00	17.00
LTE Band26	5	27015	25	#0	QAM16	22.37	16.22	17.22
LTE Band26	10	26840	1	#0	QPSK	24.42	18.27	19.27
LTE Band26	10	26840	1	#Mid	QPSK	24.57	18.42	19.42
LTE Band26	10	26840	1	#Max	QPSK	24.44	18.29	19.29
LTE Band26	10	26840	25	#0	QPSK	23.56	17.41	18.41
LTE Band26	10	26840	25	#Mid	QPSK	23.55	17.40	18.40
LTE Band26	10	26840	25	#Max	QPSK	23.54	17.39	18.39
LTE Band26	10	26840	50	#0	QPSK	23.51	17.36	18.36
LTE Band26	10	26840	1	#0	QAM16	23.72	17.57	18.57
LTE Band26	10	26840	1	#Mid	QAM16	24.38	18.23	19.23
LTE Band26	10	26840	1	#Max	QAM16	23.60	17.45	18.45
LTE Band26	10	26840	25	#0	QAM16	22.59	16.44	17.44
LTE Band26	10	26840	25	#Mid	QAM16	22.60	16.45	17.45
LTE Band26	10	26840	25	#Max	QAM16	22.58	16.43	17.43
LTE Band26	10	26840	50	#0	QAM16	22.48	16.33	17.33
LTE Band26	10	26915	1	#0	QPSK	24.46	18.31	19.31
LTE Band26	10	26915	1	#Mid	QPSK	24.46	18.31	19.31
LTE Band26	10	26915	1	#Max	QPSK	24.36	18.21	19.21
LTE Band26	10	26915	25	#0	QPSK	23.47	17.32	18.32
LTE Band26	10	26915	25	#Mid	QPSK	23.48	17.33	18.33
LTE Band26	10	26915	25	#Max	QPSK	23.49	17.34	18.34
LTE Band26	10	26915	50	#0	QPSK	23.49	17.34	18.34
LTE Band26	10	26915	1	#0	QAM16	24.05	17.90	18.90
LTE Band26	10	26915	1	#Mid	QAM16	24.04	17.89	18.89
LTE Band26	10	26915	1	#Max	QAM16	23.82	17.67	18.67
LTE Band26	10	26915	25	#0	QAM16	22.57	16.42	17.42
LTE Band26	10	26915	25	#Mid	QAM16	22.56	16.41	17.41
LTE Band26	10	26915	25	#Max	QAM16	22.47	16.32	17.32
LTE Band26	10	26915	50	#0	QAM16	22.42	16.27	17.27
LTE Band26	10	26990	1	#0	QPSK	24.40	18.25	19.25
LTE Band26	10	26990	1	#Mid	QPSK	24.72	18.57	19.57
LTE Band26	10	26990	1	#Max	QPSK	24.33	18.18	19.18
LTE Band26	10	26990	25	#0	QPSK	23.44	17.29	18.29
LTE Band26	10	26990	25	#Mid	QPSK	23.45	17.30	18.30
LTE Band26	10	26990	25	#Max	QPSK	23.29	17.14	18.14
LTE Band26	10	26990	50	#0	QPSK	23.44	17.29	18.29
LTE Band26	10	26990	1	#0	QAM16	23.47	17.32	18.32
LTE Band26	10	26990	1	#Mid	QAM16	23.26	17.11	18.11
LTE Band26	10	26990	1	#Max	QAM16	23.03	16.88	17.88
LTE Band26	10	26990	25	#0	QAM16	22.58	16.43	17.43
LTE Band26	10	26990	25	#Mid	QAM16	22.58	16.43	17.43
LTE Band26	10	26990	25	#Max	QAM16	22.31	16.16	17.16



LTE Band26	10	26990	50	#0	QAM16	22.43	16.28	17.28
LTE Band26	15	26865	1	#0	QPSK	24.38	18.23	19.23
LTE Band26	15	26865	1	#Mid	QPSK	24.46	18.31	19.31
LTE Band26	15	26865	1	#Max	QPSK	24.27	18.12	19.12
LTE Band26	15	26865	36	#0	QPSK	23.50	17.35	18.35
LTE Band26	15	26865	36	#Mid	QPSK	23.50	17.35	18.35
LTE Band26	15	26865	36	#Max	QPSK	23.43	17.28	18.28
LTE Band26	15	26865	75	#0	QPSK	23.44	17.29	18.29
LTE Band26	15	26865	1	#0	QAM16	23.65	17.50	18.50
LTE Band26	15	26865	1	#Mid	QAM16	23.68	17.53	18.53
LTE Band26	15	26865	1	#Max	QAM16	23.58	17.43	18.43
LTE Band26	15	26865	36	#0	QAM16	22.43	16.28	17.28
LTE Band26	15	26865	36	#Mid	QAM16	22.40	16.25	17.25
LTE Band26	15	26865	36	#Max	QAM16	22.36	16.21	17.21
LTE Band26	15	26865	75	#0	QAM16	22.46	16.31	17.31
LTE Band26	15	26915	1	#0	QPSK	24.59	18.44	19.44
LTE Band26	15	26915	1	#Mid	QPSK	24.60	18.45	19.45
LTE Band26	15	26915	1	#Max	QPSK	24.18	18.03	19.03
LTE Band26	15	26915	36	#0	QPSK	23.48	17.33	18.33
LTE Band26	15	26915	36	#Mid	QPSK	23.50	17.35	18.35
LTE Band26	15	26915	36	#Max	QPSK	23.43	17.28	18.28
LTE Band26	15	26915	75	#0	QPSK	23.44	17.29	18.29
LTE Band26	15	26915	1	#0	QAM16	24.20	18.05	19.05
LTE Band26	15	26915	1	#Mid	QAM16	24.10	17.95	18.95
LTE Band26	15	26915	1	#Max	QAM16	24.04	17.89	18.89
LTE Band26	15	26915	36	#0	QAM16	22.71	16.56	17.56
LTE Band26	15	26915	36	#Mid	QAM16	22.73	16.58	17.58
LTE Band26	15	26915	36	#Max	QAM16	22.58	16.43	17.43
LTE Band26	15	26915	75	#0	QAM16	22.39	16.24	17.24
LTE Band26	15	26965	1	#0	QPSK	24.43	18.28	19.28
LTE Band26	15	26965	1	#Mid	QPSK	24.23	18.08	19.08
LTE Band26	15	26965	1	#Max	QPSK	24.14	17.99	18.99
LTE Band26	15	26965	36	#0	QPSK	23.45	17.30	18.30
LTE Band26	15	26965	36	#Mid	QPSK	23.40	17.25	18.25
LTE Band26	15	26965	36	#Max	QPSK	23.30	17.15	18.15
LTE Band26	15	26965	75	#0	QPSK	23.42	17.27	18.27
LTE Band26	15	26965	1	#0	QAM16	23.07	16.92	17.92
LTE Band26	15	26965	1	#Mid	QAM16	23.32	17.17	18.17
LTE Band26	15	26965	1	#Max	QAM16	22.96	16.81	17.81
LTE Band26	15	26965	36	#0	QAM16	22.49	16.34	17.34
LTE Band26	15	26965	36	#Mid	QAM16	22.42	16.27	17.27
LTE Band26	15	26965	36	#Max	QAM16	22.21	16.06	17.06
LTE Band26	15	26965	75	#0	QAM16	22.41	16.26	17.26



LTE Band26	1.4	26797	1	#0	QAM64	22.59	16.44	17.44
LTE Band26	1.4	26797	1	#Mid	QAM64	22.78	16.63	17.63
LTE Band26	1.4	26797	1	#Max	QAM64	22.49	16.34	17.34
LTE Band26	1.4	26797	3	#0	QAM64	22.43	16.28	17.28
LTE Band26	1.4	26797	3	#Mid	QAM64	22.42	16.27	17.27
LTE Band26	1.4	26797	3	#Max	QAM64	22.43	16.28	17.28
LTE Band26	1.4	26797	6	#0	QAM64	21.35	15.20	16.20
LTE Band26	1.4	26915	1	#0	QAM64	22.89	16.74	17.74
LTE Band26	1.4	26915	1	#Mid	QAM64	22.99	16.84	17.84
LTE Band26	1.4	26915	1	#Max	QAM64	22.96	16.81	17.81
LTE Band26	1.4	26915	3	#0	QAM64	22.64	16.49	17.49
LTE Band26	1.4	26915	3	#Mid	QAM64	22.64	16.49	17.49
LTE Band26	1.4	26915	3	#Max	QAM64	22.63	16.48	17.48
LTE Band26	1.4	26915	6	#0	QAM64	21.28	15.13	16.13
LTE Band26	1.4	27033	1	#0	QAM64	22.21	16.06	17.06
LTE Band26	1.4	27033	1	#Mid	QAM64	21.96	15.81	16.81
LTE Band26	1.4	27033	1	#Max	QAM64	21.80	15.65	16.65
LTE Band26	1.4	27033	3	#0	QAM64	22.05	15.90	16.90
LTE Band26	1.4	27033	3	#Mid	QAM64	22.03	15.88	16.88
LTE Band26	1.4	27033	3	#Max	QAM64	21.99	15.84	16.84
LTE Band26	1.4	27033	6	#0	QAM64	20.84	14.69	15.69
LTE Band26	3	26805	1	#0	QAM64	22.45	16.30	17.30
LTE Band26	3	26805	1	#Mid	QAM64	22.29	16.14	17.14
LTE Band26	3	26805	1	#Max	QAM64	22.34	16.19	17.19
LTE Band26	3	26805	8	#0	QAM64	21.24	15.09	16.09
LTE Band26	3	26805	8	#Mid	QAM64	21.24	15.09	16.09
LTE Band26	3	26805	8	#Max	QAM64	21.20	15.05	16.05
LTE Band26	3	26805	15	#0	QAM64	21.13	14.98	15.98
LTE Band26	3	26915	1	#0	QAM64	22.61	16.46	17.46
LTE Band26	3	26915	1	#Mid	QAM64	22.57	16.42	17.42
LTE Band26	3	26915	1	#Max	QAM64	22.47	16.32	17.32
LTE Band26	3	26915	8	#0	QAM64	21.39	15.24	16.24
LTE Band26	3	26915	8	#Mid	QAM64	21.40	15.25	16.25
LTE Band26	3	26915	8	#Max	QAM64	21.35	15.20	16.20
LTE Band26	3	26915	15	#0	QAM64	21.28	15.13	16.13
LTE Band26	3	27025	1	#0	QAM64	22.29	16.14	17.14
LTE Band26	3	27025	1	#Mid	QAM64	22.19	16.04	17.04
LTE Band26	3	27025	1	#Max	QAM64	21.72	15.57	16.57
LTE Band26	3	27025	8	#0	QAM64	20.97	14.82	15.82
LTE Band26	3	27025	8	#Mid	QAM64	20.99	14.84	15.84
LTE Band26	3	27025	8	#Max	QAM64	20.86	14.71	15.71
LTE Band26	3	27025	15	#0	QAM64	21.07	14.92	15.92
LTE Band26	5	26815	1	#0	QAM64	22.31	16.16	17.16



LTE Band26	5	26815	1	#Mid	QAM64	21.93	15.78	16.78
LTE Band26	5	26815	1	#Max	QAM64	21.85	15.70	16.70
LTE Band26	5	26815	12	#0	QAM64	21.19	15.04	16.04
LTE Band26	5	26815	12	#Mid	QAM64	21.18	15.03	16.03
LTE Band26	5	26815	12	#Max	QAM64	21.11	14.96	15.96
LTE Band26	5	26815	25	#0	QAM64	21.20	15.05	16.05
LTE Band26	5	26915	1	#0	QAM64	22.25	16.10	17.10
LTE Band26	5	26915	1	#Mid	QAM64	22.81	16.66	17.66
LTE Band26	5	26915	1	#Max	QAM64	22.29	16.14	17.14
LTE Band26	5	26915	12	#0	QAM64	20.95	14.80	15.80
LTE Band26	5	26915	12	#Mid	QAM64	20.97	14.82	15.82
LTE Band26	5	26915	12	#Max	QAM64	20.94	14.79	15.79
LTE Band26	5	26915	25	#0	QAM64	21.10	14.95	15.95
LTE Band26	5	27015	1	#0	QAM64	22.03	15.88	16.88
LTE Band26	5	27015	1	#Mid	QAM64	21.98	15.83	16.83
LTE Band26	5	27015	1	#Max	QAM64	21.94	15.79	16.79
LTE Band26	5	27015	12	#0	QAM64	21.10	14.95	15.95
LTE Band26	5	27015	12	#Mid	QAM64	21.11	14.96	15.96
LTE Band26	5	27015	12	#Max	QAM64	20.76	14.61	15.61
LTE Band26	5	27015	25	#0	QAM64	21.10	14.95	15.95
LTE Band26	10	26840	1	#0	QAM64	22.53	16.38	17.38
LTE Band26	10	26840	1	#Mid	QAM64	23.05	16.90	17.90
LTE Band26	10	26840	1	#Max	QAM64	22.32	16.17	17.17
LTE Band26	10	26840	25	#0	QAM64	21.15	15.00	16.00
LTE Band26	10	26840	25	#Mid	QAM64	21.25	15.10	16.10
LTE Band26	10	26840	25	#Max	QAM64	21.19	15.04	16.04
LTE Band26	10	26840	50	#0	QAM64	21.20	15.05	16.05
LTE Band26	10	26915	1	#0	QAM64	22.98	16.83	17.83
LTE Band26	10	26915	1	#Mid	QAM64	22.68	16.53	17.53
LTE Band26	10	26915	1	#Max	QAM64	22.97	16.82	17.82
LTE Band26	10	26915	25	#0	QAM64	21.27	15.12	16.12
LTE Band26	10	26915	25	#Mid	QAM64	21.23	15.08	16.08
LTE Band26	10	26915	25	#Max	QAM64	21.29	15.14	16.14
LTE Band26	10	26915	50	#0	QAM64	21.36	15.21	16.21
LTE Band26	10	26990	1	#0	QAM64	21.99	15.84	16.84
LTE Band26	10	26990	1	#Mid	QAM64	21.92	15.77	16.77
LTE Band26	10	26990	1	#Max	QAM64	21.74	15.59	16.59
LTE Band26	10	26990	25	#0	QAM64	21.14	14.99	15.99
LTE Band26	10	26990	25	#Mid	QAM64	21.15	15.00	16.00
LTE Band26	10	26990	25	#Max	QAM64	20.99	14.84	15.84
LTE Band26	10	26990	50	#0	QAM64	21.20	15.05	16.05
LTE Band26	15	26865	1	#0	QAM64	22.29	16.14	17.14
LTE Band26	15	26865	1	#Mid	QAM64	23.09	16.94	17.94



LTE Band26	15	26865	1	#Max	QAM64	22.46	16.31	17.31
LTE Band26	15	26865	36	#0	QAM64	21.26	15.11	16.11
LTE Band26	15	26865	36	#Mid	QAM64	21.27	15.12	16.12
LTE Band26	15	26865	36	#Max	QAM64	21.23	15.08	16.08
LTE Band26	15	26865	75	#0	QAM64	21.27	15.12	16.12
LTE Band26	15	26915	1	#0	QAM64	22.75	16.60	17.60
LTE Band26	15	26915	1	#Mid	QAM64	22.80	16.65	17.65
LTE Band26	15	26915	1	#Max	QAM64	22.84	16.69	17.69
LTE Band26	15	26915	36	#0	QAM64	21.10	14.95	15.95
LTE Band26	15	26915	36	#Mid	QAM64	21.19	15.04	16.04
LTE Band26	15	26915	36	#Max	QAM64	21.12	14.97	15.97
LTE Band26	15	26915	75	#0	QAM64	21.26	15.11	16.11
LTE Band26	15	26965	1	#0	QAM64	21.89	15.74	16.74
LTE Band26	15	26965	1	#Mid	QAM64	22.12	15.97	16.97
LTE Band26	15	26965	1	#Max	QAM64	21.36	15.21	16.21
LTE Band26	15	26965	36	#0	QAM64	21.18	15.03	16.03
LTE Band26	15	26965	36	#Mid	QAM64	21.30	15.15	16.15
LTE Band26	15	26965	36	#Max	QAM64	21.10	14.95	15.95
LTE Band26	15	26965	75	#0	QAM64	21.16	15.01	16.01

5.2. Occupied Bandwidth

Ambient condition

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

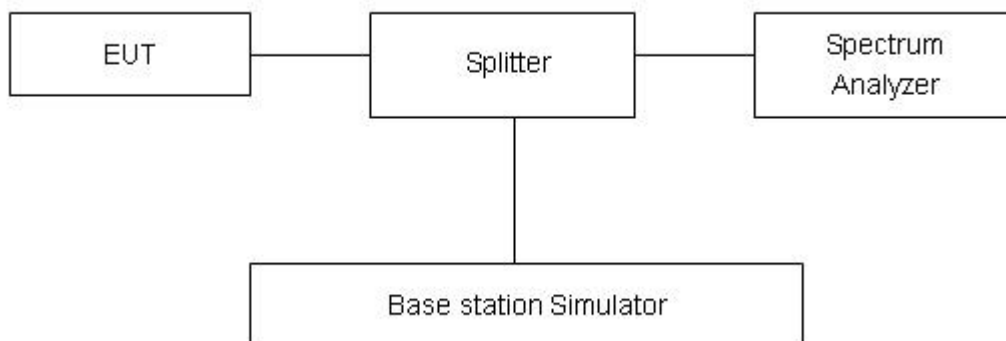
Method of Measurement

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 $k = 2$, $U = 624\text{Hz}$.

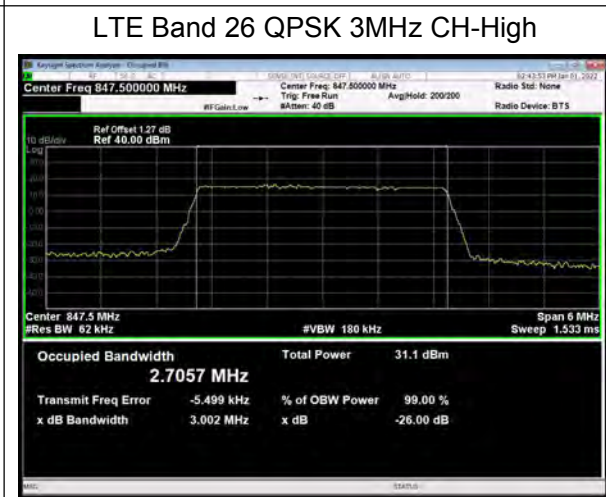
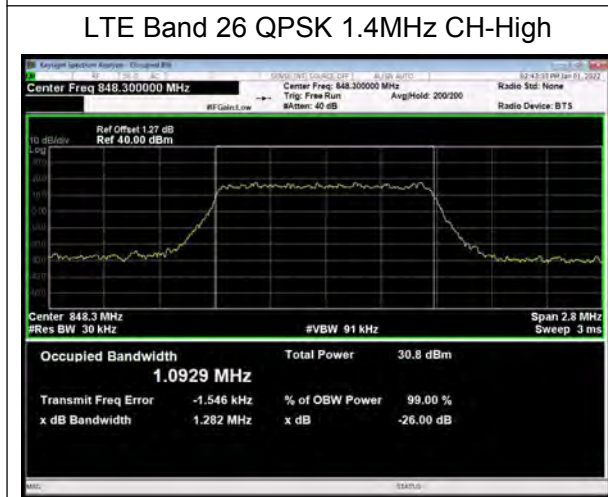
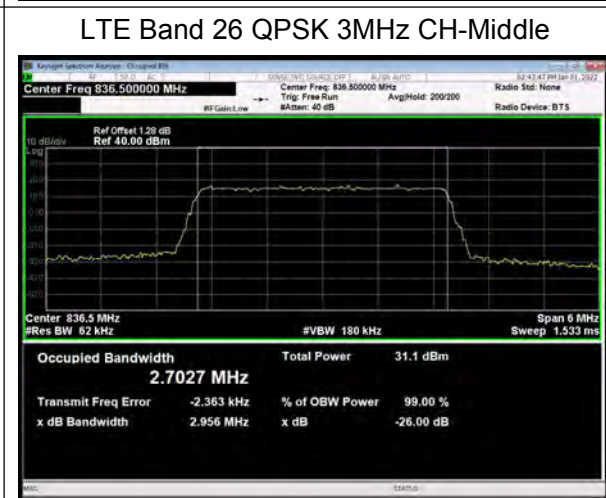
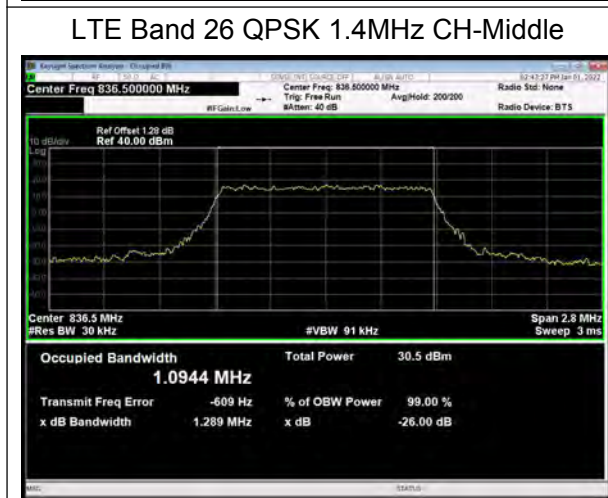
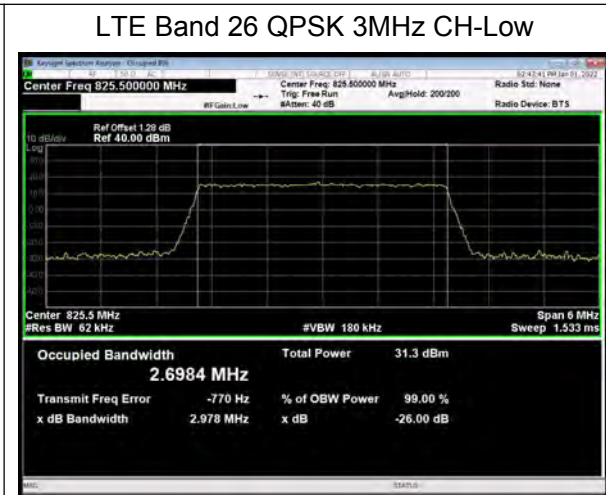
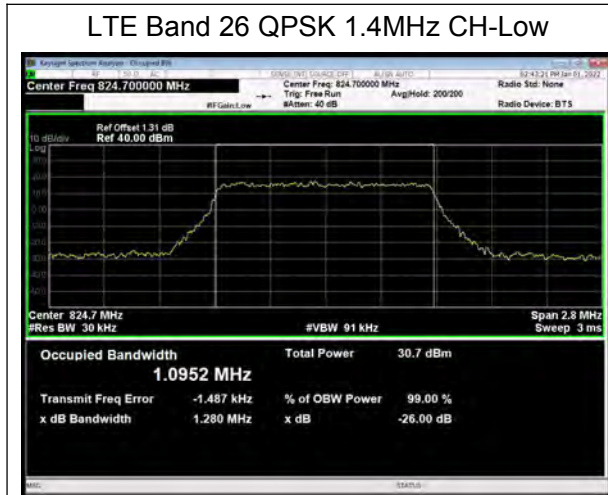


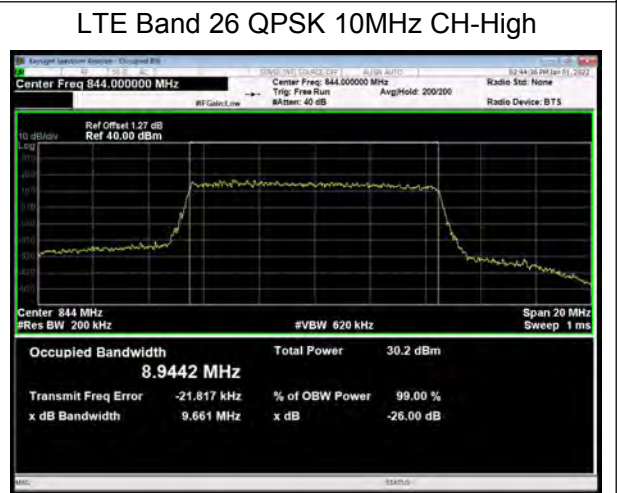
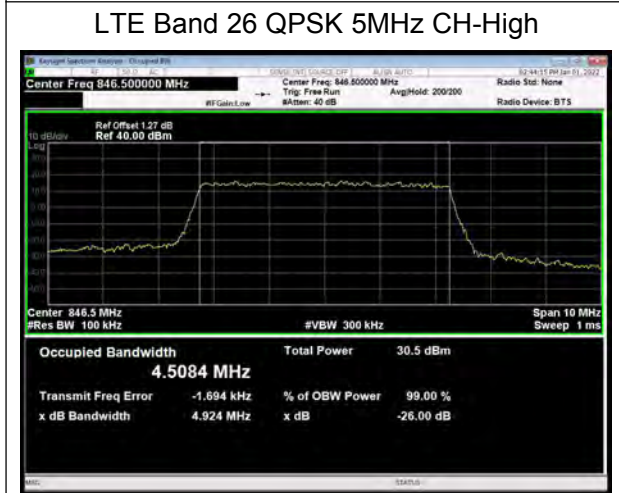
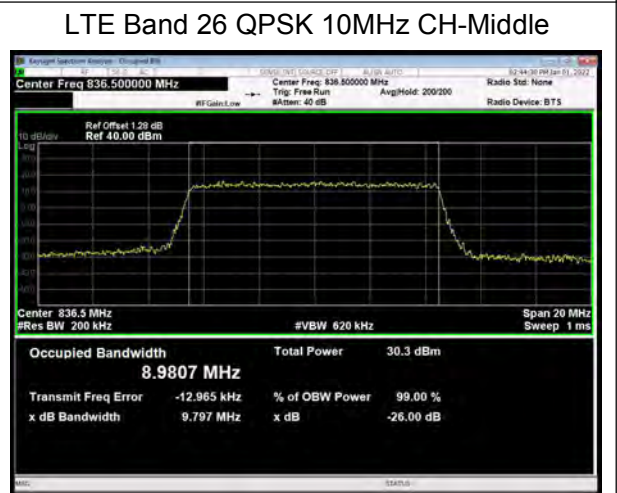
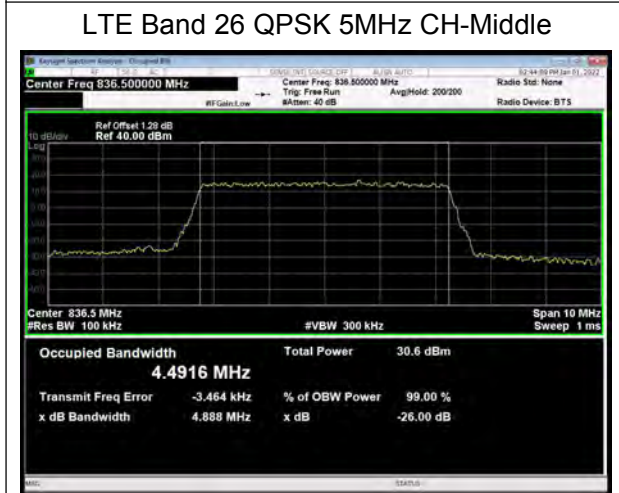
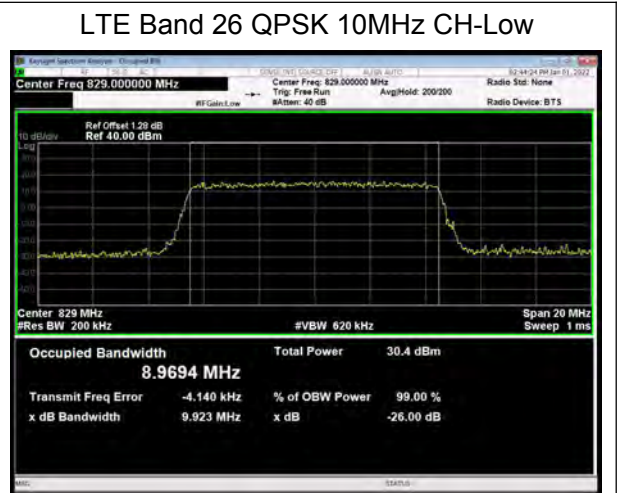
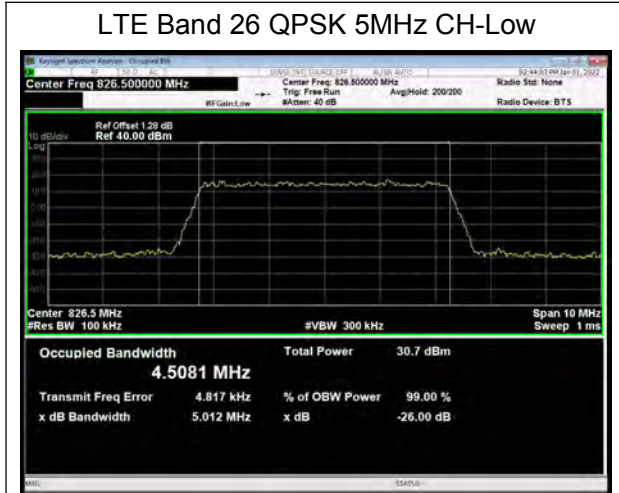
Test Result

LTE Band 26						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	26797	824.7	1.095	1.280
			26915	836.5	1.094	1.289
			27033	848.3	1.093	1.282
		3	26805	825.5	2.698	2.978
			26915	836.5	2.703	2.956
			27025	847.5	2.706	3.002
		5	26815	826.5	4.508	5.012
			26915	836.5	4.492	4.888
			27015	846.5	4.508	4.924
		10	26840	829	8.969	9.923
			26915	836.5	8.981	9.797
			26990	844	8.944	9.661
	15	26865	831.5	13.423	14.528	
		26915	836.5	13.400	14.657	
		26965	841.5	13.401	14.580	
	16QAM	1.4	26797	824.7	1.100	1.316
			26915	836.5	1.091	1.264
			27033	848.3	1.095	1.286
		3	26805	825.5	2.696	2.960
			26915	836.5	2.699	2.988
			27025	847.5	2.702	2.962
		5	26815	826.5	4.494	4.953
			26915	836.5	4.506	4.969
			27015	846.5	4.504	4.952
10		26840	829	8.970	9.799	
		26915	836.5	8.943	9.740	
		26990	844	8.947	9.773	
15	26865	831.5	13.418	14.616		
	26915	836.5	13.397	14.470		



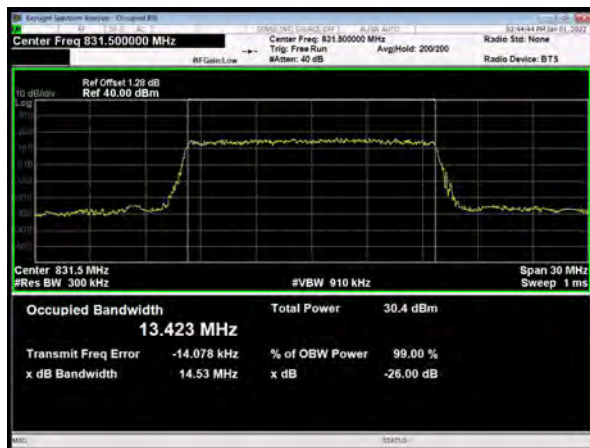
			26965	841.5	13.393	14.582
64QAM	1.4	26797	824.7	1.093	1.272	
		26915	836.5	1.093	1.301	
		27033	848.3	1.096	1.308	
	3	26805	825.5	2.687	3.008	
		26915	836.5	2.694	2.977	
		27025	847.5	2.709	2.985	
	5	26815	826.5	4.505	4.994	
		26915	836.5	4.503	4.970	
		27015	846.5	4.520	4.955	
	10	26840	829	8.977	9.737	
		26915	836.5	8.988	9.879	
		26990	844	8.951	9.785	
	15	26865	831.5	13.417	14.499	
		26915	836.5	13.412	14.566	
		26965	841.5	13.391	14.436	



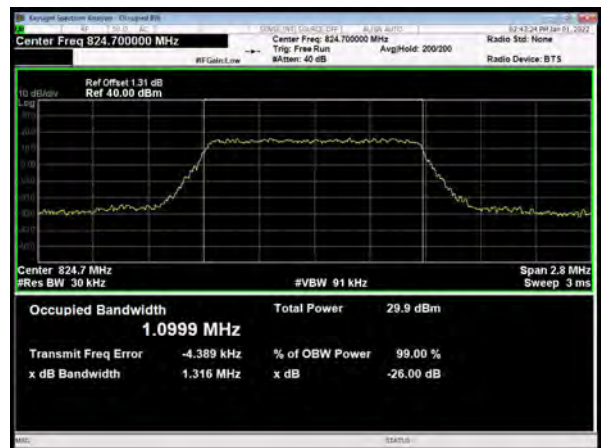




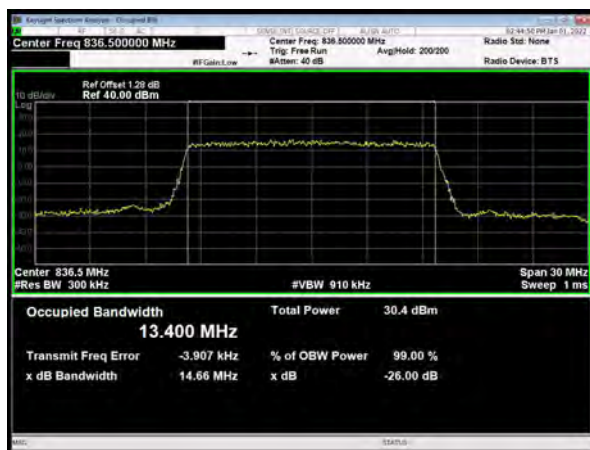
LTE Band 26 QPSK 15MHz CH-Low



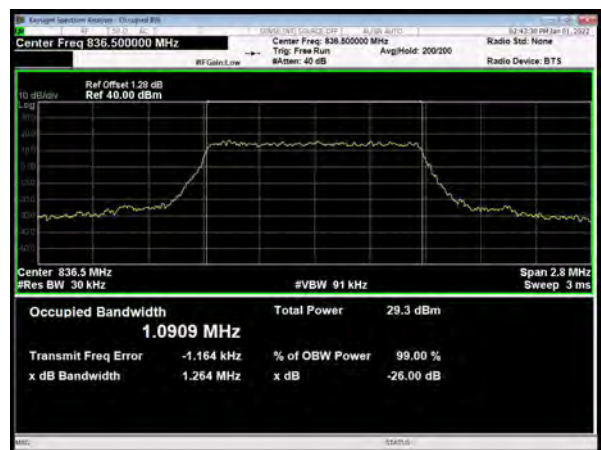
LTE Band 26 16QAM 1.4MHz CH-Low



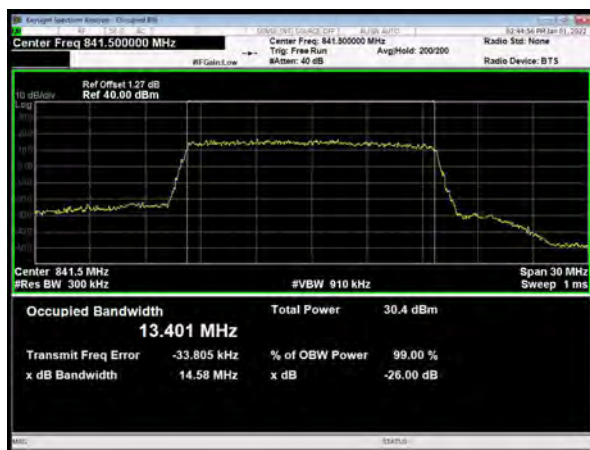
LTE Band 26 QPSK 15MHz CH-Middle



LTE Band 26 16QAM 1.4MHz CH-Middle



LTE Band 26 QPSK 15MHz CH-High



LTE Band 26 16QAM 1.4MHz CH-High

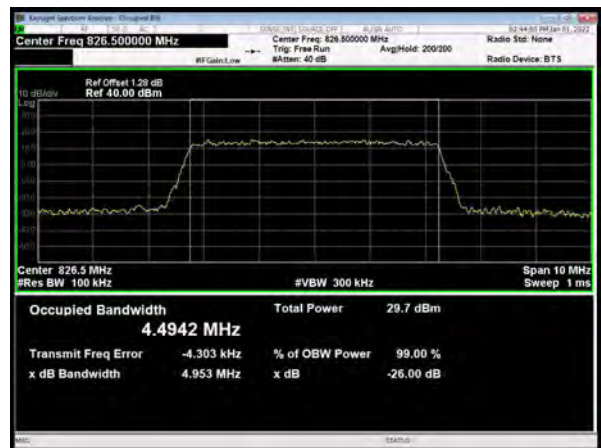




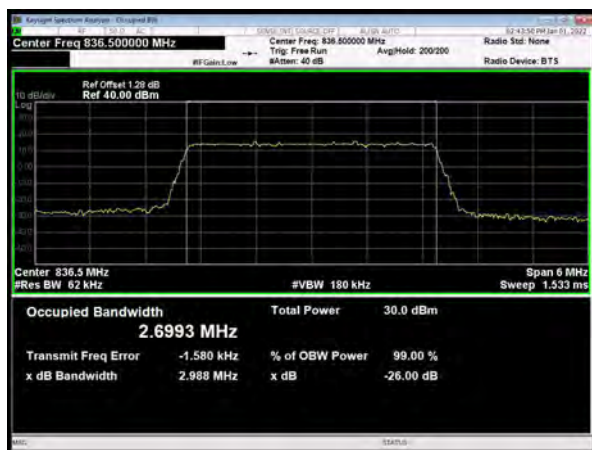
LTE Band 26 16QAM 3MHz CH-Low



LTE Band 26 16QAM 5MHz CH-Low



LTE Band 26 16QAM 3MHz CH-Middle



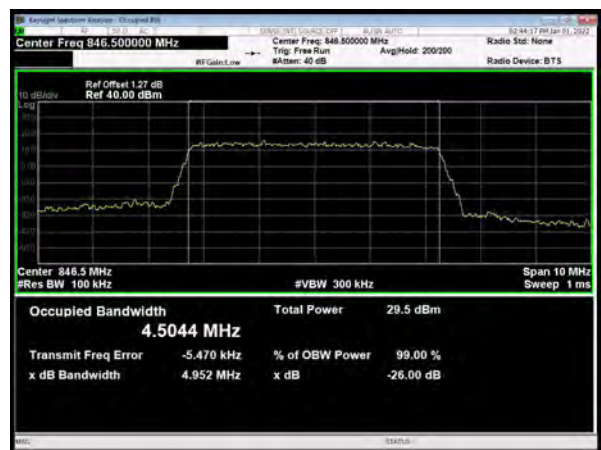
LTE Band 26 16QAM 5MHz CH-Middle

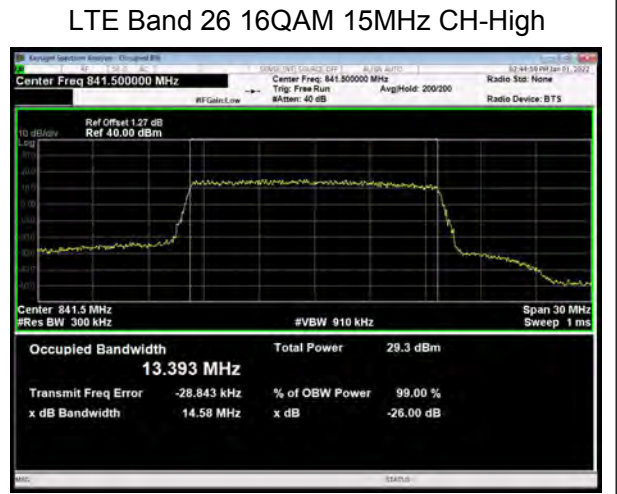
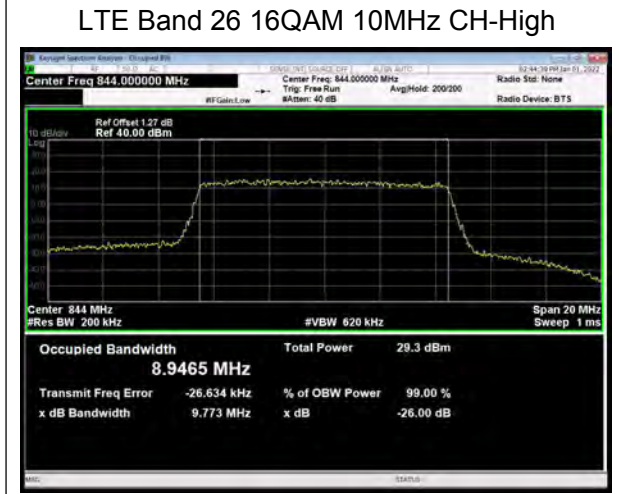
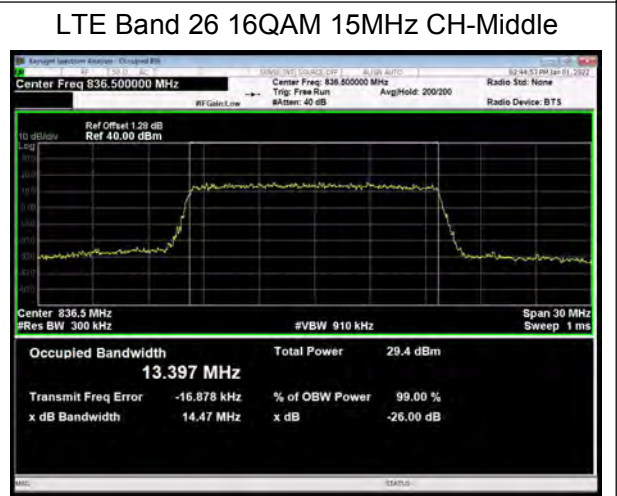
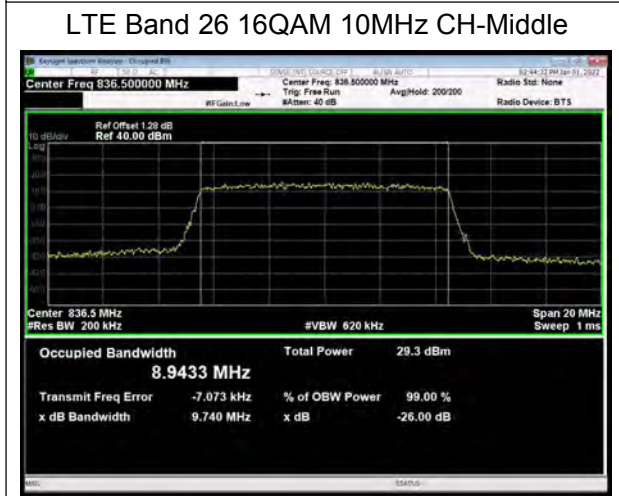
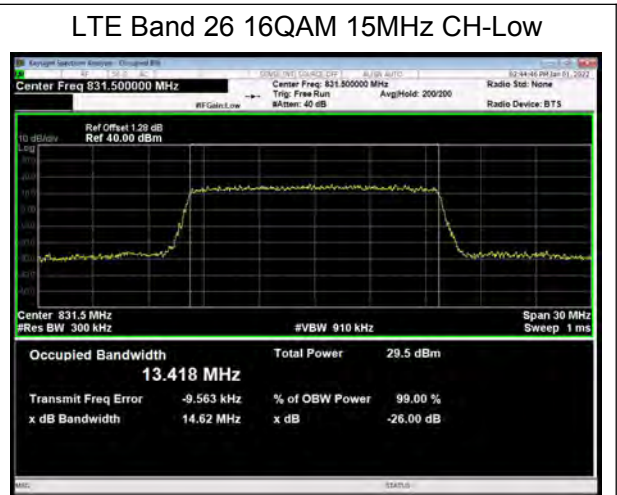
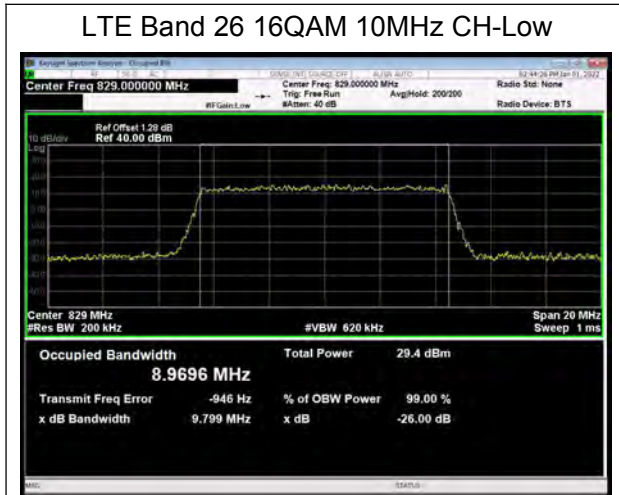


LTE Band 26 16QAM 3MHz CH-High



LTE Band 26 16QAM 5MHz CH-High



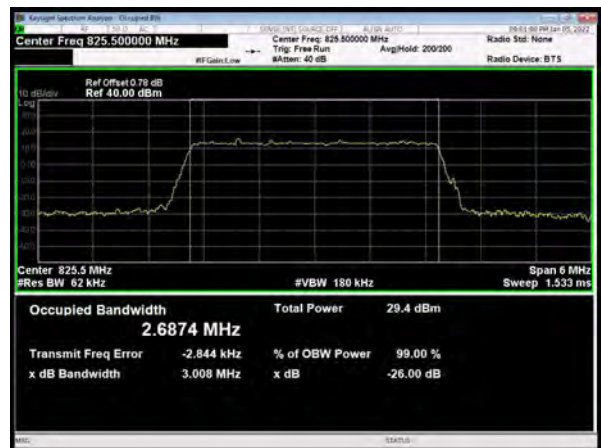




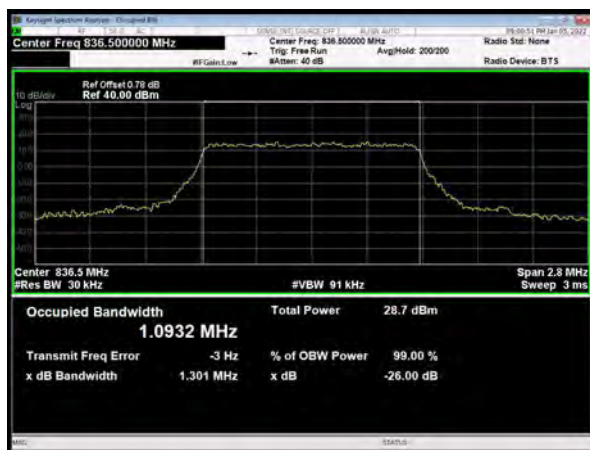
LTE Band 26 64QAM 1.4MHz CH-Low



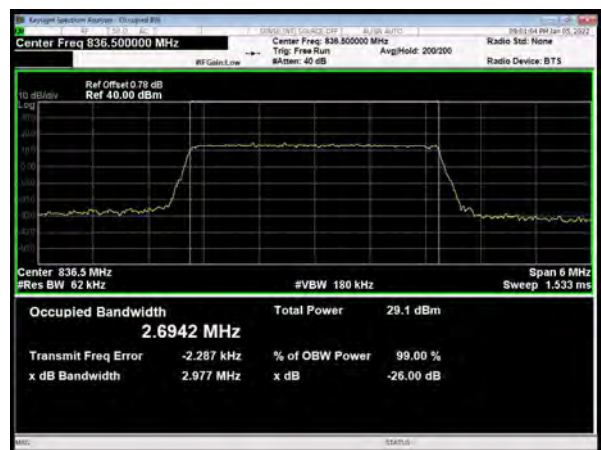
LTE Band 26 64QAM 3MHz CH-Low



LTE Band 26 64QAM 1.4MHz CH-Middle



LTE Band 26 64QAM 3MHz CH-Middle

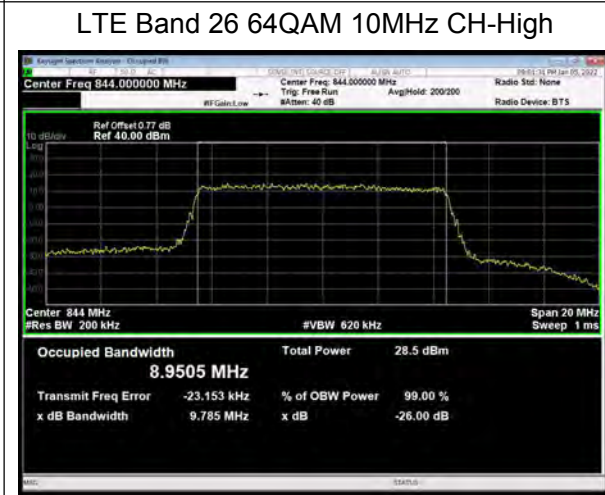
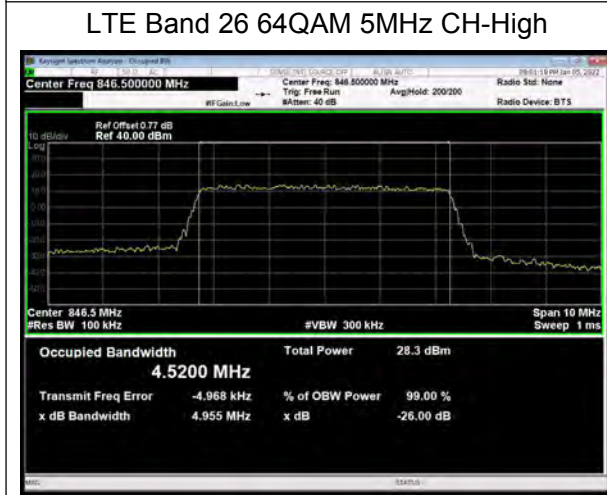
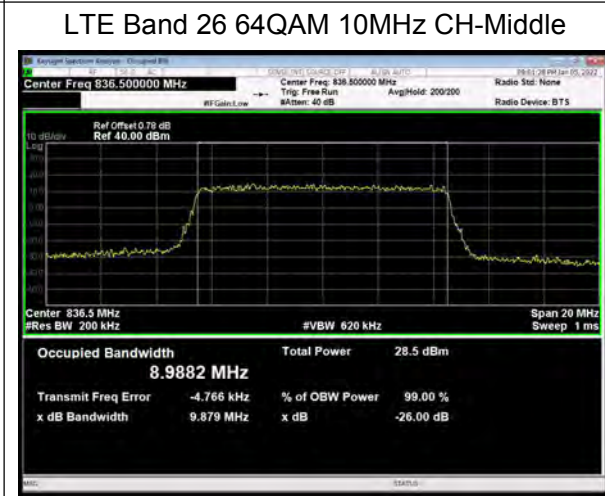
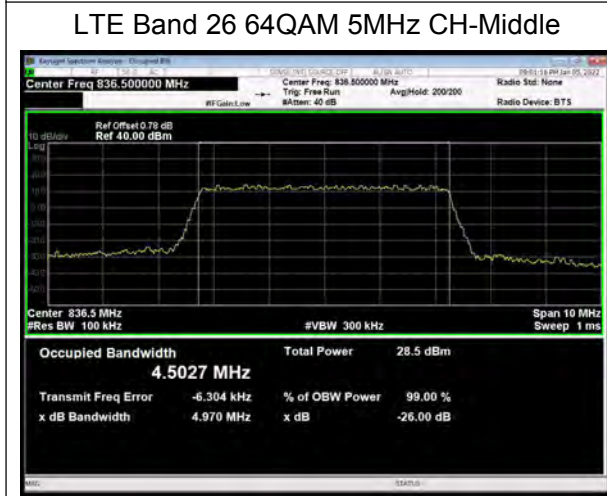
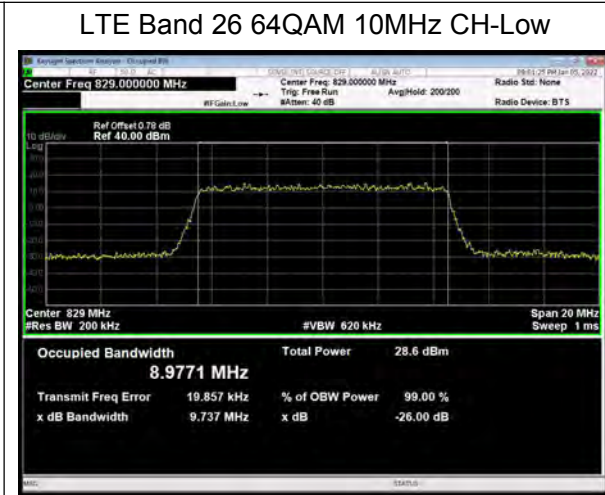
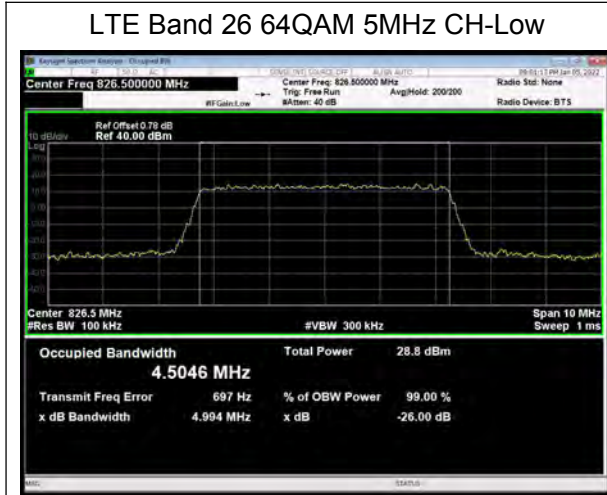


LTE Band 26 64QAM 1.4MHz CH-High

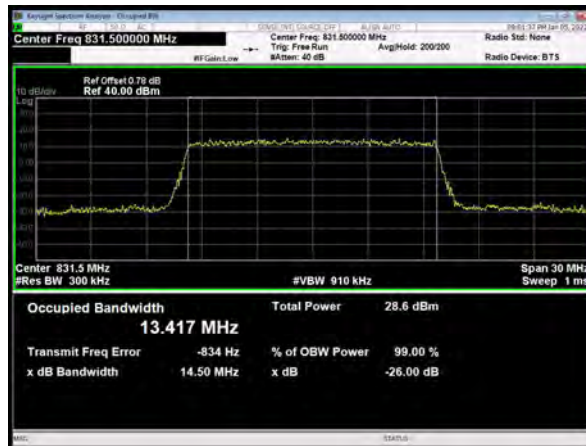


LTE Band 26 64QAM 3MHz CH-High

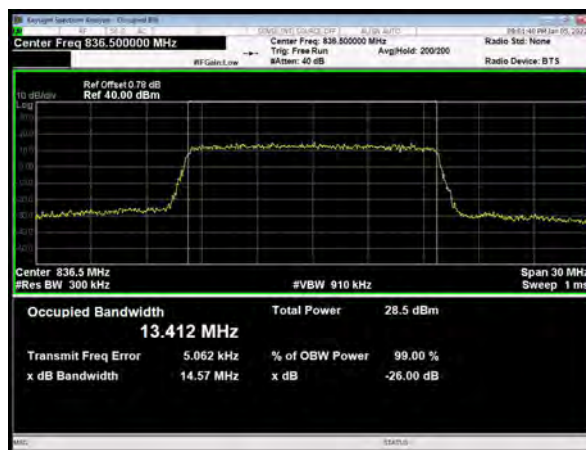




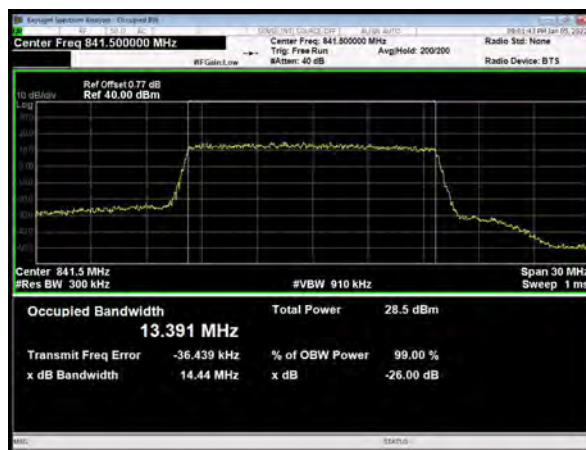
LTE Band 26 64QAM 15MHz CH-Low



LTE Band 26 64QAM 15MHz CH-Middle



LTE Band 26 64QAM 15MHz CH-High



5.3. Band Edge Compliance

Ambient condition

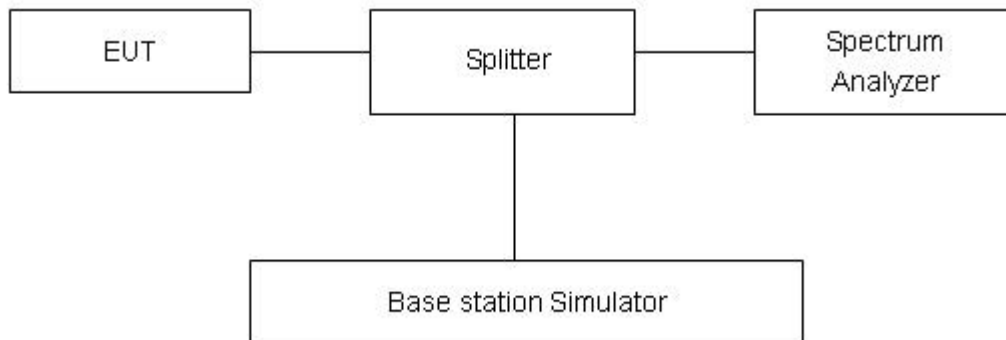
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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.”

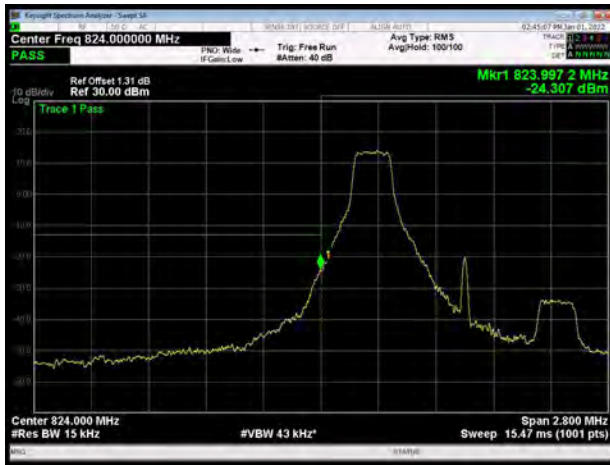
Limit	-13 dBm
-------	---------

Measurement Uncertainty

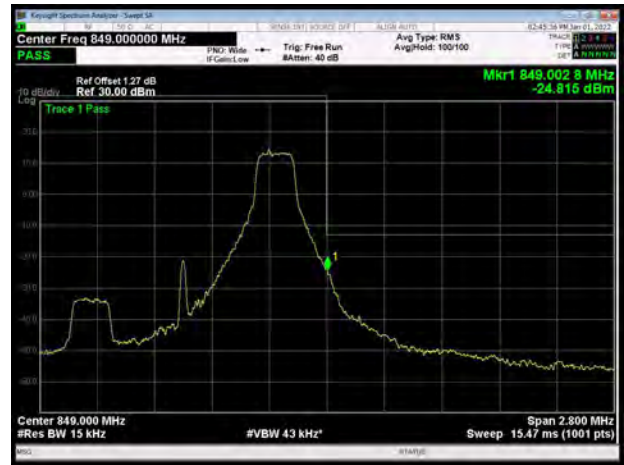
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684dB$.

Test Result:

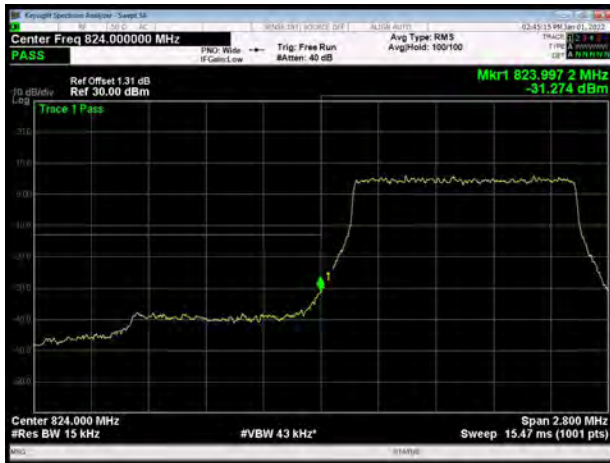
LTE Band 26 QPSK 1.4MHz CH-Low 1RB



LTE Band 26 QPSK 1.4MHz CH-High 1RB



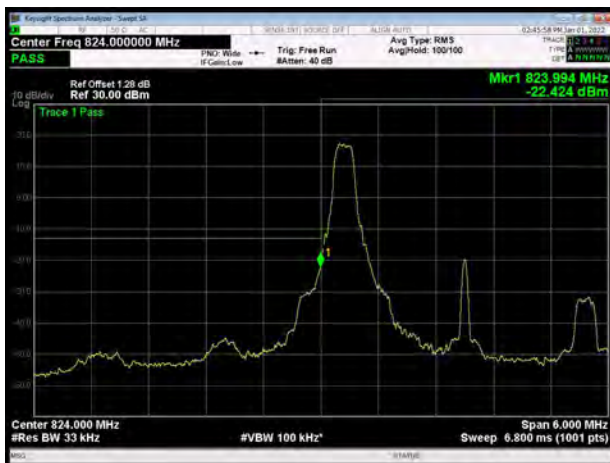
LTE Band 26 QPSK 1.4MHz CH-Low 100%RB



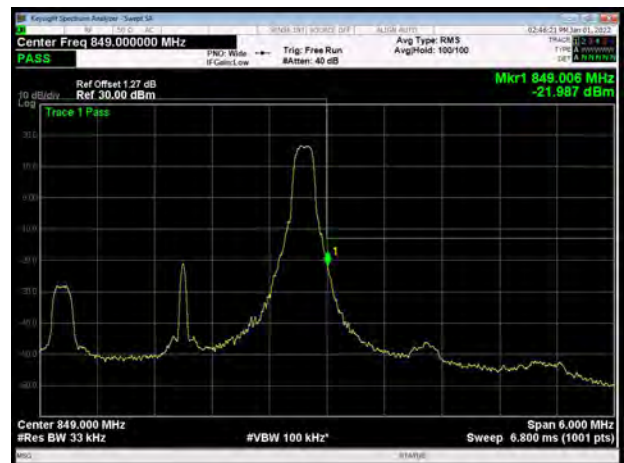
LTE Band 26 QPSK 1.4MHz CH-High 100%RB



LTE Band 26 QPSK 3MHz CH-Low 1RB

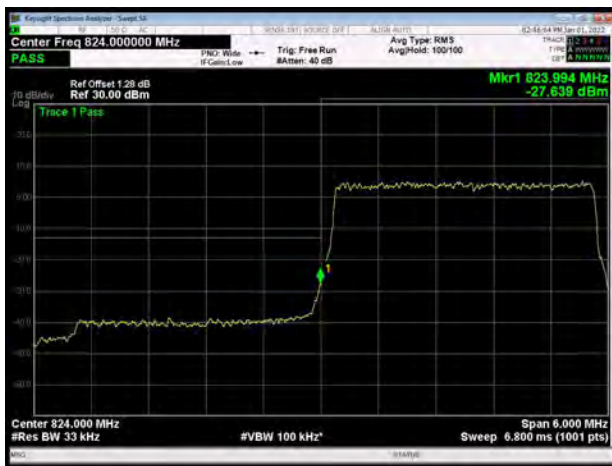


LTE Band 26 QPSK 3MHz CH-High 1RB

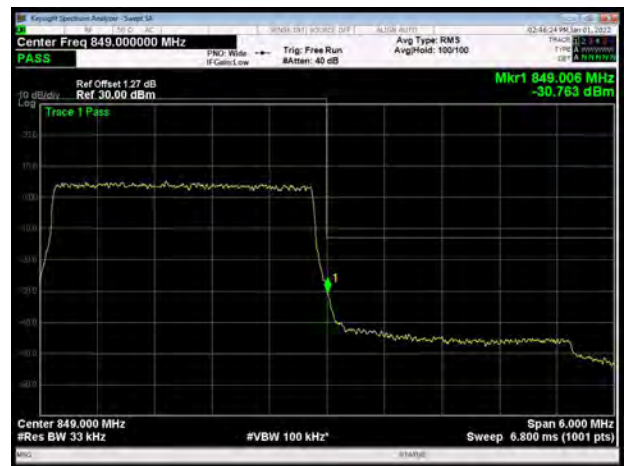




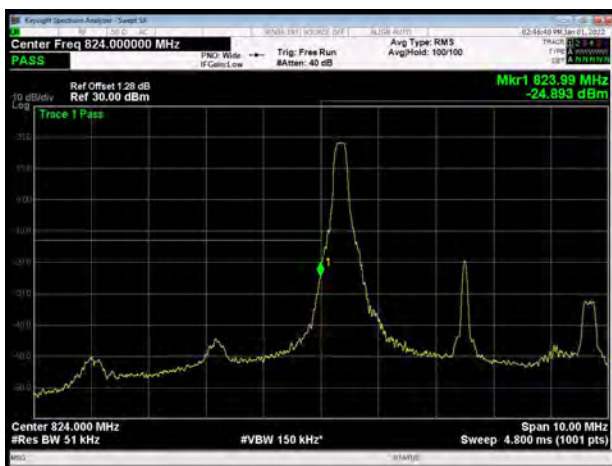
LTE Band 26 QPSK 3MHz CH-Low 100%RB



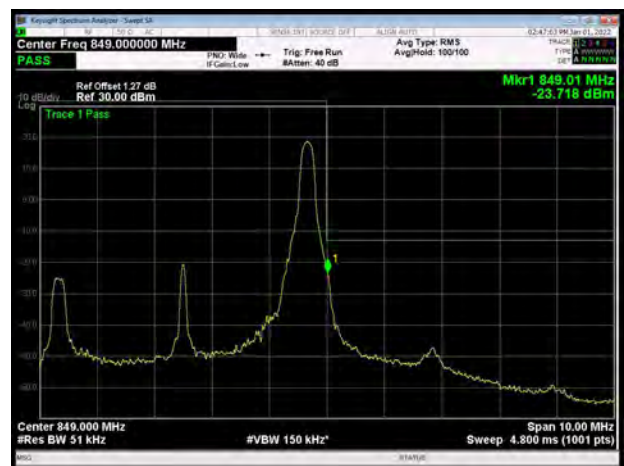
LTE Band 26 QPSK 3MHz CH-High 100%RB



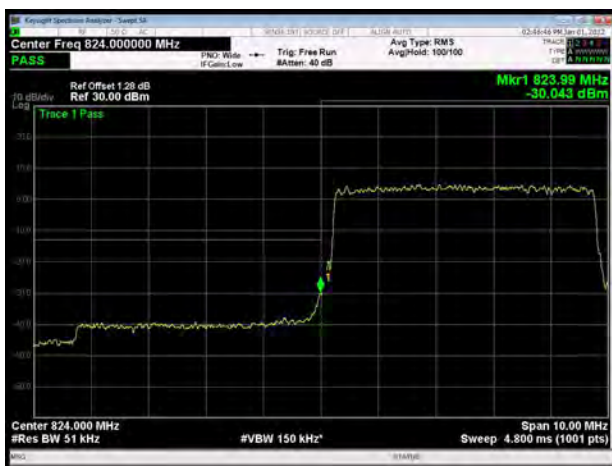
LTE Band 26 QPSK 5MHz CH-Low 1RB



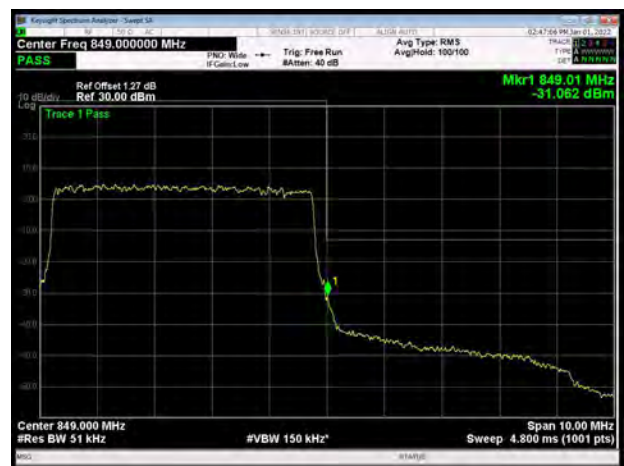
LTE Band 26 QPSK 5MHz CH-High 1RB



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

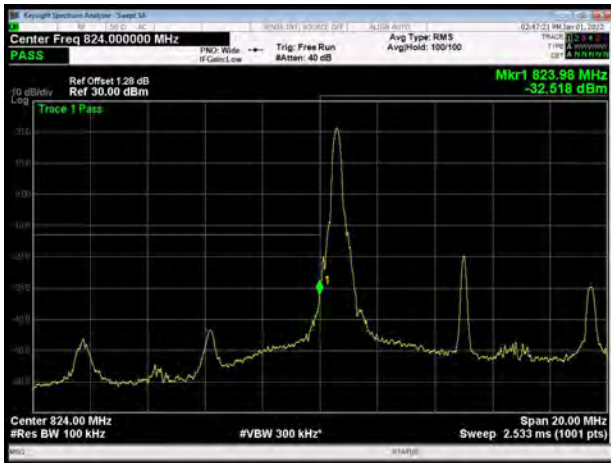


LTE Band 26 QPSK 5MHz CH-High 100%RB

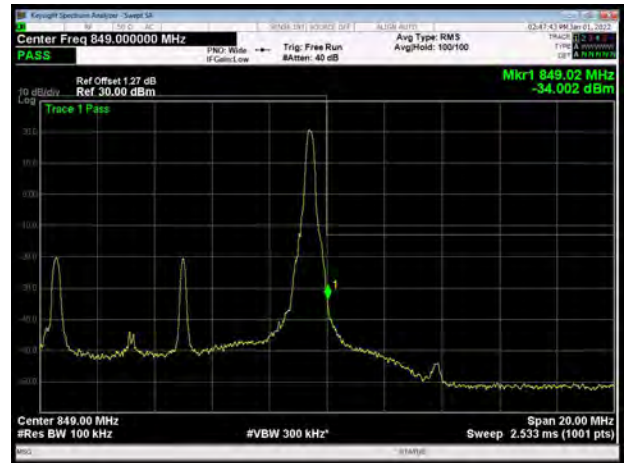




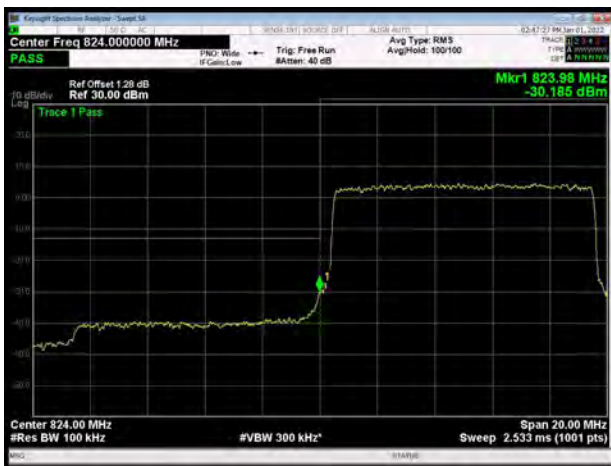
LTE Band 26 QPSK 10MHz CH-Low 1RB



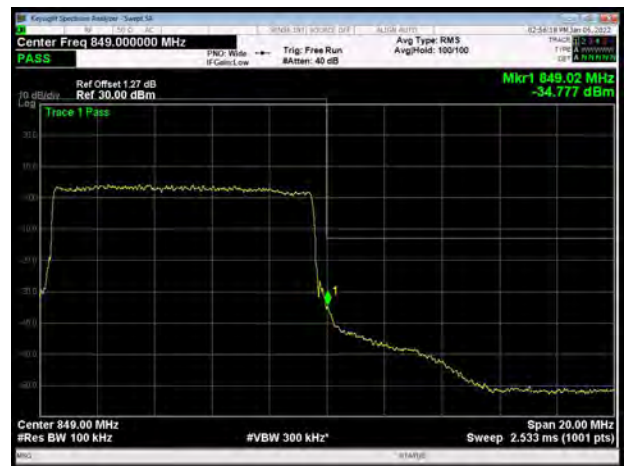
LTE Band 26 QPSK 10MHz CH-High 1RB



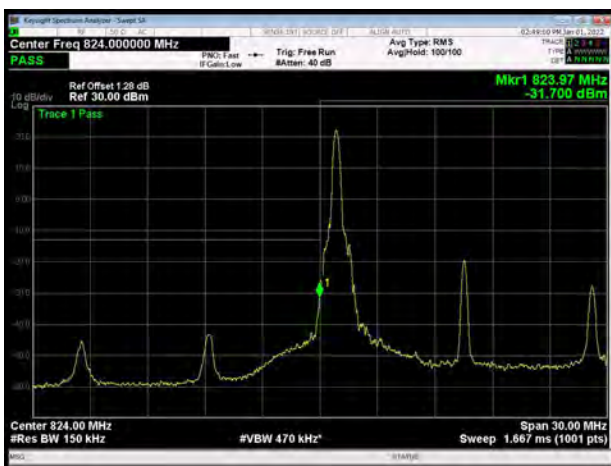
LTE Band 26 QPSK 10MHz CH-Low 100%RB



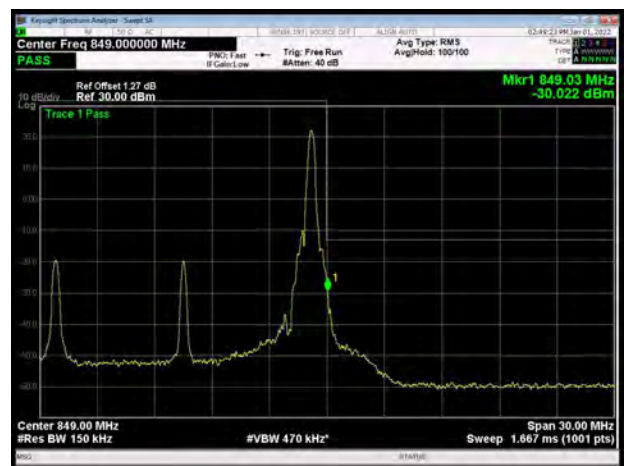
LTE Band 26 QPSK 10MHz CH-High 100%RB



LTE Band 26 QPSK 15MHz CH-Low 1RB

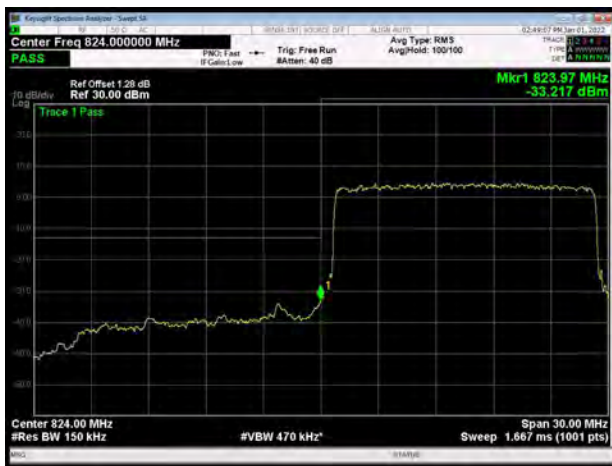


LTE Band 26 QPSK 15MHz CH-High 1RB





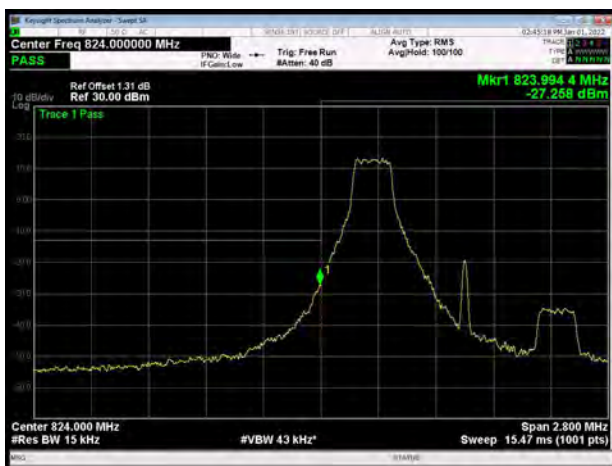
LTE Band 26 QPSK 15MHz CH-Low 100%RB



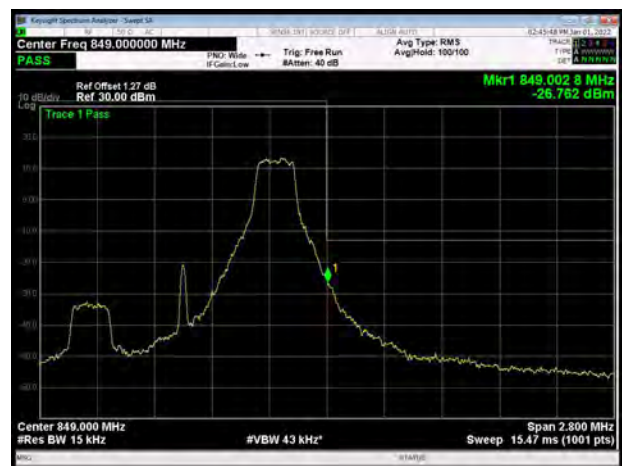
LTE Band 26 QPSK 15MHz CH-High 100%RB



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



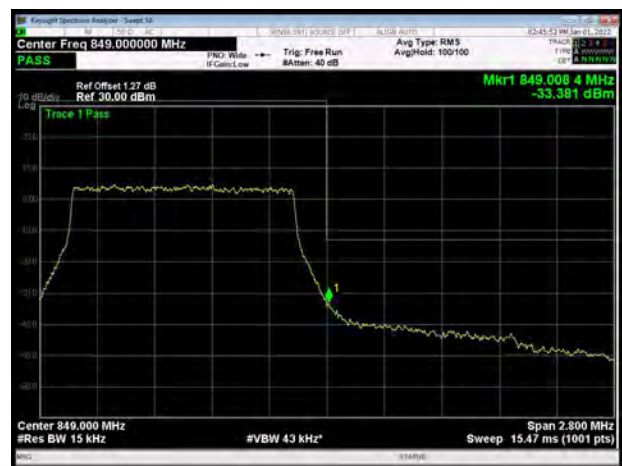
LTE Band 26 16QAM 1.4MHz CH-High 1RB



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

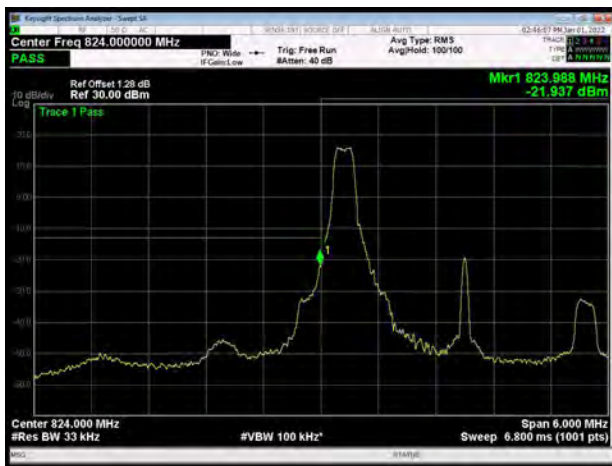


LTE Band 26 16QAM 1.4MHz CH-High 100%RB

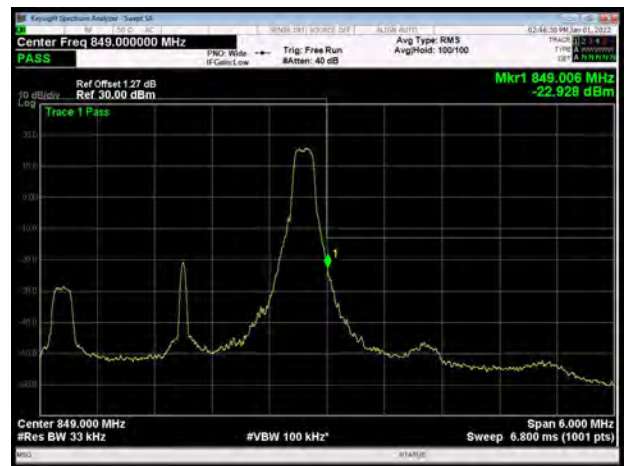




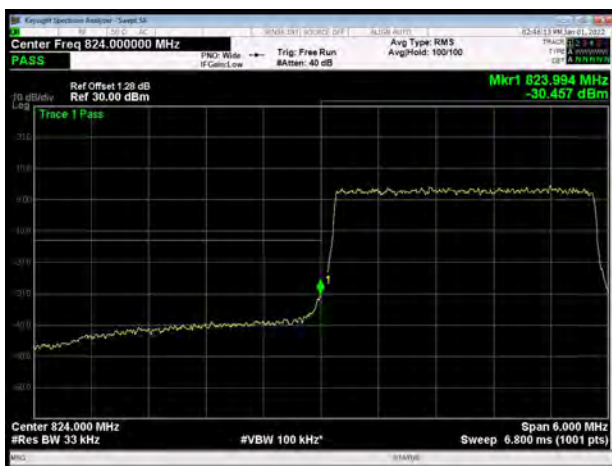
LTE Band 26 16QAM 3MHz CH-Low 1RB



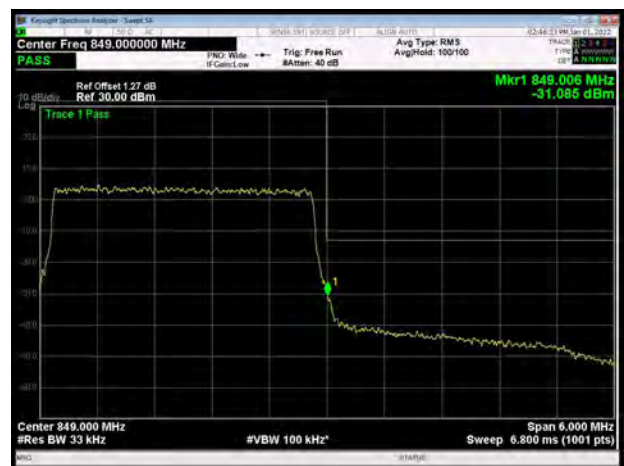
LTE Band 26 16QAM 3MHz CH-High 1RB



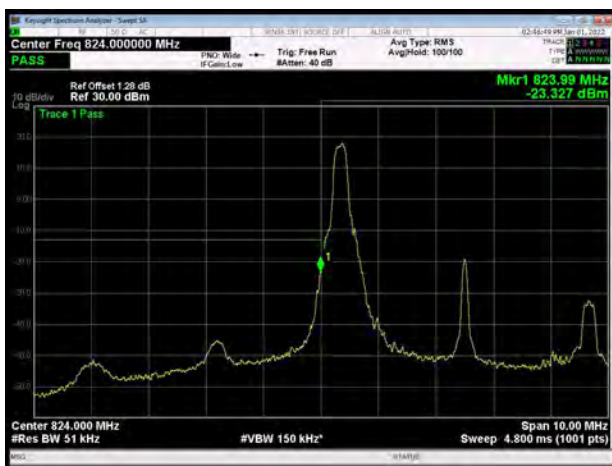
LTE Band 26 16QAM 3MHz CH-Low 100%RB



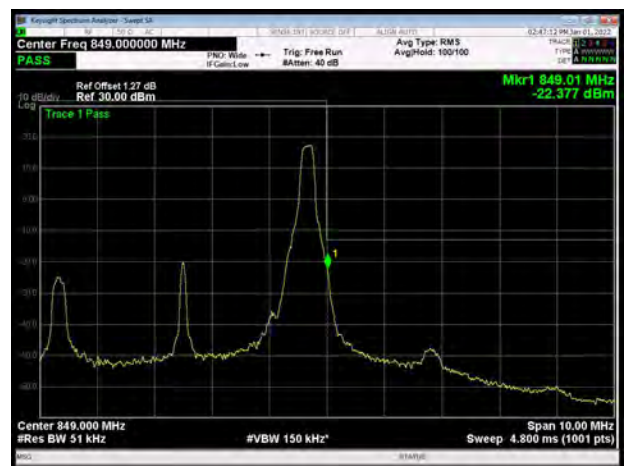
LTE Band 26 16QAM 3MHz CH-High 100%RB



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

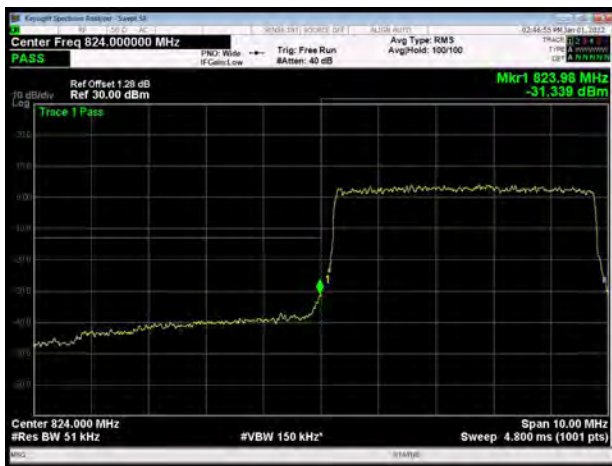


LTE Band 26 16QAM 5MHz CH-High 1RB

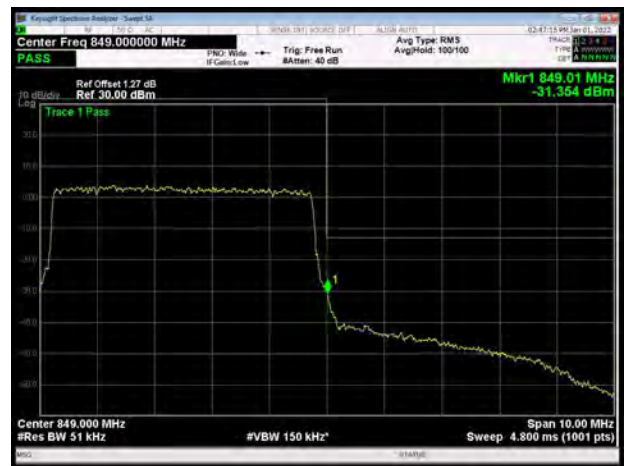




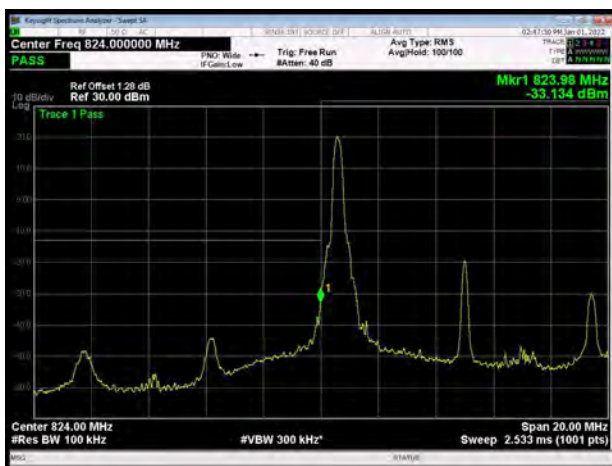
LTE Band 26 16QAM 5MHz CH-Low 100%RB



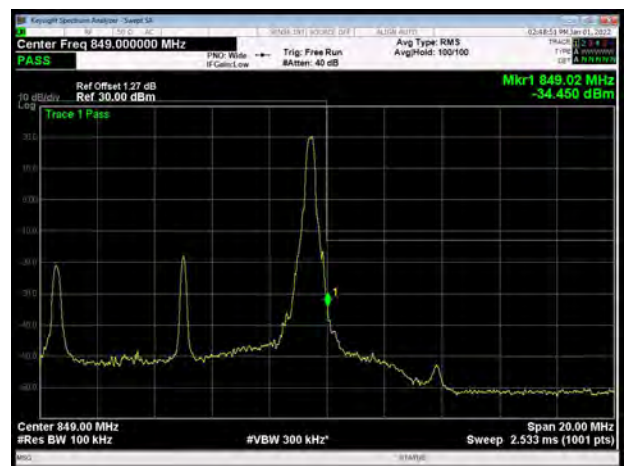
LTE Band 26 16QAM 5MHz CH-High 100%RB



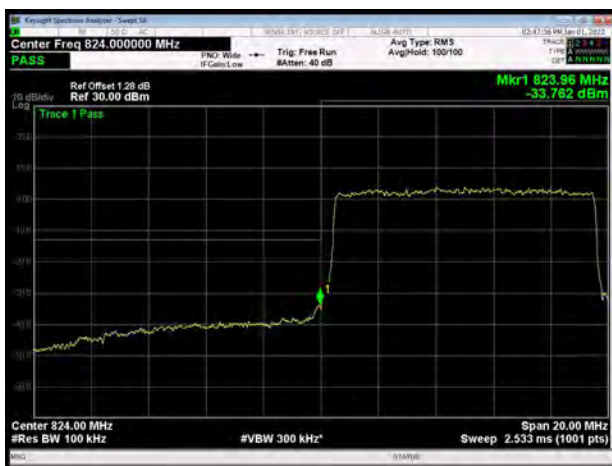
LTE Band 26 16QAM 10MHz CH-Low 1RB



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



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

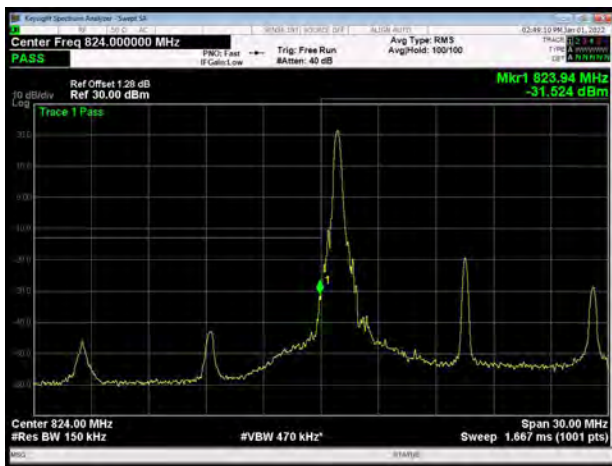


LTE Band 26 16QAM 10MHz CH-High 100%RB

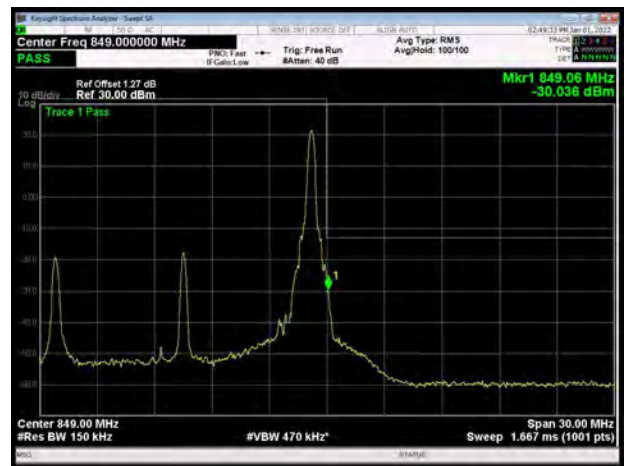




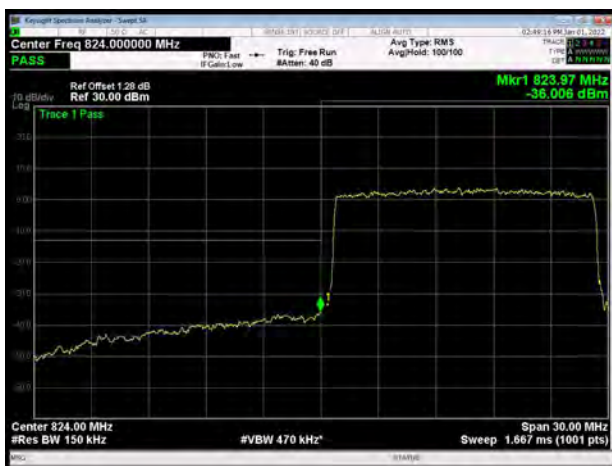
LTE Band 26 16QAM 15MHz CH-Low 1RB



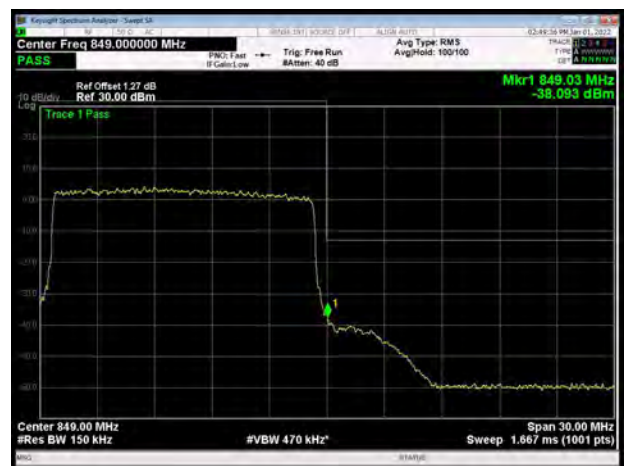
LTE Band 26 16QAM 15MHz CH-High 1RB



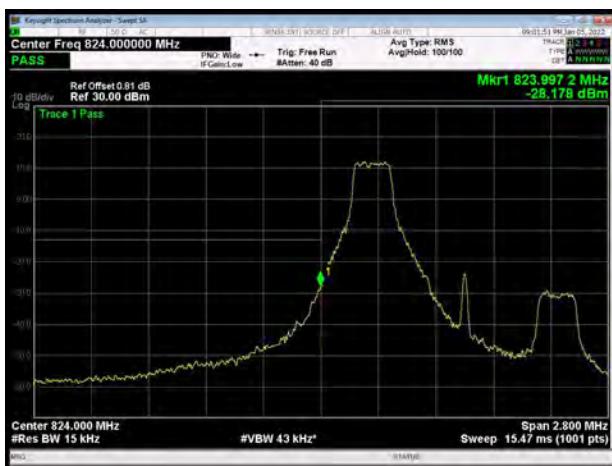
LTE Band 26 16QAM 15MHz CH-Low 100%RB



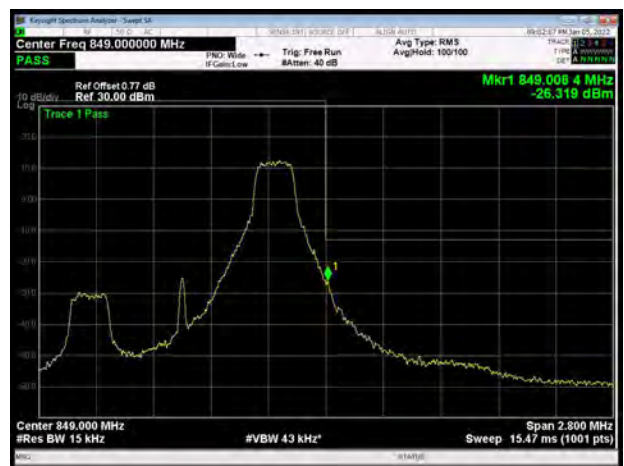
LTE Band 26 16QAM 15MHz CH-High 100%RB



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

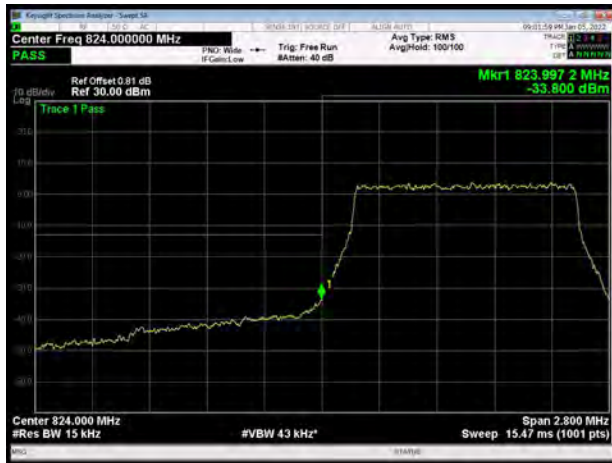


LTE Band 26 64QAM 1.4MHz CH-High 1RB





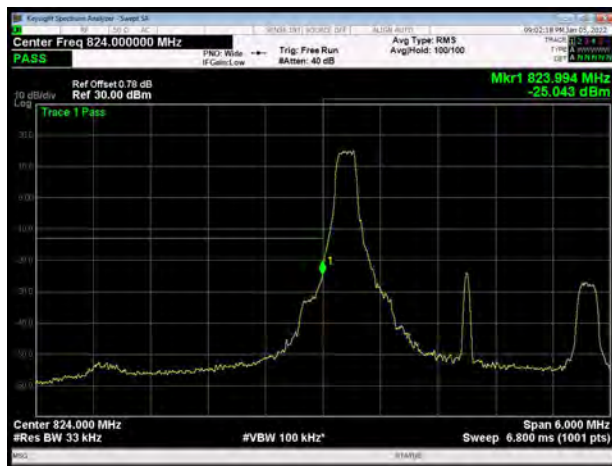
LTE Band 26 64QAM 1.4MHz CH-Low 100%RB



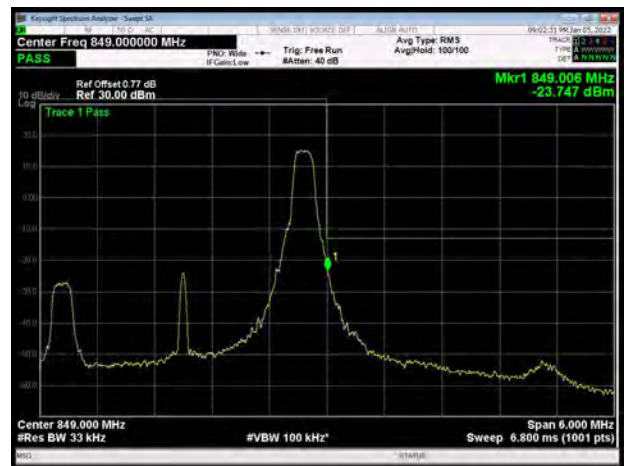
LTE Band 26 64QAM 1.4MHz CH-High 100%RB



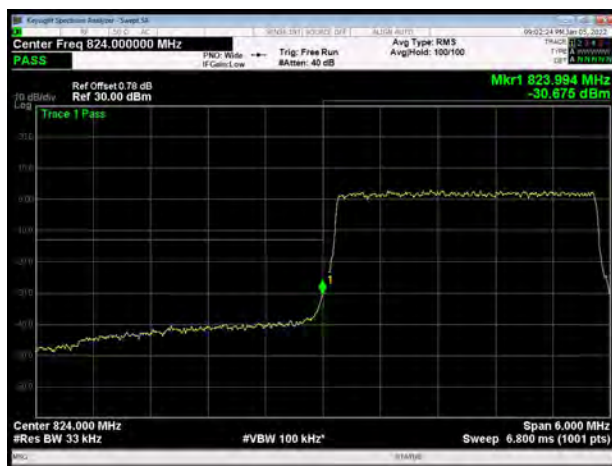
LTE Band 26 64QAM 3MHz CH-Low 1RB



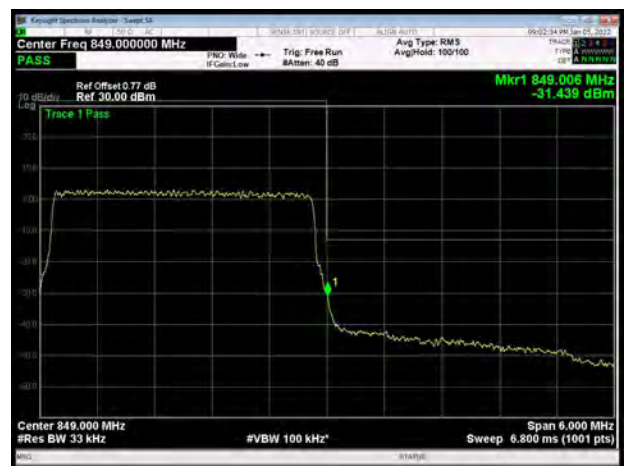
LTE Band 26 64QAM 3MHz CH-High 1RB



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

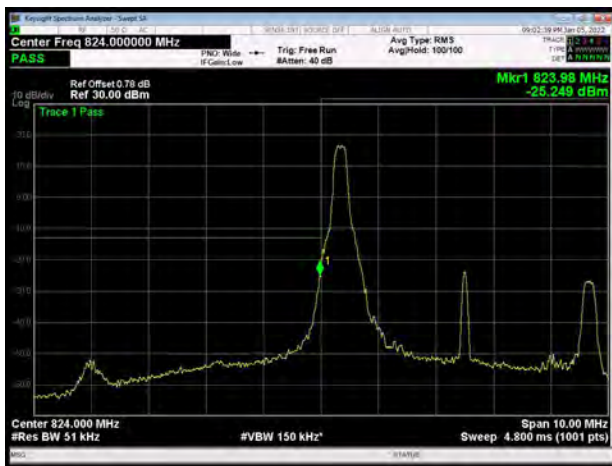


LTE Band 26 64QAM 3MHz CH-High 100%RB

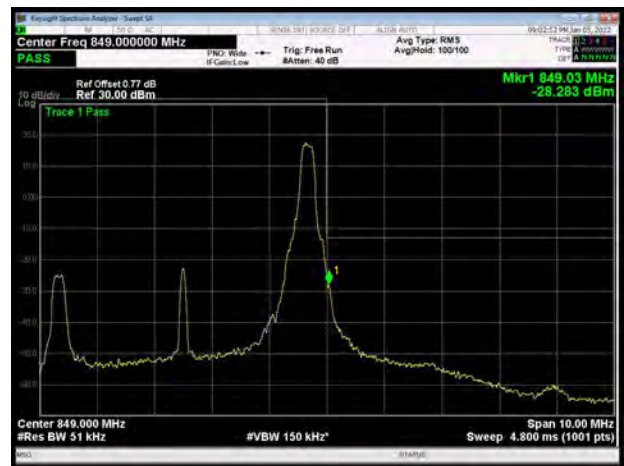




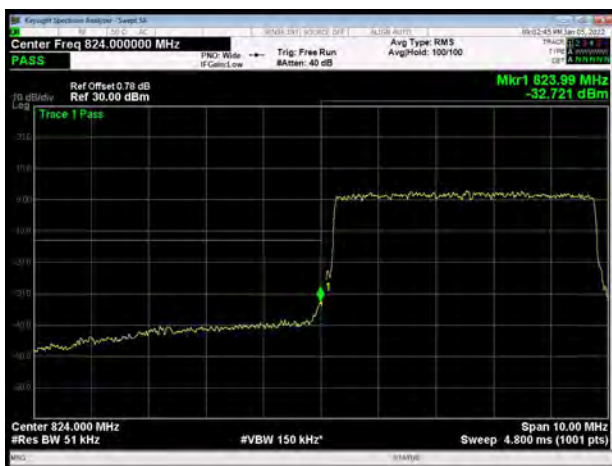
LTE Band 26 64QAM 5MHz CH-Low 1RB



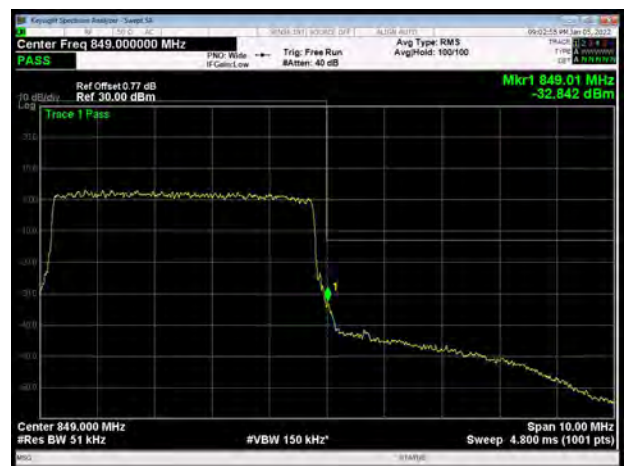
LTE Band 26 64QAM 5MHz CH-High 1RB



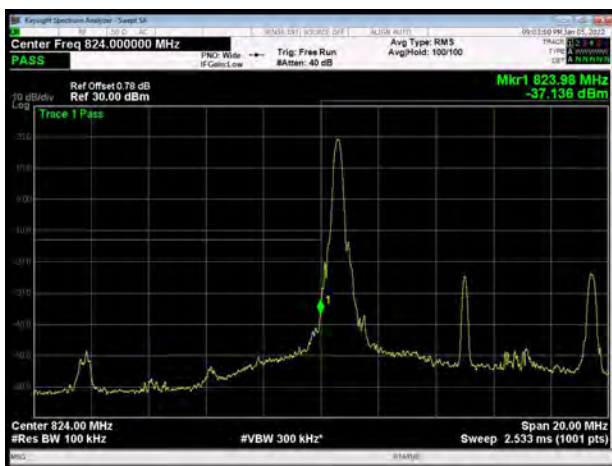
LTE Band 26 64QAM 5MHz CH-Low 100%RB



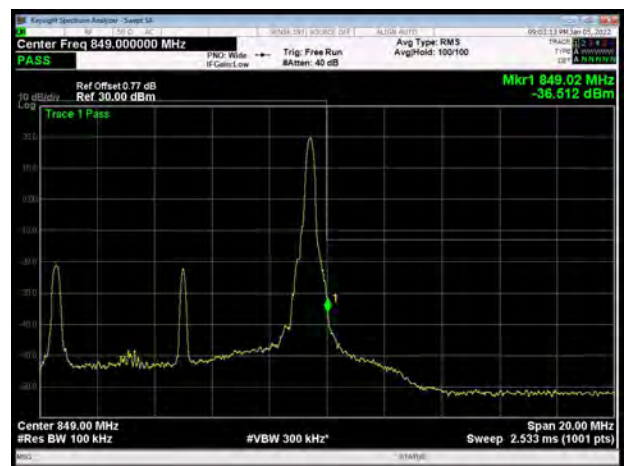
LTE Band 26 64QAM 5MHz CH-High 100%RB



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

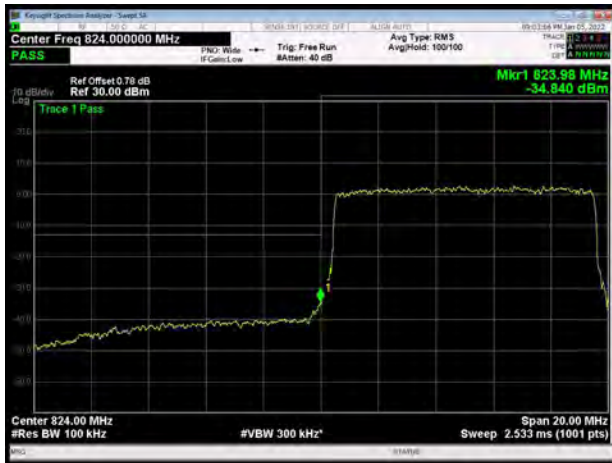


LTE Band 26 64QAM 10MHz CH-High 1RB





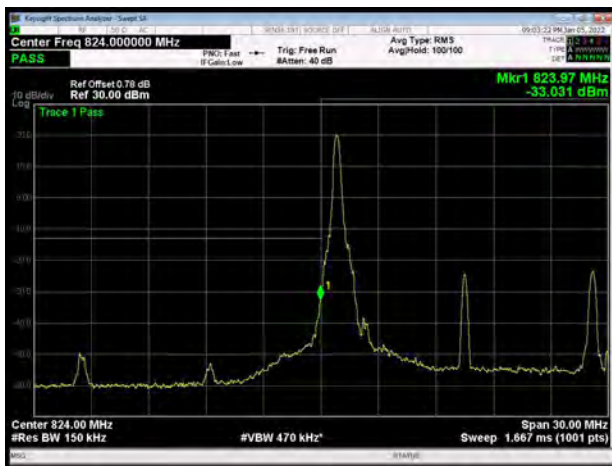
LTE Band 26 64QAM 10MHz CH-Low 100%RB



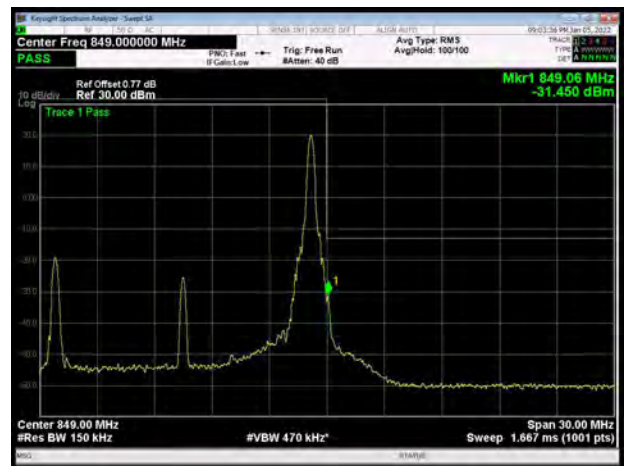
LTE Band 26 64QAM 10MHz CH-High 100%RB



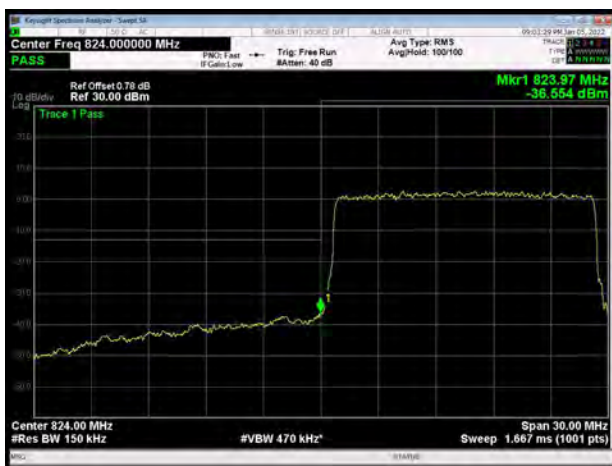
LTE Band 26 64QAM 15MHz CH-Low 1RB



LTE Band 26 64QAM 15MHz CH-High 1RB



LTE Band 26 64QAM 15MHz CH-Low 100%RB



LTE Band 26 64QAM 15MHz CH-High 100%RB



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

Ambient condition

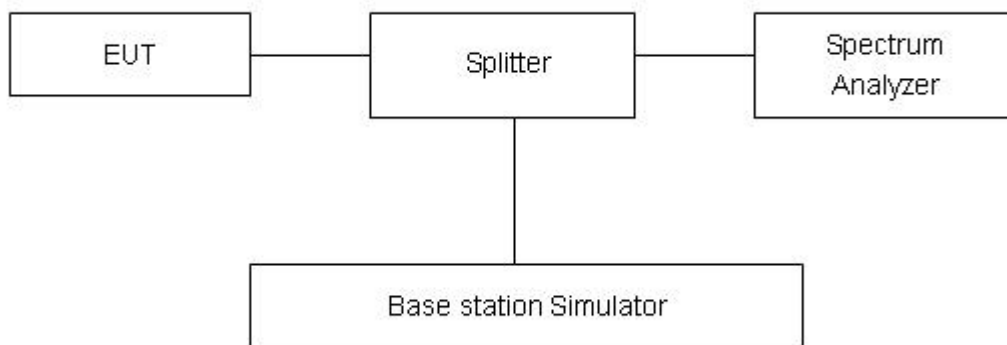
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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

LTE Band 26								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	26797	824.7	27.50	22.64	4.86	≤13	PASS
		26915	836.5	27.35	22.47	4.88	≤13	PASS
		27033	848.3	27.31	22.42	4.89	≤13	PASS
	3	26805	825.5	27.49	22.63	4.86	≤13	PASS
		26915	836.5	27.43	22.51	4.92	≤13	PASS
		27025	847.5	27.49	22.48	5.01	≤13	PASS
	5	26815	826.5	27.38	22.61	4.77	≤13	PASS
		26915	836.5	27.45	22.58	4.87	≤13	PASS
		27015	846.5	27.45	22.43	5.02	≤13	PASS
	10	26840	829	27.39	22.62	4.77	≤13	PASS
		26915	836.5	27.46	22.56	4.90	≤13	PASS
		26990	844	27.50	22.49	5.01	≤13	PASS
	15	26865	831.5	27.56	22.55	5.01	≤13	PASS
		26915	836.5	27.60	22.57	5.03	≤13	PASS
		26965	841.5	27.59	22.48	5.11	≤13	PASS
16QAM	1.4	26797	824.7	27.43	21.77	5.66	≤13	PASS
		26915	836.5	27.40	21.65	5.75	≤13	PASS
		27033	848.3	27.27	21.50	5.77	≤13	PASS
	3	26805	825.5	27.47	21.79	5.68	≤13	PASS
		26915	836.5	27.26	21.43	5.83	≤13	PASS
		27025	847.5	27.43	21.60	5.83	≤13	PASS
	5	26815	826.5	27.29	21.71	5.58	≤13	PASS
		26915	836.5	27.23	21.48	5.75	≤13	PASS
		27015	846.5	27.31	21.42	5.89	≤13	PASS
	10	26840	829	27.12	21.47	5.65	≤13	PASS
		26915	836.5	27.19	21.37	5.82	≤13	PASS
		26990	844	27.31	21.37	5.94	≤13	PASS
	15	26865	831.5	27.36	21.60	5.76	≤13	PASS
		26915	836.5	27.34	21.47	5.87	≤13	PASS
		26965	841.5	27.39	21.48	5.91	≤13	PASS
64QAM	1.4	26797	824.7	26.76	21.14	5.62	≤13	PASS
		26915	836.5	26.45	20.69	5.76	≤13	PASS
		27033	848.3	26.19	20.42	5.77	≤13	PASS
	3	26805	825.5	26.38	20.61	5.77	≤13	PASS
		26915	836.5	26.39	20.59	5.80	≤13	PASS



		27025	847.5	26.36	20.46	5.90	≤13	PASS
	5	26815	826.5	26.26	20.61	5.65	≤13	PASS
		26915	836.5	26.30	20.56	5.74	≤13	PASS
		27015	846.5	26.39	20.59	5.80	≤13	PASS
	10	26840	829	26.19	20.62	5.57	≤13	PASS
		26915	836.5	26.21	20.45	5.76	≤13	PASS
		26990	844	26.37	20.44	5.93	≤13	PASS
	15	26865	831.5	26.44	20.74	5.70	≤13	PASS
		26915	836.5	26.39	20.59	5.80	≤13	PASS
		26965	841.5	26.46	20.54	5.92	≤13	PASS

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 +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.

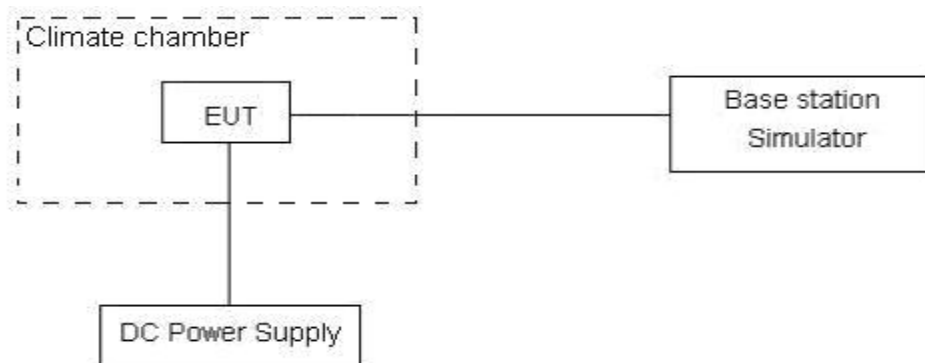
Frequency Stability (Voltage Variation)

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 3.6 V and 4.2 V, with a nominal voltage of 3.87V.

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 Result

LTE Band 26								
Condition		Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	1.4MHz	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	
		(ppm)	(ppm)	(ppm)				
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	15.45	8.46	13.78	0.01847	0.01011	0.01648	PASS
Extreme (50°C)		5.88	16.05	14.18	0.00703	0.01919	0.01695	PASS
Extreme (40°C)		14.18	5.87	6.84	0.01695	0.00701	0.00817	PASS
Extreme (30°C)		12.72	3.63	13.32	0.01520	0.00434	0.01592	PASS
Extreme (20°C)		13.17	8.03	9.33	0.01575	0.00960	0.01115	PASS
Extreme (10°C)		9.90	11.47	15.17	0.01184	0.01371	0.01813	PASS
Extreme (0°C)		17.21	3.27	2.29	0.02057	0.00391	0.00274	PASS
Extreme (-10°C)		3.88	13.61	4.42	0.00464	0.01626	0.00528	PASS
Extreme (-20°C)		2.49	5.47	16.12	0.00297	0.00654	0.01928	PASS
Extreme (-30°C)		7.18	17.43	9.86	0.00858	0.02084	0.01179	PASS
25°C	LV	16.90	4.81	16.61	0.02021	0.00575	0.01985	PASS
	HV	17.33	12.70	15.82	0.02071	0.01519	0.01891	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	3MHz	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	
		(ppm)	(ppm)	(ppm)				
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	1.23	4.86	5.28	0.00148	0.00580	0.00631	PASS
Extreme (50°C)		5.90	9.18	7.15	0.00705	0.01097	0.00855	PASS
Extreme (40°C)		9.82	4.12	13.83	0.01174	0.00492	0.01653	PASS
Extreme (30°C)		13.20	11.68	1.95	0.01578	0.01397	0.00234	PASS
Extreme (20°C)		14.51	16.64	17.12	0.01735	0.01990	0.02047	PASS
Extreme (10°C)		16.55	13.87	16.33	0.01978	0.01658	0.01952	PASS
Extreme (0°C)		9.72	3.58	15.63	0.01162	0.00428	0.01868	PASS
Extreme (-10°C)		9.72	9.78	11.92	0.01162	0.01170	0.01425	PASS
Extreme (-20°C)		11.47	9.04	16.95	0.01371	0.01081	0.02026	PASS
Extreme (-30°C)		7.07	3.25	14.36	0.00846	0.00388	0.01717	PASS
25°C	LV	13.71	16.80	9.00	0.01638	0.02008	0.01076	PASS
	HV	13.69	6.79	1.26	0.01636	0.00812	0.00151	PASS



LTE Band 26								
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°C)	Normal	12.11	7.62	14.19	0.01447	0.00911	0.01697	PASS
Extreme (50°C)		9.21	10.03	8.12	0.01101	0.01199	0.00970	PASS
Extreme (40°C)		9.53	7.70	10.54	0.01140	0.00920	0.01260	PASS
Extreme (30°C)		13.63	6.77	6.66	0.01630	0.00810	0.00796	PASS
Extreme (20°C)		17.95	4.68	6.31	0.02145	0.00560	0.00754	PASS
Extreme (10°C)		7.54	3.46	7.62	0.00902	0.00414	0.00911	PASS
Extreme (0°C)		11.66	15.40	16.25	0.01394	0.01841	0.01943	PASS
Extreme (-10°C)		2.71	12.05	1.69	0.00323	0.01440	0.00202	PASS
Extreme (-20°C)		2.16	13.67	5.00	0.00259	0.01634	0.00598	PASS
Extreme (-30°C)		17.94	14.18	10.90	0.02145	0.01696	0.01303	PASS
25°C	LV	5.29	2.37	3.91	0.00633	0.00284	0.00468	PASS
	HV	13.57	17.80	16.53	0.01622	0.02128	0.01976	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°C)	Normal	11.69	5.27	13.85	0.01398	0.00630	0.01656	PASS
Extreme (50°C)		6.01	15.47	7.22	0.00719	0.01849	0.00864	PASS
Extreme (40°C)		5.93	10.14	12.79	0.00709	0.01212	0.01529	PASS
Extreme (30°C)		17.39	1.97	11.80	0.02078	0.00235	0.01411	PASS
Extreme (20°C)		17.18	8.95	11.00	0.02054	0.01070	0.01315	PASS
Extreme (10°C)		14.48	11.54	4.76	0.01731	0.01380	0.00569	PASS
Extreme (0°C)		11.28	7.91	2.36	0.01349	0.00945	0.00282	PASS
Extreme (-10°C)		15.61	5.65	9.13	0.01867	0.00676	0.01091	PASS
Extreme (-20°C)		9.87	1.48	2.65	0.01180	0.00177	0.00317	PASS
Extreme (-30°C)		11.69	3.54	12.72	0.01397	0.00423	0.01521	PASS
25°C	LV	15.22	13.05	14.26	0.01819	0.01561	0.01705	PASS
	HV	12.63	6.58	2.47	0.01510	0.00787	0.00296	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	16.00	1.00	2.00	0.01913	0.00120	0.00239	PASS
Extreme (50°C)		5.00	6.00	11.00	0.00598	0.00717	0.01315	PASS
Extreme (40°C)		14.00	7.00	13.00	0.01674	0.00837	0.01554	PASS
Extreme (30°C)		7.00	1.00	4.00	0.00837	0.00120	0.00478	PASS
Extreme (20°C)		12.00	7.00	7.00	0.01435	0.00837	0.00837	PASS



Extreme (10°C)		15.00	5.00	2.00	0.01793	0.00598	0.00239	PASS
Extreme (0°C)		15.00	17.00	3.00	0.01793	0.02032	0.00359	PASS
Extreme (-10°C)		2.00	14.00	15.00	0.00239	0.01674	0.01793	PASS
Extreme (-20°C)		13.00	1.00	10.00	0.01554	0.00120	0.01195	PASS
Extreme (-30°C)		1.00	2.00	3.00	0.00120	0.00239	0.00359	PASS
25°C	LV	12.00	12.00	16.00	0.01435	0.01435	0.01913	PASS
	HV	3.00	17.00	14.00	0.00359	0.02032	0.01674	PASS

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),

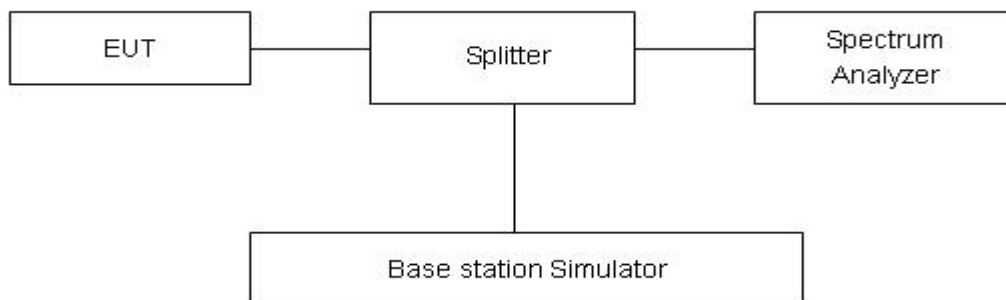
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

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-18GHz	1.407 dB

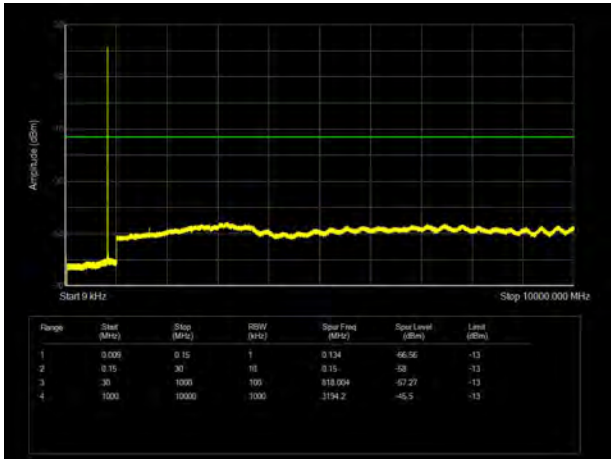


Test Result

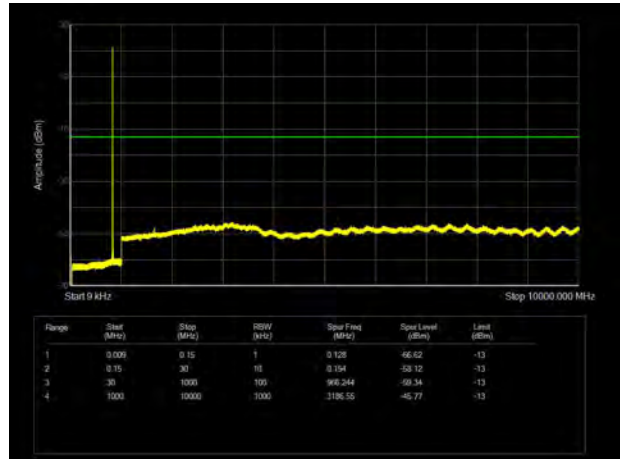
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier

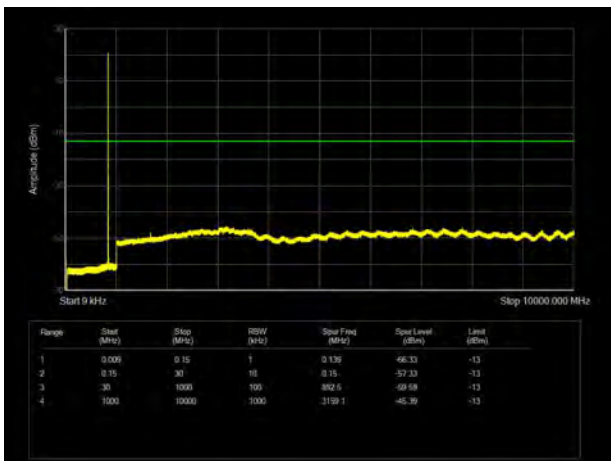
LTE Band 26 1.4MHz CH-Low 9kHz~10GHz



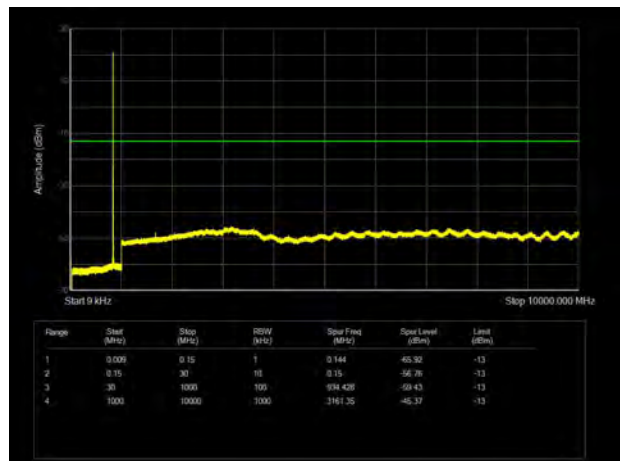
LTE Band 26 3MHz CH-Low 9kHz~10GHz



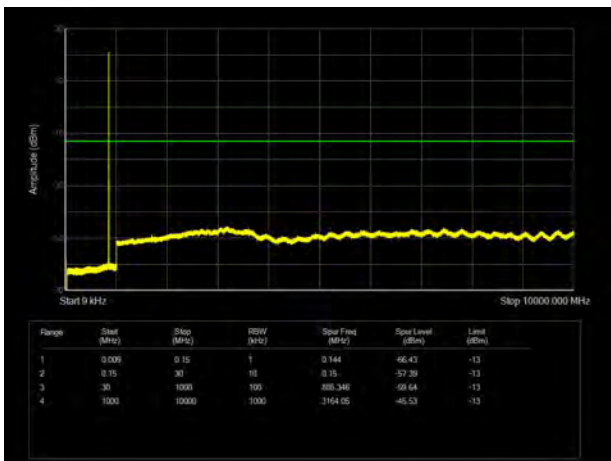
LTE Band 26 1.4MHz CH-Middle 9kHz~10GHz



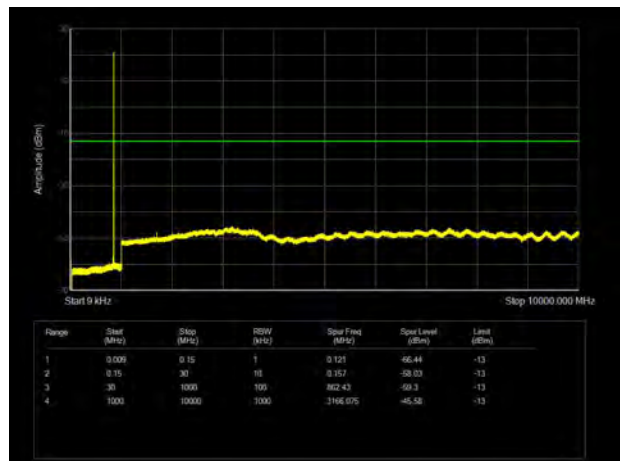
LTE Band 26 3MHz CH-Middle 9kHz~10GHz



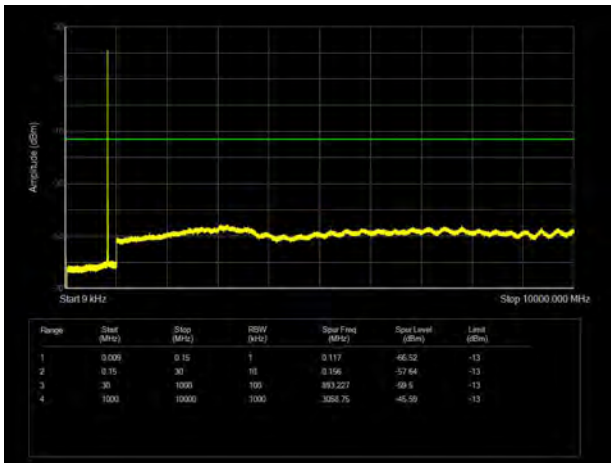
LTE Band 26 1.4MHz CH-High 9kHz~10GHz



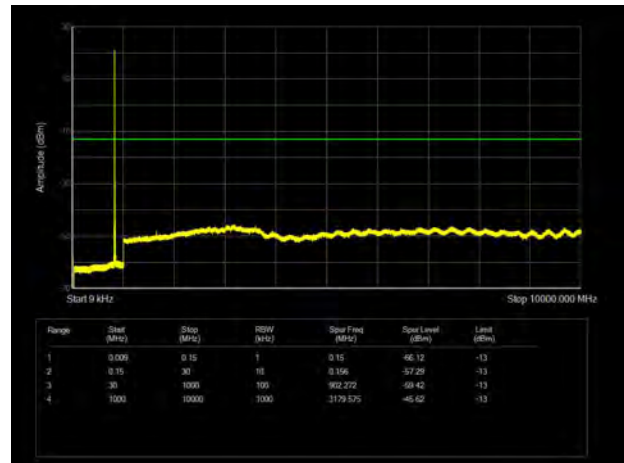
LTE Band 26 3MHz CH-High 9kHz~10GHz



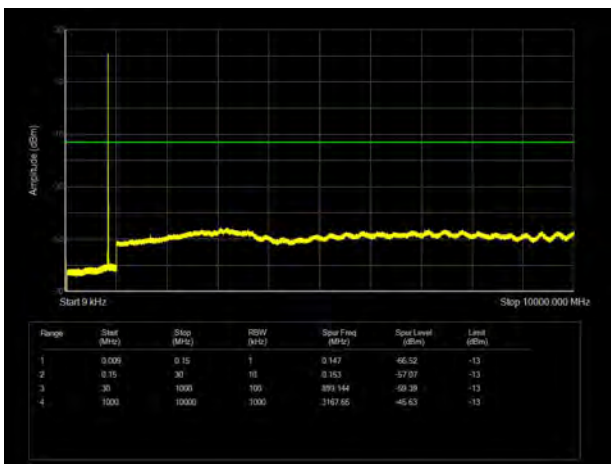
LTE Band 26 5MHz CH-Low 9kHz~10GHz



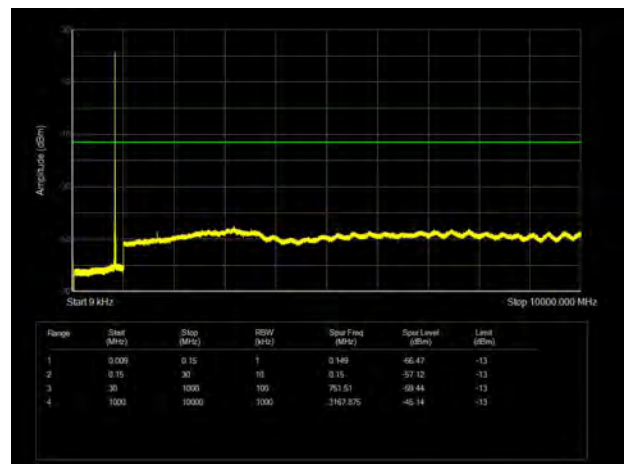
LTE Band 26 10MHz CH-Low 9kHz~10GHz



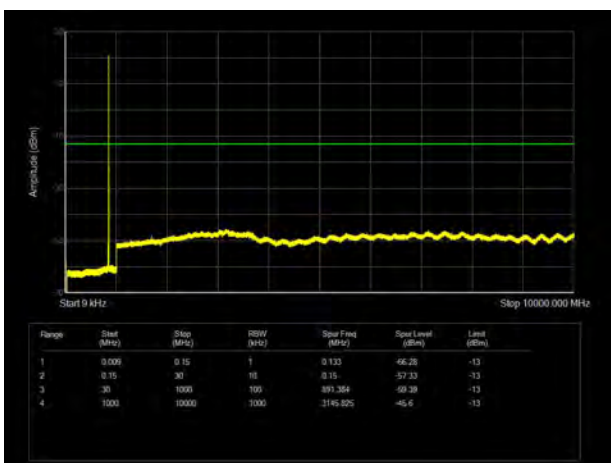
LTE Band 26 5MHz CH-Middle 9kHz~10GHz



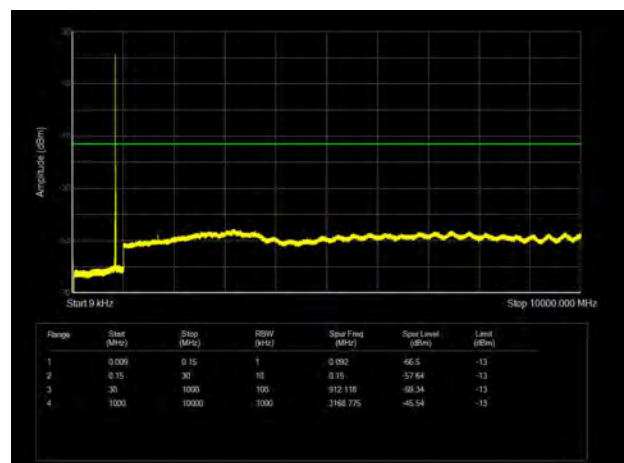
LTE Band 26 10MHz CH-Middle 9kHz~10GHz



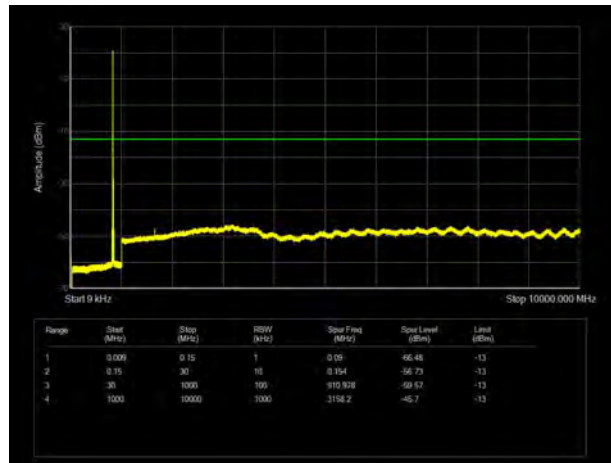
LTE Band 26 5MHz CH-High 9kHz~10GHz



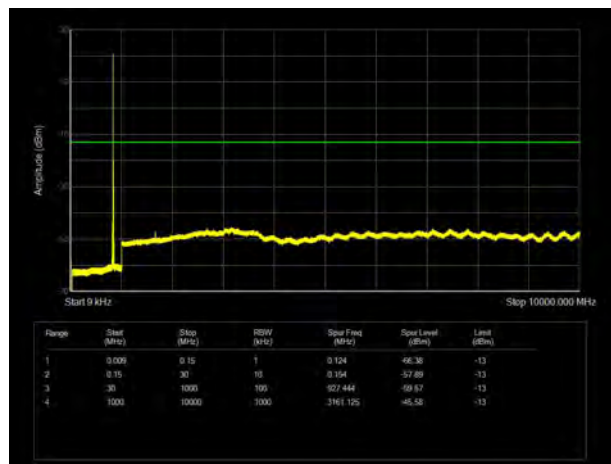
LTE Band 26 10MHz CH-High 9kHz~10GHz



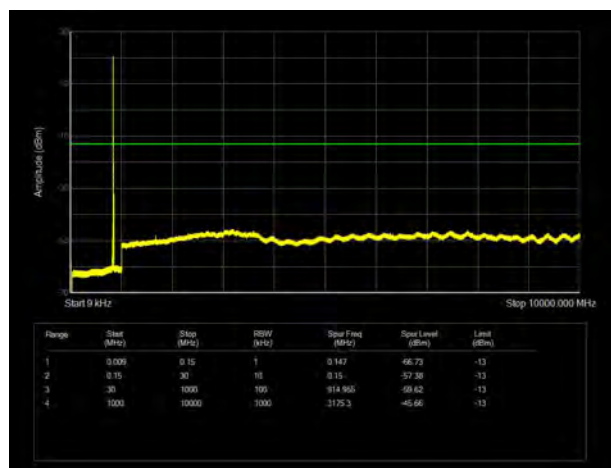
LTE Band 26 15MHz CH-Low 9kHz~10GHz



LTE Band 26 15MHz CH-Middle 9kHz~10GHz



LTE Band 26 15MHz CH-High 9kHz~10GHz





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 for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, 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:

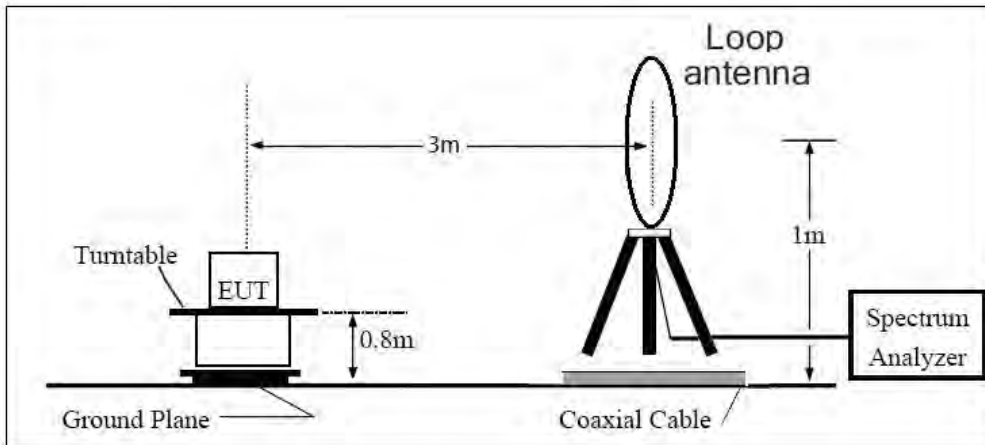
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dB.

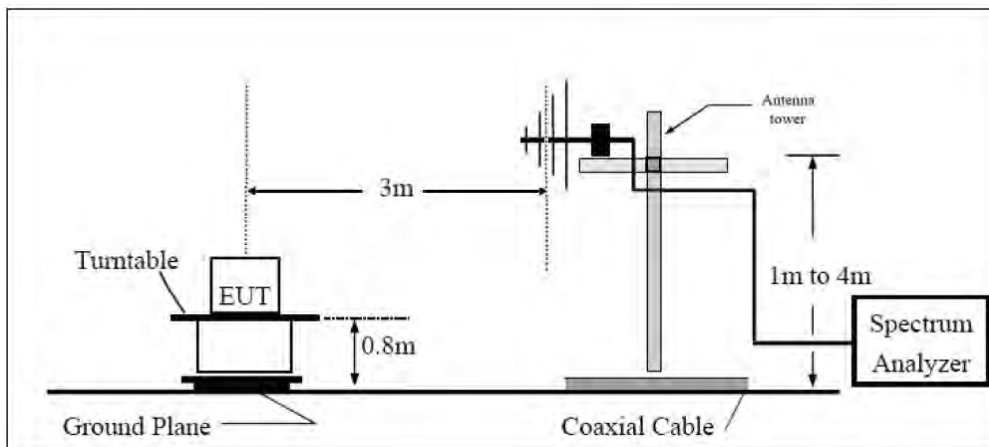
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

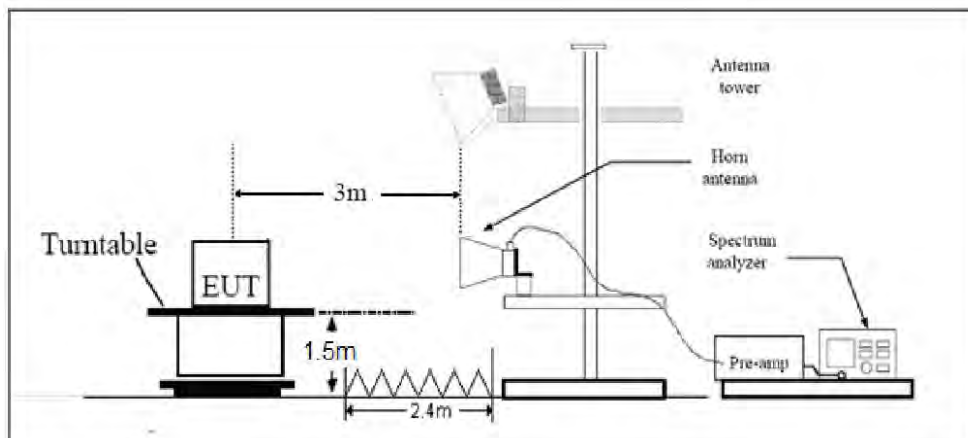
9KHz ~ 30MHz



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 Result**

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.

Low Antenna

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	1672.13	-66.81	1.70	8.70	Vertical	-61.96	-13.00	48.96	180
3	2508.00	-62.52	2.30	12.00	Vertical	-54.97	-13.00	41.97	180
4	3346.00	-65.08	2.70	12.70	Vertical	-57.23	-13.00	44.23	135
5	4182.50	-62.64	3.00	12.50	Vertical	-55.29	-13.00	42.29	180
6	5019.00	-57.49	3.40	12.50	Vertical	-50.54	-13.00	37.54	135
7	5855.50	-56.72	3.40	12.80	Vertical	-49.47	-13.00	36.47	90
8	6692.00	-56.48	4.10	11.50	Vertical	-51.23	-13.00	38.23	0
9	7528.50	-54.44	4.20	12.20	Vertical	-48.59	-13.00	35.59	315
10	8365.00	-66.81	4.30	12.50	Vertical	-47.51	-13.00	34.51	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 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	3346.00	-67.38	1.70	8.70	Vertical	-62.53	-13.00	49.53	225
3	4182.50	-63.80	2.30	12.00	Vertical	-56.25	-13.00	43.25	180
4	5019.00	-66.60	2.70	12.70	Vertical	-58.75	-13.00	45.75	45
5	5855.50	-62.48	3.00	12.50	Vertical	-55.13	-13.00	42.13	270
6	6692.00	-59.49	3.40	12.50	Vertical	-52.54	-13.00	39.54	315
7	7528.50	-59.37	3.40	12.80	Vertical	-52.12	-13.00	39.12	90
8	8365.00	-57.79	4.10	11.50	Vertical	-52.54	-13.00	39.54	180
9	3346.00	-54.61	4.20	12.20	Vertical	-48.76	-13.00	35.76	180
10	4182.50	-55.89	4.30	12.50	Vertical	-49.84	-13.00	36.84	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.



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	1659.38	-66.74	1.70	8.70	Vertical	-61.89	-13.00	48.89	180
3	2489.44	-63.44	2.30	12.00	Vertical	-55.89	-13.00	42.89	315
4	3346.00	-65.86	2.70	12.70	Vertical	-58.01	-13.00	45.01	90
5	4182.50	-62.59	3.00	12.50	Vertical	-55.24	-13.00	42.24	45
6	5019.00	-58.61	3.40	12.50	Vertical	-51.66	-13.00	38.66	180
7	5855.50	-58.12	3.40	12.80	Vertical	-50.87	-13.00	37.87	45
8	6692.00	-57.45	4.10	11.50	Vertical	-52.20	-13.00	39.20	90
9	7528.50	-55.61	4.20	12.20	Vertical	-49.76	-13.00	36.76	180
10	8365.00	-55.87	4.30	12.50	Vertical	-49.82	-13.00	36.82	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 Horizontal position.

Upper Antenna

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	1672.13	-67.08	1.70	8.70	Vertical	-62.23	-13.00	49.23	90
3	2508.00	-63.62	2.30	12.00	Vertical	-56.07	-13.00	43.07	225
4	3346.00	-66.01	2.70	12.70	Vertical	-58.16	-13.00	45.16	315
5	4182.50	-62.86	3.00	12.50	Vertical	-55.51	-13.00	42.51	135
6	5019.00	-57.12	3.40	12.50	Vertical	-50.17	-13.00	37.17	180
7	5855.50	-59.33	3.40	12.80	Vertical	-52.08	-13.00	39.08	135
8	6692.00	-58.56	4.10	11.50	Vertical	-53.31	-13.00	40.31	90
9	7528.50	-55.75	4.20	12.20	Vertical	-49.90	-13.00	36.90	0
10	8365.00	-55.85	4.30	12.50	Vertical	-49.80	-13.00	36.80	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.



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	1668.75	-67.37	1.70	8.70	Vertical	-62.52	-13.00	49.52	270
3	2502.94	-65.37	2.30	12.00	Vertical	-57.82	-13.00	44.82	135
4	3346.00	-66.06	2.70	12.70	Vertical	-58.21	-13.00	45.21	90
5	4182.50	-63.15	3.00	12.50	Vertical	-55.80	-13.00	42.80	270
6	5019.00	-58.81	3.40	12.50	Vertical	-51.86	-13.00	38.86	180
7	5855.50	-59.45	3.40	12.80	Vertical	-52.20	-13.00	39.20	270
8	6692.00	-58.66	4.10	11.50	Vertical	-53.41	-13.00	40.41	0
9	7528.50	-55.63	4.20	12.20	Vertical	-49.78	-13.00	36.78	315
10	8365.00	-55.18	4.30	12.50	Vertical	-49.13	-13.00	36.13	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	1659.38	-66.91	1.70	8.70	Vertical	-62.06	-13.00	49.06	45
3	2489.44	-65.74	2.30	12.00	Vertical	-58.19	-13.00	45.19	225
4	3346.00	-65.13	2.70	12.70	Vertical	-57.28	-13.00	44.28	270
5	4182.50	-63.54	3.00	12.50	Vertical	-56.19	-13.00	43.19	225
6	5019.00	-59.83	3.40	12.50	Vertical	-52.88	-13.00	39.88	90
7	5855.50	-59.14	3.40	12.80	Vertical	-51.89	-13.00	38.89	90
8	6692.00	-58.20	4.10	11.50	Vertical	-52.95	-13.00	39.95	0
9	7528.50	-55.55	4.20	12.20	Vertical	-49.70	-13.00	36.70	45
10	8365.00	-56.06	4.30	12.50	Vertical	-50.01	-13.00	37.01	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.



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
Climate Chamber	Weiss	VT4002	58226119450 010	2021-05-15	2022-05-14
Spectrum Analyzer	Keysight	N9020A	MY52330084	2021-05-15	2022-05-14
Universal Radio Communication Tester	Key sight	E5515C	GB44400275	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-12
Signal Analyzer	R&S	FSV30	100815	2021-12-12	2022-12-11
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01439	2021-06-30	2024-06-29
Horn Antenna	Schwarzbeck	BBHA 9120D	01799	2019-09-21	2022-09-20
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.