RF TEST REPORT

Applicant	Smawave Technology Co. ,Ltd
FCC ID	2AU8HSRT321
Product	Indoor CPE
Brand	smawave
Model	SRT321
Report No.	R2111A0978-R2
Issue Date	December 3, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2020)/ FCC CFR47 Part 27C (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

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TABLE OF CONTENT

Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(d)(4) 27.50(k)(3)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) 27.53(n)	PASS
4	Peak-to-Average Power Ratio	27.50(k) (4)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 27.53(h) 27.53(n)	PASS
7	Radiates Spurious Emission	2.1053 27.53(h) 27.53(n)	PASS
Date of Testing: November 20, 2021 ~ November 22, 2021 Date of Sample Received: November 5, 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 Shanghai, China
City:	Shanghai
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2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	Smawave Technology Co. ,Ltd
Applicant address	3/F, Building 8, 1001 North Qinzhou Road，Xuhui District, Shanghai, China
Manufacturer	Smawave Technology Co. ,Ltd
Manufacturer address	3/F, Building 8, 1001 North Qinzhou Road，Xuhui District, Shanghai, China

2.2 General information

EUT Description			
Model	SRT321		
SN	RT321X02214300005		
Hardware Version	V1.0		
Software Version	ST_V2.1.4		
Power Supply	AC Adapter		
Antenna Type	Dipole Antenna		
Antenna Gain	LTE band 4: 3.64dBi LTE band 42: 1.79dBi		
Test Mode(s)	LTE Band 4/42		
Test Modulation	QPSK,16QAM, 64QAM		
LTE Category	6		
Maximum EIRP	LTE band 4: 25.68dBm LTE band 42: 25.71dBm		
Rated Power Supply Voltage	12V		
Operating Voltage	Minimum: 9V Maximum: 14V		
Operating Temperature	Lowest: -20°C Highest: +55°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 42	3450 ~ 3550	3450 ~ 3550
EUT Accessory			
Adapter	Manufacturer: SHENZHEN TOPOW ELECTRONICS CO.,LTD Model: BY-SKY120200U71L		
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 CFR47 Part 27C (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, horizontal 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.
The following testing in different Bandwidth is set to detailin the following table:

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/42:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM/ 64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 42	-	-	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 42	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 42	-	-	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 42	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 42	-	-	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 42	-	-	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 42	-	-	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 Isotropic Radiated Power

Ambient condition

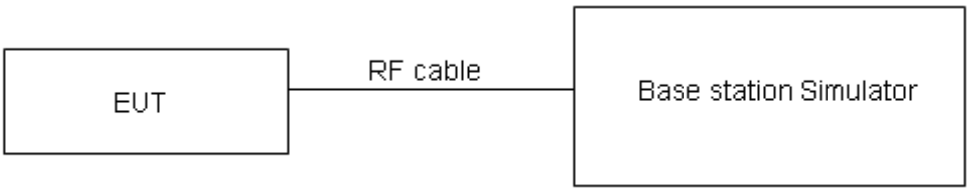
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”
Rule Part 27.50(k) (3) Mobile devices are limited to 1 Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Part 27.50(k) (3) Limit	≤ 1 W (30 dBm)
Part 27.50(d)(4)Limit	≤ 1 W (30 dBm)

Measurement Uncertainty

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

Test Results

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
LTE band 4	1.4M	19957	1	#0	QPSK	20.30	23.94
	1.4M	19957	1	#Mid	QPSK	20.15	23.79
	1.4M	19957	1	#Max	QPSK	20.19	23.83
	1.4M	19957	3	#0	QPSK	20.02	23.66
	1.4M	19957	3	#Mid	QPSK	20.01	23.65
	1.4M	19957	3	#Max	QPSK	20.03	23.67
	1.4M	19957	6	#0	QPSK	19.99	23.63
	1.4M	19957	1	#0	QAM16	20.22	23.86
	1.4M	19957	1	#Mid	QAM16	20.10	23.74
	1.4M	19957	1	#Max	QAM16	20.11	23.75
	1.4M	19957	3	#0	QAM16	20.30	23.94
	1.4M	19957	3	#Mid	QAM16	20.29	23.93
	1.4M	19957	3	#Max	QAM16	20.18	23.82
	1.4M	19957	6	#0	QAM16	20.13	23.77
	1.4M	20175	1	#0	QPSK	17.42	21.06
	1.4M	20175	1	#Mid	QPSK	17.32	20.96
	1.4M	20175	1	#Max	QPSK	17.34	20.98
	1.4M	20175	3	#0	QPSK	17.32	20.96
	1.4M	20175	3	#Mid	QPSK	17.31	20.95
	1.4M	20175	3	#Max	QPSK	17.26	20.90
	1.4M	20175	6	#0	QPSK	17.30	20.94
	1.4M	20175	1	#0	QAM16	17.68	21.32
	1.4M	20175	1	#Mid	QAM16	17.58	21.22
	1.4M	20175	1	#Max	QAM16	17.58	21.22
	1.4M	20175	3	#0	QAM16	17.45	21.09
	1.4M	20175	3	#Mid	QAM16	17.45	21.09
	1.4M	20175	3	#Max	QAM16	17.41	21.05
	1.4M	20175	6	#0	QAM16	17.35	20.99
	1.4M	20393	1	#0	QPSK	20.31	23.95
	1.4M	20393	1	#Mid	QPSK	20.12	23.76
	1.4M	20393	1	#Max	QPSK	20.01	23.65
	1.4M	20393	3	#0	QPSK	20.15	23.79
	1.4M	20393	3	#Mid	QPSK	20.15	23.79
	1.4M	20393	3	#Max	QPSK	19.99	23.63
	1.4M	20393	6	#0	QPSK	20.06	23.70
	1.4M	20393	1	#0	QAM16	20.14	23.78
	1.4M	20393	1	#Mid	QAM16	19.94	23.58
	1.4M	20393	1	#Max	QAM16	19.86	23.50
	1.4M	20393	3	#0	QAM16	20.10	23.74

	1.4M	20393	3	#Mid	QAM16	20.10	23.74
	1.4M	20393	3	#Max	QAM16	19.92	23.56
	1.4M	20393	6	#0	QAM16	20.04	23.68
	3M	19965	1	#0	QPSK	20.06	23.70
	3M	19965	1	#Mid	QPSK	19.59	23.23
	3M	19965	1	#Max	QPSK	19.84	23.48
	3M	19965	8	#0	QPSK	20.29	23.93
	3M	19965	8	#Mid	QPSK	20.28	23.92
	3M	19965	8	#Max	QPSK	19.78	23.42
	3M	19965	15	#0	QPSK	19.89	23.53
	3M	19965	1	#0	QAM16	20.29	23.93
	3M	19965	1	#Mid	QAM16	19.98	23.62
	3M	19965	1	#Max	QAM16	20.08	23.72
	3M	19965	8	#0	QAM16	20.27	23.91
	3M	19965	8	#Mid	QAM16	20.26	23.90
	3M	19965	8	#Max	QAM16	19.76	23.40
	3M	19965	15	#0	QAM16	19.84	23.48
	3M	20175	1	#0	QPSK	17.44	21.08
	3M	20175	1	#Mid	QPSK	17.14	20.78
	3M	20175	1	#Max	QPSK	17.54	21.18
	3M	20175	8	#0	QPSK	17.65	21.29
	3M	20175	8	#Mid	QPSK	17.64	21.28
	3M	20175	8	#Max	QPSK	17.24	20.88
	3M	20175	15	#0	QPSK	17.28	20.92
	3M	20175	1	#0	QAM16	17.67	21.31
	3M	20175	1	#Mid	QAM16	17.25	20.89
	3M	20175	1	#Max	QAM16	17.65	21.29
	3M	20175	8	#0	QAM16	17.60	21.24
	3M	20175	8	#Mid	QAM16	17.61	21.25
	3M	20175	8	#Max	QAM16	17.35	20.99
	3M	20175	15	#0	QAM16	17.30	20.94
	3M	20385	1	#0	QPSK	20.58	24.22
	3M	20385	1	#Mid	QPSK	20.08	23.72
	3M	20385	1	#Max	QPSK	20.01	23.65
	3M	20385	8	#0	QPSK	20.79	24.43
	3M	20385	8	#Mid	QPSK	20.79	24.43
	3M	20385	8	#Max	QPSK	20.11	23.75
	3M	20385	15	#0	QPSK	20.22	23.86
	3M	20385	1	#0	QAM16	20.42	24.06
	3M	20385	1	#Mid	QAM16	19.96	23.60
	3M	20385	1	#Max	QAM16	19.85	23.49
	3M	20385	8	#0	QAM16	20.79	24.43
	3M	20385	8	#Mid	QAM16	20.79	24.43

	3M	20385	8	#Max	QAM16	20.10	23.74
	3M	20385	15	#0	QAM16	20.22	23.86
	5M	19975	1	#0	QPSK	20.03	23.67
	5M	19975	1	#Mid	QPSK	19.86	23.50
	5M	19975	1	#Max	QPSK	19.83	23.47
	5M	19975	12	#0	QPSK	20.34	23.98
	5M	19975	12	#Mid	QPSK	20.33	23.97
	5M	19975	12	#Max	QPSK	19.97	23.61
	5M	19975	25	#0	QPSK	19.95	23.59
	5M	19975	1	#0	QAM16	20.46	24.10
	5M	19975	1	#Mid	QAM16	20.14	23.78
	5M	19975	1	#Max	QAM16	20.11	23.75
	5M	19975	12	#0	QAM16	20.28	23.92
	5M	19975	12	#Mid	QAM16	20.28	23.92
	5M	19975	12	#Max	QAM16	19.91	23.55
	5M	19975	25	#0	QAM16	19.93	23.57
	5M	20175	1	#0	QPSK	17.66	21.30
	5M	20175	1	#Mid	QPSK	17.35	20.99
	5M	20175	1	#Max	QPSK	17.72	21.36
	5M	20175	12	#0	QPSK	17.85	21.49
	5M	20175	12	#Mid	QPSK	17.83	21.47
	5M	20175	12	#Max	QPSK	17.52	21.16
	5M	20175	25	#0	QPSK	17.52	21.16
	5M	20175	1	#0	QAM16	17.93	21.57
	5M	20175	1	#Mid	QAM16	17.50	21.14
	5M	20175	1	#Max	QAM16	17.90	21.54
	5M	20175	12	#0	QAM16	17.86	21.50
	5M	20175	12	#Mid	QAM16	17.74	21.38
	5M	20175	12	#Max	QAM16	17.47	21.11
	5M	20175	25	#0	QAM16	17.50	21.14
	5M	20375	1	#0	QPSK	20.79	24.43
	5M	20375	1	#Mid	QPSK	20.46	24.10
	5M	20375	1	#Max	QPSK	20.11	23.75
	5M	20375	12	#0	QPSK	20.97	24.61
	5M	20375	12	#Mid	QPSK	20.97	24.61
	5M	20375	12	#Max	QPSK	20.42	24.06
	5M	20375	25	#0	QPSK	20.63	24.27
	5M	20375	1	#0	QAM16	21.05	24.69
	5M	20375	1	#Mid	QAM16	20.72	24.36
	5M	20375	1	#Max	QAM16	20.37	24.01
	5M	20375	12	#0	QAM16	20.99	24.63
	5M	20375	12	#Mid	QAM16	20.99	24.63
	5M	20375	12	#Max	QAM16	20.45	24.09

	5M	20375	25	#0	QAM16	20.63	24.27
	10M	20000	1	#0	QPSK	20.49	24.13
	10M	20000	1	#Mid	QPSK	19.90	23.54
	10M	20000	1	#Max	QPSK	19.33	22.97
	10M	20000	25	#0	QPSK	20.11	23.75
	10M	20000	25	#Mid	QPSK	20.11	23.75
	10M	20000	25	#Max	QPSK	19.68	23.32
	10M	20000	50	#0	QPSK	19.76	23.40
	10M	20000	1	#0	QAM16	20.72	24.36
	10M	20000	1	#Mid	QAM16	20.26	23.90
	10M	20000	1	#Max	QAM16	19.56	23.20
	10M	20000	25	#0	QAM16	20.14	23.78
	10M	20000	25	#Mid	QAM16	20.15	23.79
	10M	20000	25	#Max	QAM16	19.73	23.37
	10M	20000	50	#0	QAM16	19.73	23.37
	10M	20175	1	#0	QPSK	18.28	21.92
	10M	20175	1	#Mid	QPSK	17.55	21.19
	10M	20175	1	#Max	QPSK	17.94	21.58
	10M	20175	25	#0	QPSK	17.90	21.54
	10M	20175	25	#Mid	QPSK	17.89	21.53
	10M	20175	25	#Max	QPSK	17.69	21.33
	10M	20175	50	#0	QPSK	17.72	21.36
	10M	20175	1	#0	QAM16	18.50	22.14
	10M	20175	1	#Mid	QAM16	17.81	21.45
	10M	20175	1	#Max	QAM16	18.03	21.67
	10M	20175	25	#0	QAM16	17.87	21.51
	10M	20175	25	#Mid	QAM16	17.87	21.51
	10M	20175	25	#Max	QAM16	17.68	21.32
	10M	20175	50	#0	QAM16	17.67	21.31
	10M	20350	1	#0	QPSK	20.19	23.83
	10M	20350	1	#Mid	QPSK	20.92	24.56
	10M	20350	1	#Max	QPSK	20.51	24.15
	10M	20350	25	#0	QPSK	20.34	23.98
	10M	20350	25	#Mid	QPSK	20.34	23.98
	10M	20350	25	#Max	QPSK	20.66	24.30
	10M	20350	50	#0	QPSK	20.55	24.19
	10M	20350	1	#0	QAM16	20.03	23.67
	10M	20350	1	#Mid	QAM16	20.75	24.39
	10M	20350	1	#Max	QAM16	20.32	23.96
	10M	20350	25	#0	QAM16	20.30	23.94
	10M	20350	25	#Mid	QAM16	20.31	23.95
	10M	20350	25	#Max	QAM16	20.66	24.30
	10M	20350	50	#0	QAM16	20.54	24.18

	15M	20025	1	#0	QPSK	20.43	24.07
	15M	20025	1	#Mid	QPSK	19.57	23.21
	15M	20025	1	#Max	QPSK	18.84	22.48
	15M	20025	36	#0	QPSK	19.85	23.49
	15M	20025	36	#Mid	QPSK	19.85	23.49
	15M	20025	36	#Max	QPSK	18.77	22.41
	15M	20025	75	#0	QPSK	19.28	22.92
	15M	20025	1	#0	QAM16	20.79	24.43
	15M	20025	1	#Mid	QAM16	19.82	23.46
	15M	20025	1	#Max	QAM16	19.08	22.72
	15M	20025	36	#0	QAM16	19.84	23.48
	15M	20025	36	#Mid	QAM16	19.85	23.49
	15M	20025	36	#Max	QAM16	18.76	22.40
	15M	20025	75	#0	QAM16	19.27	22.91
	15M	20175	1	#0	QPSK	18.57	22.21
	15M	20175	1	#Mid	QPSK	17.44	21.08
	15M	20175	1	#Max	QPSK	18.53	22.17
	15M	20175	36	#0	QPSK	17.72	21.36
	15M	20175	36	#Mid	QPSK	17.72	21.36
	15M	20175	36	#Max	QPSK	17.67	21.31
	15M	20175	75	#0	QPSK	17.71	21.35
	15M	20175	1	#0	QAM16	18.66	22.30
	15M	20175	1	#Mid	QAM16	17.55	21.19
	15M	20175	1	#Max	QAM16	18.65	22.29
	15M	20175	36	#0	QAM16	17.69	21.33
	15M	20175	36	#Mid	QAM16	17.69	21.33
	15M	20175	36	#Max	QAM16	17.65	21.29
	15M	20175	75	#0	QAM16	17.69	21.33
	15M	20325	1	#0	QPSK	18.76	22.40
	15M	20325	1	#Mid	QPSK	20.36	24.00
	15M	20325	1	#Max	QPSK	20.60	24.24
	15M	20325	36	#0	QPSK	17.75	21.39
	15M	20325	36	#Mid	QPSK	18.39	22.03
	15M	20325	36	#Max	QPSK	21.16	24.80
	15M	20325	75	#0	QPSK	19.76	23.40
	15M	20325	1	#0	QAM16	17.12	20.76
	15M	20325	1	#Mid	QAM16	20.05	23.69
	15M	20325	1	#Max	QAM16	20.18	23.82
	15M	20325	36	#0	QAM16	17.68	21.32
	15M	20325	36	#Mid	QAM16	17.67	21.31
	15M	20325	36	#Max	QAM16	21.14	24.78
	15M	20325	75	#0	QAM16	19.75	23.39
	20M	20050	1	#0	QPSK	20.11	23.75

	20M	20050	1	#Mid	QPSK	19.29	22.93
	20M	20050	1	#Max	QPSK	22.04	25.68
	20M	20050	50	#0	QPSK	19.01	22.65
	20M	20050	50	#Mid	QPSK	19.01	22.65
	20M	20050	50	#Max	QPSK	21.10	24.74
	20M	20050	100	#0	QPSK	20.31	23.95
	20M	20050	1	#0	QAM16	20.02	23.66
	20M	20050	1	#Mid	QAM16	19.04	22.68
	20M	20050	1	#Max	QAM16	21.82	25.46
	20M	20050	50	#0	QAM16	19.02	22.66
	20M	20050	50	#Mid	QAM16	19.02	22.66
	20M	20050	50	#Max	QAM16	21.23	24.87
	20M	20050	100	#0	QAM16	20.27	23.91
	20M	20175	1	#0	QPSK	21.36	25.00
	20M	20175	1	#Mid	QPSK	19.48	23.12
	20M	20175	1	#Max	QPSK	17.21	20.85
	20M	20175	50	#0	QPSK	21.32	24.96
	20M	20175	50	#Mid	QPSK	21.31	24.95
	20M	20175	50	#Max	QPSK	18.22	21.86
	20M	20175	100	#0	QPSK	20.14	23.78
	20M	20175	1	#0	QAM16	21.52	25.16
	20M	20175	1	#Mid	QAM16	19.79	23.43
	20M	20175	1	#Max	QAM16	17.45	21.09
	20M	20175	50	#0	QAM16	21.28	24.92
	20M	20175	50	#Mid	QAM16	21.29	24.93
	20M	20175	50	#Max	QAM16	18.22	21.86
	20M	20175	100	#0	QAM16	20.23	23.87
	20M	20300	1	#0	QPSK	18.18	21.82
	20M	20300	1	#Mid	QPSK	18.30	21.94
	20M	20300	1	#Max	QPSK	20.58	24.22
	20M	20300	50	#0	QPSK	17.27	20.91
	20M	20300	50	#Mid	QPSK	17.33	20.97
	20M	20300	50	#Max	QPSK	20.94	24.58
	20M	20300	100	#0	QPSK	19.42	23.06
	20M	20300	1	#0	QAM16	18.07	21.71
	20M	20300	1	#Mid	QAM16	18.15	21.79
	20M	20300	1	#Max	QAM16	20.38	24.02
	20M	20300	50	#0	QAM16	17.32	20.96
	20M	20300	50	#Mid	QAM16	17.30	20.94
	20M	20300	50	#Max	QAM16	20.89	24.53
	20M	20300	100	#0	QAM16	19.40	23.04
	1.4M	19957	1	#0	QAM64	19.00	22.64
	1.4M	19957	1	#Mid	QAM64	18.83	22.47

	1.4M	19957	1	#Max	QAM64	18.86	22.50
	1.4M	19957	3	#0	QAM64	18.98	22.62
	1.4M	19957	3	#Mid	QAM64	18.98	22.62
	1.4M	19957	3	#Max	QAM64	18.85	22.49
	1.4M	19957	6	#0	QAM64	19.05	22.69
	1.4M	20175	1	#0	QAM64	16.63	20.27
	1.4M	20175	1	#Mid	QAM64	16.48	20.12
	1.4M	20175	1	#Max	QAM64	16.47	20.11
	1.4M	20175	3	#0	QAM64	16.35	19.99
	1.4M	20175	3	#Mid	QAM64	16.34	19.98
	1.4M	20175	3	#Max	QAM64	16.29	19.93
	1.4M	20175	6	#0	QAM64	16.25	19.89
	1.4M	20393	1	#0	QAM64	19.20	22.84
	1.4M	20393	1	#Mid	QAM64	18.98	22.62
	1.4M	20393	1	#Max	QAM64	18.90	22.54
	1.4M	20393	3	#0	QAM64	19.13	22.77
	1.4M	20393	3	#Mid	QAM64	19.13	22.77
	1.4M	20393	3	#Max	QAM64	18.96	22.60
	1.4M	20393	6	#0	QAM64	19.10	22.74
	3M	19965	1	#0	QAM64	19.30	22.94
	3M	19965	1	#Mid	QAM64	18.94	22.58
	3M	19965	1	#Max	QAM64	19.00	22.64
	3M	19965	8	#0	QAM64	19.23	22.87
	3M	19965	8	#Mid	QAM64	19.23	22.87
	3M	19965	8	#Max	QAM64	18.68	22.32
	3M	19965	15	#0	QAM64	18.80	22.44
	3M	20175	1	#0	QAM64	16.63	20.27
	3M	20175	1	#Mid	QAM64	16.24	19.88
	3M	20175	1	#Max	QAM64	16.62	20.26
	3M	20175	8	#0	QAM64	16.61	20.25
	3M	20175	8	#Mid	QAM64	16.60	20.24
	3M	20175	8	#Max	QAM64	16.15	19.79
	3M	20175	15	#0	QAM64	16.14	19.78
	3M	20385	1	#0	QAM64	19.46	23.10
	3M	20385	1	#Mid	QAM64	18.96	22.60
	3M	20385	1	#Max	QAM64	18.82	22.46
	3M	20385	8	#0	QAM64	19.75	23.39
	3M	20385	8	#Mid	QAM64	19.75	23.39
	3M	20385	8	#Max	QAM64	19.06	22.70
	3M	20385	15	#0	QAM64	19.23	22.87
	5M	19975	1	#0	QAM64	19.38	23.02
	5M	19975	1	#Mid	QAM64	18.99	22.63
	5M	19975	1	#Max	QAM64	19.06	22.70

	5M	19975	12	#0	QAM64	19.25	22.89
	5M	19975	12	#Mid	QAM64	19.24	22.88
	5M	19975	12	#Max	QAM64	18.71	22.35
	5M	19975	25	#0	QAM64	18.95	22.59
	5M	20175	1	#0	QAM64	16.84	20.48
	5M	20175	1	#Mid	QAM64	16.38	20.02
	5M	20175	1	#Max	QAM64	16.75	20.39
	5M	20175	12	#0	QAM64	16.77	20.41
	5M	20175	12	#Mid	QAM64	16.76	20.40
	5M	20175	12	#Max	QAM64	16.42	20.06
	5M	20175	25	#0	QAM64	16.48	20.12
	5M	20375	1	#0	QAM64	19.93	23.57
	5M	20375	1	#Mid	QAM64	19.58	23.22
	5M	20375	1	#Max	QAM64	19.21	22.85
	5M	20375	12	#0	QAM64	19.88	23.52
	5M	20375	12	#Mid	QAM64	19.88	23.52
	5M	20375	12	#Max	QAM64	19.28	22.92
	5M	20375	25	#0	QAM64	19.50	23.14
	10M	20000	1	#0	QAM64	19.76	23.40
	10M	20000	1	#Mid	QAM64	19.15	22.79
	10M	20000	1	#Max	QAM64	18.55	22.19
	10M	20000	25	#0	QAM64	19.06	22.70
	10M	20000	25	#Mid	QAM64	19.06	22.70
	10M	20000	25	#Max	QAM64	18.57	22.21
	10M	20000	50	#0	QAM64	18.78	22.42
	10M	20175	1	#0	QAM64	17.39	21.03
	10M	20175	1	#Mid	QAM64	16.63	20.27
	10M	20175	1	#Max	QAM64	16.95	20.59
	10M	20175	25	#0	QAM64	16.82	20.46
	10M	20175	25	#Mid	QAM64	16.81	20.45
	10M	20175	25	#Max	QAM64	17.62	21.26
	10M	20175	50	#0	QAM64	19.00	22.64
	10M	20350	1	#0	QAM64	17.41	21.05
	10M	20350	1	#Mid	QAM64	20.77	24.41
	10M	20350	1	#Max	QAM64	18.82	22.46
	10M	20350	25	#0	QAM64	19.05	22.69
	10M	20350	25	#Mid	QAM64	19.04	22.68
	10M	20350	25	#Max	QAM64	20.39	24.03
	10M	20350	50	#0	QAM64	19.90	23.54
	15M	20025	1	#0	QAM64	19.51	23.15
	15M	20025	1	#Mid	QAM64	17.77	21.41
	15M	20025	1	#Max	QAM64	20.67	24.31
	15M	20025	36	#0	QAM64	17.63	21.27

	15M	20025	36	#Mid	QAM64	17.64	21.28
	15M	20025	36	#Max	QAM64	18.44	22.08
	15M	20025	75	#0	QAM64	18.08	21.72
	15M	20175	1	#0	QAM64	21.18	24.82
	15M	20175	1	#Mid	QAM64	18.63	22.27
	15M	20175	1	#Max	QAM64	16.42	20.06
	15M	20175	36	#0	QAM64	20.16	23.80
	15M	20175	36	#Mid	QAM64	20.17	23.81
	15M	20175	36	#Max	QAM64	16.97	20.61
	15M	20175	75	#0	QAM64	19.11	22.75
	15M	20325	1	#0	QAM64	16.59	20.23
	15M	20325	1	#Mid	QAM64	18.91	22.55
	15M	20325	1	#Max	QAM64	19.61	23.25
	15M	20325	36	#0	QAM64	18.01	21.65
	15M	20325	36	#Mid	QAM64	18.00	21.64
	15M	20325	36	#Max	QAM64	19.50	23.14
	15M	20325	75	#0	QAM64	18.97	22.61
	20M	20050	1	#0	QAM64	19.76	23.40
	20M	20050	1	#Mid	QAM64	18.05	21.69
	20M	20050	1	#Max	QAM64	17.57	21.21
	20M	20050	50	#0	QAM64	18.76	22.40
	20M	20050	50	#Mid	QAM64	18.78	22.42
	20M	20050	50	#Max	QAM64	17.51	21.15
	20M	20050	100	#0	QAM64	18.25	21.89
	20M	20175	1	#0	QAM64	17.94	21.58
	20M	20175	1	#Mid	QAM64	16.43	20.07
	20M	20175	1	#Max	QAM64	17.73	21.37
	20M	20175	50	#0	QAM64	17.05	20.69
	20M	20175	50	#Mid	QAM64	17.17	20.81
	20M	20175	50	#Max	QAM64	16.95	20.59
	20M	20175	100	#0	QAM64	17.14	20.78
	20M	20300	1	#0	QAM64	16.91	20.55
	20M	20300	1	#Mid	QAM64	18.50	22.14
	20M	20300	1	#Max	QAM64	19.60	23.24
	20M	20300	50	#0	QAM64	17.56	21.20
	20M	20300	50	#Mid	QAM64	17.55	21.19
	20M	20300	50	#Max	QAM64	19.57	23.21
	20M	20300	100	#0	QAM64	18.60	22.24

Band	Bandwidth	Modulation	Channel	RB Configuration	Maximum Output Power(dBm)	EIRP(dBm)
LTE band 42	5M	QPSK	42115	1RB#0	22.85	24.64
	5M	QPSK		1RB#13	22.75	24.54
	5M	QPSK		1RB#24	22.81	24.60
	5M	QPSK		12RB#0	23.07	24.86
	5M	QPSK		12RB#6	22.98	24.77
	5M	QPSK		12RB#13	22.76	24.55
	5M	QPSK		25RB#0	22.76	24.55
	5M	QPSK	42590	1RB#0	22.23	24.02
	5M	QPSK		1RB#13	22.18	23.97
	5M	QPSK		1RB#24	22.15	23.94
	5M	QPSK		12RB#0	22.41	24.20
	5M	QPSK		12RB#6	22.38	24.17
	5M	QPSK		12RB#13	22.09	23.88
	5M	QPSK		25RB#0	22.10	23.89
	5M	QPSK	43065	1RB#0	22.90	24.69
	5M	QPSK		1RB#13	22.87	24.66
	5M	QPSK		1RB#24	22.78	24.57
	5M	QPSK		12RB#0	23.03	24.82
	5M	QPSK		12RB#6	22.97	24.76
	5M	QPSK		12RB#13	22.71	24.50
	5M	QPSK		25RB#0	22.71	24.50
	5M	16QAM	42115	1RB#0	23.15	24.94
	5M	16QAM		1RB#13	23.06	24.85
	5M	16QAM		1RB#24	23.11	24.90
	5M	16QAM		12RB#0	23.18	24.97
	5M	16QAM		12RB#6	23.05	24.84
	5M	16QAM		12RB#13	22.86	24.65
	5M	16QAM		25RB#0	22.78	24.57
	5M	16QAM	42590	1RB#0	22.52	24.31
	5M	16QAM		1RB#13	22.49	24.28
	5M	16QAM		1RB#24	22.45	24.24
	5M	16QAM		12RB#0	22.52	24.31
	5M	16QAM		12RB#6	22.42	24.21
	5M	16QAM		12RB#13	22.19	23.98
	5M	16QAM		25RB#0	22.12	23.91
	5M	16QAM	43065	1RB#0	23.17	24.96
	5M	16QAM		1RB#13	23.19	24.98
	5M	16QAM		1RB#24	23.08	24.87
	5M	16QAM		12RB#0	23.13	24.92

5M	16QAM		12RB#6	23.04	24.83
5M	16QAM		12RB#13	22.79	24.58
5M	16QAM		25RB#0	22.72	24.51
5M	64QAM		1RB#0	23.22	25.01
5M	64QAM		1RB#13	22.71	24.50
5M	64QAM		1RB#24	22.75	24.54
5M	64QAM	42115	12RB#0	22.43	24.22
5M	64QAM		12RB#6	22.39	24.18
5M	64QAM		12RB#13	22.05	23.84
5M	64QAM		25RB#0	22.19	23.98
5M	64QAM		1RB#0	22.08	23.87
5M	64QAM		1RB#13	22.02	23.81
5M	64QAM		1RB#24	21.99	23.78
5M	64QAM	42590	12RB#0	22.19	23.98
5M	64QAM		12RB#6	22.12	23.91
5M	64QAM		12RB#13	21.85	23.64
5M	64QAM		25RB#0	21.78	23.57
5M	64QAM		1RB#0	22.64	24.43
5M	64QAM		1RB#13	22.66	24.45
5M	64QAM		1RB#24	22.60	24.39
5M	64QAM	43065	12RB#0	22.65	24.44
5M	64QAM		12RB#6	22.58	24.37
5M	64QAM		12RB#13	22.32	24.11
5M	64QAM		25RB#0	22.26	24.05
10M	QPSK		1RB#0	23.24	25.03
10M	QPSK		1RB#25	23.00	24.79
10M	QPSK		1RB#49	22.97	24.76
10M	QPSK	42140	25RB#0	22.83	24.62
10M	QPSK		25RB#13	22.78	24.57
10M	QPSK		25RB#25	22.64	24.43
10M	QPSK		50RB#0	22.81	24.60
10M	QPSK		1RB#0	22.54	24.33
10M	QPSK		1RB#25	22.47	24.26
10M	QPSK		1RB#49	22.41	24.20
10M	QPSK	42590	25RB#0	22.29	24.08
10M	QPSK		25RB#13	22.20	23.99
10M	QPSK		25RB#25	22.23	24.02
10M	QPSK		50RB#0	22.24	24.03
10M	QPSK		1RB#0	23.15	24.94
10M	QPSK		1RB#25	23.07	24.86
10M	QPSK	43040	1RB#49	23.16	24.95
10M	QPSK		25RB#0	22.85	24.64
10M	QPSK		25RB#13	22.74	24.53

10M	QPSK		25RB#25	22.95	24.74
10M	QPSK		50RB#0	22.92	24.71
10M	16QAM	42140	1RB#0	23.35	25.14
10M	16QAM		1RB#25	23.13	24.92
10M	16QAM		1RB#49	23.11	24.90
10M	16QAM		25RB#0	22.91	24.70
10M	16QAM		25RB#13	22.86	24.65
10M	16QAM		25RB#25	22.73	24.52
10M	16QAM		50RB#0	22.88	24.67
10M	16QAM	42590	1RB#0	22.92	24.71
10M	16QAM		1RB#25	22.72	24.51
10M	16QAM		1RB#49	22.66	24.45
10M	16QAM		25RB#0	22.34	24.13
10M	16QAM		25RB#13	22.25	24.04
10M	16QAM		25RB#25	22.27	24.06
10M	16QAM		50RB#0	22.26	24.05
10M	16QAM	43040	1RB#0	23.26	25.05
10M	16QAM		1RB#25	23.22	25.01
10M	16QAM		1RB#49	23.44	25.23
10M	16QAM		25RB#0	22.93	24.72
10M	16QAM		25RB#13	22.98	24.77
10M	16QAM		25RB#25	23.01	24.80
10M	16QAM		50RB#0	22.98	24.77
10M	64QAM	42140	1RB#0	23.24	25.03
10M	64QAM		1RB#25	22.74	24.53
10M	64QAM		1RB#49	22.78	24.57
10M	64QAM		25RB#0	22.46	24.25
10M	64QAM		25RB#13	22.41	24.20
10M	64QAM		25RB#25	22.08	23.87
10M	64QAM		50RB#0	22.22	24.01
10M	64QAM	42590	1RB#0	22.49	24.28
10M	64QAM		1RB#25	22.27	24.06
10M	64QAM		1RB#49	22.21	24.00
10M	64QAM		25RB#0	21.91	23.70
10M	64QAM		25RB#13	21.87	23.66
10M	64QAM		25RB#25	21.85	23.64
10M	64QAM		50RB#0	21.84	23.63
10M	64QAM	43040	1RB#0	23.06	24.85
10M	64QAM		1RB#25	22.93	24.72
10M	64QAM		1RB#49	23.37	25.16
10M	64QAM		25RB#0	22.45	24.24
10M	64QAM		25RB#13	22.63	24.42
10M	64QAM		25RB#25	22.71	24.50

10M	64QAM		50RB#0	22.57	24.36
15M	QPSK		1RB#0	23.31	25.10
15M	QPSK		1RB#38	22.80	24.59
15M	QPSK		1RB#74	22.96	24.75
15M	QPSK	42165	36RB#0	22.74	24.53
15M	QPSK		36RB#18	22.72	24.51
15M	QPSK		36RB#39	22.55	24.34
15M	QPSK		75RB#0	22.57	24.36
15M	QPSK		1RB#0	22.60	24.39
15M	QPSK		1RB#38	22.26	24.05
15M	QPSK		1RB#74	22.45	24.24
15M	QPSK	42590	36RB#0	22.15	23.94
15M	QPSK		36RB#18	22.09	23.88
15M	QPSK		36RB#39	22.07	23.86
15M	QPSK		75RB#0	22.12	23.91
15M	QPSK		1RB#0	23.18	24.97
15M	QPSK		1RB#38	22.95	24.74
15M	QPSK		1RB#74	23.30	25.09
15M	QPSK	43015	36RB#0	22.68	24.47
15M	QPSK		36RB#18	22.73	24.52
15M	QPSK		36RB#39	22.76	24.55
15M	QPSK		75RB#0	22.64	24.43
15M	16QAM		1RB#0	23.65	25.44
15M	16QAM		1RB#38	22.94	24.73
15M	16QAM		1RB#74	23.23	25.02
15M	16QAM	42165	36RB#0	22.87	24.66
15M	16QAM		36RB#18	22.79	24.58
15M	16QAM		36RB#39	22.64	24.43
15M	16QAM		75RB#0	22.61	24.40
15M	16QAM		1RB#0	22.84	24.63
15M	16QAM		1RB#38	22.51	24.30
15M	16QAM		1RB#74	22.70	24.49
15M	16QAM	42590	36RB#0	22.17	23.96
15M	16QAM		36RB#18	22.11	23.90
15M	16QAM		36RB#39	22.10	23.89
15M	16QAM		75RB#0	22.14	23.93
15M	16QAM		1RB#0	23.43	25.22
15M	16QAM		1RB#38	23.22	25.01
15M	16QAM		1RB#74	23.55	25.34
15M	16QAM	43015	36RB#0	22.78	24.57
15M	16QAM		36RB#18	22.81	24.60
15M	16QAM		36RB#39	22.84	24.63
15M	16QAM		75RB#0	22.69	24.48

15M	64QAM		1RB#0	23.19	24.98
15M	64QAM		1RB#38	22.72	24.51
15M	64QAM		1RB#74	22.75	24.54
15M	64QAM	42165	36RB#0	22.43	24.22
15M	64QAM		36RB#18	22.38	24.17
15M	64QAM		36RB#39	22.06	23.85
15M	64QAM		75RB#0	22.19	23.98
15M	64QAM		1RB#0	22.44	24.23
15M	64QAM		1RB#38	22.11	23.90
15M	64QAM		1RB#74	22.30	24.09
15M	64QAM	42590	36RB#0	21.77	23.56
15M	64QAM		36RB#18	21.75	23.54
15M	64QAM		36RB#39	21.70	23.49
15M	64QAM		75RB#0	21.72	23.51
15M	64QAM		1RB#0	22.76	24.55
15M	64QAM		1RB#38	23.04	24.83
15M	64QAM		1RB#74	22.91	24.70
15M	64QAM	43015	36RB#0	23.34	25.13
15M	64QAM		36RB#18	22.42	24.21
15M	64QAM		36RB#39	22.59	24.38
15M	64QAM		75RB#0	22.68	24.47
20M	QPSK		1RB#0	22.53	24.32
20M	QPSK		1RB#50	22.99	24.78
20M	QPSK		1RB#99	23.03	24.82
20M	QPSK	42190	50RB#0	22.89	24.68
20M	QPSK		50RB#25	22.75	24.54
20M	QPSK		50RB#50	22.67	24.46
20M	QPSK		100RB#0	22.64	24.43
20M	QPSK		1RB#0	22.85	24.64
20M	QPSK		1RB#50	22.60	24.39
20M	QPSK		1RB#99	22.82	24.61
20M	QPSK	42590	50RB#0	22.64	24.43
20M	QPSK		50RB#25	22.60	24.39
20M	QPSK		50RB#50	22.56	24.35
20M	QPSK		100RB#0	22.61	24.40
20M	QPSK		1RB#0	23.33	25.12
20M	QPSK		1RB#50	23.20	24.99
20M	QPSK		1RB#99	23.67	25.46
20M	QPSK	42990	50RB#0	23.00	24.79
20M	QPSK		50RB#25	23.08	24.87
20M	QPSK		50RB#50	23.18	24.97
20M	QPSK		100RB#0	23.10	24.89
20M	16QAM	42190	1RB#0	23.76	25.55

	20M	16QAM		1RB#50	23.13	24.92
	20M	16QAM		1RB#99	23.29	25.08
	20M	16QAM		50RB#0	22.97	24.76
	20M	16QAM		50RB#25	22.92	24.71
	20M	16QAM		50RB#50	22.72	24.51
	20M	16QAM		100RB#0	22.70	24.49
	20M	16QAM	42590	1RB#0	22.96	24.75
	20M	16QAM		1RB#50	22.73	24.52
	20M	16QAM		1RB#99	23.01	24.80
	20M	16QAM		50RB#0	22.67	24.46
	20M	16QAM		50RB#25	22.62	24.41
	20M	16QAM		50RB#50	22.59	24.38
	20M	16QAM		100RB#0	22.63	24.42
	20M	16QAM	42990	1RB#0	23.58	25.37
	20M	16QAM		1RB#50	23.33	25.12
	20M	16QAM		1RB#99	23.92	25.71
	20M	16QAM		50RB#0	23.06	24.85
	20M	16QAM		50RB#25	23.14	24.93
	20M	16QAM		50RB#50	23.23	25.02
	20M	16QAM		100RB#0	23.13	24.92
	20M	64QAM	42190	1RB#0	23.17	24.96
	20M	64QAM		1RB#50	22.68	24.47
	20M	64QAM		1RB#99	22.73	24.52
	20M	64QAM		50RB#0	22.40	24.19
	20M	64QAM		50RB#25	22.35	24.14
	20M	64QAM		50RB#50	22.03	23.82
	20M	64QAM		100RB#0	22.17	23.96
	20M	64QAM	42590	1RB#0	22.33	24.12
	20M	64QAM		1RB#50	22.09	23.88
	20M	64QAM		1RB#99	22.42	24.21
	20M	64QAM		50RB#0	21.90	23.69
	20M	64QAM		50RB#25	21.88	23.67
	20M	64QAM		50RB#50	21.82	23.61
	20M	64QAM		100RB#0	21.85	23.64
	20M	64QAM	42990	1RB#0	22.99	24.78
	20M	64QAM		1RB#50	22.87	24.66
	20M	64QAM		1RB#99	23.32	25.11
	20M	64QAM		50RB#0	22.39	24.18
	20M	64QAM		50RB#25	22.56	24.35
	20M	64QAM		50RB#50	22.64	24.43
	20M	64QAM		100RB#0	22.50	24.29

5.2 Occupied Bandwidth

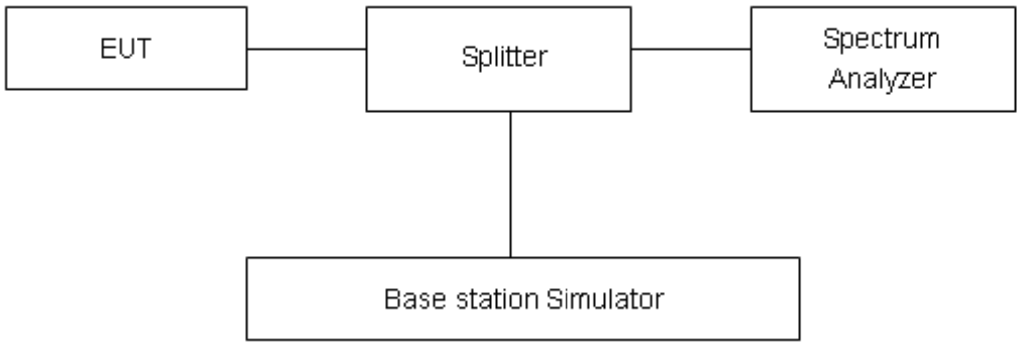
Ambient condition

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 ⩾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=624Hz.

Test Result

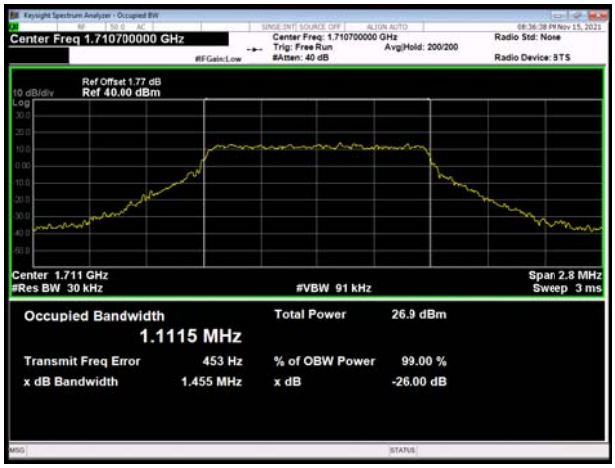
LTE Band 4						
RB	**Modulation**	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**99% Power Bandwidth(MHz)**	**-26dBc Bandwidth(MHz)**
100%	QPSK	1.4	19957	1710.7	1.112	1.455
			20175	1732.5	1.124	1.526
			20393	1754.3	1.108	1.470
		3	19965	1711.5	2.718	3.368
			20175	1732.5	2.715	3.326
			20385	1753.5	2.717	3.251
		5	19975	1712.5	4.537	5.329
			20175	1732.5	4.526	5.259
			20375	1752.5	4.533	5.326
		10	20000	1715	9.034	10.040
			20175	1732.5	8.982	9.959
			20350	1750	8.975	9.946
		15	20025	1717.5	13.447	14.580
			20175	1732.5	13.480	14.630
			20325	1747.5	13.468	14.700
		20	20050	1720	17.935	19.140
			20175	1732.5	17.961	19.240
			20300	1745	17.970	19.210
	16QAM	1.4	19957	1710.7	1.129	1.516
			20175	1732.5	1.107	1.472
			20393	1754.3	1.116	1.440
		3	19965	1711.5	2.718	3.369
			20175	1732.5	2.713	3.318
			20385	1753.5	2.722	3.336
		5	19975	1712.5	4.526	5.335
			20175	1732.5	4.530	5.263
			20375	1752.5	4.534	5.252
		10	20000	1715	8.969	9.956
			20175	1732.5	8.983	9.802
			20350	1750	8.993	10.070
		15	20025	1717.5	13.477	14.630
			20175	1732.5	13.495	14.570
			20325	1747.5	13.407	14.650
		20	20050	1720	17.891	19.310
			20175	1732.5	18.018	19.560
			20300	1745	17.933	19.290

	64QAM	1.4	19957	1710.7	1.116	1.476
			20175	1732.5	1.124	1.497
			20393	1754.3	1.113	1.465
		3	19965	1711.5	2.718	3.467
			20175	1732.5	2.723	3.267
			20385	1753.5	2.725	3.417
		5	19975	1712.5	4.526	5.364
			20175	1732.5	4.538	5.415
			20375	1752.5	4.532	5.170
		10	20000	1715	8.986	9.947
			20175	1732.5	8.977	10.048
			20350	1750	8.983	9.835
		15	20025	1717.5	13.477	14.500
			20175	1732.5	13.477	14.630
			20325	1747.5	13.406	14.470
		20	20050	1720	17.869	19.230
			20175	1732.5	18.013	19.230
			20300	1745	17.915	19.320

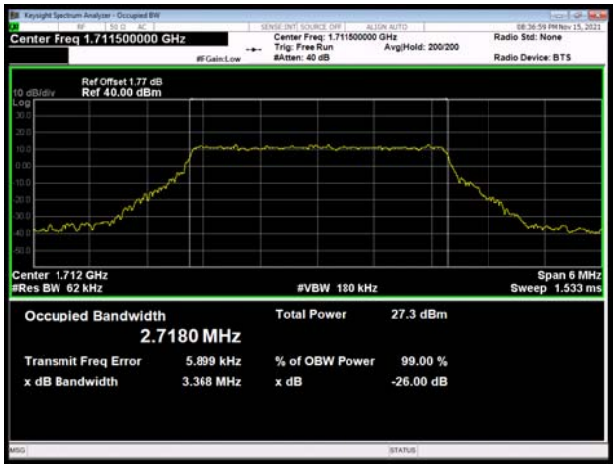
LTE Band 42						
RB	**Modulation**	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**99% Power Bandwidth(MHz)**	**-26dBc Bandwidth(MHz)**
100%	QPSK	5	42115	3452.5	4.516	5.459
			42590	3500	4.558	6.037
			43065	3547.5	4.532	5.532
		10	42140	3455	9.026	10.700
			42590	3500	9.022	11.080
			43040	3545	9.013	11.170
		15	42165	3457.5	13.435	14.540
			42590	3500	13.478	15.580
			43015	3542.5	13.474	15.430
		20	42190	3460	17.937	19.260
			42590	3500	17.920	20.180
			42990	3540	17.969	19.070
	16QAM	5	42115	3452.5	4.565	5.306
			42590	3500	4.528	5.334
			43065	3547.5	4.522	5.306
		10	42140	3455	8.988	10.110
			42590	3500	8.995	10.200

			43040	3545	9.005	10.160
		15	42165	3457.5	13.461	15.370
			42590	3500	13.483	14.750
			43015	3542.5	13.472	15.490
		20	42190	3460	17.925	20.190
			42590	3500	17.941	19.260
			42990	3540	17.933	19.700
	64QAM	5	42115	3452.5	4.522	5.296
			42590	3500	4.523	5.186
			43065	3547.5	4.524	5.262
		10	42140	3455	8.994	9.901
			42590	3500	8.983	10.050
			43040	3545	9.008	10.220
		15	42165	3457.5	13.489	15.950
			42590	3500	13.503	15.370
			43015	3542.5	13.502	15.180
		20	42190	3460	17.952	19.370
			42590	3500	17.931	20.200
			42990	3540	17.938	19.390

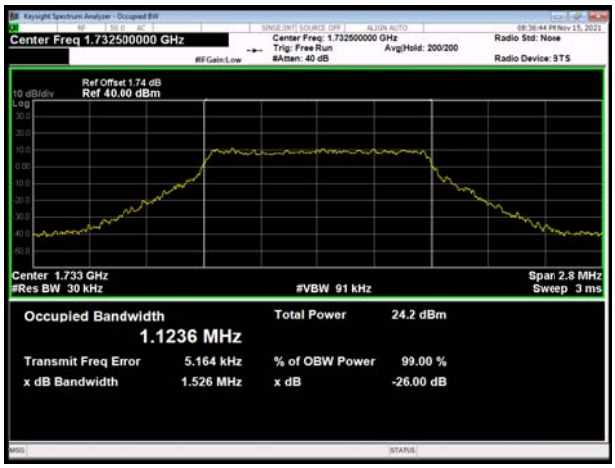
LTE Band 4 QPSK 1.4MHz CH-Low



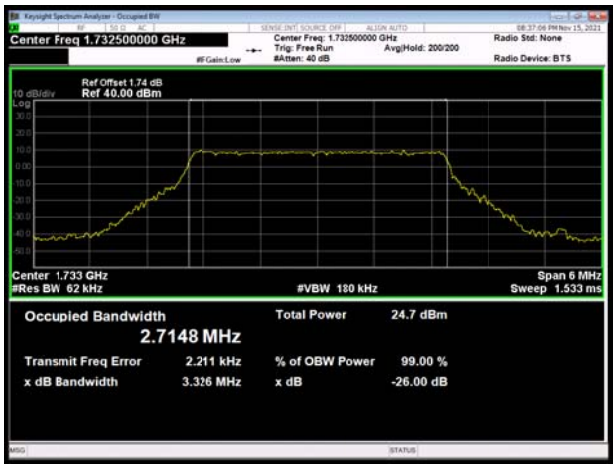
LTE Band 4 QPSK 3MHz CH-Low



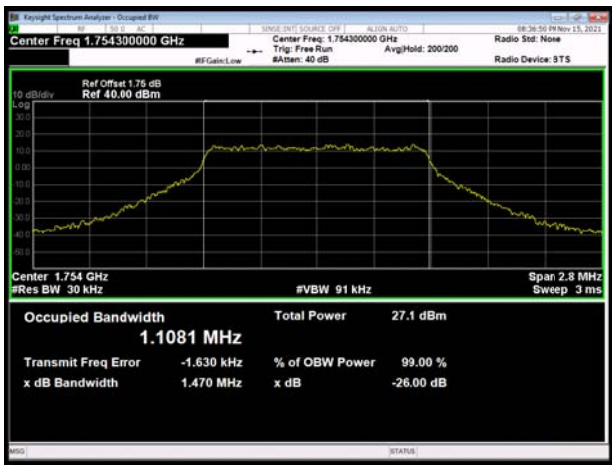
LTE Band 4 QPSK 1.4MHz CH-Middle



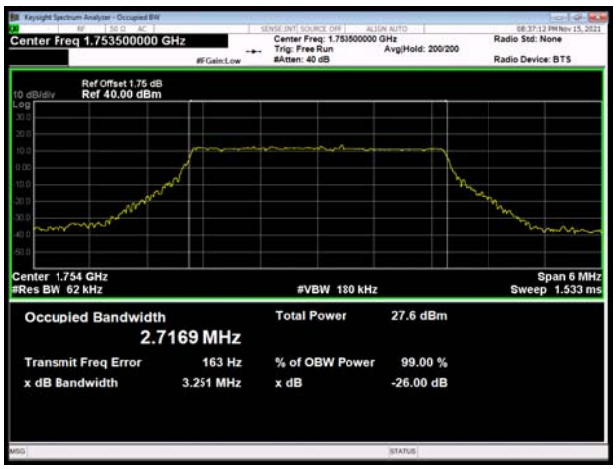
LTE Band 4 QPSK 3MHz CH-Middle



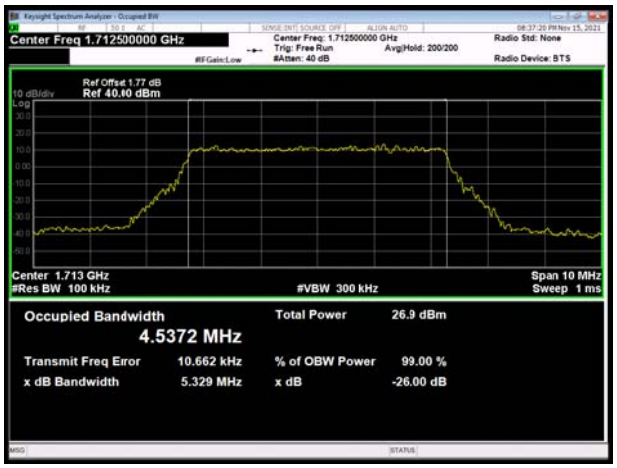
LTE Band 4 QPSK 1.4MHz CH-High



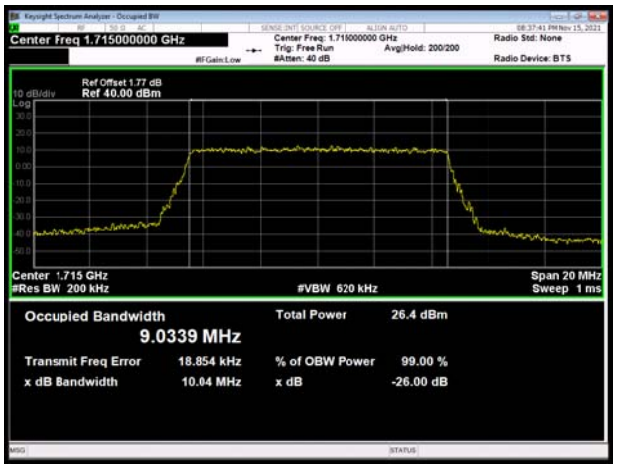
LTE Band 4 QPSK 3MHz CH-High



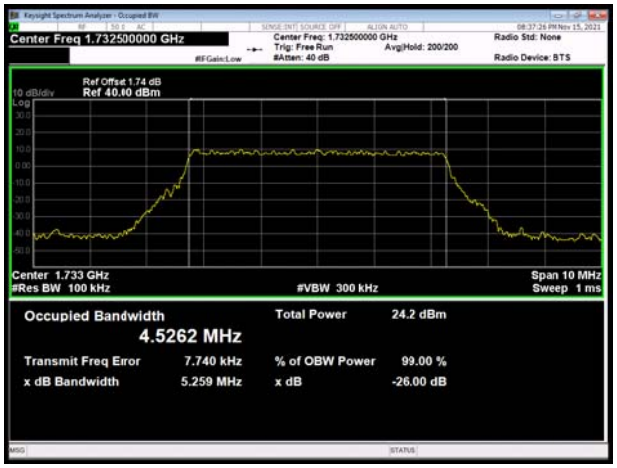
LTE Band 4 QPSK 5MHz CH-Low



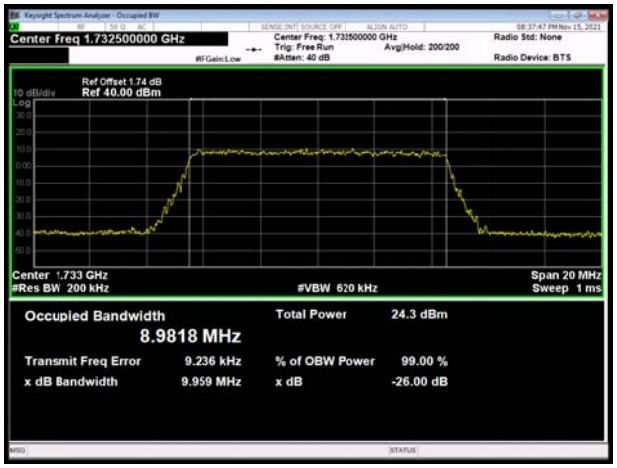
LTE Band 4 QPSK 10MHz CH-Low



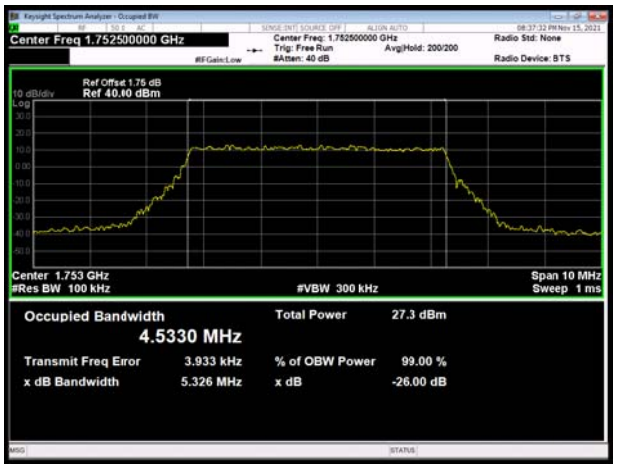
LTE Band 4 QPSK 5MHz CH-Middle



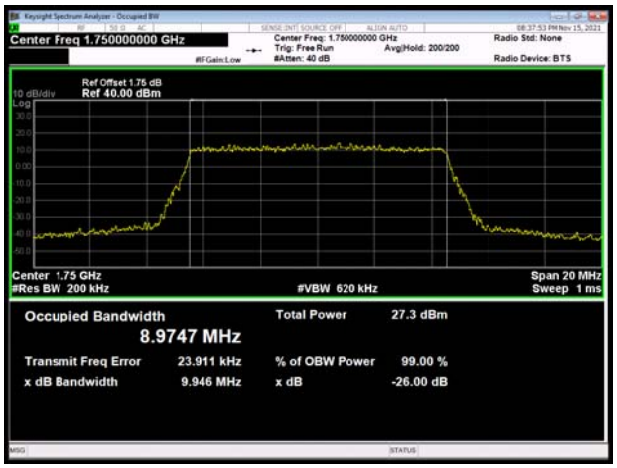
LTE Band 4 QPSK 10MHz CH-Middle



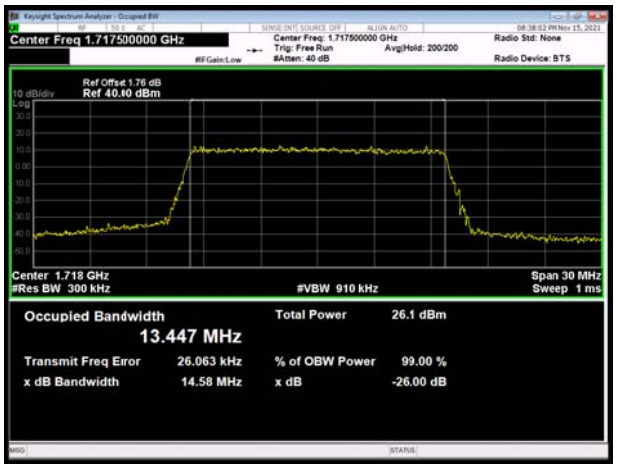
LTE Band 4 QPSK 5MHz CH-High



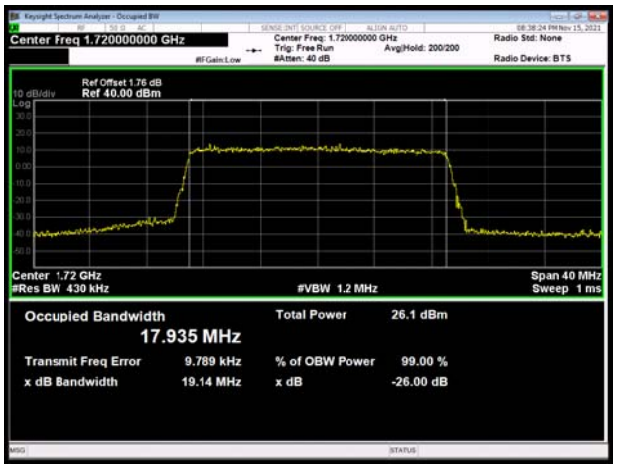
LTE Band 4 QPSK 10MHz CH-High



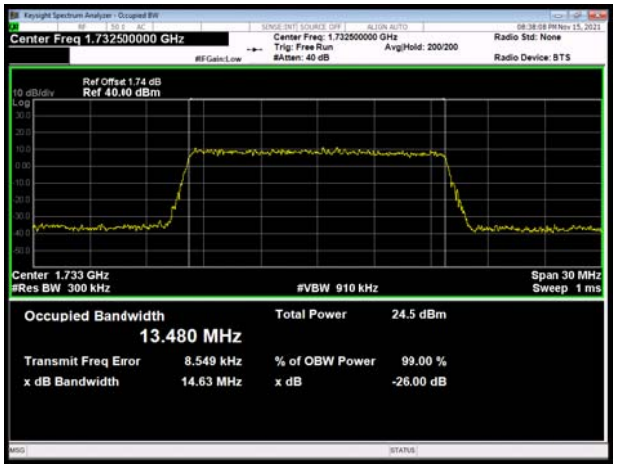
LTE Band 4 QPSK 15MHz CH-Low



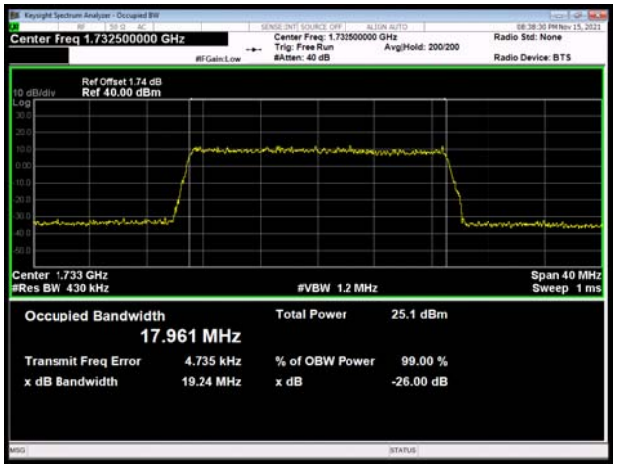
LTE Band 4 QPSK 20MHz CH-Low



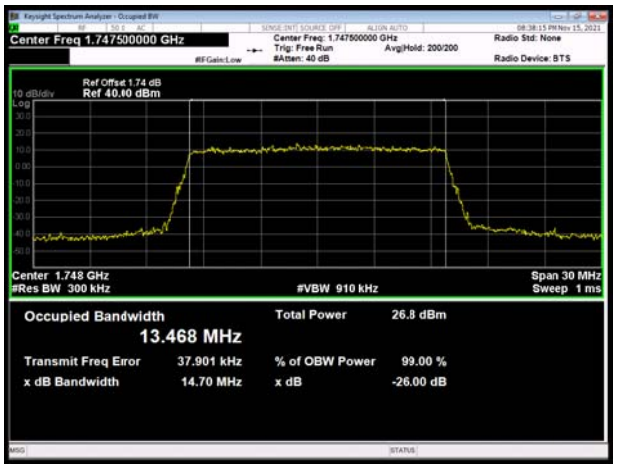
LTE Band 4 QPSK 15MHz CH-Middle



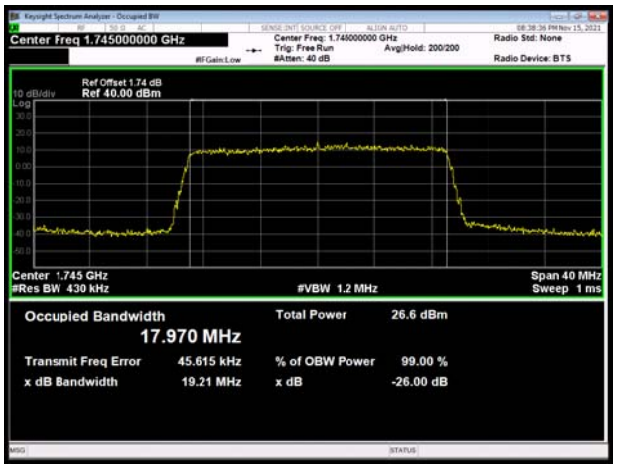
LTE Band 4 QPSK 20MHz CH-Middle



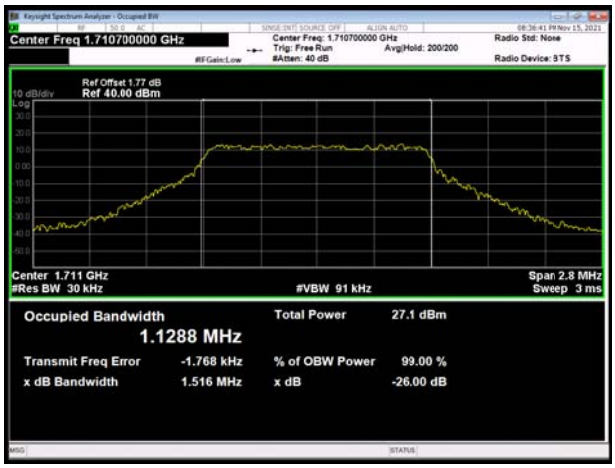
LTE Band 4 QPSK 15MHz CH-High



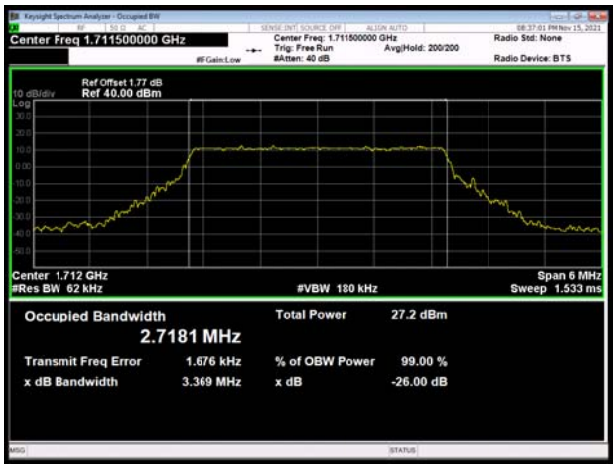
LTE Band 4 QPSK 20MHz CH-High



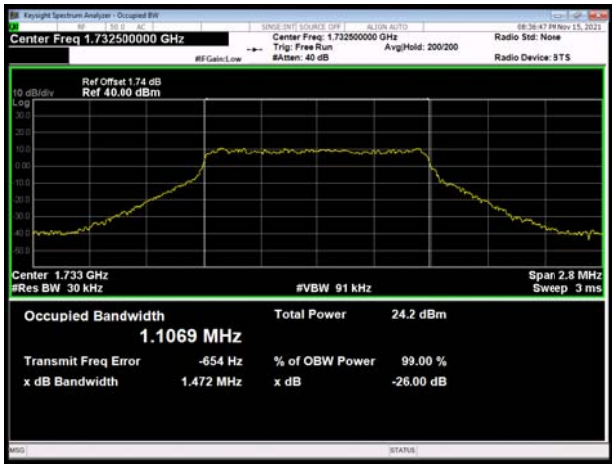
LTE Band 4 16QAM 1.4MHz CH-Low



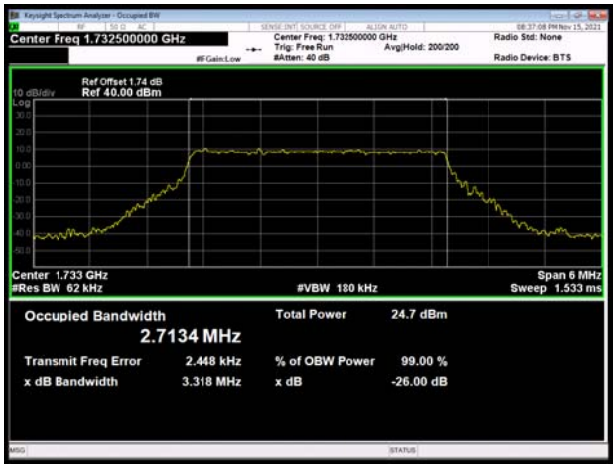
LTE Band 4 16QAM 3MHz CH-Low



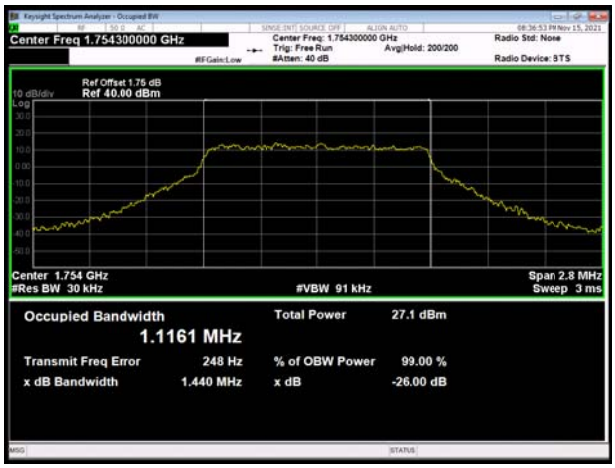
LTE Band 4 16QAM 1.4MHz CH-Middle



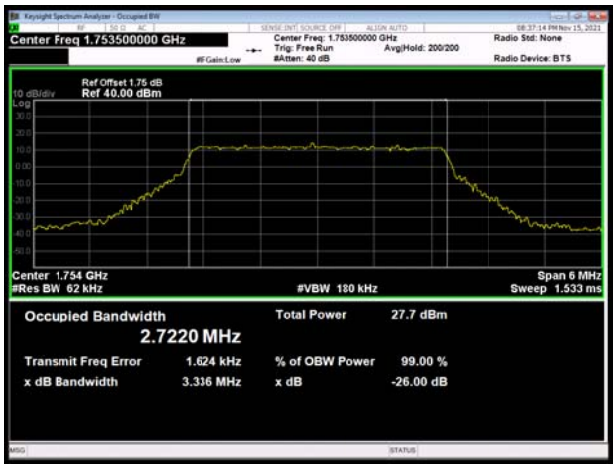
LTE Band 4 16QAM 3MHz CH-Middle



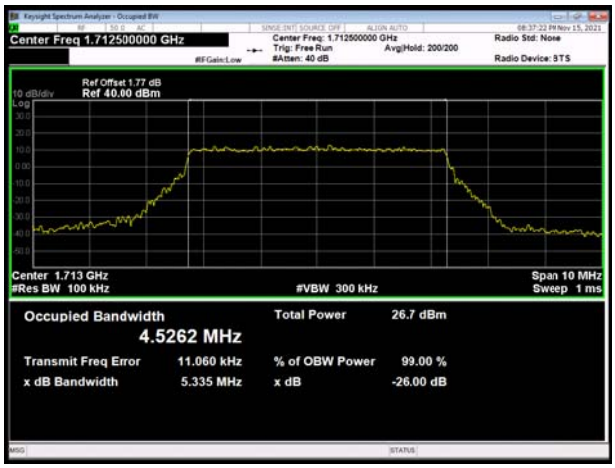
LTE Band 4 16QAM 1.4MHz CH-High



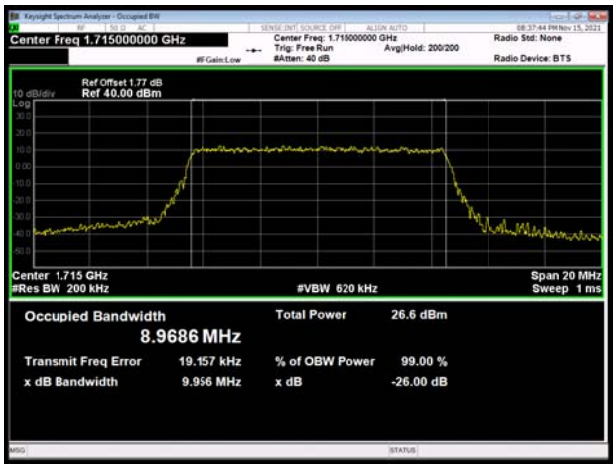
LTE Band 4 16QAM 3MHz CH-High



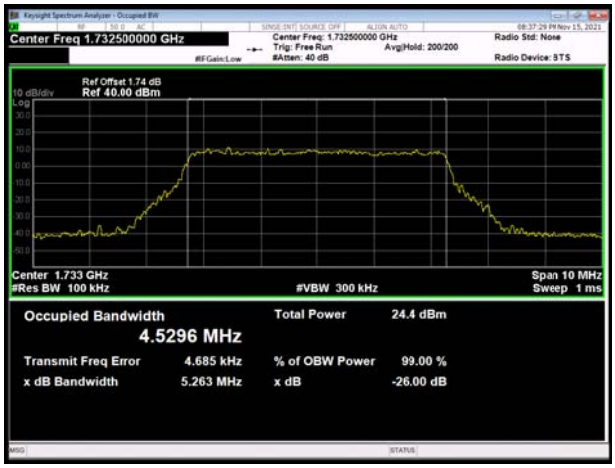
LTE Band 4 16QAM 5MHz CH-Low



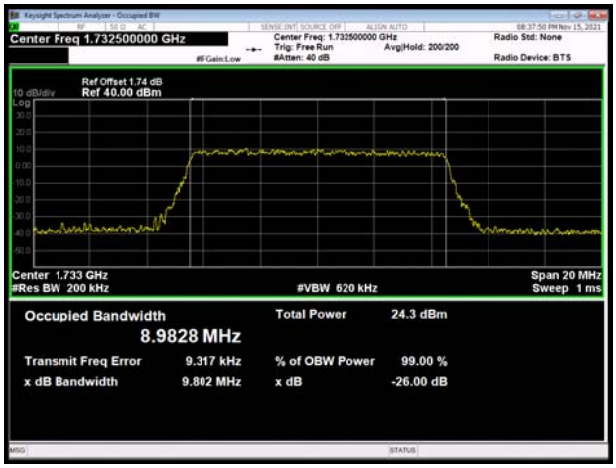
LTE Band 4 16QAM 10MHz CH-Low



LTE Band 4 16QAM 5MHz CH-Middle

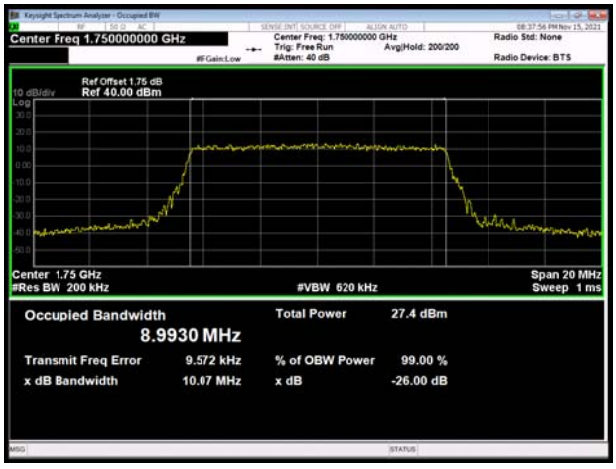


LTE Band 4 16QAM 10MHz CH-Middle

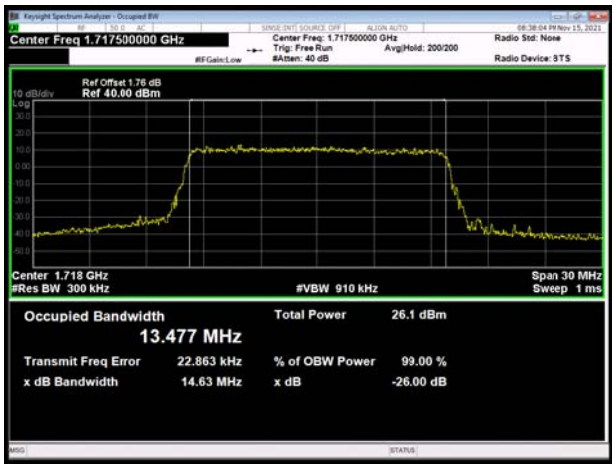


LTE Band 4 16QAM 5MHz CH-High

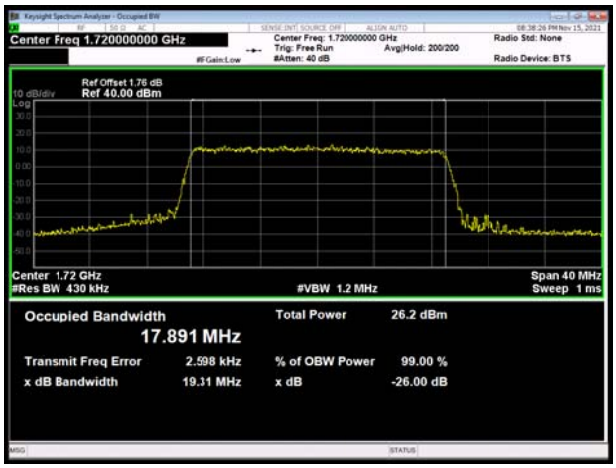
LTE Band 4 16QAM 10MHz CH-High



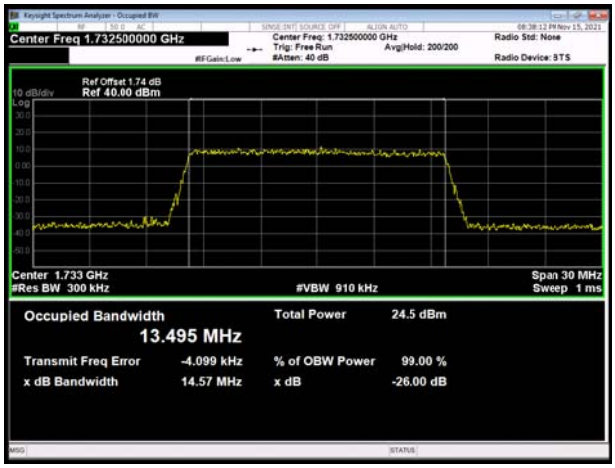
LTE Band 4 16QAM 15MHz CH-Low



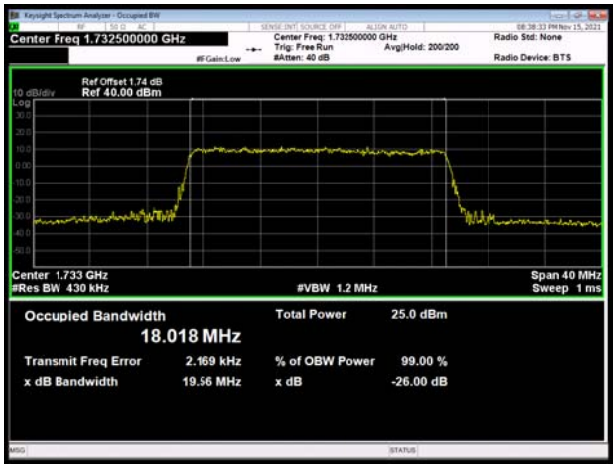
LTE Band 4 16QAM 20MHz CH-Low



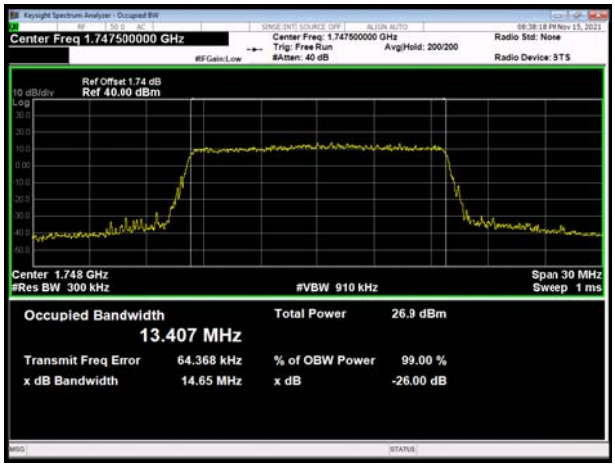
LTE Band 4 16QAM 15MHz CH-Middle



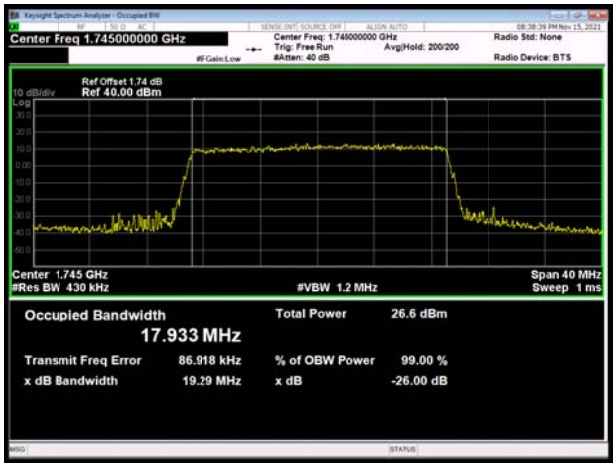
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High

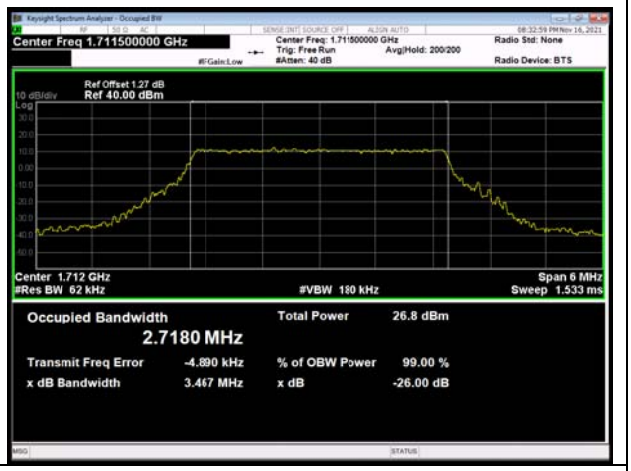


LTE Band 4 16QAM 20MHz CH-High



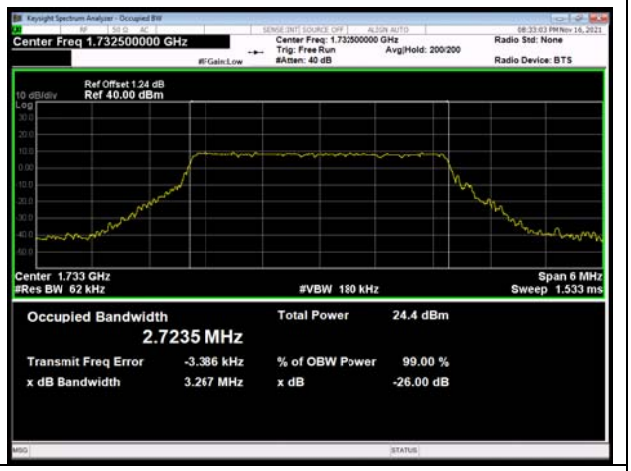
LTE Band 4 1.4MHz 64QAM CH-Low

LTE Band 4 3MHz 64QAM CH-Low

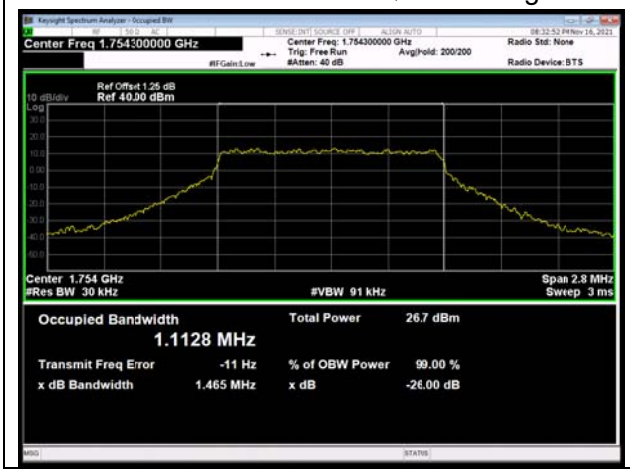


LTE Band 4 1.4MHz 64QAM CH-Middle

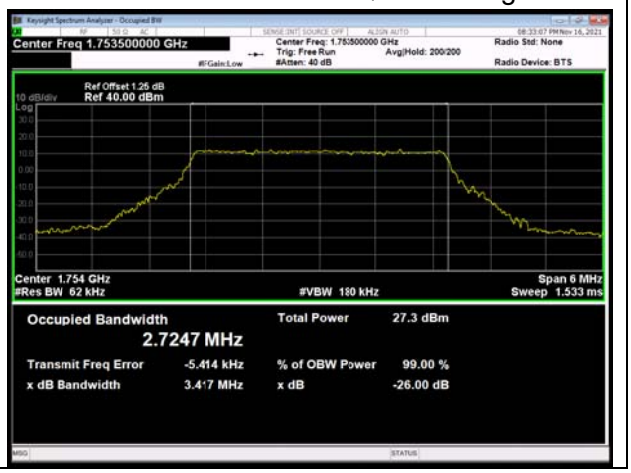
LTE Band 4 3MHz 64QAM CH-Middle



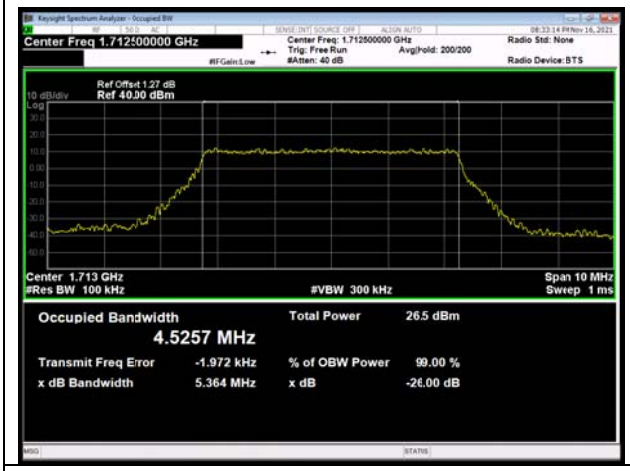
LTE Band 4 1.4MHz 64QAM CH-High



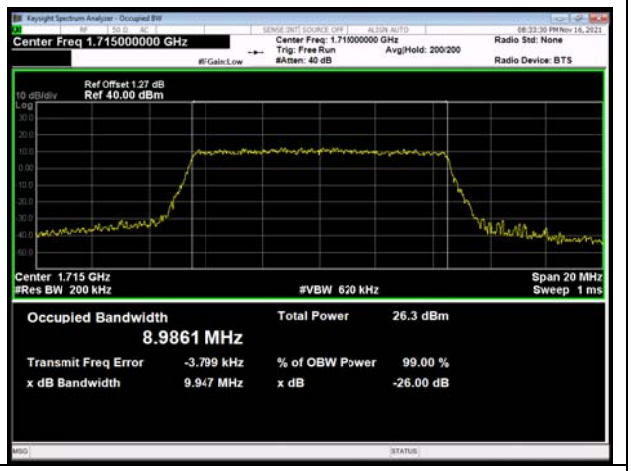
LTE Band 4 3MHz 64QAM CH-High



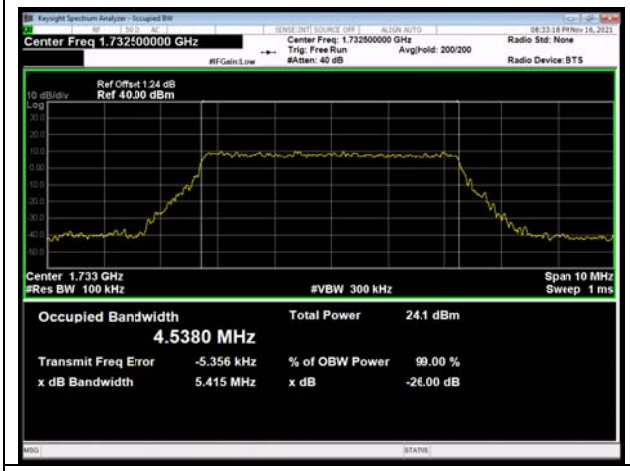
LTE Band 4 5MHz 64QAM CH-Low



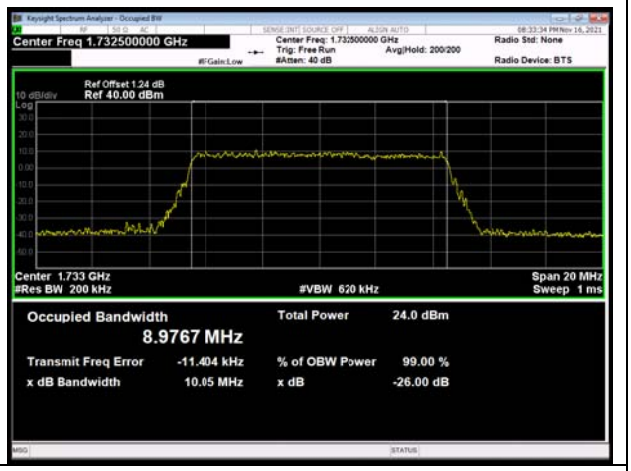
LTE Band 4 10MHz 64QAM CH-Low



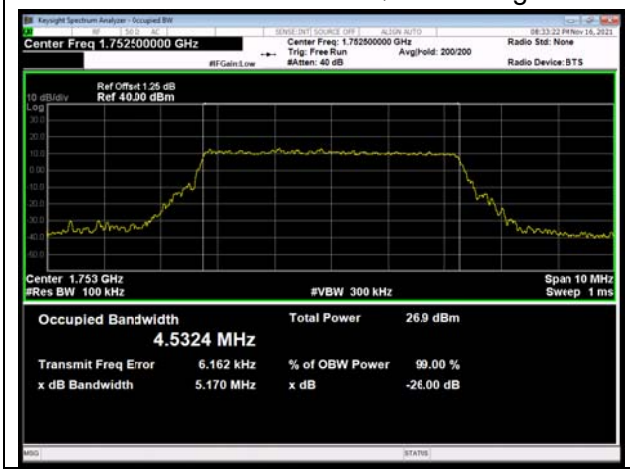
LTE Band 4 5MHz 64QAM CH-Middle



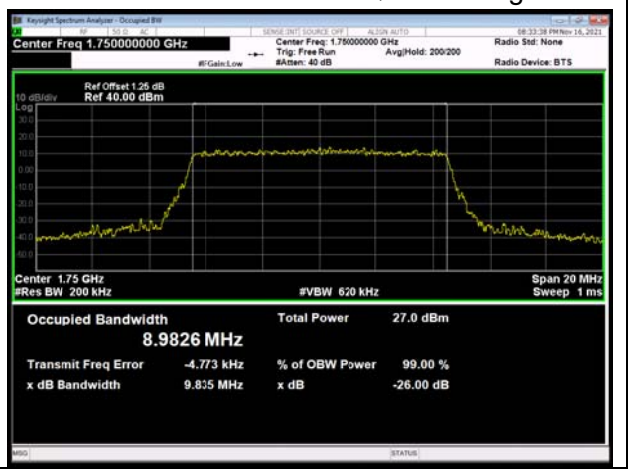
LTE Band 4 10MHz 64QAM CH-Middle



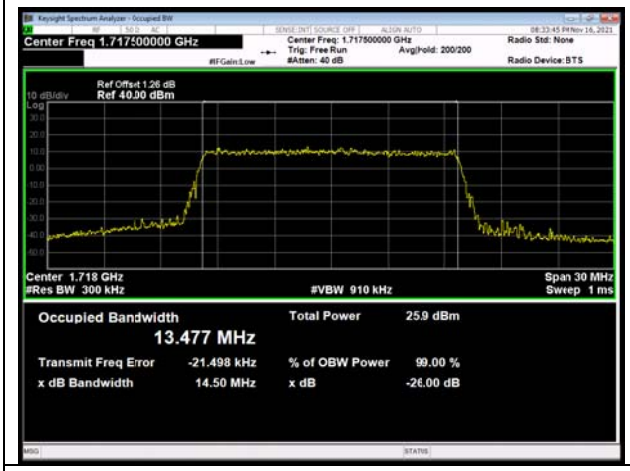
LTE Band 4 5MHz 64QAM CH-High



LTE Band 4 10MHz 64QAM CH-High

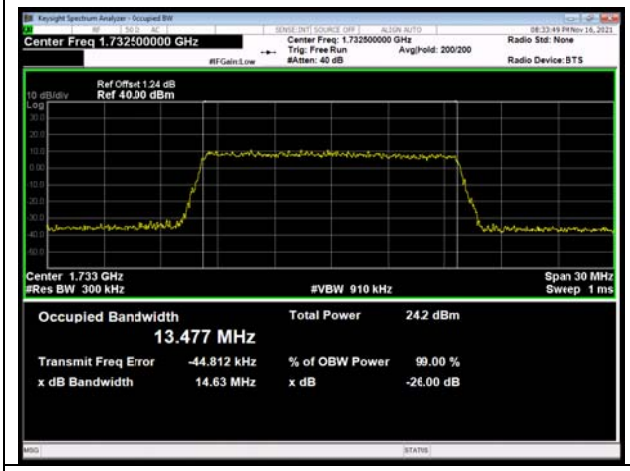


LTE Band 4 15MHz 64QAM CH-Low

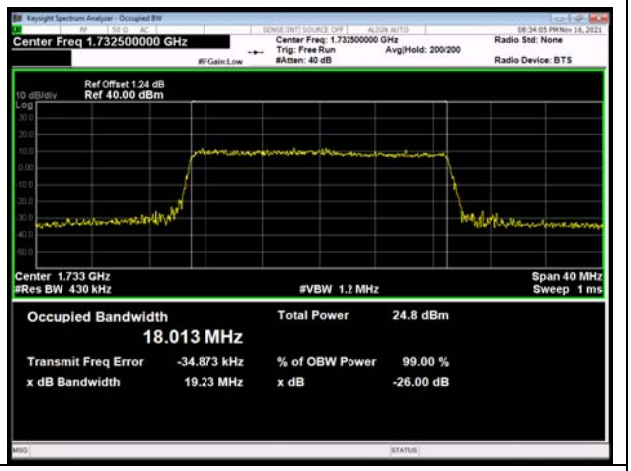


LTE Band 4 20MHz 64QAM CH-Low

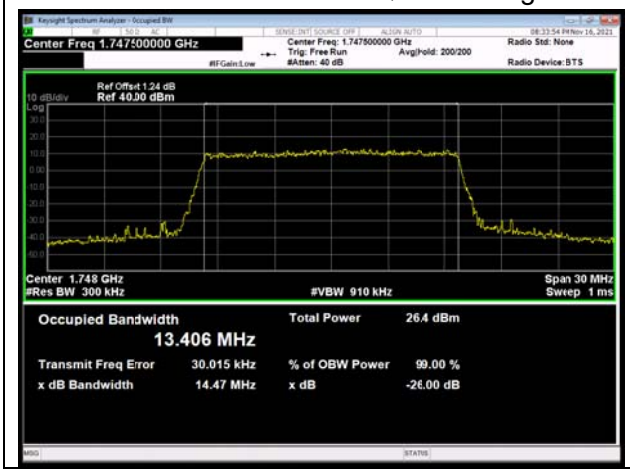
LTE Band 4 15MHz 64QAM CH-Middle



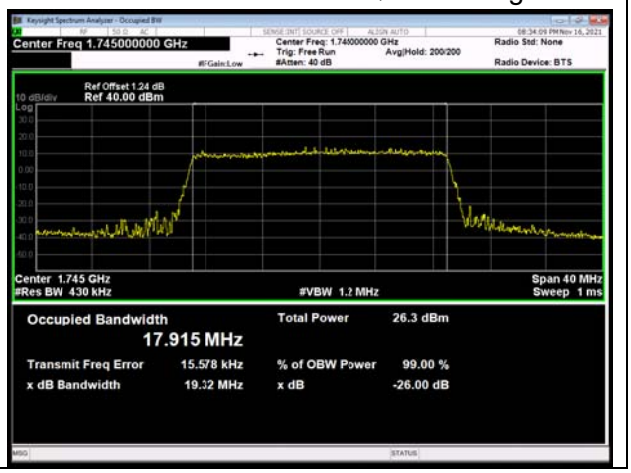
LTE Band 4 20MHz 64QAM CH-Middle



LTE Band 4 15MHz 64QAM CH-High

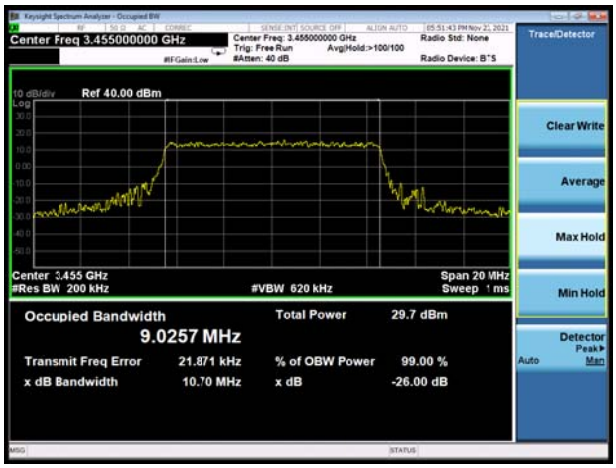


LTE Band 4 20MHz 64QAM CH-High



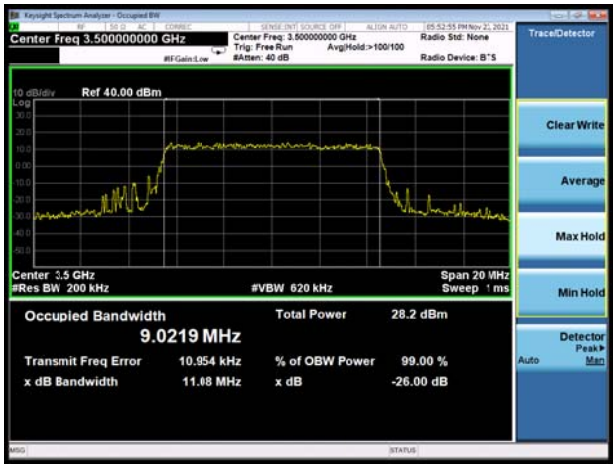
LTE Band 42 QPSK 5MHz CH-Low

LTE Band 42 QPSK 10MHz CH-Low



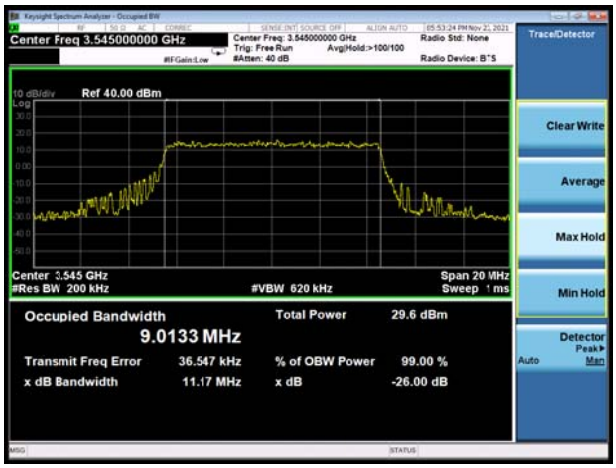
LTE Band 42 QPSK 5MHz CH-Middle

LTE Band 42 QPSK 10MHz CH-Middle



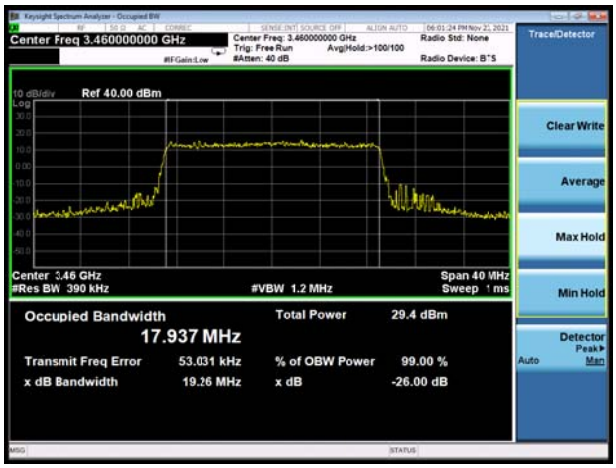
LTE Band 42 QPSK 5MHz CH-High

LTE Band 42 QPSK 10MHz CH-High

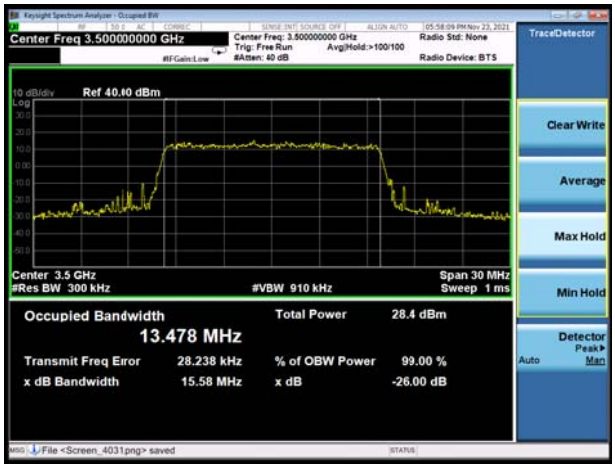


LTE Band 42 QPSK 15MHz CH-Low

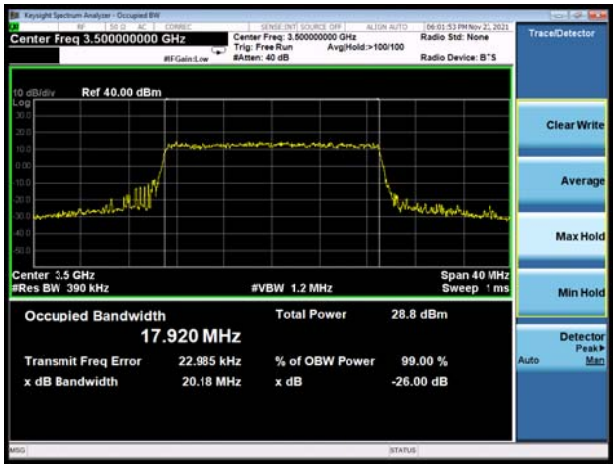
LTE Band 42 QPSK 20MHz CH-Low



LTE Band 42 QPSK 15MHz CH-Middle

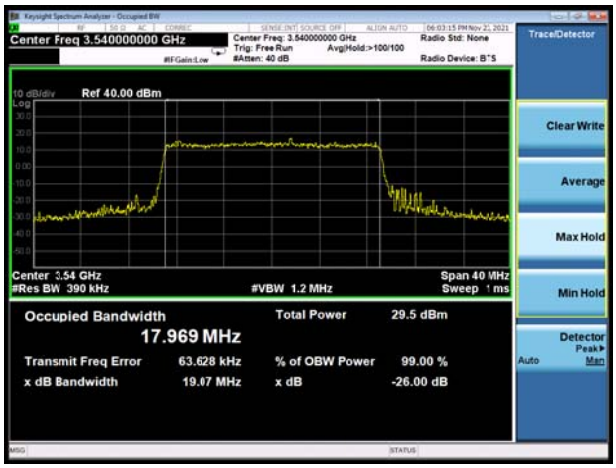


LTE Band 42 QPSK 20MHz CH-Middle



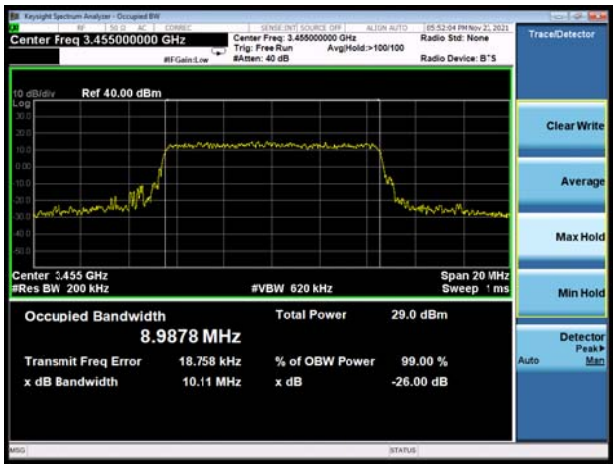
LTE Band 42 QPSK 15MHz CH-High

LTE Band 42 QPSK 20MHz CH-High

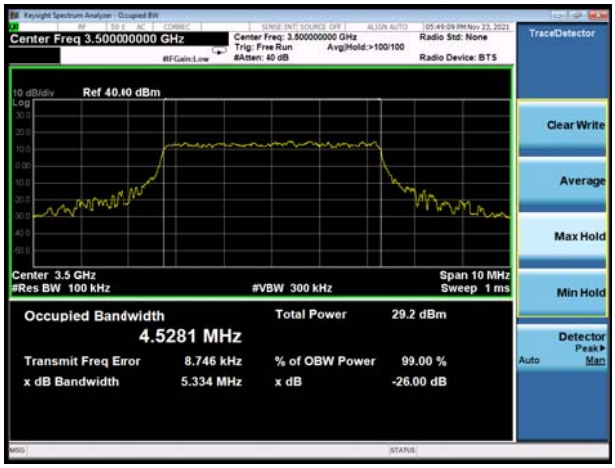


LTE Band 42 16QAM 5MHz CH-Low

LTE Band 42 16QAM 10MHz CH-Low

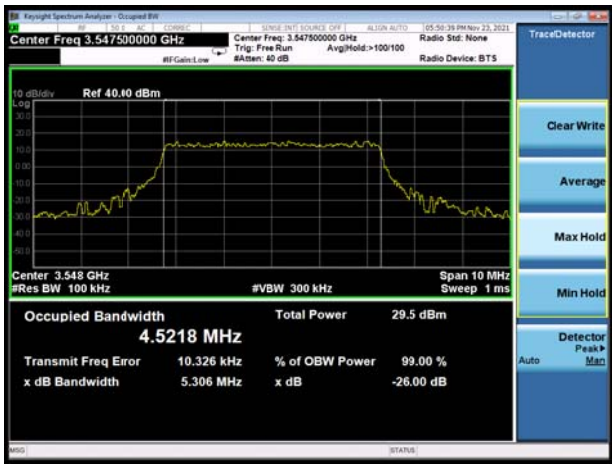


LTE Band 42 16QAM 5MHz CH-Middle

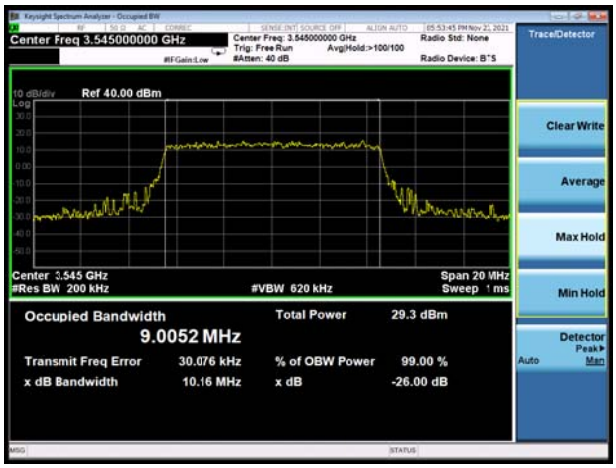


LTE Band 42 16QAM 10MHz CH-Middle

LTE Band 42 16QAM 5MHz CH-High

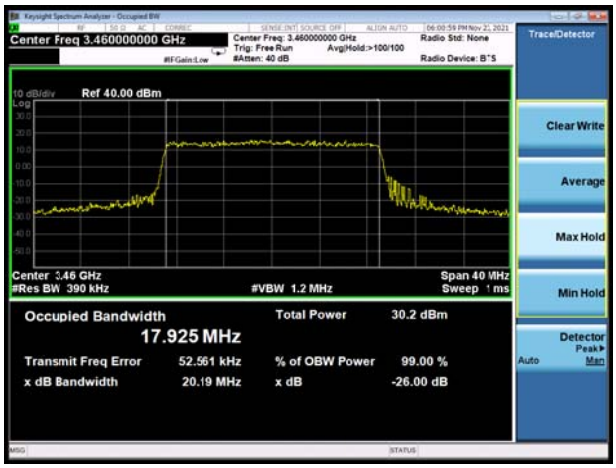


LTE Band 42 16QAM 10MHz CH-High



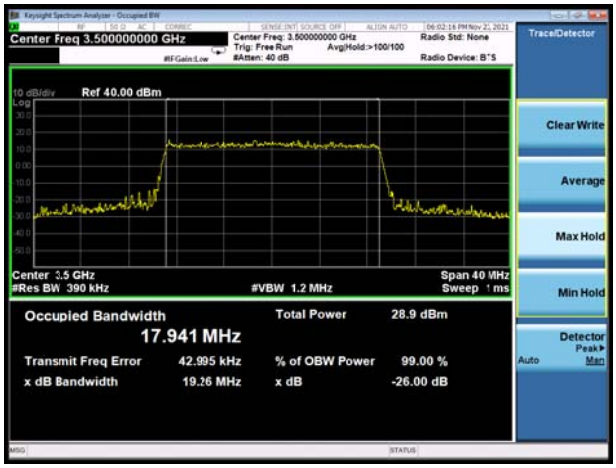
LTE Band 42 16QAM 15MHz CH-Low

LTE Band 42 16QAM 20MHz CH-Low



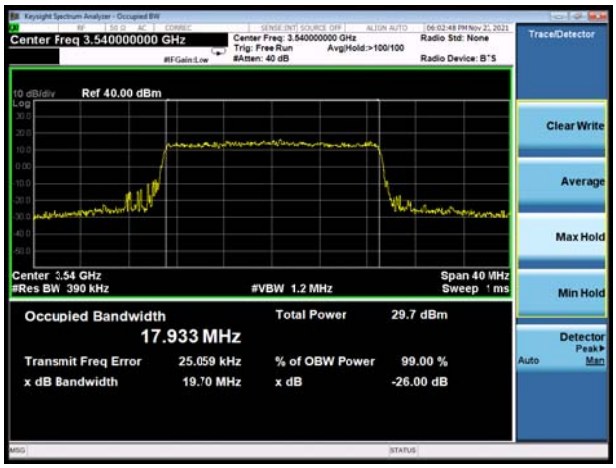
LTE Band 42 16QAM 15MHz CH-Middle

LTE Band 42 16QAM 20MHz CH-Middle



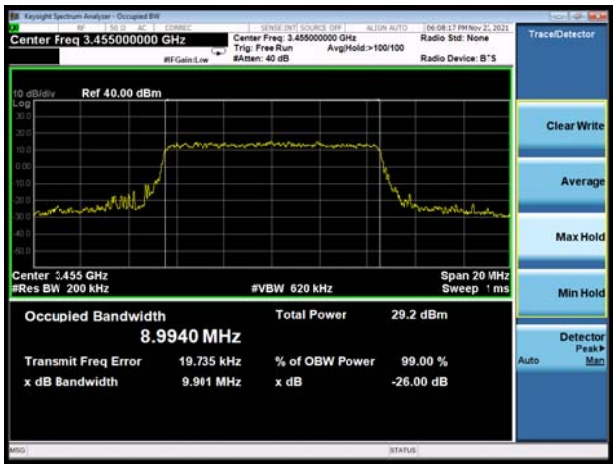
LTE Band 42 16QAM 15MHz CH-High

LTE Band 42 16QAM 20MHz CH-High



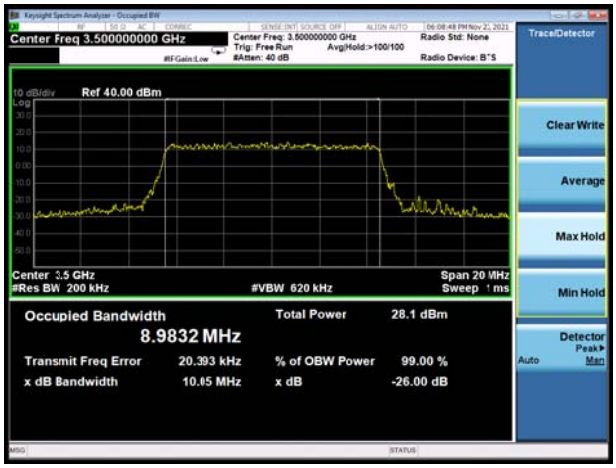
LTE Band 42 64QAM 5MHz CH-Low

LTE Band 42 64QAM 10MHz CH-Low



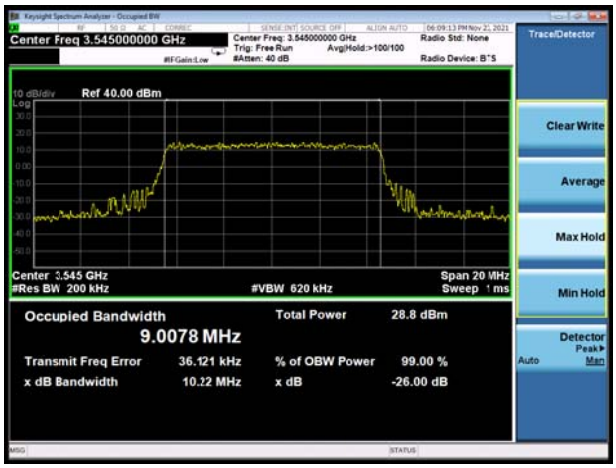
LTE Band 42 64QAM 5MHz CH-Middle

LTE Band 42 64QAM 10MHz CH-Middle



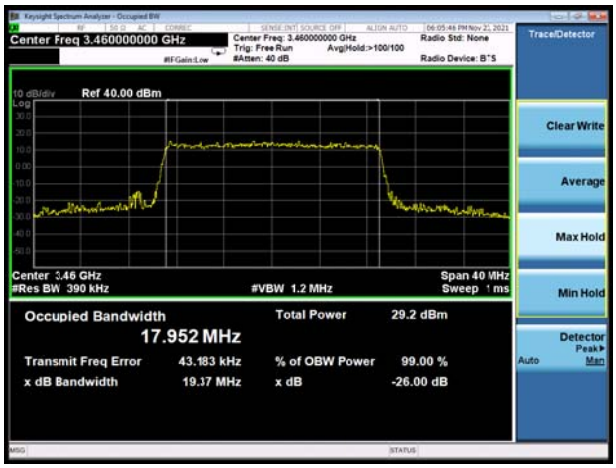
LTE Band 42 64QAM 5MHz CH-High

LTE Band 42 64QAM 10MHz CH-High



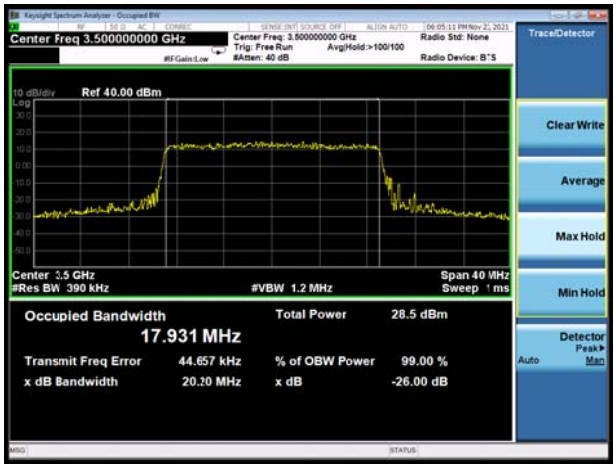
LTE Band 42 64QAM 15MHz CH-Low

LTE Band 42 64QAM 20MHz CH-Low



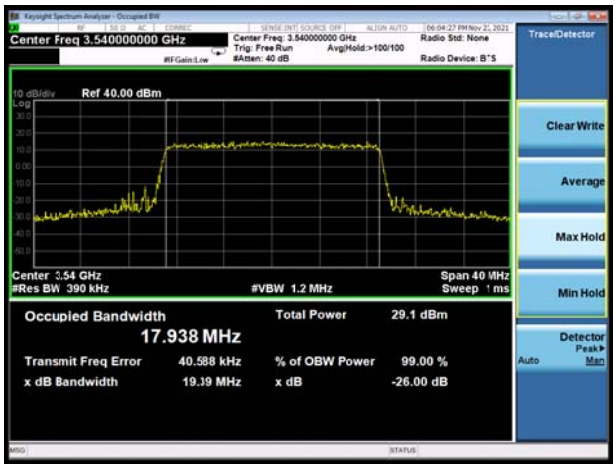
LTE Band 42 64QAM 15MHz CH-Middle

LTE Band 42 64QAM 20MHz CH-Middle



LTE Band 42 64QAM 15MHz CH-High

LTE Band 42 64QAM 20MHz CH-High



5.3 Band Edge Compliance

Ambient condition

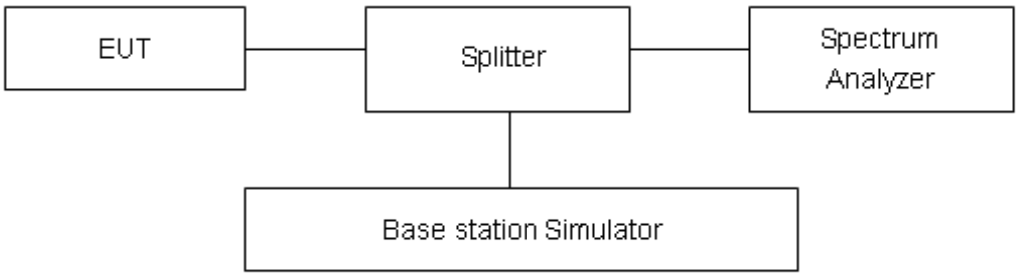
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 testing follows KDB 971168 D01 v03r01 Section 6.0
The EUT was connected to spectrum analyzer and system simulator via a power divider.
The band edges of low and high channels for the highest RF powers were measured.
RBW is set to ⩾1%EBW, VBW is set to 3x RBW.

on spectrum analyzer.
Set spectrum analyzer with RMS detector.
The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Checked that all the results comply with the emission limit line.

Test Setup



Limits

Rule Part 27.53(i) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz.
Rule Part 27.53(h) specifies that " for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) dB"
Rule Part 27.53(n) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but

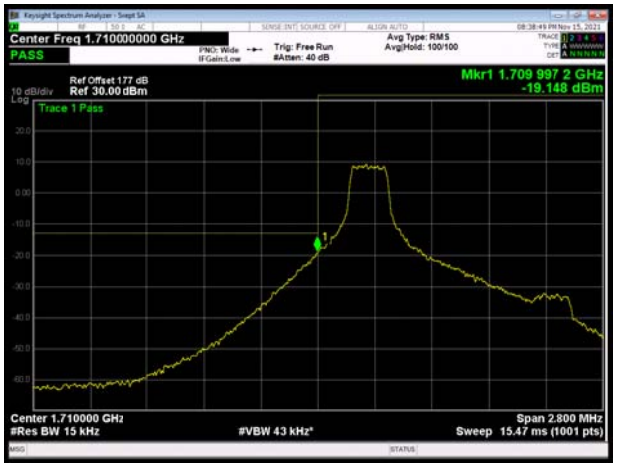
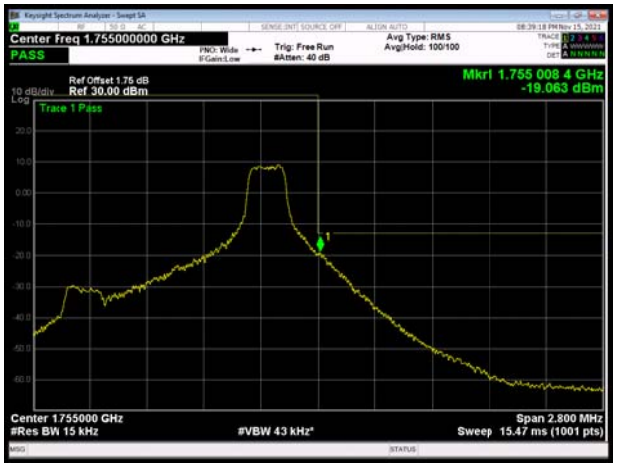
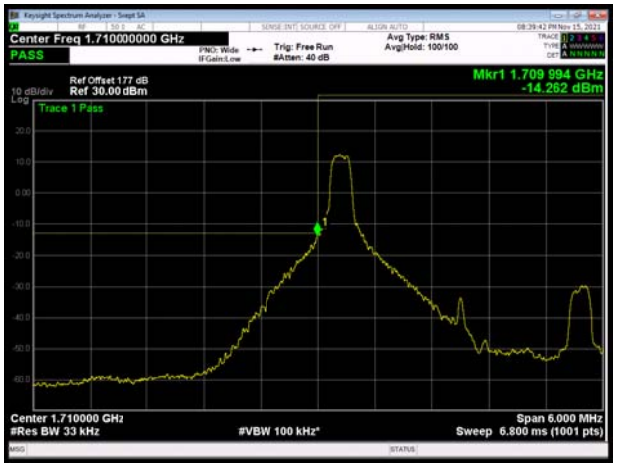
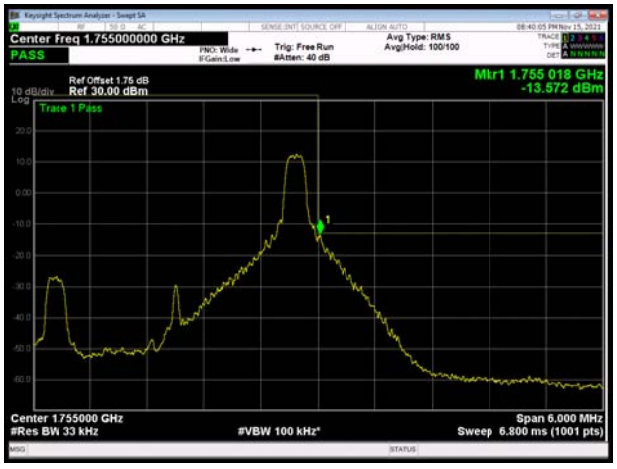
limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

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

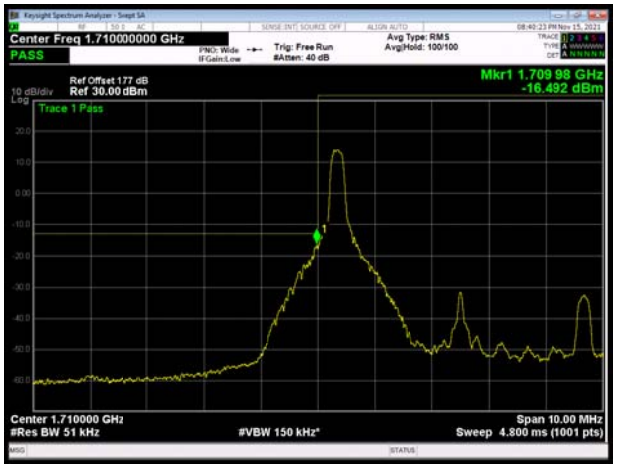
All the test traces in the plots shows the test results clearly.

LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB	LTE Band 4 QPSK 1.4MHz CH-High, 1 RB
	
LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB	LTE Band 4 QPSK 1.4MHz CH-High, 100%RB
	
LTE Band 4 QPSK 3MHz CH-Low, 1 RB	LTE Band 4 QPSK 3MHz CH-High, 1 RB
	

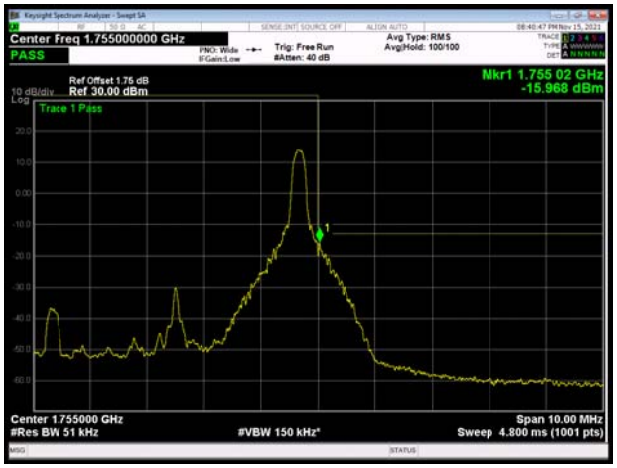
LTE Band 4 QPSK 3MHz CH-Low, 100%RB

LTE Band 4 QPSK 3MHz CH-High, 100%RB

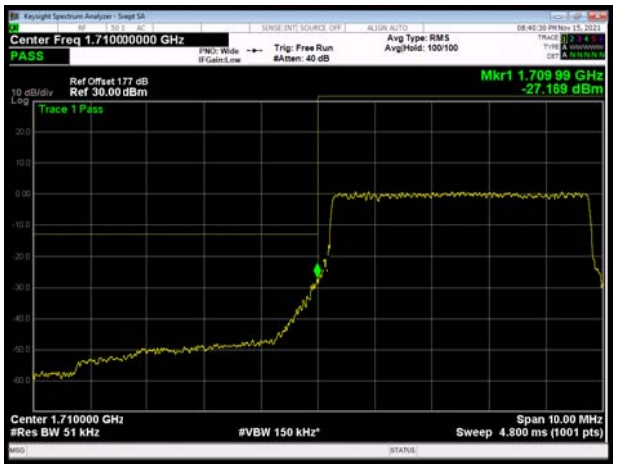
LTE Band 4 QPSK 5MHz CH-Low, 1 RB



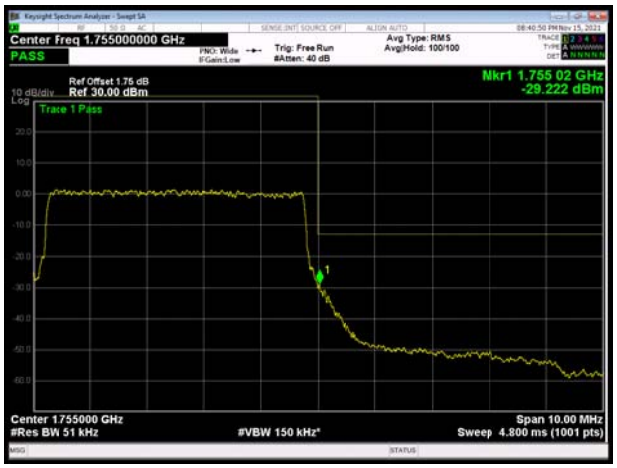
LTE Band 4 QPSK 5MHz CH-High, 1 RB



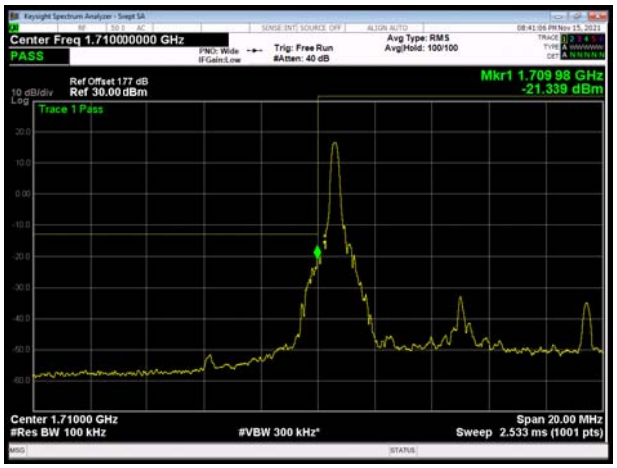
LTE Band 4 QPSK 5MHz CH-Low, 100%RB



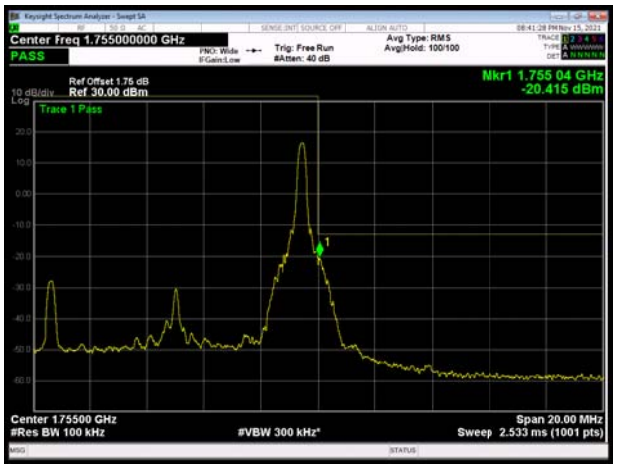
LTE Band 4 QPSK 5MHz CH-High, 100%RB



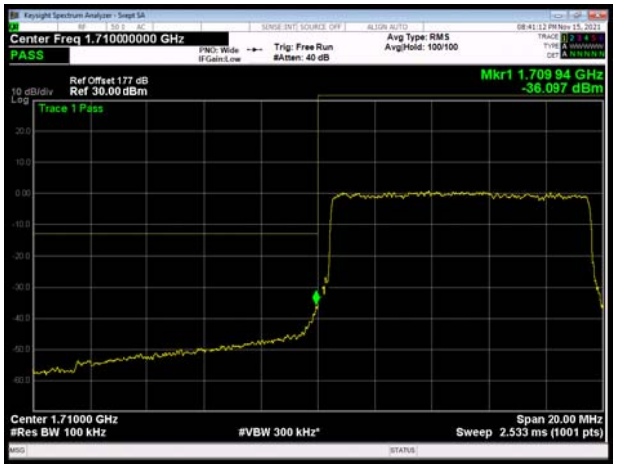
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



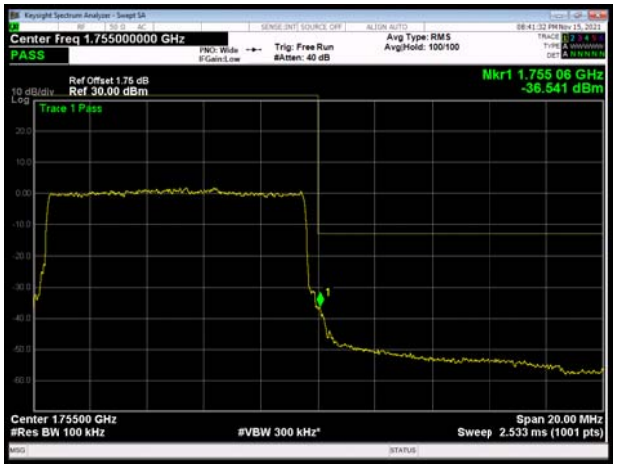
LTE Band 4 QPSK 10MHz CH-High, 1 RB



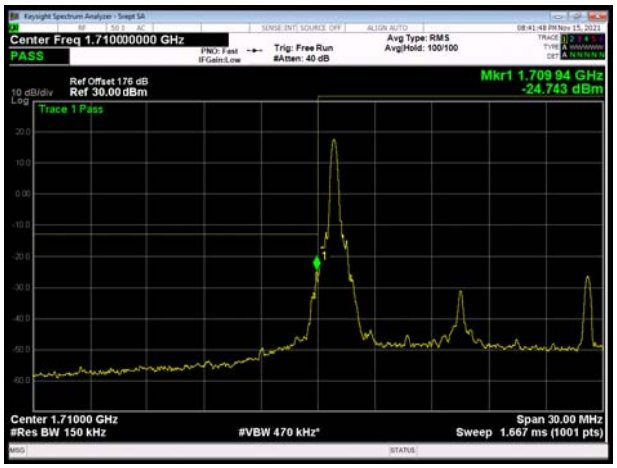
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



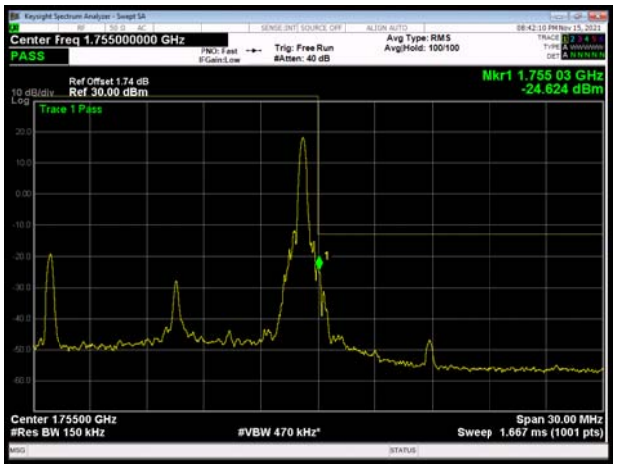
LTE Band 4 QPSK 10MHz CH-High, 100%RB



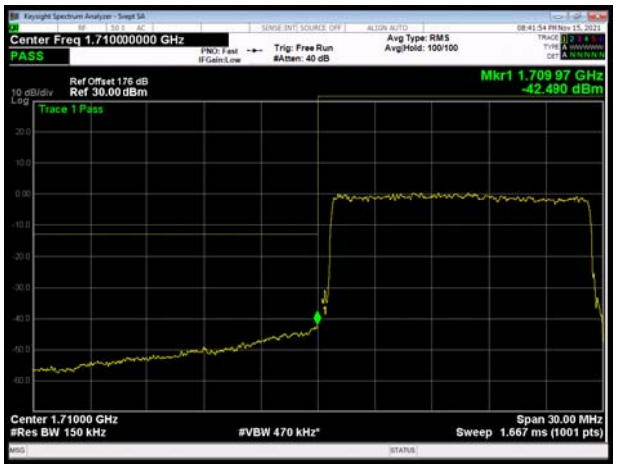
LTE Band 4 QPSK 15MHz CH-Low, 1 RB



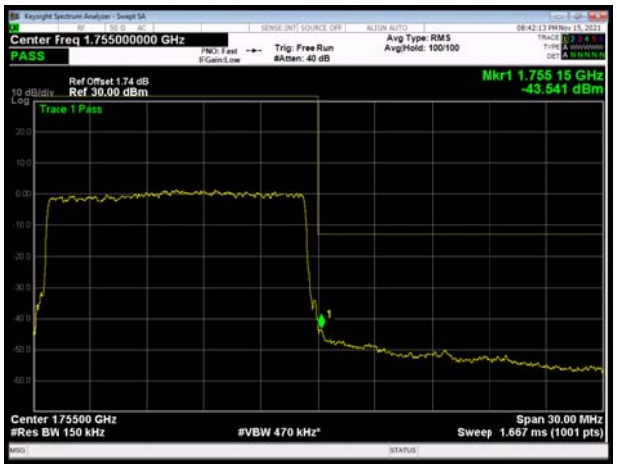
LTE Band 4 QPSK 15MHz CH-High, 1 RB



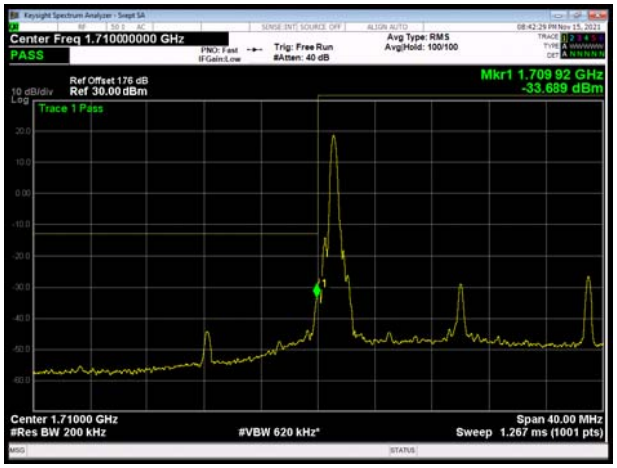
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



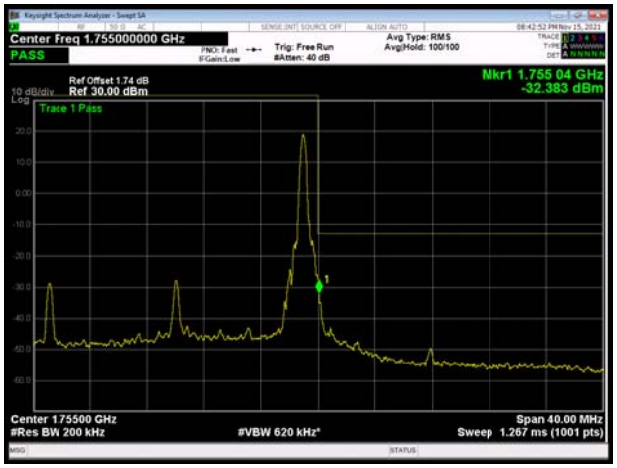
LTE Band 4 QPSK 15MHz CH-High, 100%RB



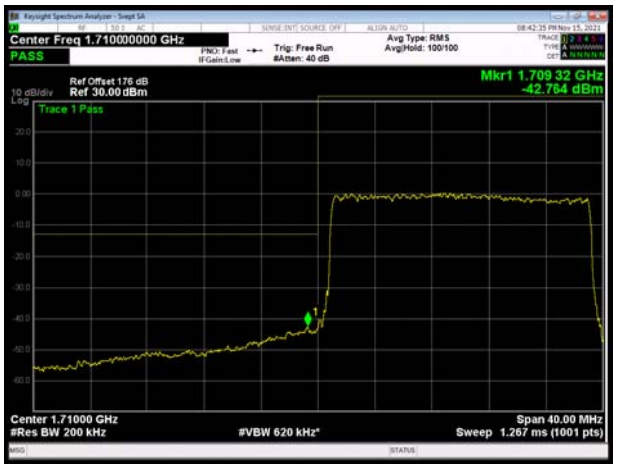
LTE Band 4 QPSK 20MHz CH-Low, 1 RB



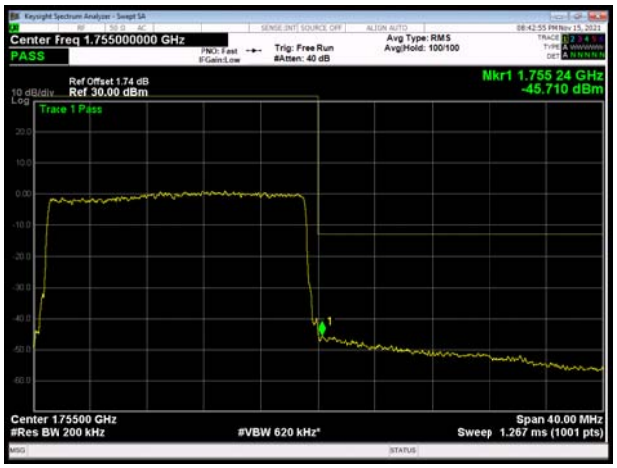
LTE Band 4 QPSK 20MHz CH-High, 1 RB



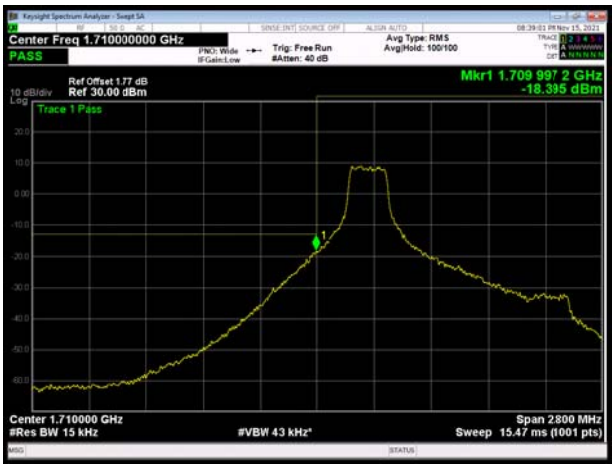
LTE Band 4 QPSK 20MHz CH-Low, 100%RB



LTE Band 4 QPSK 20MHz CH-High, 100%RB



LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB

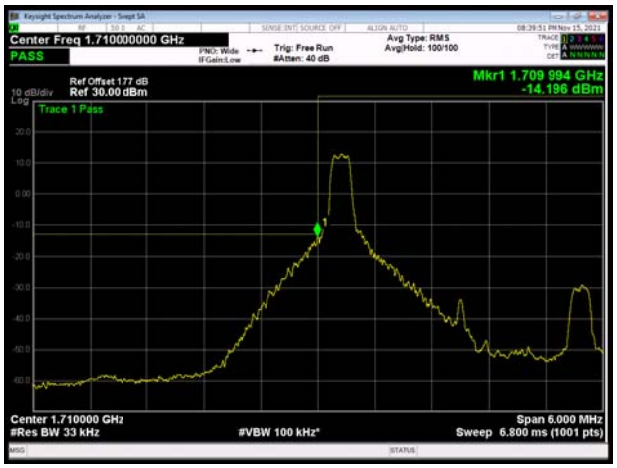


LTE Band 4 16QAM 1.4MHz CH-High, 1 RB

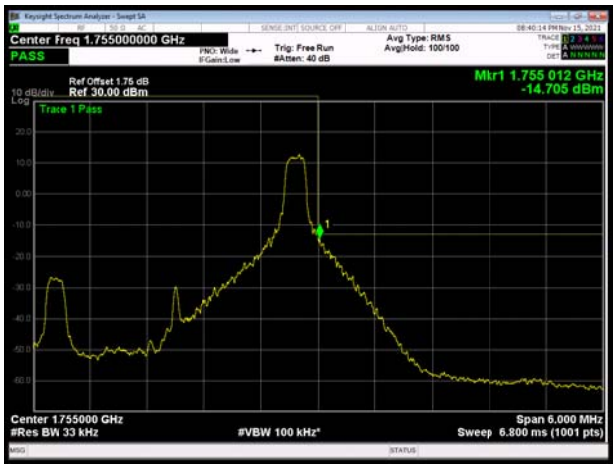
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB

LTE Band 4 16QAM 1.4MHz CH-High, 100%RB

LTE Band 4 16QAM 3MHz CH-Low, 1 RB



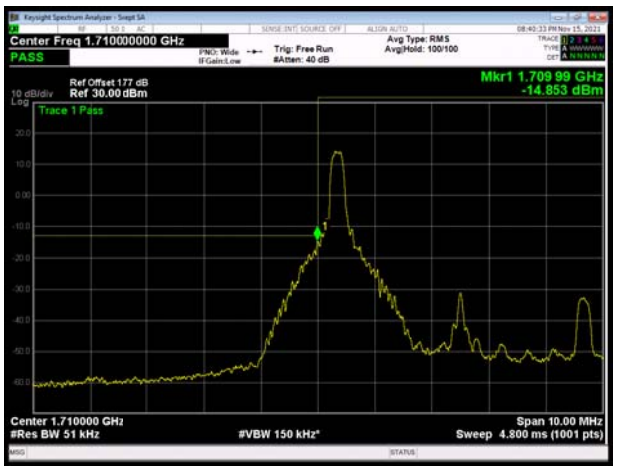
LTE Band 4 16QAM 3MHz CH-High, 1 RB



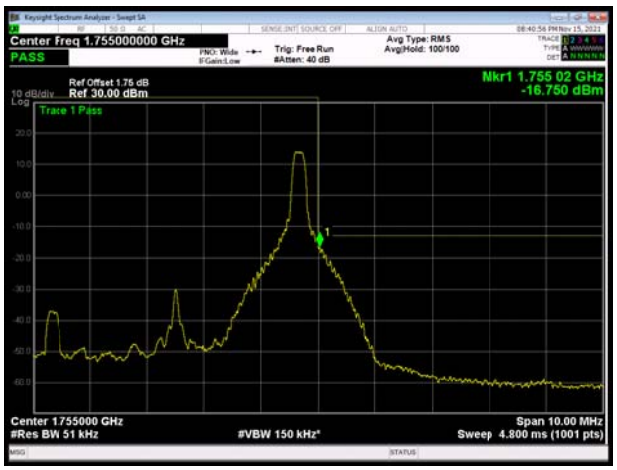
LTE Band 4 16QAM 3MHz CH-Low, 100%RB

LTE Band 4 16QAM 3MHz CH-High, 100%RB

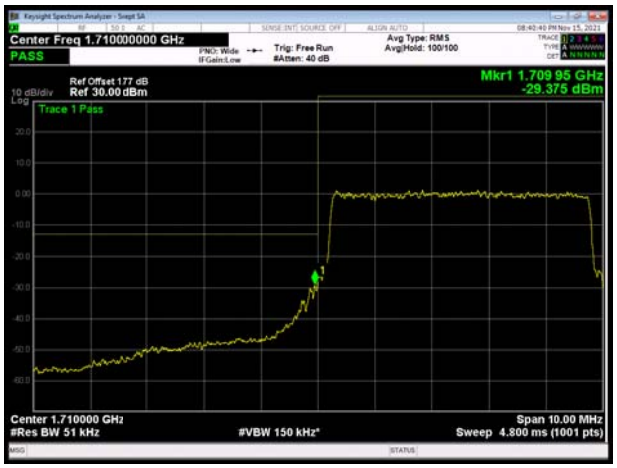
LTE Band 4 16QAM 5MHz CH-Low, 1 RB



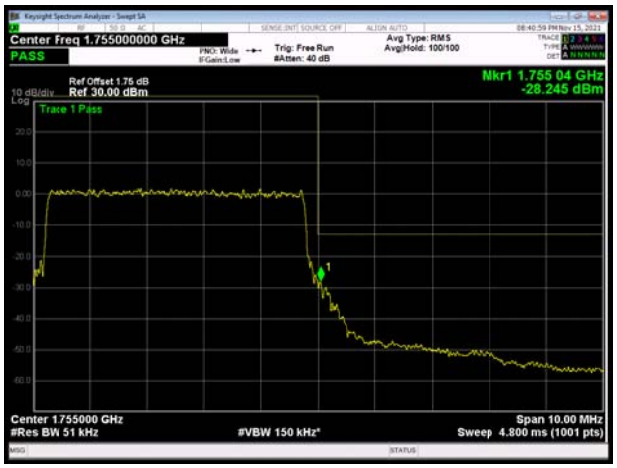
LTE Band 4 16QAM 5MHz CH-High, 1 RB



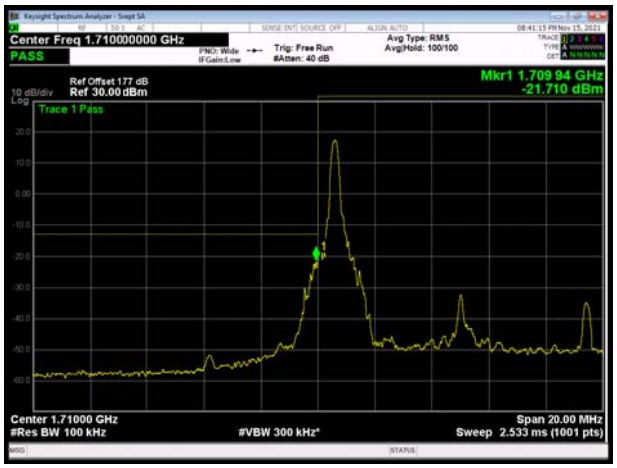
LTE Band 4 16QAM 5MHz CH-Low, 100%RB



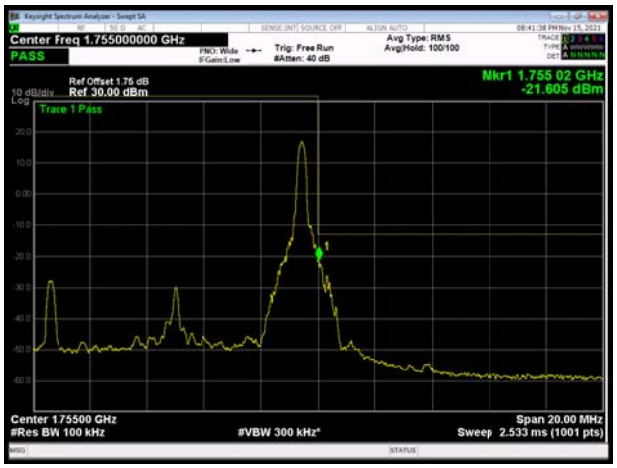
LTE Band 4 16QAM 5MHz CH-High, 100%RB



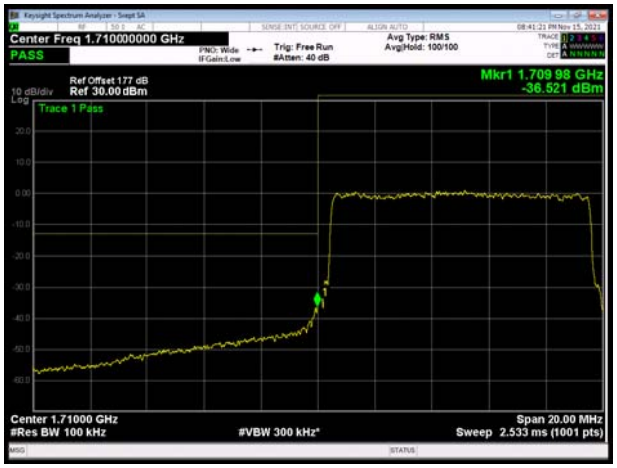
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



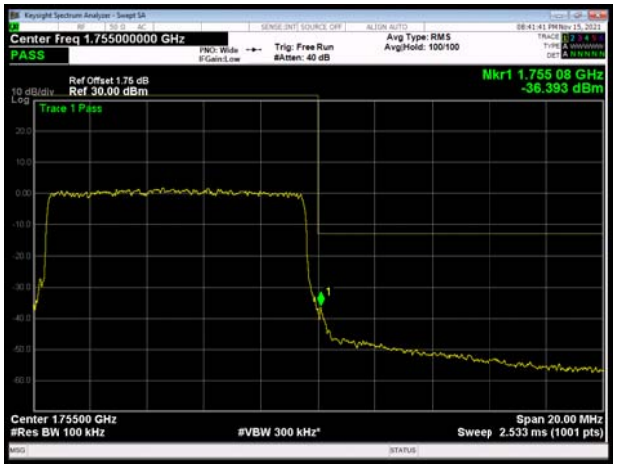
LTE Band 4 16QAM 10MHz CH-High, 1 RB



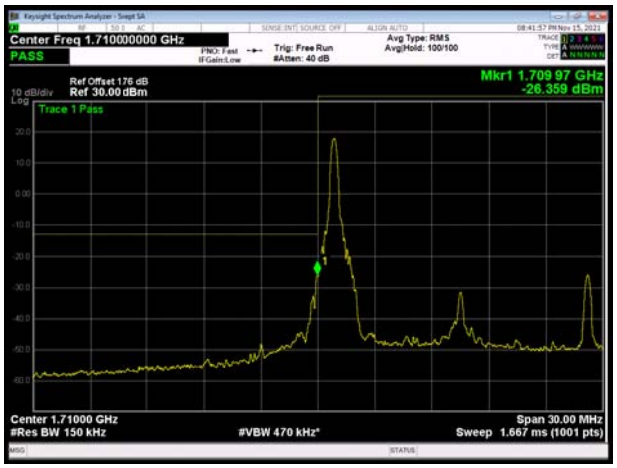
LTE Band 4 16QAM 10MHz CH-Low, 100%RB



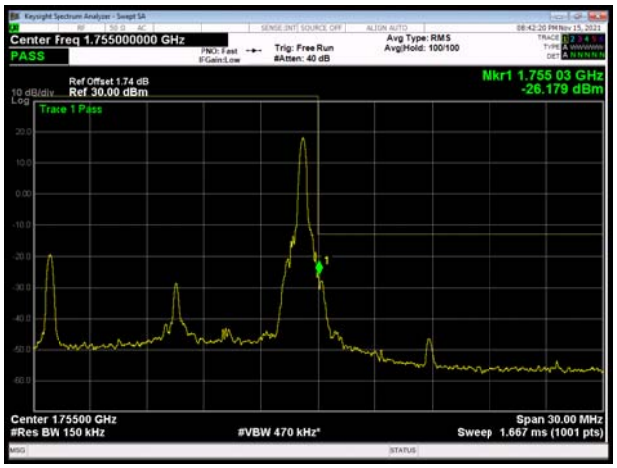
LTE Band 4 16QAM 10MHz CH-High, 100%RB



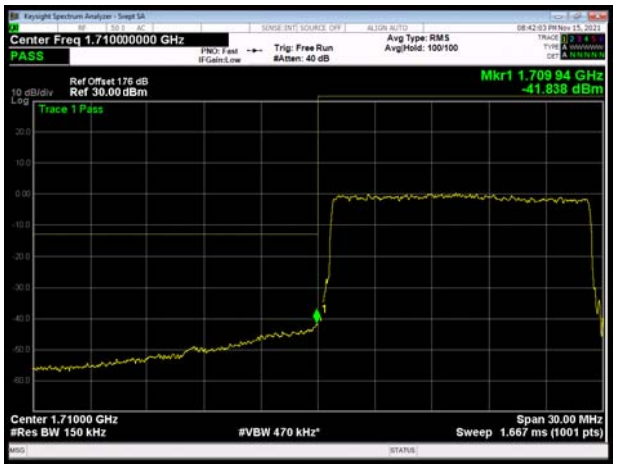
LTE Band 4 16QAM 15MHz CH-Low, 1 RB



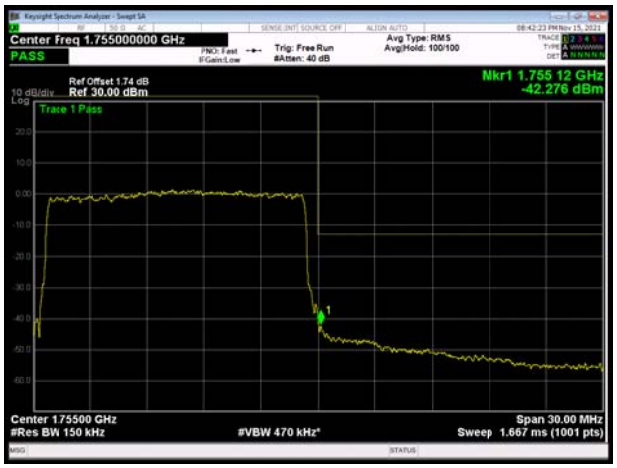
LTE Band 4 16QAM 15MHz CH-High, 1 RB



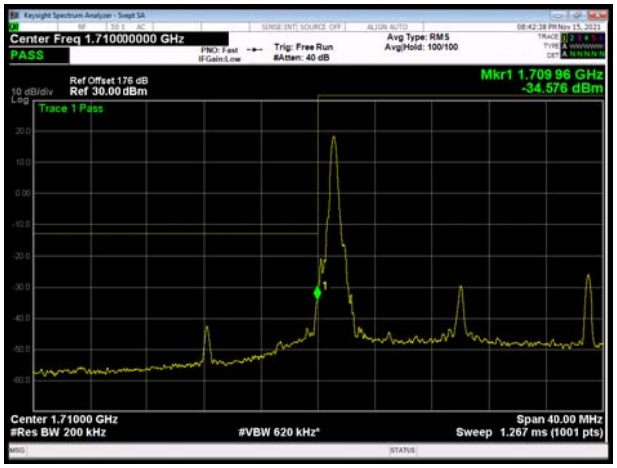
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



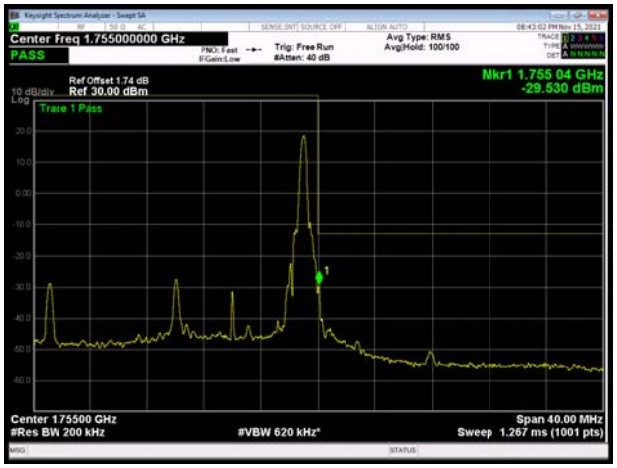
LTE Band 4 16QAM 15MHz CH-High, 100%RB



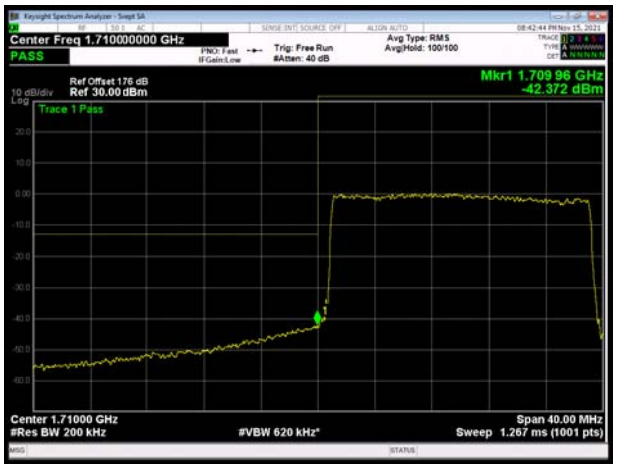
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



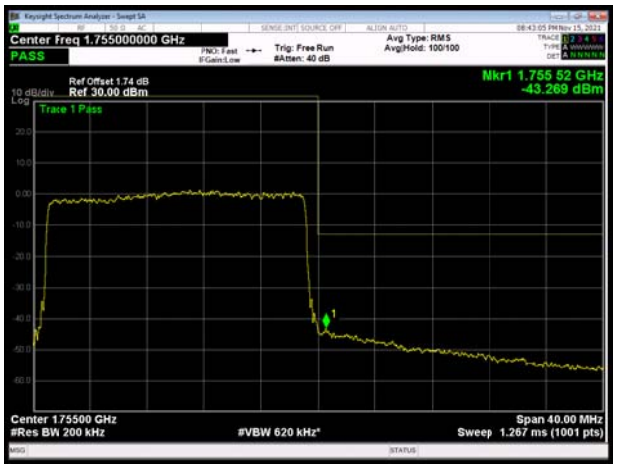
LTE Band 4 16QAM 20MHz CH-High, 1 RB



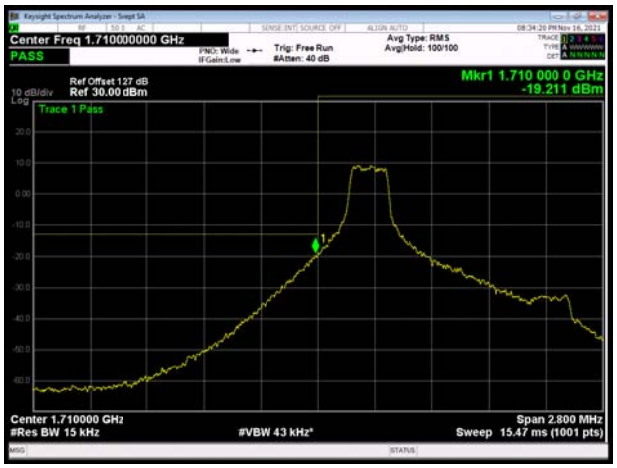
LTE Band 4 16QAM 20MHz CH-Low, 100%RB



LTE Band 4 16QAM 20MHz CH-High, 100%RB



LTE Band 4 64QAM 1.4MHz CH-Low, 1 RB

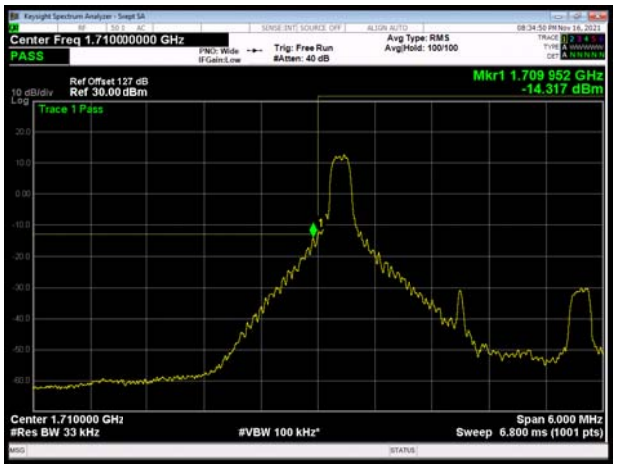


LTE Band 4 64QAM 1.4MHz CH-High, 1 RB

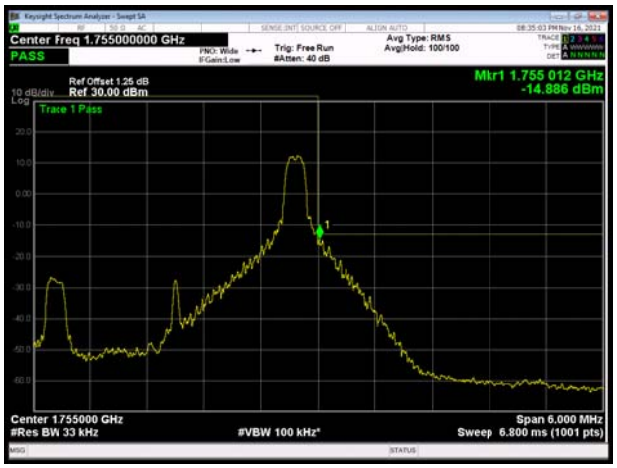
LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB

LTE Band 4 64QAM 1.4MHz CH-High, 100%RB

LTE Band 4 64QAM 3MHz CH-Low, 1 RB



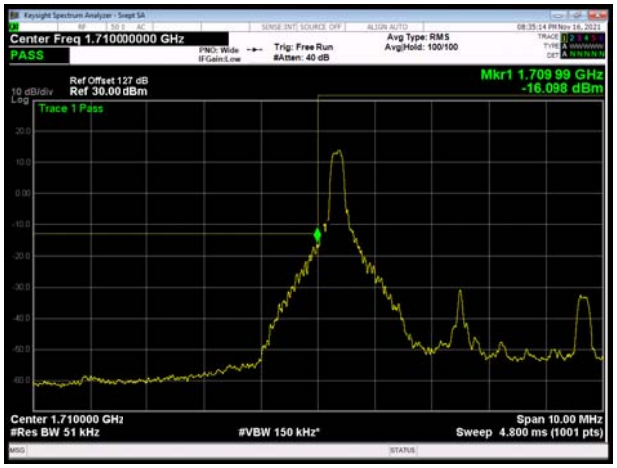
LTE Band 4 64QAM 3MHz CH-High, 1 RB



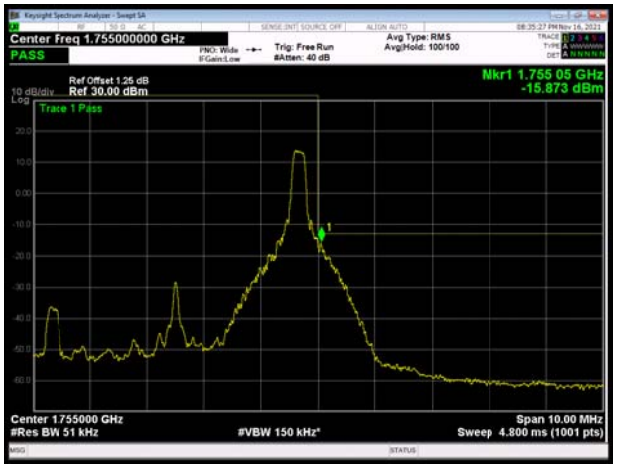
LTE Band 4 64QAM 3MHz CH-Low, 100%RB

LTE Band 4 64QAM 3MHz CH-High, 100%RB

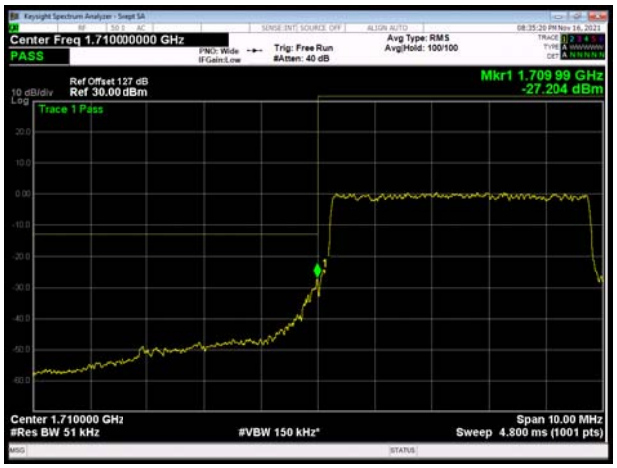
LTE Band 4 64QAM 5MHz CH-Low, 1 RB



LTE Band 4 64QAM 5MHz CH-High, 1 RB



LTE Band 4 64QAM 5MHz CH-Low, 100%RB



LTE Band 4 64QAM 5MHz CH-High, 100%RB