



RF TEST REPORT

Applicant Huawei Device Co., Ltd.
FCC ID 2ATEYJLN
Product Smart phone
Model JLN-LX3
Report No. R2112A1178-R1V1
Issue Date February 7, 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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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	January 29, 2022
Rev.1	Update data. Update information.	February 7, 2022

Note: This revised report (Report No. R2112A1178-R1V1) supersedes and replaces the previously issued report (Report No. R2112A1178-R1). Please discard or destroy the previously issued report and dispose of it accordingly.



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: January 5, 2022 ~ January 26, 2022
Date of Sample Received: December 24, 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.
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2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Huawei Device Co., Ltd.
Applicant address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China
Manufacturer	Huawei Device Co., Ltd.
Manufacturer address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China

2.2. General Information

EUT Description			
Model	JLN-LX3		
SN	HWQYD21C07500160		
Hardware Version	HL1JLNM		
Software Version	12.0.1.100(C900E100R1P3)		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Main Antenna(dBi)	Second Antenna(dBi)	
	-6.08	-5.00	
Test Mode(s)	GSM 850; WCDMA Band V; LTE Band 5/26;		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK (LTE) QPSK, 16QAM, 64QAM;		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	24		
HSUPA UE Category	6		
LTE Category	5		
Maximum E.R.P.	GSM 850:	26.39dBm	
	WCDMA Band V:	17.47dBm	
	LTE Band 5:	17.68dBm	
	LTE Band 26:	17.87dBm	
Rated Power Supply Voltage	3.87V		
Operating Voltage	Minimum: 3.6V Maximum: 4.48V		
Operating Temperature	Lowest: 0°C Highest: +35°C		
Testing Temperature	Lowest: 0°C Highest: +35°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 ~ 849	869 ~ 894



		WCDMA Band V	824 ~ 849	869 ~ 894
		LTE Band 5	824 ~ 849	869 ~ 894
		LTE Band 26	824 ~ 849	869 ~ 894
EUT Accessory				
Accessory	Model	Manufacture		No.
Adapter	HW-110600U00	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		1
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		2
	HW-110600U02	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		3
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		4
	HW-110600E02	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		5
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		6
	HW-110600B02	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		7
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		8
	HW-110600A02	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		9
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		10
	HW-110600B00	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		11
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		12
	HW-110600E00	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		13
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		14
	HW-110600A00	Huawei Technologies Co., Ltd. (Manufacturer: Astec Electronics (Luoding) Co. Limited)		15
		Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		16
Battery	HB426493EFW	SCUD (FUJIAN) Electronics Co., Ltd.		1
		Sunwoda Electronic Co.,LTD.		2
USB Cable	L99UC139-CS-H	Luxshare Precision industry Co.,Ltd		1
	213-01011-0	MING JI ELECTRONICS CO., LTD.		2
Earphone	1311-3291-6001-TC-351	Boluo County Quancheng Electronic Co., Ltd.		1



Earphone, USB Type-C to 3.5mm Adapter Assembly	6001-7001-TC-348	Boluo County Quancheng Electronic Co., Ltd.	1
	USB042020090AW7	Jiangxi Lianchuang Hongsheng Electronic Co.,Ltd.	2
	642344	FOSTER ELECTRIC CO. (HONG KONG) LTD	3

Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.

2. There are more than one Adapter, Battery and USB Cable, each one should be applied throughout the compliance test respectively, however, only the worst case (Adapter 2, Battery 1 and USB Cable 1) will be recorded in this report.



3. Applied Standards

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

Test standards:

FCC CFR 47 Part 22H (2020)

FCC CFR47 Part 2 (2020)

Reference standard:

ANSI C63.26 (2015)

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 respectively, 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 (X axis, vertical polarization for GSM/WCDMA Band (Main Antenna); X axis, horizontal polarization for LTE Band (Main Antenna); Z axis, horizontal polarization for GSM/WCDMA/LTE Band (Second Antenna)) 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 GSM/WCDMA/LTE is set based on the maximum RF Output Power.

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

Test items	Modes/Modulation	
	GSM 850	WCDMA Band V
RF Power Output and Effective Radiated power	GSM GPRS EGPRS	RMC HSDPA/HSUPA DC-HSDPA
Occupied Bandwidth	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Band Edge Compliance	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Peak-to-Average Power Ratio	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Frequency Stability	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Spurious Emissions at Antenna Terminals	GSM	RMC
Radiates Spurious Emission	GSM	RMC



Test modes are chosen as the worst case configuration below for LTE Band 5/26

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 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 5	O	O	O	O	-	O	O	O	-	O	O	-	O
	LTE 26	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 5	O	O	O	O	-	O	O	O	-	-	-	O	-
	LTE 26	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 5	O	O	O	O	-	O	-	O	-	-	O	O	O
	LTE 26	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 5	O	-	O	O	-	O	-	O	-	-	-	O	-
	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.

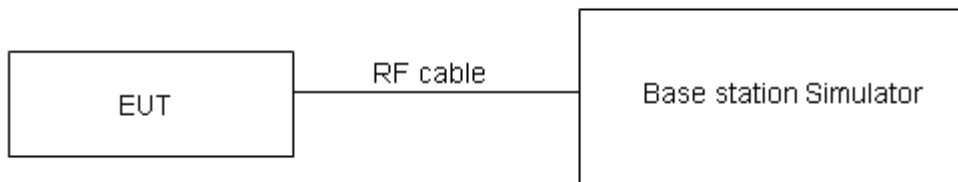
ERP can then be calculated as follows:

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

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

GSM 850		Maximum Output Power (dBm)			Main Antenna ERP (dBm)			Second Antenna ERP (dBm)		
		Channel 128	Channel 190	Channel 251	Channel 128	Channel 190	Channel 251	Channel 128	Channel 190	Channel 251
		824.2 (MHz)	836.6 (MHz)	848.8 (MHz)	824.2 (MHz)	836.6 (MHz)	848.8 (MHz)	824.2 (MHz)	836.6 (MHz)	848.8 (MHz)
GSM(GMSK)	Results	33.54	33.52	33.52	25.31	25.29	25.29	26.39	26.37	26.37
GPRS/EGPRS (GMSK)	1TXslot	33.42	33.50	33.46	25.19	25.27	25.23	26.27	26.35	26.31
	2TXslots	30.01	30.22	30.12	21.78	21.99	21.89	22.86	23.07	22.97
	3TXslots	27.97	28.14	28.08	19.74	19.91	19.85	20.82	20.99	20.93
	4TXslots	26.36	26.51	26.55	18.13	18.28	18.32	19.21	19.36	19.40
EGPRS	1TXslot	27.11	27.60	27.22	18.88	19.37	18.99	19.96	20.45	20.07
	2TXslots	24.84	25.15	24.93	16.61	16.92	16.70	17.69	18.00	17.78
	3TXslots	22.93	22.94	22.90	14.70	14.71	14.67	15.78	15.79	15.75
	4TXslots	22.03	21.91	21.97	13.80	13.68	13.74	14.88	14.76	14.82

WCDMA Band V		Maximum Output Power (dBm)			Main Antenna ERP (dBm)			Second Antenna ERP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
RMC		24.51	24.46	24.31	16.28	16.23	16.08	17.36	17.31	17.16
AMR		24.51	24.62	24.31	16.28	16.39	16.08	17.36	17.47	17.16
HSDPA	Sub - Test 1	23.57	23.48	23.27	15.34	15.25	15.04	16.42	16.33	16.12
	Sub - Test 2	23.49	23.56	23.27	15.26	15.33	15.04	16.34	16.41	16.12
	Sub - Test 3	23.11	22.96	22.71	14.88	14.73	14.48	15.96	15.81	15.56
	Sub - Test 4	23.05	23.06	22.97	14.82	14.83	14.74	15.9	15.91	15.82
HSUPA	Sub - Test 1	21.47	21.54	21.43	13.24	13.31	13.20	14.32	14.39	14.28
	Sub - Test 2	21.63	21.38	21.17	13.40	13.15	12.94	14.48	14.23	14.02
	Sub - Test 3	22.47	22.52	22.29	14.24	14.29	14.06	15.32	15.37	15.14
	Sub - Test 4	20.91	20.84	20.97	12.68	12.61	12.74	13.76	13.69	13.82
	Sub - Test 5	22.61	22.38	22.21	14.38	14.15	13.98	15.46	15.23	15.06
DC-HSDPA	Sub - Test 1	23.63	23.56	23.37	15.40	15.33	15.14	16.48	16.41	16.22
	Sub - Test 2	23.67	23.48	23.27	15.44	15.25	15.04	16.52	16.33	16.12
	Sub - Test 3	23.01	22.86	22.89	14.78	14.63	14.66	15.86	15.71	15.74
	Sub - Test 4	23.03	23.10	22.89	14.80	14.87	14.66	15.88	15.95	15.74



LTE Band 5				Maximum Output Power(dBm)			Main Antenna ERP (dBm)			Second Antenna ERP (dBm)			
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)									
				20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3	
1.4MHz	QPSK	1	0	24.34	24.25	24.56	16.11	16.02	16.33	17.19	17.10	17.41	
		1	2	24.36	24.26	24.39	16.13	16.03	16.16	17.21	17.11	17.24	
		1	5	24.80	24.67	24.50	16.57	16.44	16.27	17.65	17.52	17.35	
		3	0	24.25	24.29	24.45	16.02	16.06	16.22	17.10	17.14	17.30	
		3	2	24.25	24.35	24.42	16.02	16.12	16.19	17.10	17.20	17.27	
		3	3	24.42	24.35	24.33	16.19	16.12	16.10	17.27	17.20	17.18	
	16QAM	6	0	23.66	23.39	23.65	15.43	15.16	15.42	16.51	16.24	16.50	
		1	0	23.53	23.46	23.50	15.30	15.23	15.27	16.38	16.31	16.35	
		1	2	23.51	23.45	23.46	15.28	15.22	15.23	16.36	16.30	16.31	
		1	5	23.76	23.71	23.74	15.53	15.48	15.51	16.61	16.56	16.59	
		3	0	23.34	23.26	23.31	15.11	15.03	15.08	16.19	16.11	16.16	
		3	2	23.35	23.27	23.30	15.12	15.04	15.07	16.20	16.12	16.15	
	64QAM	3	3	23.44	23.39	23.41	15.21	15.16	15.18	16.29	16.24	16.26	
		6	0	22.36	22.32	22.37	14.13	14.09	14.14	15.21	15.17	15.22	
		1	0	22.44	22.37	22.41	14.21	14.14	14.18	15.29	15.22	15.26	
		1	2	22.44	22.38	22.41	14.21	14.15	14.18	15.29	15.23	15.26	
		1	5	22.37	22.37	22.38	14.14	14.14	14.15	15.22	15.22	15.23	
		3	0	22.66	22.58	22.67	14.43	14.35	14.44	15.51	15.43	15.52	
	3MHz	QPSK	3	2	22.50	22.42	22.47	14.27	14.19	14.24	15.35	15.27	15.32
			3	3	22.52	22.47	22.49	14.29	14.24	14.26	15.37	15.32	15.34
			6	0	21.50	21.46	21.51	13.27	13.23	13.28	14.35	14.31	14.36
1			0	24.36	24.29	24.59	16.13	16.06	16.36	17.21	17.14	17.44	
1			7	24.34	24.29	24.43	16.11	16.06	16.20	17.19	17.14	17.28	
1			14	24.83	24.72	24.54	16.60	16.49	16.31	17.68	17.57	17.39	
16QAM		8	0	23.35	23.41	23.58	15.12	15.18	15.35	16.20	16.26	16.43	
		8	4	23.37	23.45	23.54	15.14	15.22	15.31	16.22	16.30	16.39	
		8	7	23.52	23.46	23.43	15.29	15.23	15.20	16.37	16.31	16.28	
		15	0	23.66	23.43	23.68	15.43	15.20	15.45	16.51	16.28	16.53	
16QAM	1	0	23.56	23.48	23.53	15.33	15.25	15.30	16.41	16.33	16.38		
	1	7	23.54	23.45	23.50	15.31	15.22	15.27	16.39	16.30	16.35		



		1	14	23.78	23.75	23.77	15.55	15.52	15.54	16.63	16.60	16.62
		8	0	22.45	22.39	22.43	14.22	14.16	14.20	15.30	15.24	15.28
		8	4	22.46	22.40	22.42	14.23	14.17	14.19	15.31	15.25	15.27
		8	7	22.54	22.51	22.54	14.31	14.28	14.31	15.39	15.36	15.39
		15	0	22.39	22.36	22.40	14.16	14.13	14.17	15.24	15.21	15.25
	64QAM	1	0	22.47	22.39	22.44	14.24	14.16	14.21	15.32	15.24	15.29
		1	7	22.47	22.38	22.43	14.24	14.15	14.20	15.32	15.23	15.28
		1	14	22.39	22.36	22.41	14.16	14.13	14.18	15.24	15.21	15.26
		8	0	21.77	21.71	21.79	13.54	13.48	13.56	14.62	14.56	14.64
		8	4	21.61	21.55	21.59	13.38	13.32	13.36	14.46	14.40	14.44
		8	7	21.62	21.59	21.62	13.39	13.36	13.39	14.47	14.44	14.47
	15	0	21.53	21.50	21.54	13.30	13.27	13.31	14.38	14.35	14.39	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)							
20407 /824.7					20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3
5MHz	QPSK	1	0	24.33	24.27	24.55	16.10	16.04	16.32	17.18	17.12	17.40
		1	13	24.32	24.25	24.40	16.09	16.02	16.17	17.17	17.10	17.25
		1	24	24.80	24.67	24.50	16.57	16.44	16.27	17.65	17.52	17.35
		12	0	23.32	23.36	23.54	15.09	15.13	15.31	16.17	16.21	16.39
		12	6	23.35	23.41	23.49	15.12	15.18	15.26	16.20	16.26	16.34
		12	13	23.50	23.44	23.39	15.27	15.21	15.16	16.35	16.29	16.24
		25	0	23.66	23.42	23.66	15.43	15.19	15.43	16.51	16.27	16.51
	16QAM	1	0	23.53	23.44	23.50	15.30	15.21	15.27	16.38	16.29	16.35
		1	13	23.51	23.43	23.47	15.28	15.20	15.24	16.36	16.28	16.32
		1	24	23.75	23.73	23.73	15.52	15.50	15.50	16.60	16.58	16.58
		12	0	22.43	22.35	22.40	14.20	14.12	14.17	15.28	15.20	15.25
		12	6	22.43	22.35	22.38	14.20	14.12	14.15	15.28	15.20	15.23
		12	13	22.51	22.46	22.50	14.28	14.23	14.27	15.36	15.31	15.35
		25	0	22.37	22.32	22.35	14.14	14.09	14.12	15.22	15.17	15.20
	64QAM	1	0	22.44	22.39	22.41	14.21	14.16	14.18	15.29	15.24	15.26
		1	13	22.44	22.40	22.40	14.21	14.17	14.17	15.29	15.25	15.25
		1	24	22.40	22.34	22.37	14.17	14.11	14.14	15.25	15.19	15.22
		12	0	21.75	21.67	21.80	13.52	13.44	13.57	14.60	14.52	14.65
		12	6	21.58	21.50	21.55	13.35	13.27	13.32	14.43	14.35	14.40
		12	13	21.59	21.54	21.58	13.36	13.31	13.35	14.44	14.39	14.43
		25	0	21.51	21.46	21.49	13.28	13.23	13.26	14.36	14.31	14.34



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3	20407 /824.7	20525 /836.5	20643 /848.3
10MHz	QPSK	1	0	24.31	24.20	24.53	16.08	15.97	16.30	17.16	17.05	17.38
		1	25	24.32	24.25	24.39	16.09	16.02	16.16	17.17	17.10	17.24
		1	49	24.77	24.65	24.46	16.54	16.42	16.23	17.62	17.50	17.31
		25	0	23.30	23.32	23.51	15.07	15.09	15.28	16.15	16.17	16.36
		25	13	23.33	23.37	23.46	15.10	15.14	15.23	16.18	16.22	16.31
		25	25	23.46	23.40	23.36	15.23	15.17	15.13	16.31	16.25	16.21
		50	0	23.65	23.35	23.61	15.42	15.12	15.38	16.50	16.20	16.46
	16QAM	1	0	23.48	23.41	23.45	15.25	15.18	15.22	16.33	16.26	16.30
		1	25	23.48	23.42	23.44	15.25	15.19	15.21	16.33	16.27	16.29
		1	49	23.73	23.68	23.71	15.50	15.45	15.48	16.58	16.53	16.56
		25	0	22.40	22.34	22.38	14.17	14.11	14.15	15.25	15.19	15.23
		25	13	22.39	22.32	22.34	14.16	14.09	14.11	15.24	15.17	15.19
		25	25	22.49	22.42	22.47	14.26	14.19	14.24	15.34	15.27	15.32
		50	0	22.35	22.28	22.32	14.12	14.05	14.09	15.20	15.13	15.17
	64QAM	1	0	22.39	22.32	22.36	14.16	14.09	14.13	15.24	15.17	15.21
		1	25	22.41	22.35	22.37	14.18	14.12	14.14	15.26	15.20	15.22
		1	49	22.34	22.29	22.35	14.11	14.06	14.12	15.19	15.14	15.20
		25	0	21.72	21.66	21.74	13.49	13.43	13.51	14.57	14.51	14.59
		25	13	21.54	21.47	21.51	13.31	13.24	13.28	14.39	14.32	14.36
		25	25	21.57	21.50	21.55	13.34	13.27	13.32	14.42	14.35	14.40
		50	0	21.49	21.42	21.46	13.26	13.19	13.23	14.34	14.27	14.31

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Main Antenna ERP (dBm)	Second Antenna ERP (dBm)
LTE Band26	1.4	26797	1	#0	QPSK	24.78	16.55	17.63
LTE Band26	1.4	26797	1	#Mid	QPSK	24.80	16.57	17.65
LTE Band26	1.4	26797	1	#Max	QPSK	24.74	16.51	17.59
LTE Band26	1.4	26797	3	#0	QPSK	24.79	16.56	17.64
LTE Band26	1.4	26797	3	#Mid	QPSK	24.74	16.51	17.59
LTE Band26	1.4	26797	3	#Max	QPSK	24.70	16.47	17.55
LTE Band26	1.4	26797	6	#0	QPSK	23.62	15.39	16.47
LTE Band26	1.4	26797	1	#0	QAM16	23.73	15.50	16.58
LTE Band26	1.4	26797	1	#Mid	QAM16	23.76	15.53	16.61
LTE Band26	1.4	26797	1	#Max	QAM16	23.69	15.46	16.54
LTE Band26	1.4	26797	3	#0	QAM16	23.89	15.66	16.74



LTE Band26	1.4	26797	3	#Mid	QAM16	23.91	15.68	16.76
LTE Band26	1.4	26797	3	#Max	QAM16	23.87	15.64	16.72
LTE Band26	1.4	26797	6	#0	QAM16	22.69	14.46	15.54
LTE Band26	1.4	26915	1	#0	QPSK	24.72	16.49	17.57
LTE Band26	1.4	26915	1	#Mid	QPSK	24.78	16.55	17.63
LTE Band26	1.4	26915	1	#Max	QPSK	24.71	16.48	17.56
LTE Band26	1.4	26915	3	#0	QPSK	24.79	16.56	17.64
LTE Band26	1.4	26915	3	#Mid	QPSK	24.82	16.59	17.67
LTE Band26	1.4	26915	3	#Max	QPSK	24.80	16.57	17.65
LTE Band26	1.4	26915	6	#0	QPSK	23.82	15.59	16.67
LTE Band26	1.4	26915	1	#0	QAM16	23.88	15.65	16.73
LTE Band26	1.4	26915	1	#Mid	QAM16	23.97	15.74	16.82
LTE Band26	1.4	26915	1	#Max	QAM16	23.91	15.68	16.76
LTE Band26	1.4	26915	3	#0	QAM16	23.76	15.53	16.61
LTE Band26	1.4	26915	3	#Mid	QAM16	23.74	15.51	16.59
LTE Band26	1.4	26915	3	#Max	QAM16	23.78	15.55	16.63
LTE Band26	1.4	26915	6	#0	QAM16	22.71	14.48	15.56
LTE Band26	1.4	27033	1	#0	QPSK	24.71	16.48	17.56
LTE Band26	1.4	27033	1	#Mid	QPSK	24.62	16.39	17.47
LTE Band26	1.4	27033	1	#Max	QPSK	24.52	16.29	17.37
LTE Band26	1.4	27033	3	#0	QPSK	24.57	16.34	17.42
LTE Band26	1.4	27033	3	#Mid	QPSK	24.61	16.38	17.46
LTE Band26	1.4	27033	3	#Max	QPSK	24.58	16.35	17.43
LTE Band26	1.4	27033	6	#0	QPSK	23.61	15.38	16.46
LTE Band26	1.4	27033	1	#0	QAM16	23.50	15.27	16.35
LTE Band26	1.4	27033	1	#Mid	QAM16	23.56	15.33	16.41
LTE Band26	1.4	27033	1	#Max	QAM16	23.41	15.18	16.26
LTE Band26	1.4	27033	3	#0	QAM16	23.66	15.43	16.51
LTE Band26	1.4	27033	3	#Mid	QAM16	23.65	15.42	16.50
LTE Band26	1.4	27033	3	#Max	QAM16	23.59	15.36	16.44
LTE Band26	1.4	27033	6	#0	QAM16	22.58	14.35	15.43
LTE Band26	3	26805	1	#0	QPSK	24.70	16.47	17.55
LTE Band26	3	26805	1	#Mid	QPSK	24.72	16.49	17.57
LTE Band26	3	26805	1	#Max	QPSK	24.63	16.40	17.48
LTE Band26	3	26805	8	#0	QPSK	23.69	15.46	16.54
LTE Band26	3	26805	8	#Mid	QPSK	23.70	15.47	16.55
LTE Band26	3	26805	8	#Max	QPSK	23.78	15.55	16.63
LTE Band26	3	26805	15	#0	QPSK	23.76	15.53	16.61
LTE Band26	3	26805	1	#0	QAM16	23.97	15.74	16.82
LTE Band26	3	26805	1	#Mid	QAM16	24.00	15.77	16.85
LTE Band26	3	26805	1	#Max	QAM16	23.90	15.67	16.75
LTE Band26	3	26805	8	#0	QAM16	22.73	14.50	15.58
LTE Band26	3	26805	8	#Mid	QAM16	22.74	14.51	15.59



LTE Band26	3	26805	8	#Max	QAM16	22.82	14.59	15.67
LTE Band26	3	26805	15	#0	QAM16	22.75	14.52	15.60
LTE Band26	3	26915	1	#0	QPSK	24.79	16.56	17.64
LTE Band26	3	26915	1	#Mid	QPSK	24.83	16.60	17.68
LTE Band26	3	26915	1	#Max	QPSK	24.70	16.47	17.55
LTE Band26	3	26915	8	#0	QPSK	23.89	15.66	16.74
LTE Band26	3	26915	8	#Mid	QPSK	23.88	15.65	16.73
LTE Band26	3	26915	8	#Max	QPSK	23.84	15.61	16.69
LTE Band26	3	26915	15	#0	QPSK	23.87	15.64	16.72
LTE Band26	3	26915	1	#0	QAM16	23.93	15.70	16.78
LTE Band26	3	26915	1	#Mid	QAM16	23.96	15.73	16.81
LTE Band26	3	26915	1	#Max	QAM16	23.88	15.65	16.73
LTE Band26	3	26915	8	#0	QAM16	22.84	14.61	15.69
LTE Band26	3	26915	8	#Mid	QAM16	22.85	14.62	15.70
LTE Band26	3	26915	8	#Max	QAM16	22.85	14.62	15.70
LTE Band26	3	26915	15	#0	QAM16	22.72	14.49	15.57
LTE Band26	3	27025	1	#0	QPSK	24.71	16.48	17.56
LTE Band26	3	27025	1	#Mid	QPSK	24.79	16.56	17.64
LTE Band26	3	27025	1	#Max	QPSK	24.66	16.43	17.51
LTE Band26	3	27025	8	#0	QPSK	23.70	15.47	16.55
LTE Band26	3	27025	8	#Mid	QPSK	23.70	15.47	16.55
LTE Band26	3	27025	8	#Max	QPSK	23.68	15.45	16.53
LTE Band26	3	27025	15	#0	QPSK	23.68	15.45	16.53
LTE Band26	3	27025	1	#0	QAM16	23.55	15.32	16.40
LTE Band26	3	27025	1	#Mid	QAM16	23.60	15.37	16.45
LTE Band26	3	27025	1	#Max	QAM16	23.43	15.20	16.28
LTE Band26	3	27025	8	#0	QAM16	22.69	14.46	15.54
LTE Band26	3	27025	8	#Mid	QAM16	22.70	14.47	15.55
LTE Band26	3	27025	8	#Max	QAM16	22.65	14.42	15.50
LTE Band26	3	27025	15	#0	QAM16	22.70	14.47	15.55
LTE Band26	5	26815	1	#0	QPSK	24.77	16.54	17.62
LTE Band26	5	26815	1	#Mid	QPSK	24.74	16.51	17.59
LTE Band26	5	26815	1	#Max	QPSK	24.71	16.48	17.56
LTE Band26	5	26815	12	#0	QPSK	23.78	15.55	16.63
LTE Band26	5	26815	12	#Mid	QPSK	23.78	15.55	16.63
LTE Band26	5	26815	12	#Max	QPSK	23.81	15.58	16.66
LTE Band26	5	26815	25	#0	QPSK	23.82	15.59	16.67
LTE Band26	5	26815	1	#0	QAM16	24.10	15.87	16.95
LTE Band26	5	26815	1	#Mid	QAM16	24.08	15.85	16.93
LTE Band26	5	26815	1	#Max	QAM16	24.01	15.78	16.86
LTE Band26	5	26815	12	#0	QAM16	22.77	14.54	15.62
LTE Band26	5	26815	12	#Mid	QAM16	22.77	14.54	15.62
LTE Band26	5	26815	12	#Max	QAM16	22.81	14.58	15.66



LTE Band26	5	26815	25	#0	QAM16	22.78	14.55	15.63
LTE Band26	5	26915	1	#0	QPSK	24.84	16.61	17.69
LTE Band26	5	26915	1	#Mid	QPSK	24.84	16.61	17.69
LTE Band26	5	26915	1	#Max	QPSK	24.81	16.58	17.66
LTE Band26	5	26915	12	#0	QPSK	23.94	15.71	16.79
LTE Band26	5	26915	12	#Mid	QPSK	23.95	15.72	16.80
LTE Band26	5	26915	12	#Max	QPSK	23.88	15.65	16.73
LTE Band26	5	26915	25	#0	QPSK	23.87	15.64	16.72
LTE Band26	5	26915	1	#0	QAM16	24.09	15.86	16.94
LTE Band26	5	26915	1	#Mid	QAM16	24.08	15.85	16.93
LTE Band26	5	26915	1	#Max	QAM16	24.02	15.79	16.87
LTE Band26	5	26915	12	#0	QAM16	22.86	14.63	15.71
LTE Band26	5	26915	12	#Mid	QAM16	22.87	14.64	15.72
LTE Band26	5	26915	12	#Max	QAM16	22.81	14.58	15.66
LTE Band26	5	26915	25	#0	QAM16	22.86	14.63	15.71
LTE Band26	5	27015	1	#0	QPSK	24.75	16.52	17.60
LTE Band26	5	27015	1	#Mid	QPSK	24.69	16.46	17.54
LTE Band26	5	27015	1	#Max	QPSK	24.50	16.27	17.35
LTE Band26	5	27015	12	#0	QPSK	23.78	15.55	16.63
LTE Band26	5	27015	12	#Mid	QPSK	23.78	15.55	16.63
LTE Band26	5	27015	12	#Max	QPSK	23.66	15.43	16.51
LTE Band26	5	27015	25	#0	QPSK	23.77	15.54	16.62
LTE Band26	5	27015	1	#0	QAM16	23.99	15.76	16.84
LTE Band26	5	27015	1	#Mid	QAM16	23.90	15.67	16.75
LTE Band26	5	27015	1	#Max	QAM16	23.72	15.49	16.57
LTE Band26	5	27015	12	#0	QAM16	22.81	14.58	15.66
LTE Band26	5	27015	12	#Mid	QAM16	22.80	14.57	15.65
LTE Band26	5	27015	12	#Max	QAM16	22.72	14.49	15.57
LTE Band26	5	27015	25	#0	QAM16	22.69	14.46	15.54
LTE Band26	10	26840	1	#0	QPSK	24.95	16.72	17.80
LTE Band26	10	26840	1	#Mid	QPSK	24.66	16.43	17.51
LTE Band26	10	26840	1	#Max	QPSK	24.96	16.73	17.81
LTE Band26	10	26840	25	#0	QPSK	23.81	15.58	16.66
LTE Band26	10	26840	25	#Mid	QPSK	23.81	15.58	16.66
LTE Band26	10	26840	25	#Max	QPSK	23.78	15.55	16.63
LTE Band26	10	26840	50	#0	QPSK	23.84	15.61	16.69
LTE Band26	10	26840	1	#0	QAM16	24.19	15.96	17.04
LTE Band26	10	26840	1	#Mid	QAM16	23.94	15.71	16.79
LTE Band26	10	26840	1	#Max	QAM16	24.21	15.98	17.06
LTE Band26	10	26840	25	#0	QAM16	22.82	14.59	15.67
LTE Band26	10	26840	25	#Mid	QAM16	22.82	14.59	15.67
LTE Band26	10	26840	25	#Max	QAM16	22.87	14.64	15.72
LTE Band26	10	26840	50	#0	QAM16	22.80	14.57	15.65



LTE Band26	10	26915	1	#0	QPSK	24.90	16.67	17.75
LTE Band26	10	26915	1	#Mid	QPSK	24.81	16.58	17.66
LTE Band26	10	26915	1	#Max	QPSK	24.98	16.75	17.83
LTE Band26	10	26915	25	#0	QPSK	23.94	15.71	16.79
LTE Band26	10	26915	25	#Mid	QPSK	23.90	15.67	16.75
LTE Band26	10	26915	25	#Max	QPSK	23.93	15.70	16.78
LTE Band26	10	26915	50	#0	QPSK	23.94	15.71	16.79
LTE Band26	10	26915	1	#0	QAM16	24.07	15.84	16.92
LTE Band26	10	26915	1	#Mid	QAM16	24.01	15.78	16.86
LTE Band26	10	26915	1	#Max	QAM16	24.08	15.85	16.93
LTE Band26	10	26915	25	#0	QAM16	22.94	14.71	15.79
LTE Band26	10	26915	25	#Mid	QAM16	22.94	14.71	15.79
LTE Band26	10	26915	25	#Max	QAM16	22.90	14.67	15.75
LTE Band26	10	26915	50	#0	QAM16	22.90	14.67	15.75
LTE Band26	10	26990	1	#0	QPSK	25.02	16.79	17.87
LTE Band26	10	26990	1	#Mid	QPSK	24.78	16.55	17.63
LTE Band26	10	26990	1	#Max	QPSK	24.57	16.34	17.42
LTE Band26	10	26990	25	#0	QPSK	23.94	15.71	16.79
LTE Band26	10	26990	25	#Mid	QPSK	23.94	15.71	16.79
LTE Band26	10	26990	25	#Max	QPSK	23.81	15.58	16.66
LTE Band26	10	26990	50	#0	QPSK	23.87	15.64	16.72
LTE Band26	10	26990	1	#0	QAM16	23.97	15.74	16.82
LTE Band26	10	26990	1	#Mid	QAM16	23.71	15.48	16.56
LTE Band26	10	26990	1	#Max	QAM16	23.54	15.31	16.39
LTE Band26	10	26990	25	#0	QAM16	22.94	14.71	15.79
LTE Band26	10	26990	25	#Mid	QAM16	22.96	14.73	15.81
LTE Band26	10	26990	25	#Max	QAM16	22.77	14.54	15.62
LTE Band26	10	26990	50	#0	QAM16	22.88	14.65	15.73
LTE Band26	15	26865	1	#0	QPSK	24.76	16.53	17.61
LTE Band26	15	26865	1	#Mid	QPSK	24.59	16.36	17.44
LTE Band26	15	26865	1	#Max	QPSK	24.96	16.73	17.81
LTE Band26	15	26865	36	#0	QPSK	23.94	15.71	16.79
LTE Band26	15	26865	36	#Mid	QPSK	23.91	15.68	16.76
LTE Band26	15	26865	36	#Max	QPSK	23.67	15.44	16.52
LTE Band26	15	26865	75	#0	QPSK	23.82	15.59	16.67
LTE Band26	15	26865	1	#0	QAM16	24.02	15.79	16.87
LTE Band26	15	26865	1	#Mid	QAM16	23.84	15.61	16.69
LTE Band26	15	26865	1	#Max	QAM16	24.24	16.01	17.09
LTE Band26	15	26865	36	#0	QAM16	22.92	14.69	15.77
LTE Band26	15	26865	36	#Mid	QAM16	22.91	14.68	15.76
LTE Band26	15	26865	36	#Max	QAM16	22.70	14.47	15.55
LTE Band26	15	26865	75	#0	QAM16	22.80	14.57	15.65
LTE Band26	15	26915	1	#0	QPSK	24.83	16.60	17.68



LTE Band26	15	26915	1	#Mid	QPSK	24.71	16.48	17.56
LTE Band26	15	26915	1	#Max	QPSK	25.01	16.78	17.86
LTE Band26	15	26915	36	#0	QPSK	24.12	15.89	16.97
LTE Band26	15	26915	36	#Mid	QPSK	24.10	15.87	16.95
LTE Band26	15	26915	36	#Max	QPSK	23.66	15.43	16.51
LTE Band26	15	26915	75	#0	QPSK	23.87	15.64	16.72
LTE Band26	15	26915	1	#0	QAM16	24.04	15.81	16.89
LTE Band26	15	26915	1	#Mid	QAM16	23.98	15.75	16.83
LTE Band26	15	26915	1	#Max	QAM16	24.27	16.04	17.12
LTE Band26	15	26915	36	#0	QAM16	23.10	14.87	15.95
LTE Band26	15	26915	36	#Mid	QAM16	23.09	14.86	15.94
LTE Band26	15	26915	36	#Max	QAM16	22.67	14.44	15.52
LTE Band26	15	26915	75	#0	QAM16	22.83	14.60	15.68
LTE Band26	15	26965	1	#0	QPSK	25.01	16.78	17.86
LTE Band26	15	26965	1	#Mid	QPSK	24.82	16.59	17.67
LTE Band26	15	26965	1	#Max	QPSK	24.77	16.54	17.62
LTE Band26	15	26965	36	#0	QPSK	24.05	15.82	16.90
LTE Band26	15	26965	36	#Mid	QPSK	24.06	15.83	16.91
LTE Band26	15	26965	36	#Max	QPSK	23.59	15.36	16.44
LTE Band26	15	26965	75	#0	QPSK	23.93	15.70	16.78
LTE Band26	15	26965	1	#0	QAM16	24.01	15.78	16.86
LTE Band26	15	26965	1	#Mid	QAM16	23.83	15.60	16.68
LTE Band26	15	26965	1	#Max	QAM16	23.81	15.58	16.66
LTE Band26	15	26965	36	#0	QAM16	23.06	14.83	15.91
LTE Band26	15	26965	36	#Mid	QAM16	23.07	14.84	15.92
LTE Band26	15	26965	36	#Max	QAM16	22.65	14.42	15.50
LTE Band26	15	26965	75	#0	QAM16	22.95	14.72	15.80
LTE Band26	1.4	26797	1	#0	QAM64	23.12	14.89	15.97
LTE Band26	1.4	26797	1	#Mid	QAM64	23.14	14.91	15.99
LTE Band26	1.4	26797	1	#Max	QAM64	23.04	14.81	15.89
LTE Band26	1.4	26797	3	#0	QAM64	23.25	15.02	16.10
LTE Band26	1.4	26797	3	#Mid	QAM64	23.30	15.07	16.15
LTE Band26	1.4	26797	3	#Max	QAM64	23.21	14.98	16.06
LTE Band26	1.4	26797	6	#0	QAM64	22.03	13.80	14.88
LTE Band26	1.4	26915	1	#0	QAM64	23.31	15.08	16.16
LTE Band26	1.4	26915	1	#Mid	QAM64	23.36	15.13	16.21
LTE Band26	1.4	26915	1	#Max	QAM64	23.30	15.07	16.15
LTE Band26	1.4	26915	3	#0	QAM64	23.27	15.04	16.12
LTE Band26	1.4	26915	3	#Mid	QAM64	23.26	15.03	16.11
LTE Band26	1.4	26915	3	#Max	QAM64	23.29	15.06	16.14
LTE Band26	1.4	26915	6	#0	QAM64	22.16	13.93	15.01
LTE Band26	1.4	27033	1	#0	QAM64	22.85	14.62	15.70
LTE Band26	1.4	27033	1	#Mid	QAM64	22.97	14.74	15.82



LTE Band26	1.4	27033	1	#Max	QAM64	22.77	14.54	15.62
LTE Band26	1.4	27033	3	#0	QAM64	23.00	14.77	15.85
LTE Band26	1.4	27033	3	#Mid	QAM64	23.07	14.84	15.92
LTE Band26	1.4	27033	3	#Max	QAM64	23.07	14.84	15.92
LTE Band26	1.4	27033	6	#0	QAM64	21.97	13.74	14.82
LTE Band26	3	26805	1	#0	QAM64	23.34	15.11	16.19
LTE Band26	3	26805	1	#Mid	QAM64	23.34	15.11	16.19
LTE Band26	3	26805	1	#Max	QAM64	23.29	15.06	16.14
LTE Band26	3	26805	8	#0	QAM64	22.04	13.81	14.89
LTE Band26	3	26805	8	#Mid	QAM64	22.05	13.82	14.90
LTE Band26	3	26805	8	#Max	QAM64	22.16	13.93	15.01
LTE Band26	3	26805	15	#0	QAM64	22.12	13.89	14.97
LTE Band26	3	26915	1	#0	QAM64	23.33	15.10	16.18
LTE Band26	3	26915	1	#Mid	QAM64	23.37	15.14	16.22
LTE Band26	3	26915	1	#Max	QAM64	23.28	15.05	16.13
LTE Band26	3	26915	8	#0	QAM64	22.28	14.05	15.13
LTE Band26	3	26915	8	#Mid	QAM64	22.22	13.99	15.07
LTE Band26	3	26915	8	#Max	QAM64	22.23	14.00	15.08
LTE Band26	3	26915	15	#0	QAM64	22.14	13.91	14.99
LTE Band26	3	27025	1	#0	QAM64	22.95	14.72	15.80
LTE Band26	3	27025	1	#Mid	QAM64	22.88	14.65	15.73
LTE Band26	3	27025	1	#Max	QAM64	22.85	14.62	15.70
LTE Band26	3	27025	8	#0	QAM64	22.12	13.89	14.97
LTE Band26	3	27025	8	#Mid	QAM64	22.12	13.89	14.97
LTE Band26	3	27025	8	#Max	QAM64	22.06	13.83	14.91
LTE Band26	3	27025	15	#0	QAM64	22.07	13.84	14.92
LTE Band26	5	26815	1	#0	QAM64	23.43	15.20	16.28
LTE Band26	5	26815	1	#Mid	QAM64	23.40	15.17	16.25
LTE Band26	5	26815	1	#Max	QAM64	23.36	15.13	16.21
LTE Band26	5	26815	12	#0	QAM64	22.09	13.86	14.94
LTE Band26	5	26815	12	#Mid	QAM64	22.10	13.87	14.95
LTE Band26	5	26815	12	#Max	QAM64	22.12	13.89	14.97
LTE Band26	5	26815	25	#0	QAM64	22.09	13.86	14.94
LTE Band26	5	26915	1	#0	QAM64	23.48	15.25	16.33
LTE Band26	5	26915	1	#Mid	QAM64	23.48	15.25	16.33
LTE Band26	5	26915	1	#Max	QAM64	23.43	15.20	16.28
LTE Band26	5	26915	12	#0	QAM64	22.28	14.05	15.13
LTE Band26	5	26915	12	#Mid	QAM64	22.28	14.05	15.13
LTE Band26	5	26915	12	#Max	QAM64	22.22	13.99	15.07
LTE Band26	5	26915	25	#0	QAM64	22.21	13.98	15.06
LTE Band26	5	27015	1	#0	QAM64	23.44	15.21	16.29
LTE Band26	5	27015	1	#Mid	QAM64	23.35	15.12	16.20
LTE Band26	5	27015	1	#Max	QAM64	23.15	14.92	16.00



LTE Band26	5	27015	12	#0	QAM64	22.20	13.97	15.05
LTE Band26	5	27015	12	#Mid	QAM64	22.24	14.01	15.09
LTE Band26	5	27015	12	#Max	QAM64	22.14	13.91	14.99
LTE Band26	5	27015	25	#0	QAM64	22.11	13.88	14.96
LTE Band26	10	26840	1	#0	QAM64	23.58	15.35	16.43
LTE Band26	10	26840	1	#Mid	QAM64	23.32	15.09	16.17
LTE Band26	10	26840	1	#Max	QAM64	23.61	15.38	16.46
LTE Band26	10	26840	25	#0	QAM64	22.25	14.02	15.10
LTE Band26	10	26840	25	#Mid	QAM64	22.25	14.02	15.10
LTE Band26	10	26840	25	#Max	QAM64	22.25	14.02	15.10
LTE Band26	10	26840	50	#0	QAM64	22.22	13.99	15.07
LTE Band26	10	26915	1	#0	QAM64	23.47	15.24	16.32
LTE Band26	10	26915	1	#Mid	QAM64	23.41	15.18	16.26
LTE Band26	10	26915	1	#Max	QAM64	23.56	15.33	16.41
LTE Band26	10	26915	25	#0	QAM64	22.36	14.13	15.21
LTE Band26	10	26915	25	#Mid	QAM64	22.37	14.14	15.22
LTE Band26	10	26915	25	#Max	QAM64	22.30	14.07	15.15
LTE Band26	10	26915	50	#0	QAM64	22.27	14.04	15.12
LTE Band26	10	26990	1	#0	QAM64	23.36	15.13	16.21
LTE Band26	10	26990	1	#Mid	QAM64	23.16	14.93	16.01
LTE Band26	10	26990	1	#Max	QAM64	23.12	14.89	15.97
LTE Band26	10	26990	25	#0	QAM64	22.31	14.08	15.16
LTE Band26	10	26990	25	#Mid	QAM64	22.32	14.09	15.17
LTE Band26	10	26990	25	#Max	QAM64	22.18	13.95	15.03
LTE Band26	10	26990	50	#0	QAM64	22.24	14.01	15.09
LTE Band26	15	26865	1	#0	QAM64	23.45	15.22	16.30
LTE Band26	15	26865	1	#Mid	QAM64	23.27	15.04	16.12
LTE Band26	15	26865	1	#Max	QAM64	23.66	15.43	16.51
LTE Band26	15	26865	36	#0	QAM64	22.36	14.13	15.21
LTE Band26	15	26865	36	#Mid	QAM64	22.33	14.10	15.18
LTE Band26	15	26865	36	#Max	QAM64	22.12	13.89	14.97
LTE Band26	15	26865	75	#0	QAM64	22.13	13.90	14.98
LTE Band26	15	26915	1	#0	QAM64	23.44	15.21	16.29
LTE Band26	15	26915	1	#Mid	QAM64	23.34	15.11	16.19
LTE Band26	15	26915	1	#Max	QAM64	23.62	15.39	16.47
LTE Band26	15	26915	36	#0	QAM64	22.46	14.23	15.31
LTE Band26	15	26915	36	#Mid	QAM64	22.49	14.26	15.34
LTE Band26	15	26915	36	#Max	QAM64	22.03	13.80	14.88
LTE Band26	15	26915	75	#0	QAM64	22.25	14.02	15.10
LTE Band26	15	26965	1	#0	QAM64	23.37	15.14	16.22
LTE Band26	15	26965	1	#Mid	QAM64	23.24	15.01	16.09
LTE Band26	15	26965	1	#Max	QAM64	23.23	15.00	16.08
LTE Band26	15	26965	36	#0	QAM64	22.38	14.15	15.23



LTE Band26	15	26965	36	#Mid	QAM64	22.40	14.17	15.25
LTE Band26	15	26965	36	#Max	QAM64	22.08	13.85	14.93
LTE Band26	15	26965	75	#0	QAM64	22.36	14.13	15.21

5.2. Occupied Bandwidth

Ambient condition

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

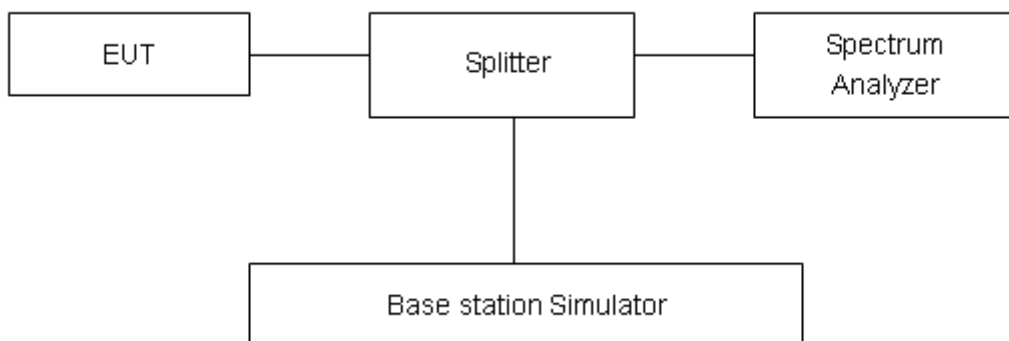
Method of Measurement

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

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 850 (GMSK)	128	824.2	0.25	0.31
	190	836.6	0.25	0.32
	251	848.8	0.24	0.31
GPRS 850 (GMSK)	128	824.2	0.25	0.32
	190	836.6	0.24	0.31
	251	848.8	0.24	0.31
EGPRS 850 (8PSK)	128	824.2	0.24	0.31
	190	836.6	0.24	0.30
	251	848.8	0.24	0.30
WCDMA Band V (RMC)	4132	826.4	4.14	4.72
	4183	836.6	4.13	4.71
	4233	846.6	4.14	4.69

LTE Band 5						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20407	824.7	1.10	1.28
			20525	836.5	1.09	1.28
			20643	848.3	1.10	1.30
		3	20415	825.5	2.70	2.96
			20525	836.5	2.70	2.99
			20635	847.5	2.70	2.99
		5	20425	826.5	4.52	4.94
			20525	836.5	4.51	4.94
			20625	846.5	4.51	5.00
	10	20450	829	9.00	9.97	
		20525	836.5	8.98	9.84	
		20600	844	9.00	9.89	
	16QAM	1.4	20407	824.7	1.10	1.29
			20525	836.5	1.10	1.29
			20643	848.3	1.11	1.28
		3	20415	825.5	2.70	2.99
			20525	836.5	2.70	3.00
			20635	847.5	2.71	3.00
5		20425	826.5	4.51	5.02	
		20525	836.5	4.53	4.94	

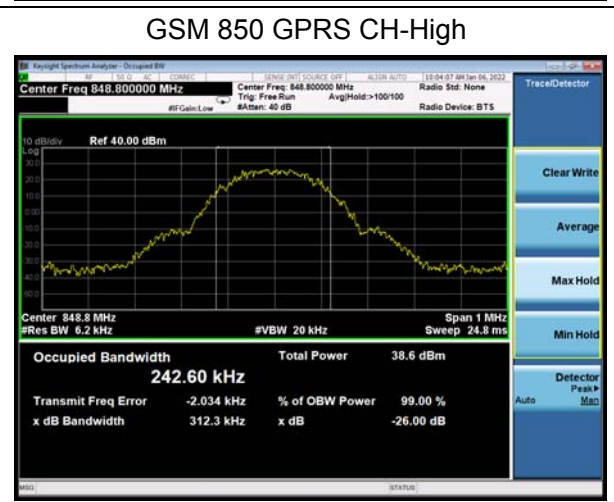
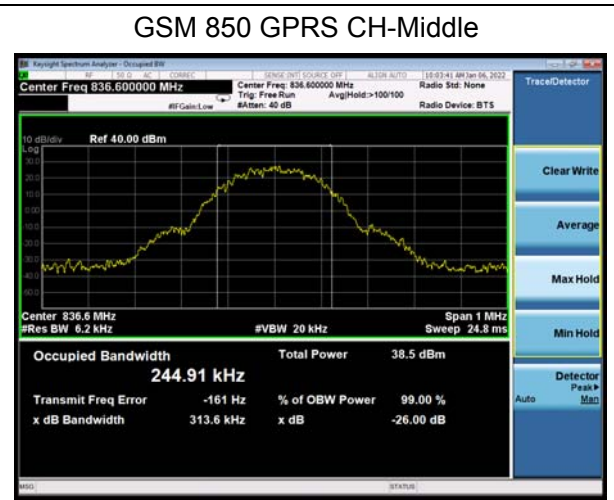
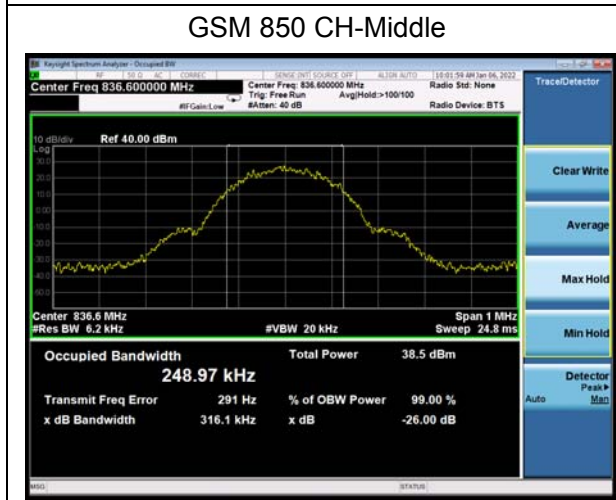
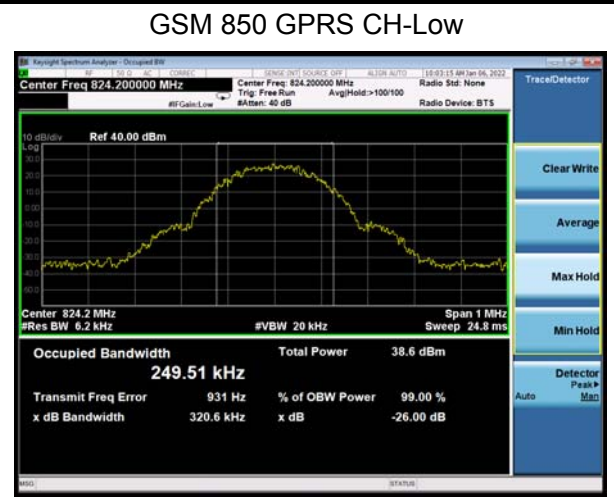
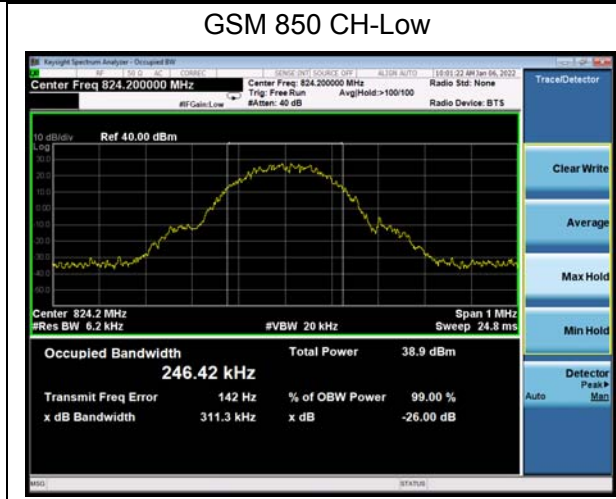


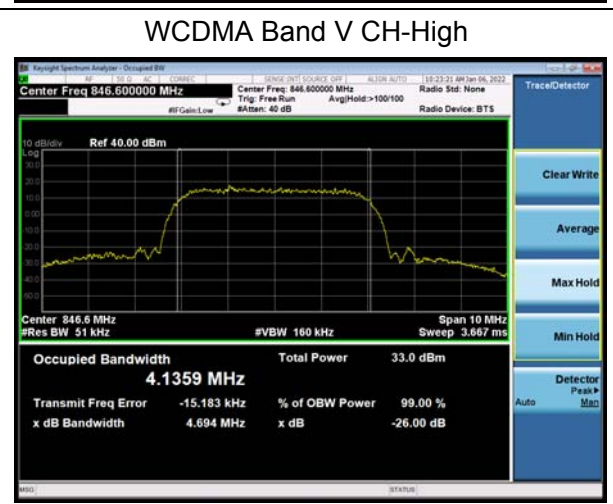
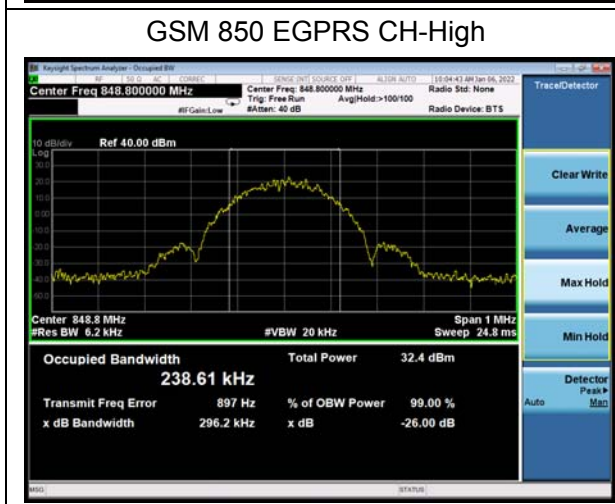
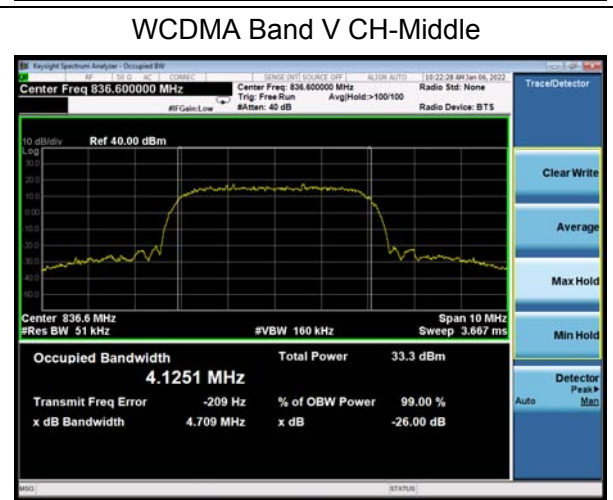
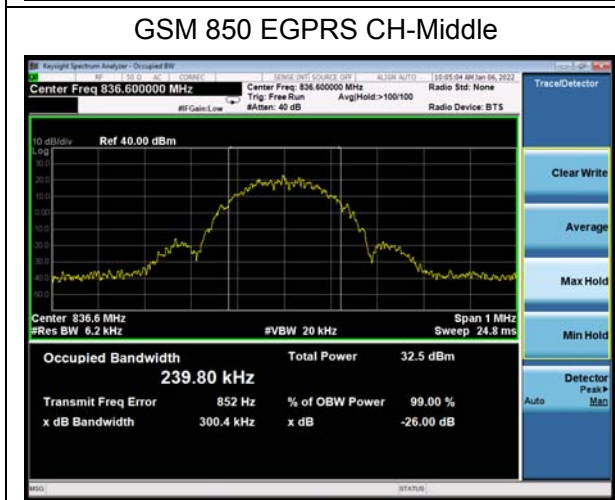
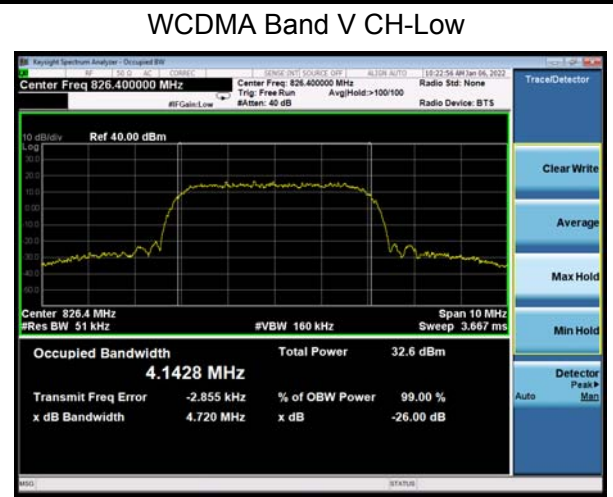
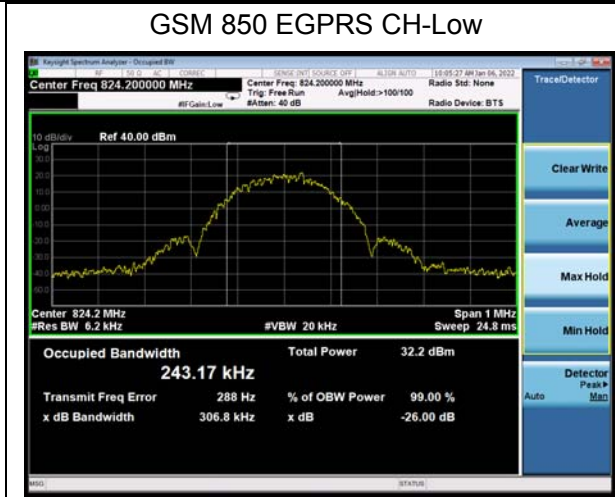
		10	20625	846.5	4.51	4.98	
			20450	829	8.99	9.79	
			20525	836.5	8.98	9.82	
			20600	844	8.95	9.80	
	64QAM	1.4		20407	824.7	1.10	1.30
				20525	836.5	1.10	1.30
				20643	848.3	1.09	1.27
		3		20415	825.5	2.70	2.95
				20525	836.5	2.69	2.99
				20635	847.5	2.70	3.00
		5		20425	826.5	4.51	4.98
				20525	836.5	4.51	4.99
				20625	846.5	4.51	4.96
		10		20450	829	9.01	9.82
				20525	836.5	8.98	9.91
				20600	844	8.99	9.87

LTE Band 26							
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)	
100%	QPSK	1.4	26797	824.7	1.10	1.30	
			26915	836.5	1.10	1.28	
			27033	848.3	1.10	1.28	
		3		26805	825.5	2.70	3.03
				26915	836.5	2.69	2.99
				27025	847.5	2.71	2.98
		5		26815	826.5	4.54	4.88
				26915	836.5	4.52	4.97
				27015	846.5	4.52	4.95
		10		26840	829	8.99	9.75
				26915	836.5	8.99	9.83
				26990	844	8.97	9.76
		15		26865	831.5	13.45	14.89
				26915	836.5	13.47	14.52
				26965	841.5	13.48	14.64
	16QAM	1.4		26797	824.7	1.10	1.32
				26915	836.5	1.09	1.29
				27033	848.3	1.10	1.27
		3		26805	825.5	2.70	2.99
				26915	836.5	2.71	2.98
27025				847.5	2.71	3.02	
5			26815	826.5	4.50	4.97	



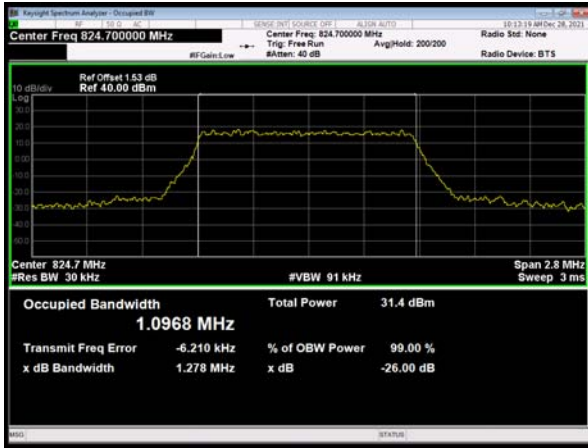
			26915	836.5	4.53	5.00	
			27015	846.5	4.51	5.03	
		10	26840	829	9.00	9.80	
			26915	836.5	8.98	9.70	
			26990	844	8.97	9.73	
		15	26865	831.5	13.44	14.59	
			26915	836.5	13.46	14.63	
			26965	841.5	13.45	14.64	
		64QAM	1.4	26797	824.7	1.10	1.29
				26915	836.5	1.09	1.27
				27033	848.3	1.10	1.30
			3	26805	825.5	2.70	2.99
	26915			836.5	2.70	3.00	
	27025			847.5	2.69	3.00	
	5		26815	826.5	4.50	4.93	
			26915	836.5	4.51	4.97	
			27015	846.5	4.51	5.01	
	10		26840	829	9.00	9.94	
			26915	836.5	8.97	9.84	
			26990	844	8.95	9.87	
	15		26865	831.5	13.43	14.52	
			26915	836.5	13.46	14.68	
			26965	841.5	13.46	14.54	



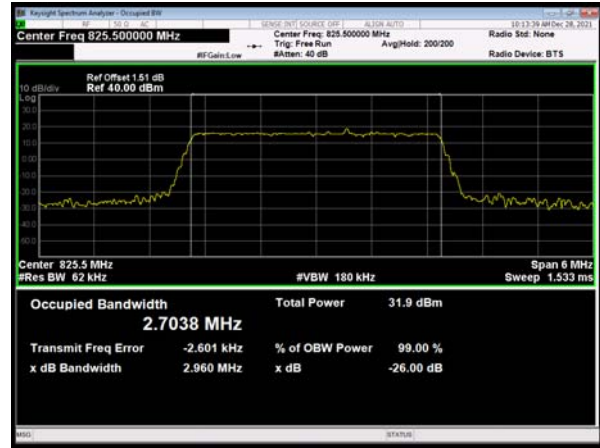




LTE Band 5 QPSK 1.4MHz CH-Low



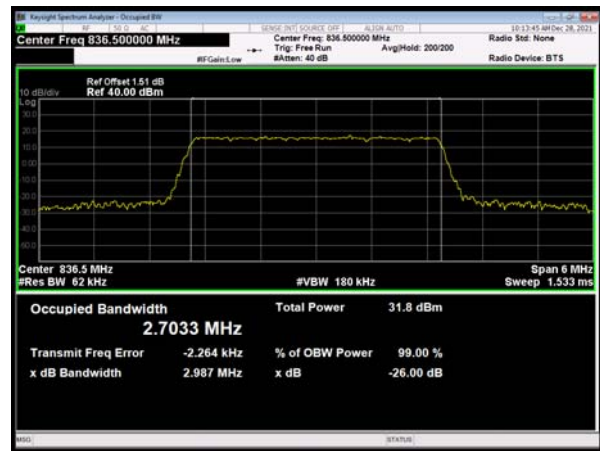
LTE Band 5 QPSK 3MHz CH-Low



LTE Band 5 QPSK 1.4MHz CH-Middle



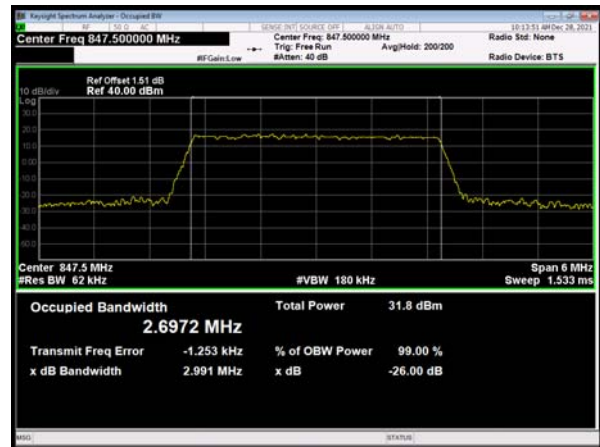
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LTE Band 5 QPSK 1.4MHz CH-High

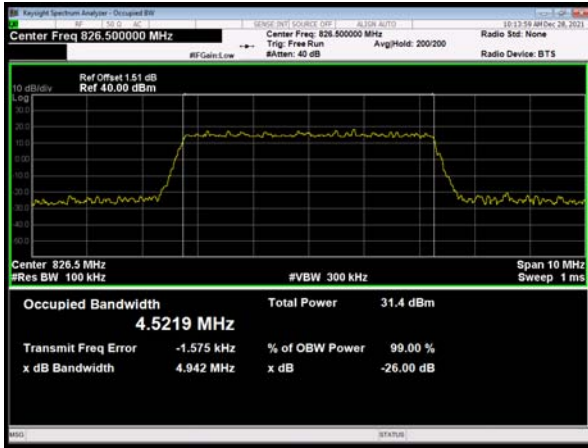


LTE Band 5 QPSK 3MHz CH-High

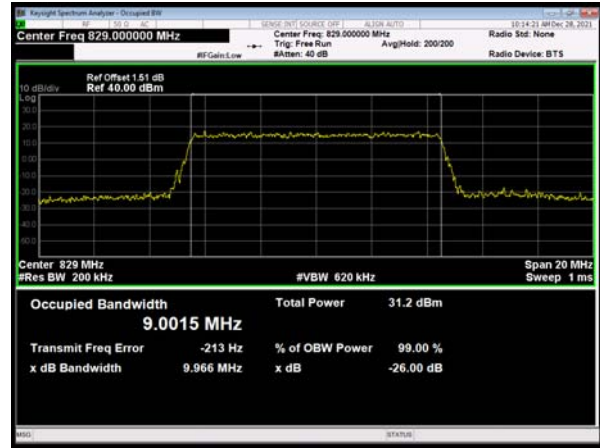




LTE Band 5 QPSK 5MHz CH-Low



LTE Band 5 QPSK 10MHz CH-Low



LTE Band 5 QPSK 5MHz CH-Middle



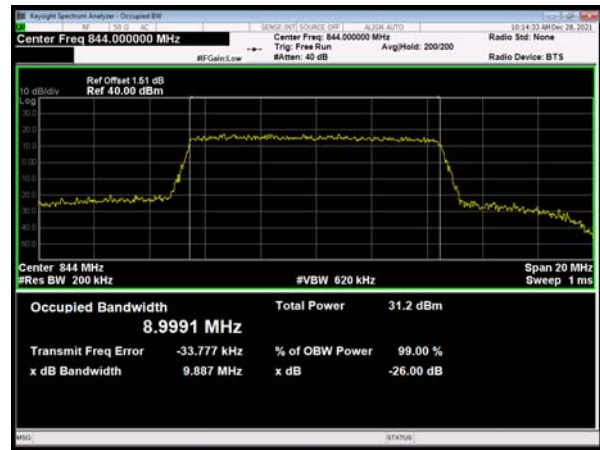
LTE Band 5 QPSK 10MHz CH-Middle



LTE Band 5 QPSK 5MHz CH-High

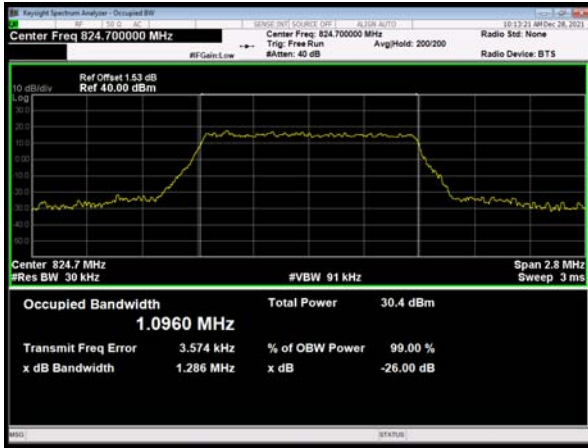


LTE Band 5 QPSK 10MHz CH-High

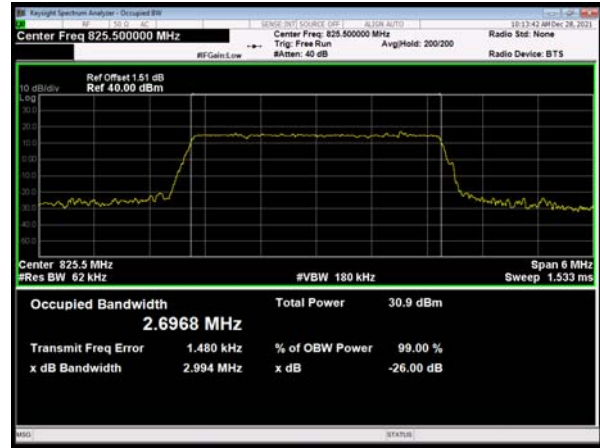




LTE Band 5 16QAM 1.4MHz CH-Low



LTE Band 5 16QAM 3MHz CH-Low



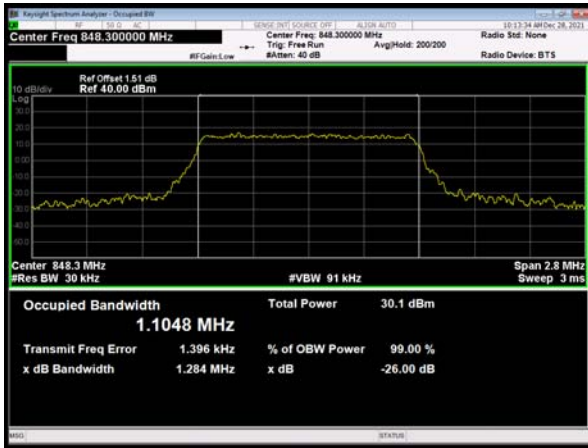
LTE Band 5 16QAM 1.4MHz CH-Middle



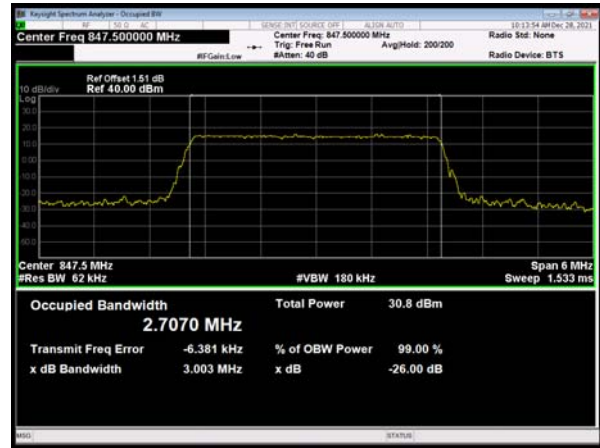
LTE Band 5 16QAM 3MHz CH-Middle

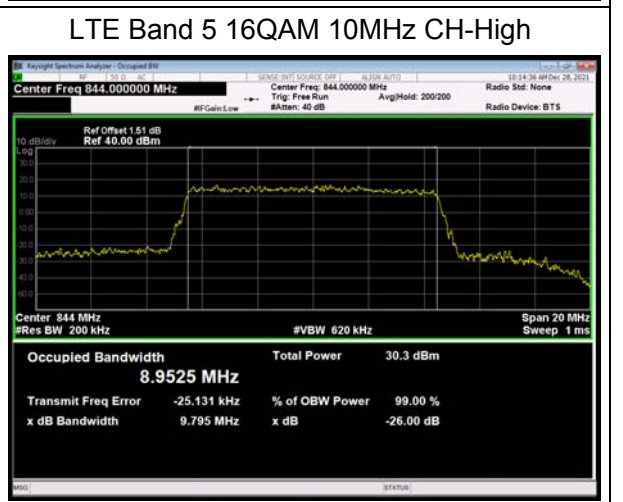
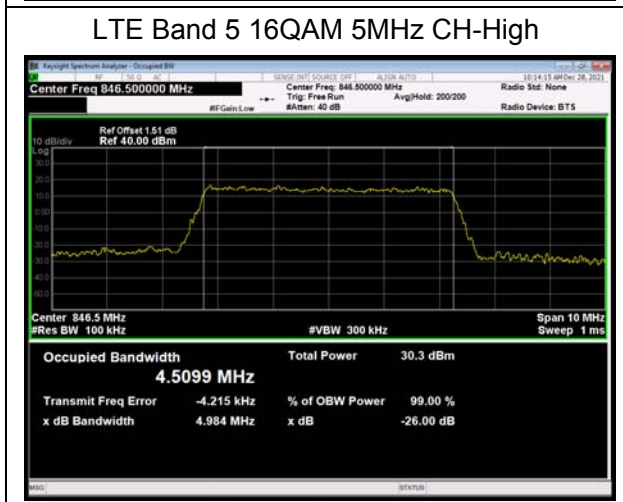
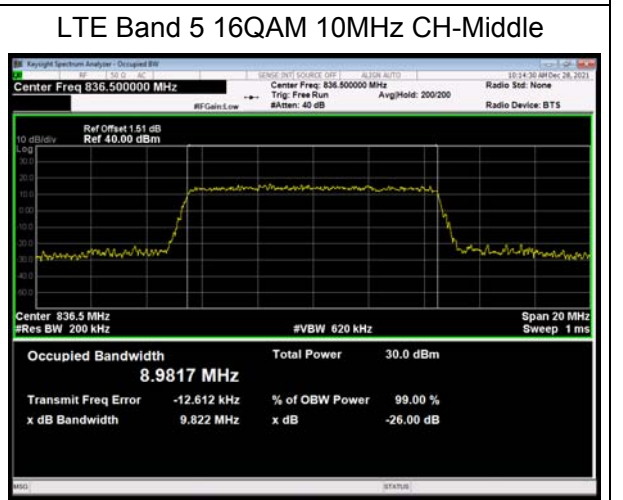
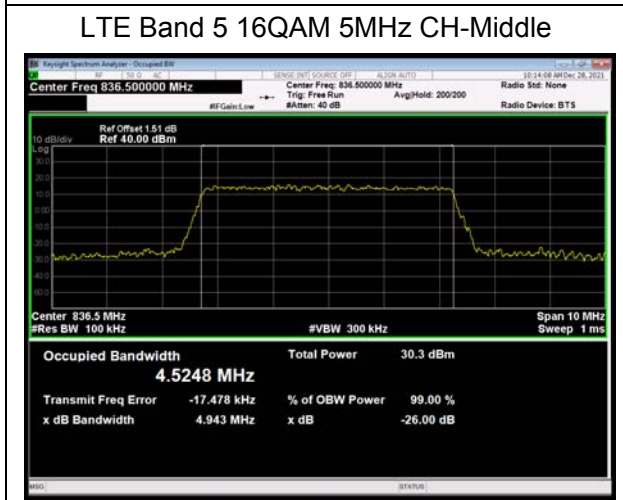
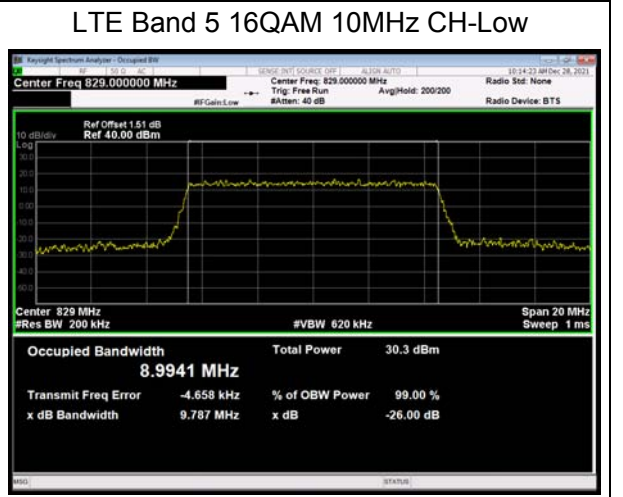
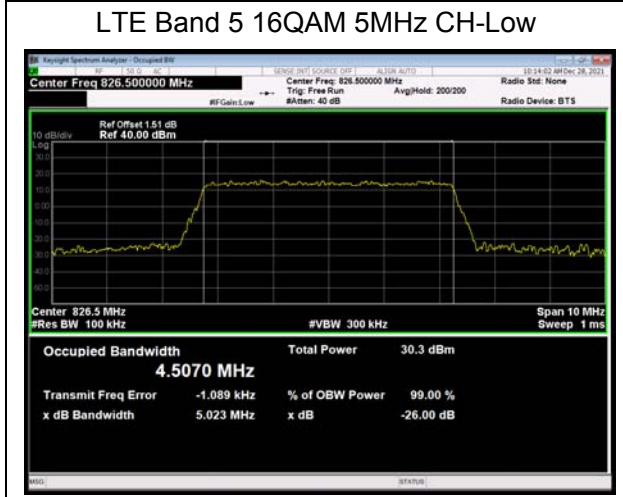


LTE Band 5 16QAM 1.4MHz CH-High



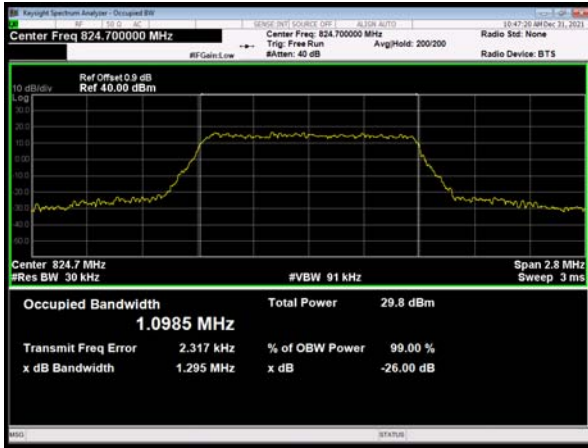
LTE Band 5 16QAM 3MHz CH-High



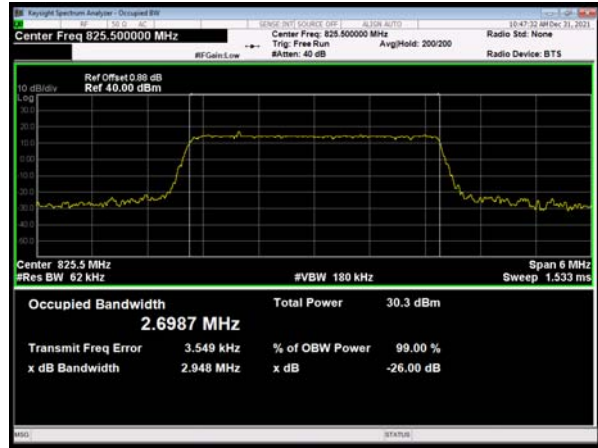




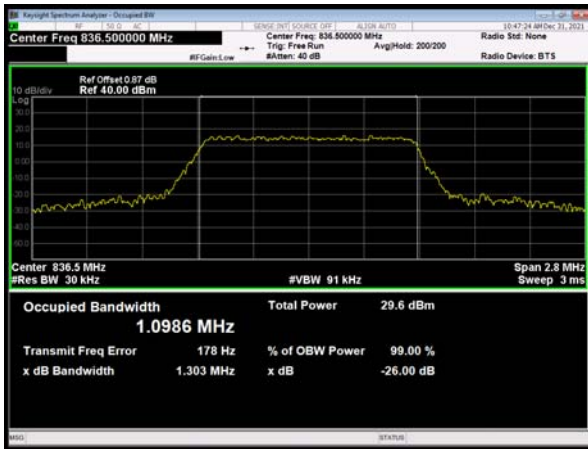
LTE Band 5 64QAM 1.4MHz CH-Low



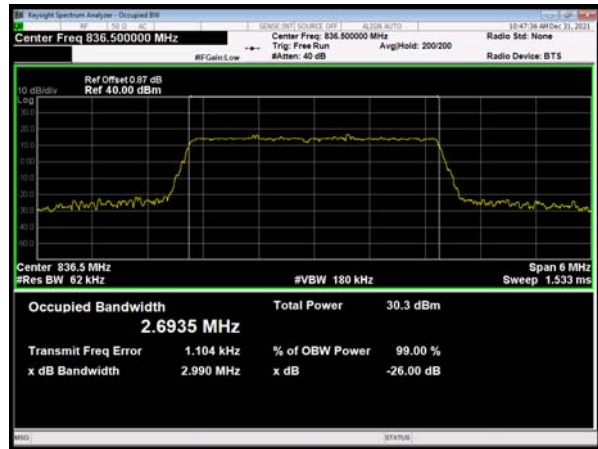
LTE Band 5 64QAM 3MHz CH-Low



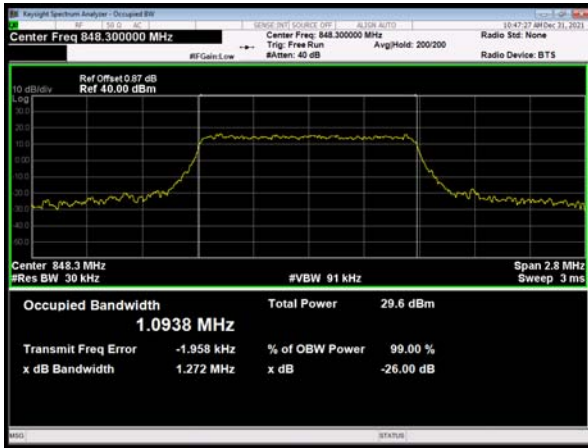
LTE Band 5 64QAM 1.4MHz CH-Middle



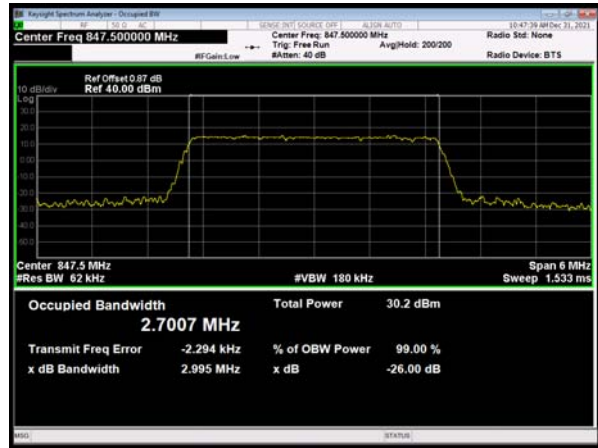
LTE Band 5 64QAM 3MHz CH-Middle

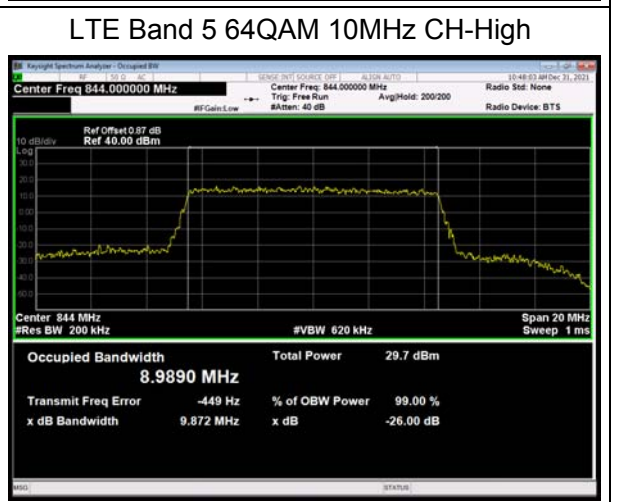
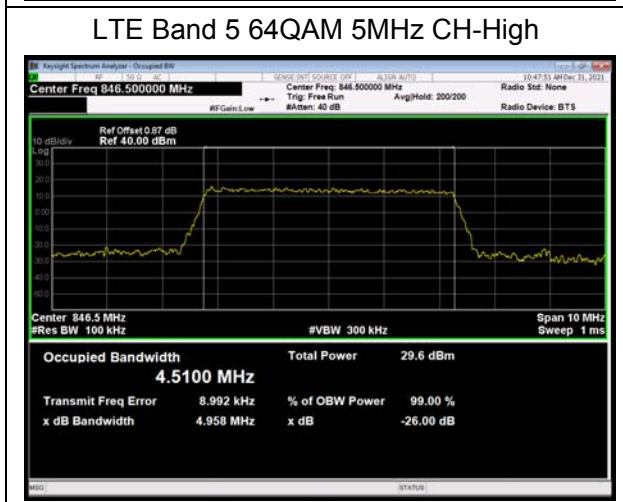
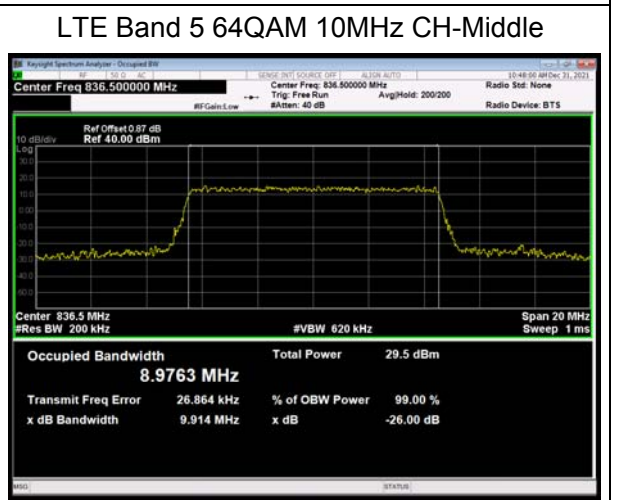
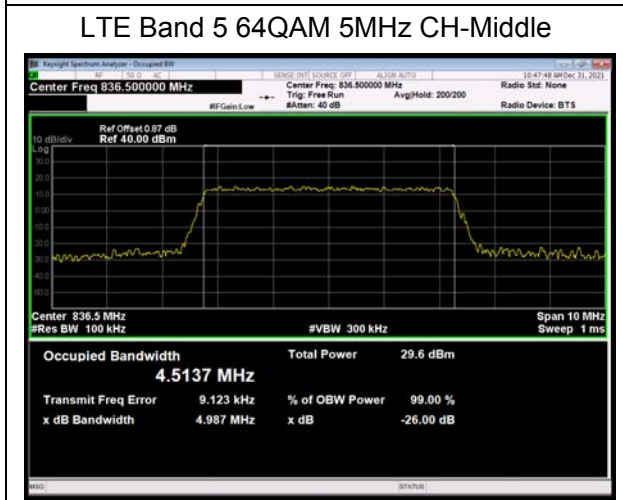
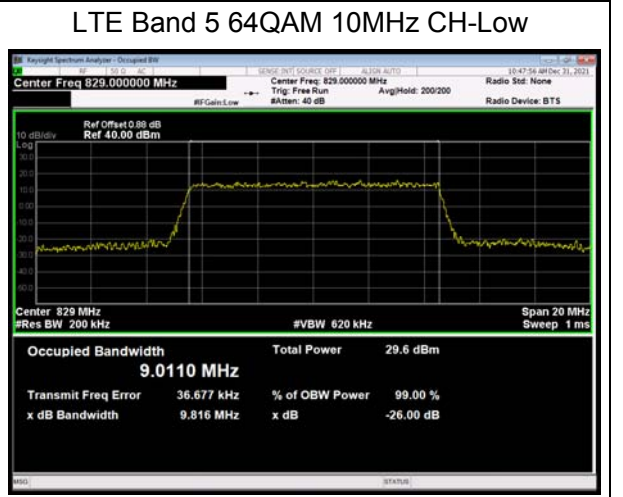
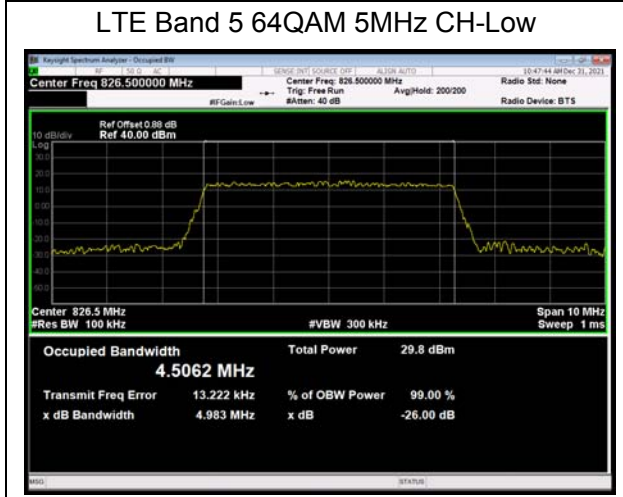


LTE Band 5 64QAM 1.4MHz CH-High



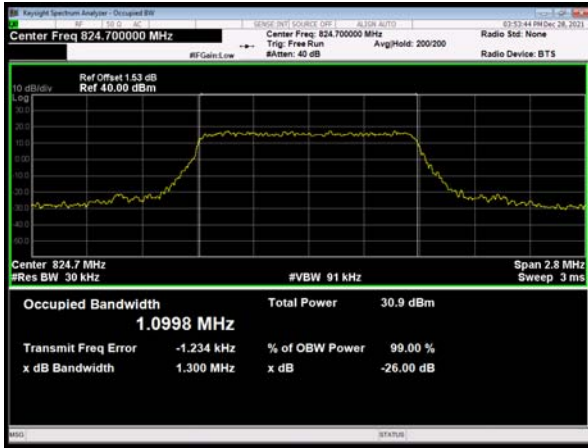
LTE Band 5 64QAM 3MHz CH-High



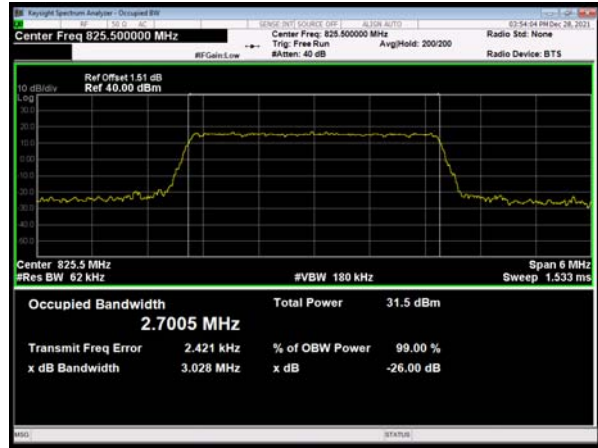




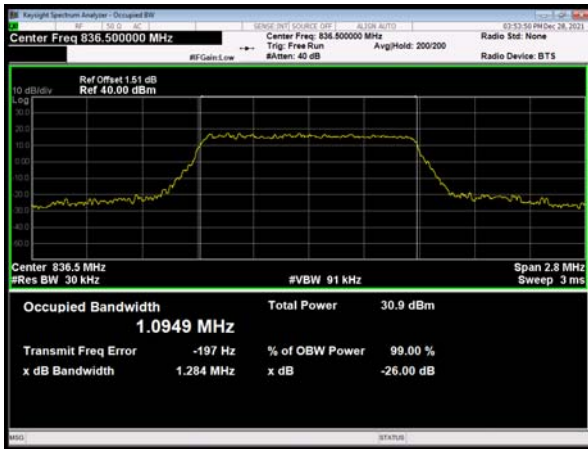
LTE Band 26 QPSK 1.4MHz CH-Low



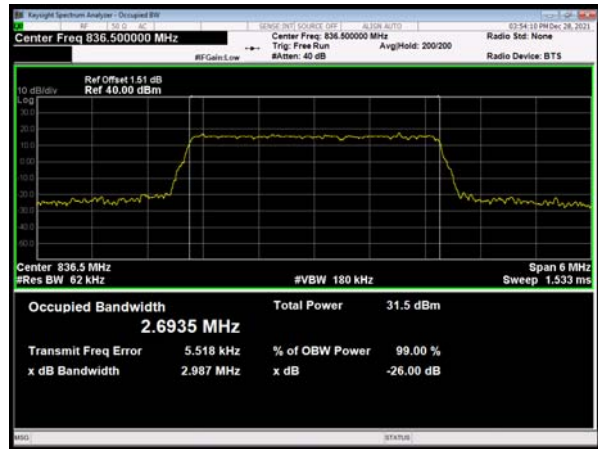
LTE Band 26 QPSK 3MHz CH-Low



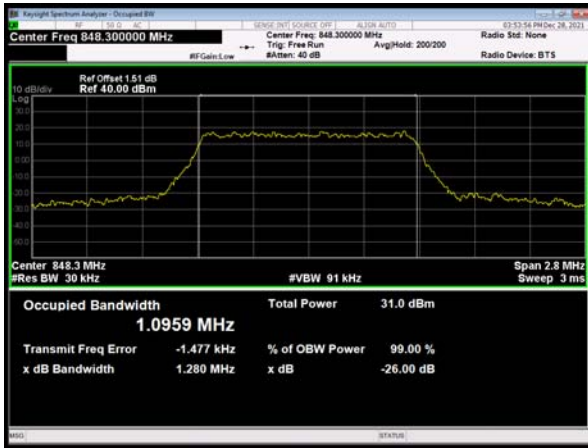
LTE Band 26 QPSK 1.4MHz CH-Middle



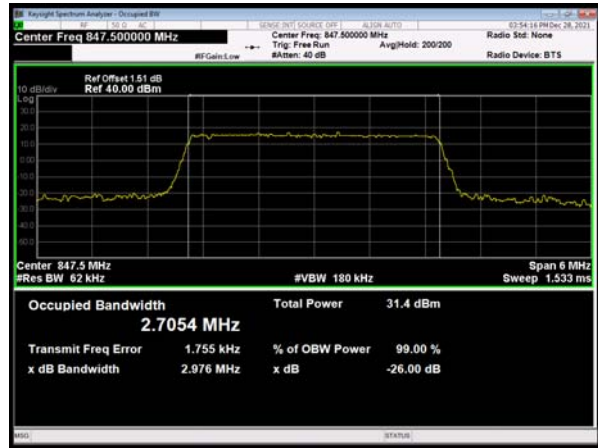
LTE Band 26 QPSK 3MHz CH-Middle

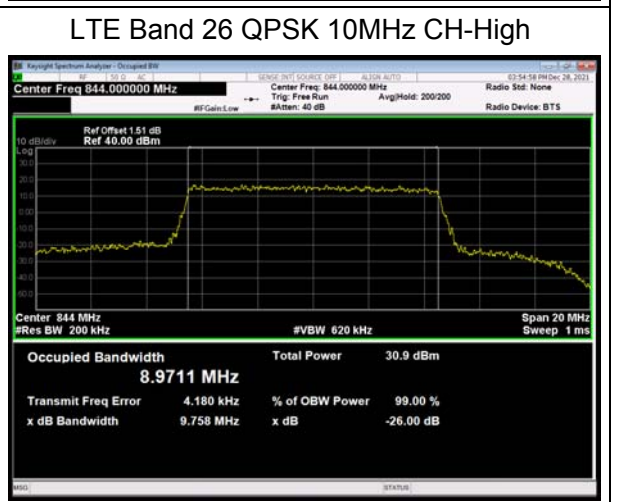
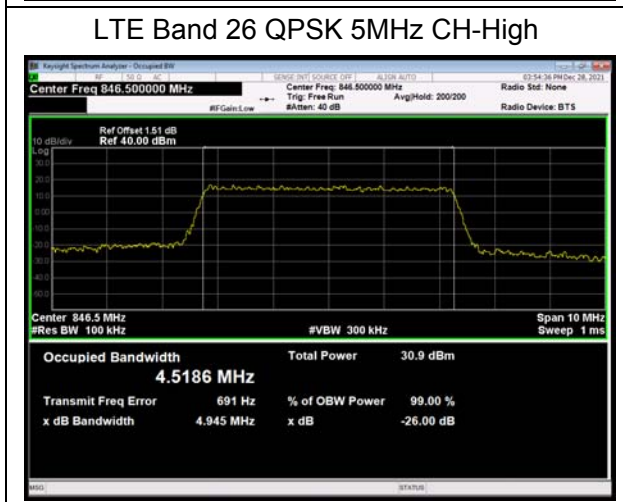
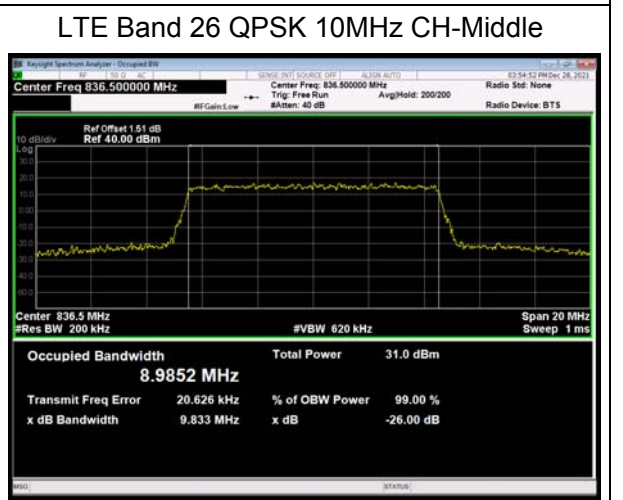
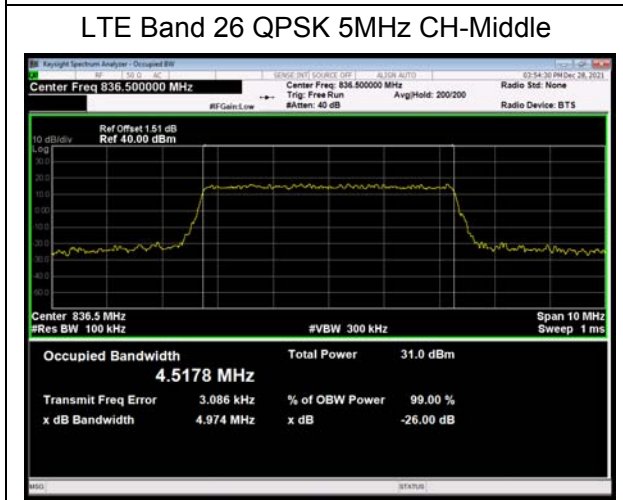
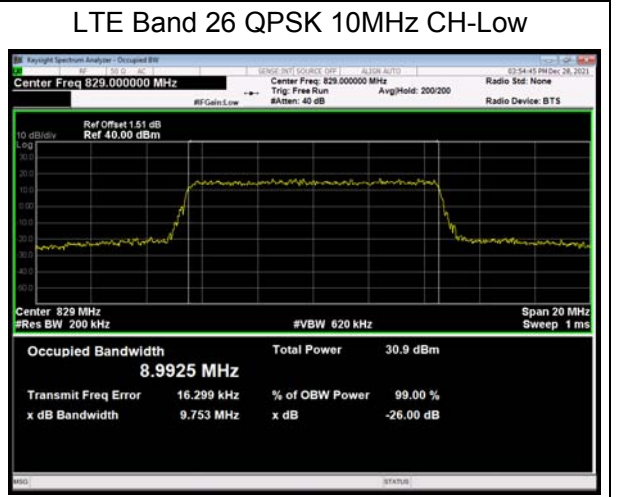
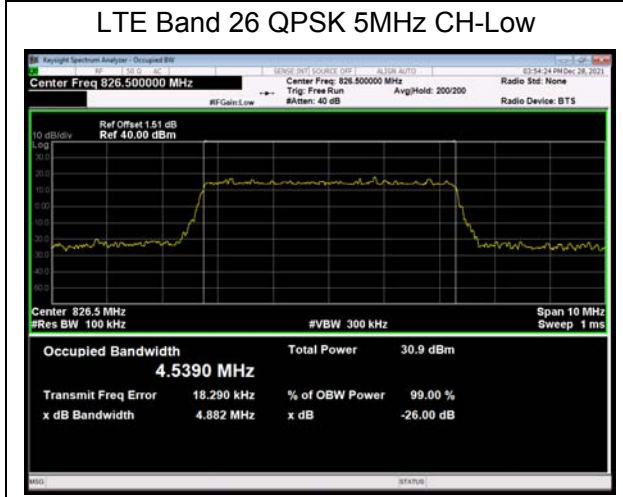


LTE Band 26 QPSK 1.4MHz CH-High



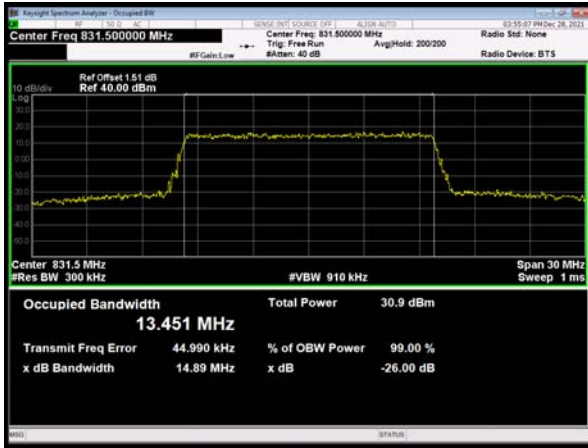
LTE Band 26 QPSK 3MHz CH-High



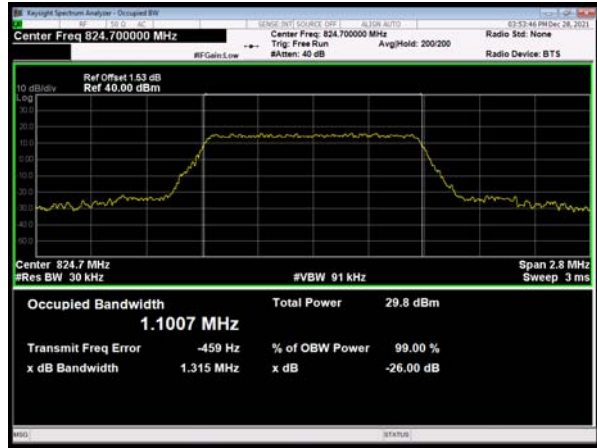




LTE Band 26 QPSK 15MHz CH-Low



LTE Band 26 16QAM 1.4MHz CH-Low



LTE Band 26 QPSK 15MHz CH-Middle



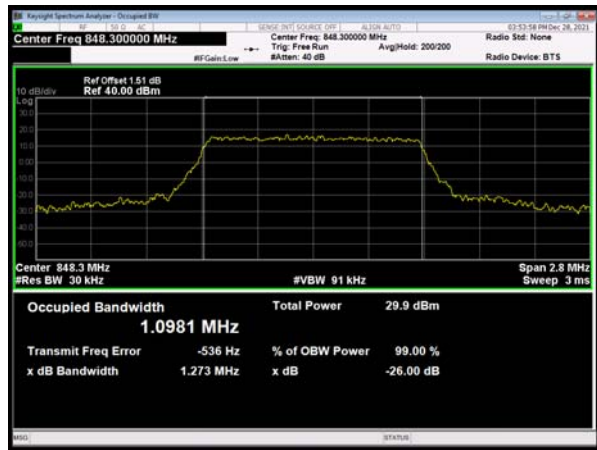
LTE Band 26 16QAM 1.4MHz CH-Middle



LTE Band 26 QPSK 15MHz CH-High

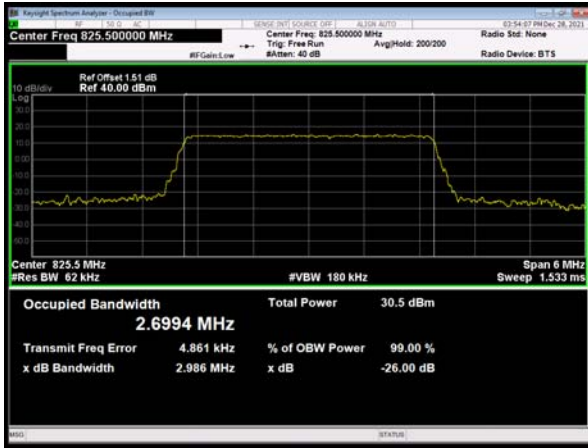


LTE Band 26 16QAM 1.4MHz CH-High

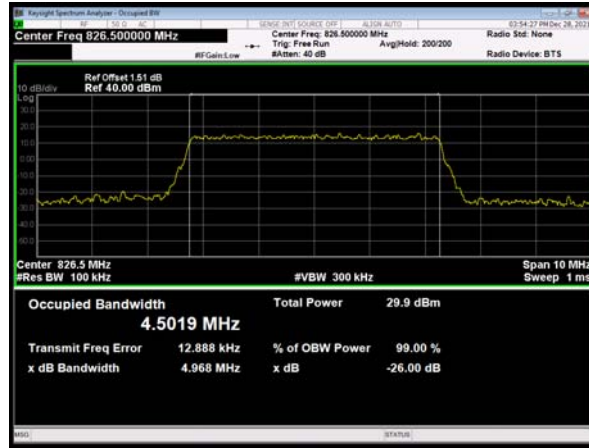




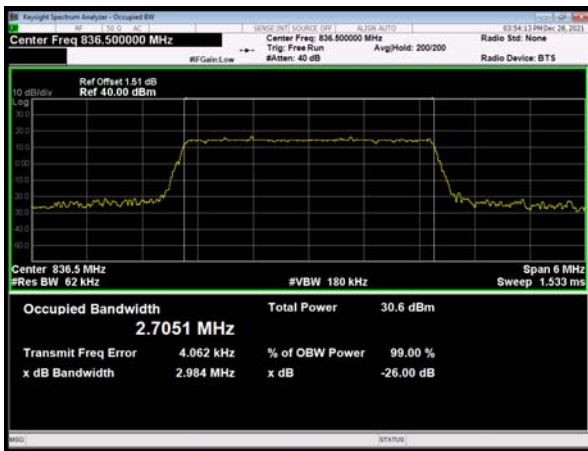
LTE Band 26 16QAM 3MHz CH-Low



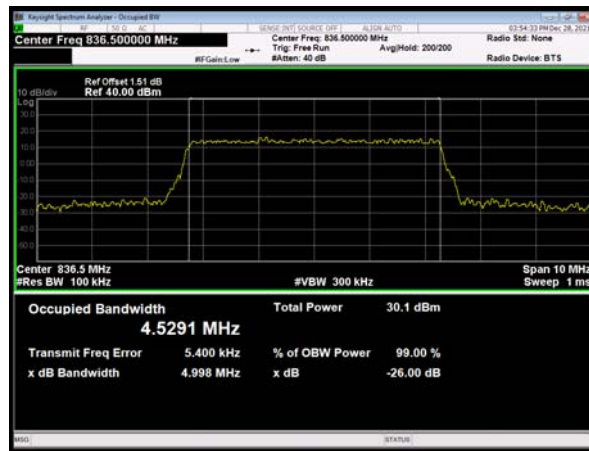
LTE Band 26 16QAM 5MHz CH-Low



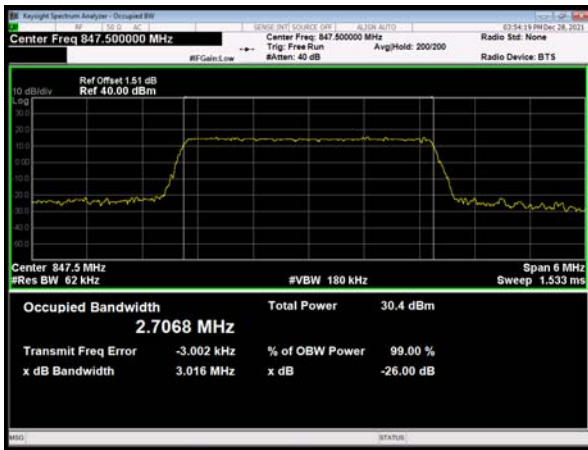
LTE Band 26 16QAM 3MHz CH-Middle



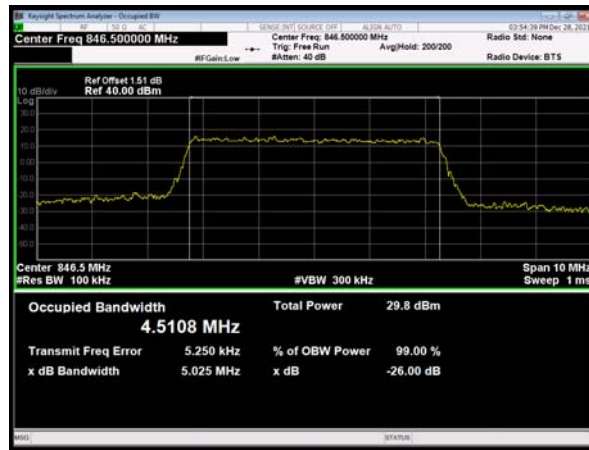
LTE Band 26 16QAM 5MHz CH-Middle



LTE Band 26 16QAM 3MHz CH-High

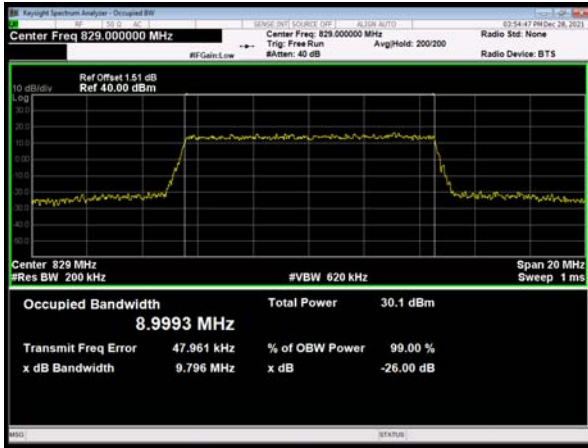


LTE Band 26 16QAM 5MHz CH-High

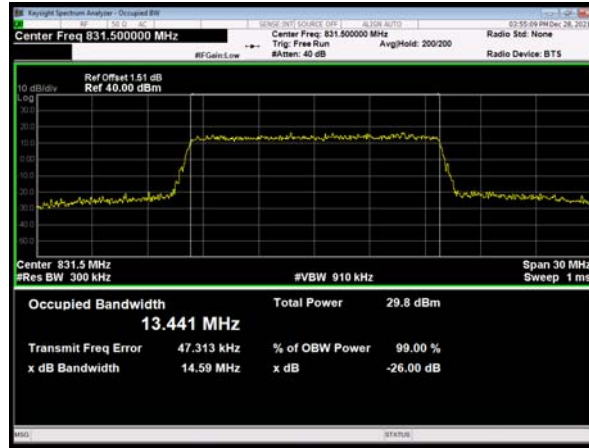




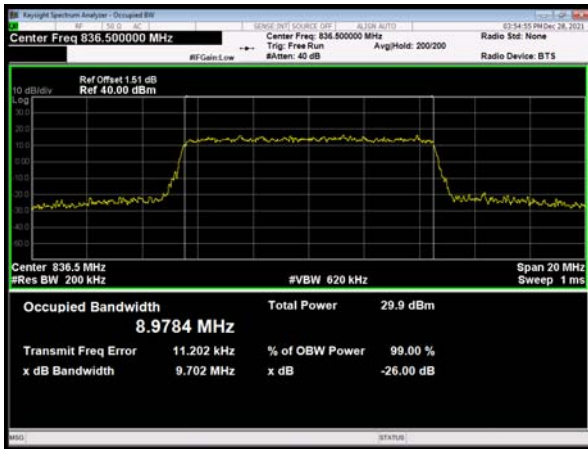
LTE Band 26 16QAM 10MHz CH-Low



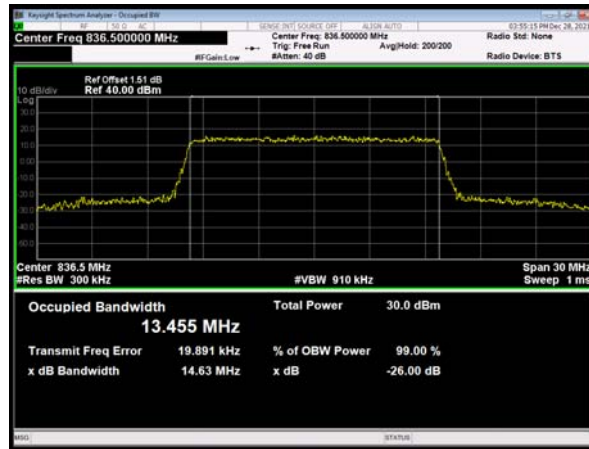
LTE Band 26 16QAM 15MHz CH-Low



LTE Band 26 16QAM 10MHz CH-Middle



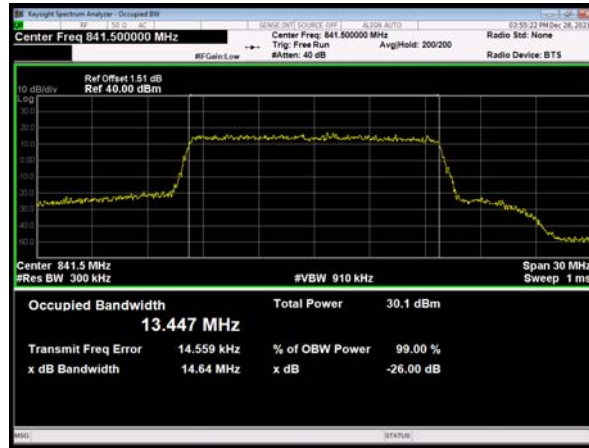
LTE Band 26 16QAM 15MHz CH-Middle



LTE Band 26 16QAM 10MHz CH-High



LTE Band 26 16QAM 15MHz CH-High

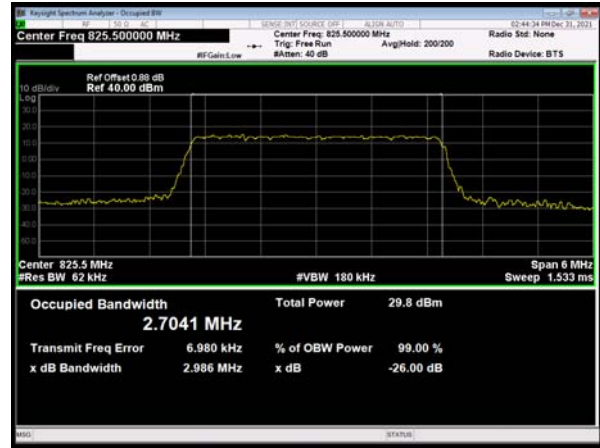




LTE Band 26 64QAM 1.4MHz CH-Low



LTE Band 26 64QAM 3MHz CH-Low



LTE Band 26 64QAM 1.4MHz CH-Middle



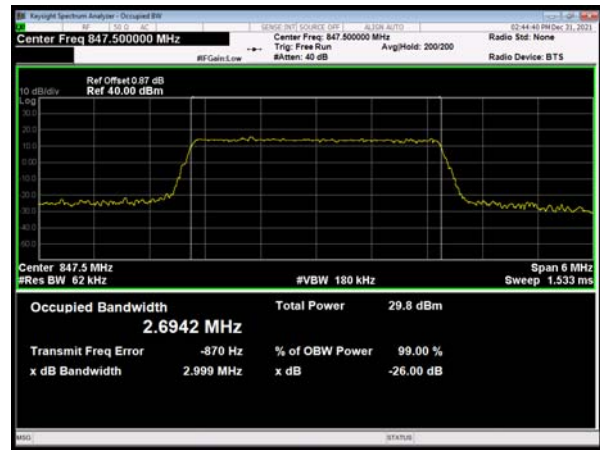
LTE Band 26 64QAM 3MHz CH-Middle



LTE Band 26 64QAM 1.4MHz CH-High

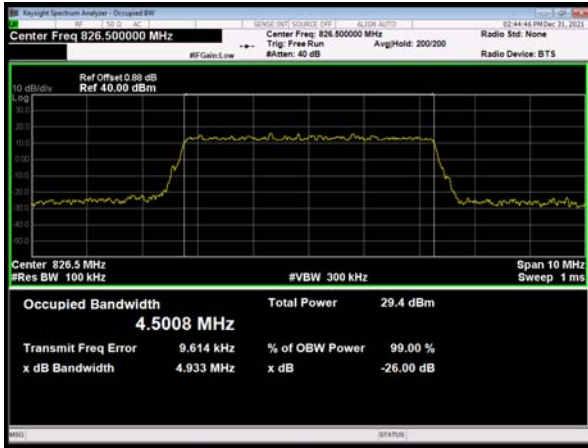


LTE Band 26 64QAM 3MHz CH-High

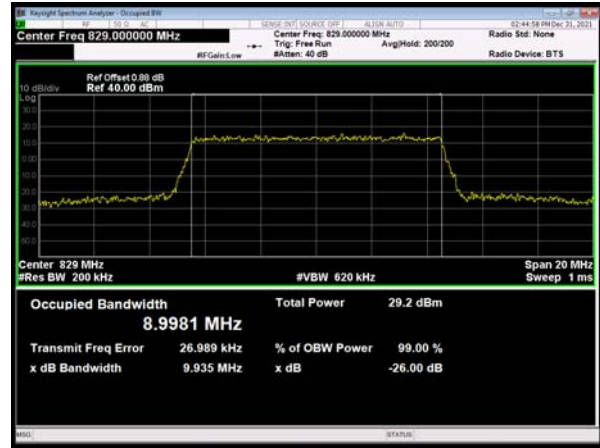




LTE Band 26 64QAM 5MHz CH-Low



LTE Band 26 64QAM 10MHz CH-Low



LTE Band 26 64QAM 5MHz CH-Middle



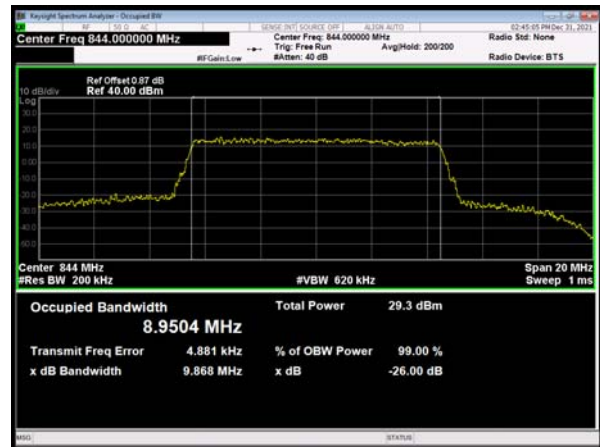
LTE Band 26 64QAM 10MHz CH-Middle



LTE Band 26 64QAM 5MHz CH-High



LTE Band 26 64QAM 10MHz CH-High





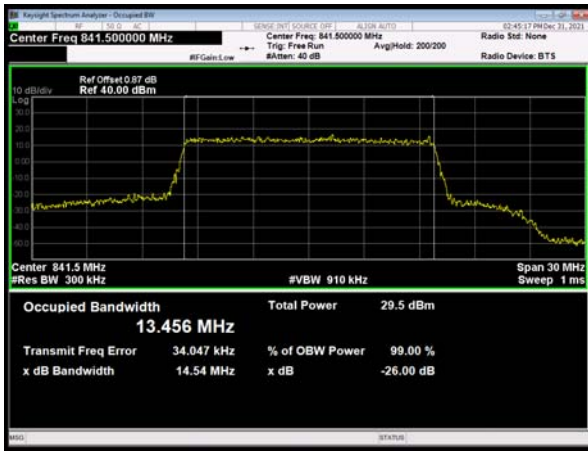
LTE Band 26 64QAM 15MHz CH-Low



LTE Band 26 64QAM 15MHz CH-Middle



LTE Band 26 64QAM 15MHz CH-High



5.3. Band Edge Compliance

Ambient condition

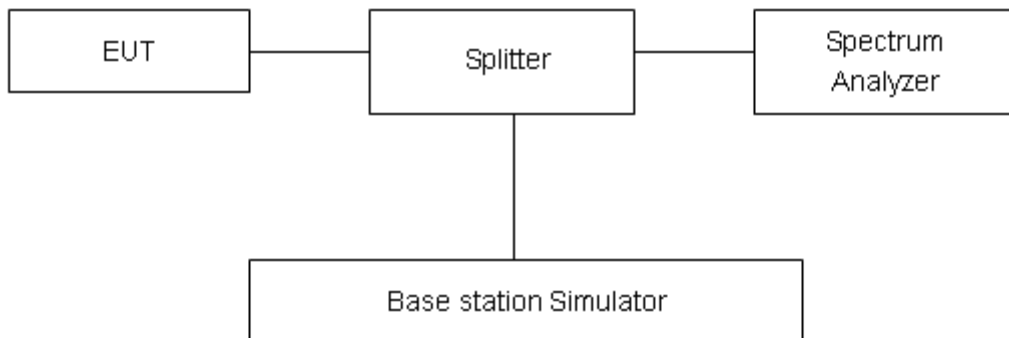
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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
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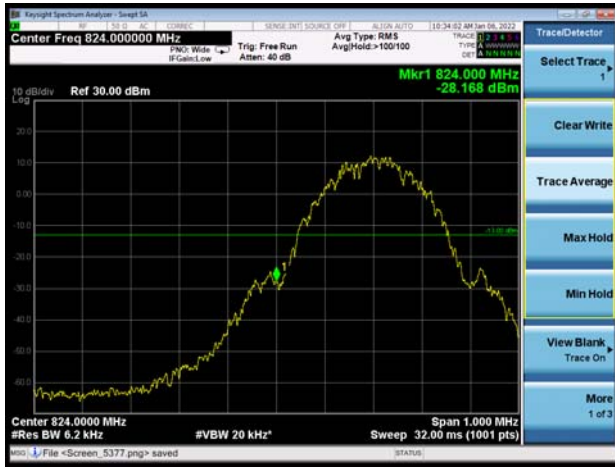
Measurement Uncertainty

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

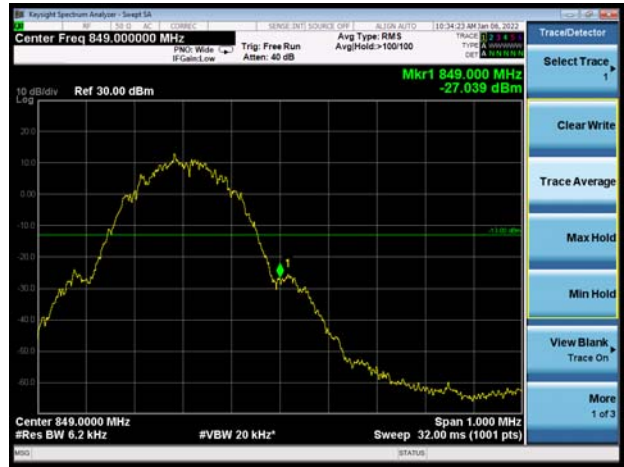


Test Result:

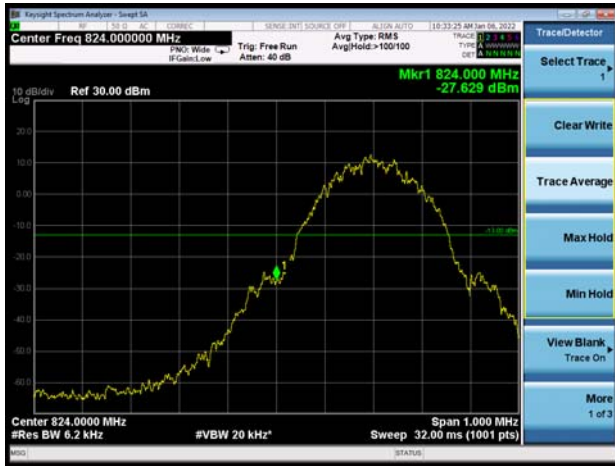
GSM 850 CH-Low



GSM 850 CH-High



GSM 850 GPRS CH-Low



GSM 850 GPRS CH-High



GSM 850 EGPRS CH-Low



GSM 850 EGPRS CH-High





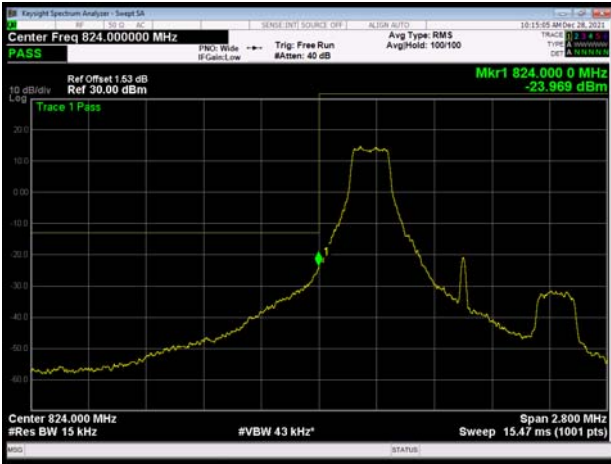
WCDMA Band V CH-Low

WCDMA Band V CH-High

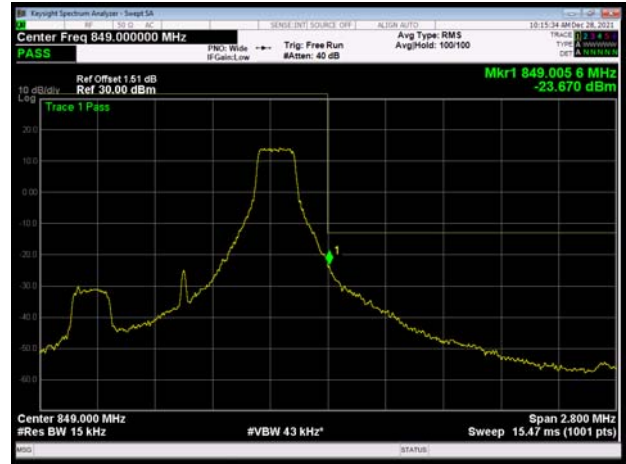




LTE Band 5 QPSK 1.4MHz CH-Low 1RB



LTE Band 5 QPSK 1.4MHz CH-High 1RB



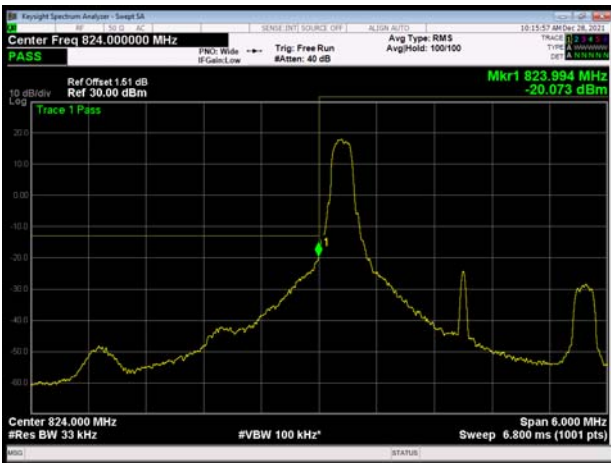
LTE Band 5 QPSK 1.4MHz CH-Low 100%RB



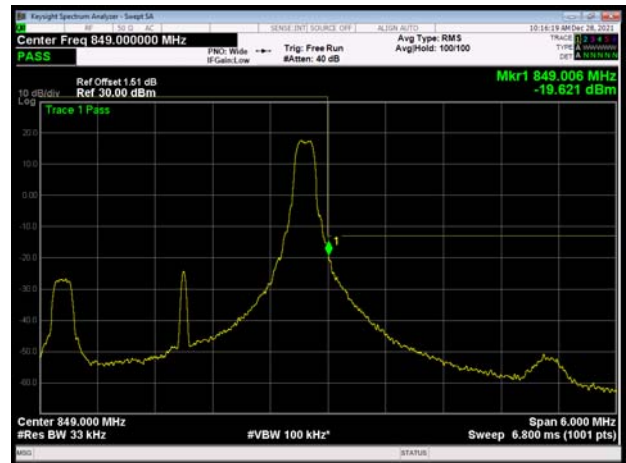
LTE Band 5 QPSK 1.4MHz CH-High 100%RB



LTE Band 5 QPSK 3MHz CH-Low 1RB

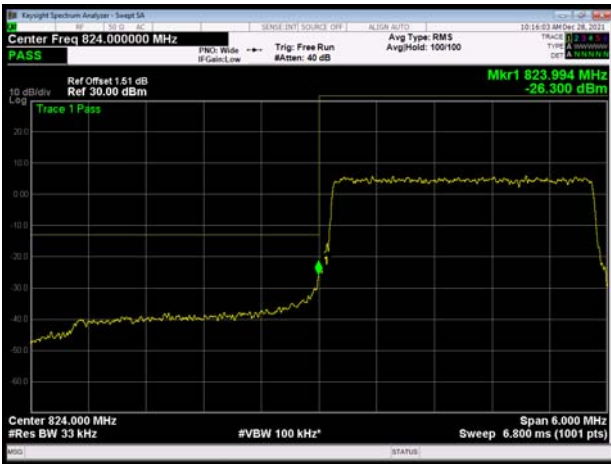


LTE Band 5 QPSK 3MHz CH-High 1RB





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



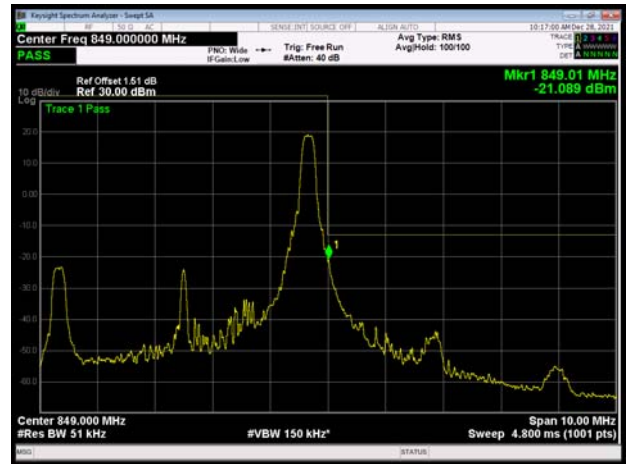
LTE Band 5 QPSK 3MHz CH-High 100%RB



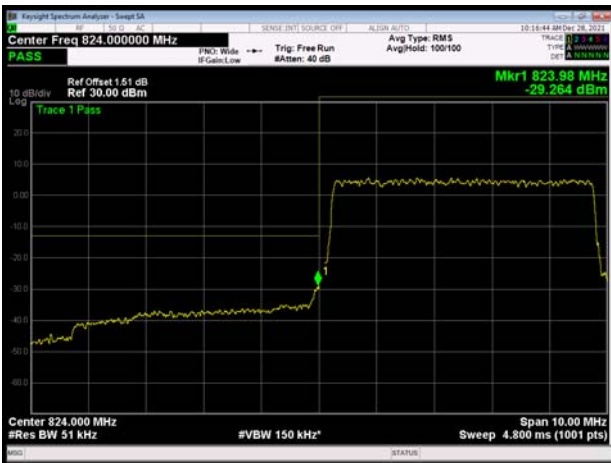
LTE Band 5 QPSK 5MHz CH-Low 1RB



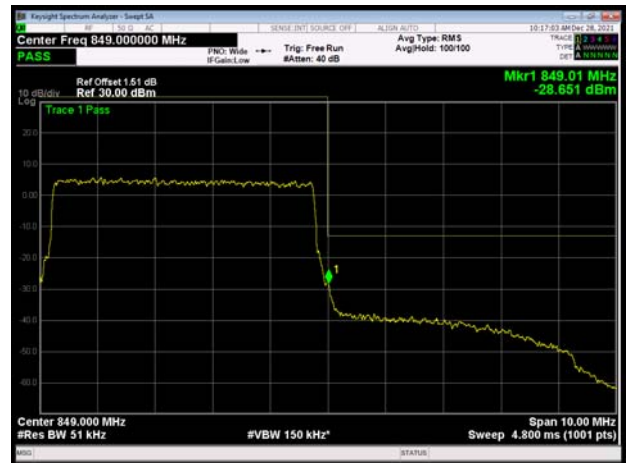
LTE Band 5 QPSK 5MHz CH-High 1RB



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

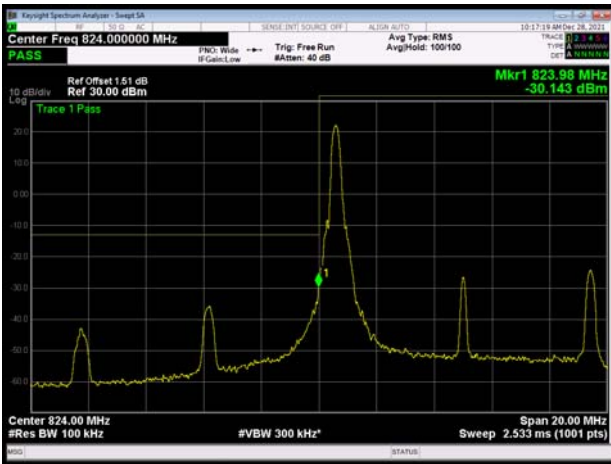


LTE Band 5 QPSK 5MHz CH-High 100%RB

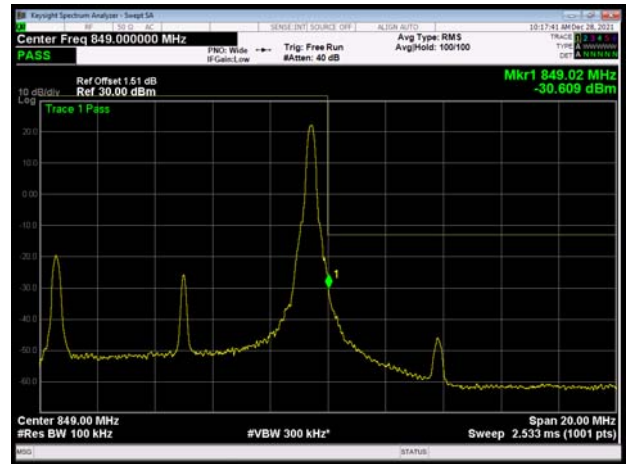




LTE Band 5 QPSK 10MHz CH-Low 1RB



LTE Band 5 QPSK 10MHz CH-High 1RB



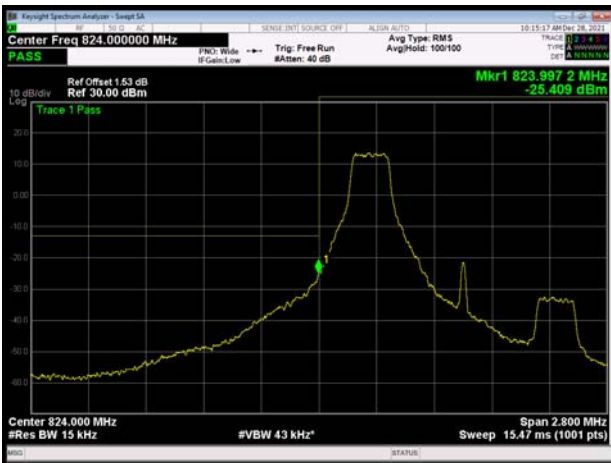
LTE Band 5 QPSK 10MHz CH-Low 100%RB



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



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



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

