RF TEST REPORT

Applicant	Quectel Wireless Solutions Co., Ltd.
FCC ID	XMR202011EC200TAU
Product	LTE Module
Brand	Quectel
Model	EC200T-AU, EC200T-AU MINIPCIE
Report No.	R2009A0613-R4
Issue Date	November 17, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2019)/ FCC CFR 47 Part 22H (2019)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 / 22.917(a)	PASS
4	Peak-to-Average Power Ratio	22.913(d)/ KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 22.355	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 22.917(a)	PASS
7	Radiates Spurious Emission	2.1053 / 22.917 (a)	PASS
Date of Testing: September 21, 2020~November 17, 2020			
Date of Sample Received: September 21, 2020			
Note: 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.			

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1. Test Laboratory

1.1. Notes of the Test Report

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1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
Post code:	201201
Country:	P. R. China
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2. General Description of Equipment under Test

2.3. Applicant and Manufacturer Information

Applicant	Quectel Wireless Solutions Co., Ltd.
Applicant address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Manufacturer	Quectel Wireless Solutions Co., Ltd.
Manufacturer address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233

2.4. General Information

EUT Description			
Model	EC200T-AU, EC200T-AU MINIPCIE		
IMEI	EC200T-AU: 861157040008266 EC200T-AU MINIPCIE: 861157040006484		
Hardware Version	R1.0		
Software Version	EC200TAUAAR05A01M16		
Power Supply	External power supply		
Antenna Type	External Antenna		
Antenna Gain	Frequency(MHz)	Gain (dBi)	
	820	2.53	
	830	2.13	
	840	1.89	
	850	2.29	
Test Mode(s)	WCDMA Band V; LTE Band 5;		
Test Modulation	(WCDMA) BPSK, QPSK; (LTE)QPSK 16QAM;		
HSDPA UE Category	14		
HSUPA UE Category	6		
LTE Category	4		
Maximum E.R.P.	WCDMA Band V:	23.25dBm	
	LTE Band 5:	23.09dBm	
Rated Power Supply Voltage	3.8V		
Extreme Voltage	Minimum: 3.4V Maximum: 4.5V		
Extreme Temperature	Lowest: -30°C Highest: +50°C		
Operating Voltage	Minimum: 3.4V Maximum: 4.5V		
Operating Temperature	Lowest: -40°C Highest: +85°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 5	824 ~ 849	869 ~ 894

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

The detailed product difference between EC200T-AU and EC200T-AU MINIPCIE please refers to the Difference Statements letter. For conducted test items, this report only record the test results of EC200T-AU.

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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 (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

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4. Test Configuration

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

All mode and data rates and positions were investigated. Subsequently, only the worst case emissions are reported.
The following testing in 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**
	WCDMA Band V
RF Power Output and Effective Radiated power	RMC HSDPA/HSUPA
Occupied Bandwidth	RMC
Band Edge Compliance	RMC
Peak-to-Average Power Ratio	RMC
Frequency Stability	RMC
Spurious Emissions at Antenna Terminals	RMC
Radiates Spurious Emission	RMC

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

Test items	Bandwidth (MHz)				Modulation		RB			Test Channel		
	1.4	3	5	10	QPSK	16QAM	1	50%	100%	L	M	H
RF power output and Effective Radiated power	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	O	O	O	O	O	O	-	-	O	-	O	-
Band Edge Compliance	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	O	O	O	O	O	O	O	O	O	O	O	O
Spurious Emissions at Antenna Terminals	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	O	-	O	O	O	-	O	-	-	-	O	-
Note	1. The mark “O” means that this configuration is chosen for testing. 2. The mark “-” means that this configuration is not testing.											

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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

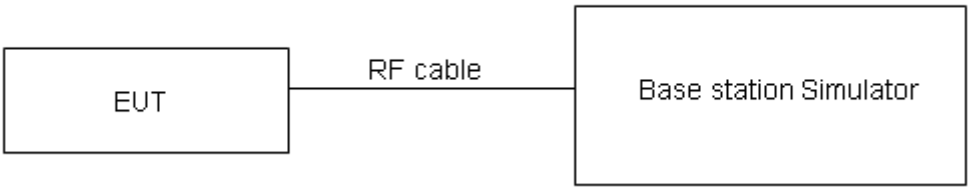
Methods of Measurement

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

Limit	≤ 7 W (38.45 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 .

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Test Results

WCDMA Band V		Maximum Output Power (dBm)			ERP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
RMC		23.01	23.25	22.92	22.99	22.99	23.06
HSDPA	Sub - Test 1	22.47	22.67	22.36	22.45	22.41	22.50
	Sub - Test 2	22.46	22.69	22.33	22.44	22.43	22.47
	Sub - Test 3	21.93	22.19	21.85	21.91	21.93	21.99
	Sub - Test 4	21.94	22.20	21.83	21.92	21.94	21.97
HSUPA	Sub - Test 1	22.43	22.66	22.31	22.41	22.40	22.45
	Sub - Test 2	21.42	21.64	21.30	21.40	21.38	21.44
	Sub - Test 3	21.89	22.12	21.79	21.87	21.86	21.93
	Sub - Test 4	21.65	21.91	21.67	21.63	21.65	21.81
	Sub - Test 5	22.36	22.59	22.25	22.34	22.33	22.39

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)	Verdict
LTE Band5	1.4	20407	1	#0	QPSK	23.01	22.99	PASS
LTE Band5	1.4	20407	1	#Mid	QPSK	23.10	23.08	PASS
LTE Band5	1.4	20407	1	#Max	QPSK	23.06	23.04	PASS
LTE Band5	1.4	20407	3	#0	QPSK	22.93	22.91	PASS
LTE Band5	1.4	20407	3	#Mid	QPSK	22.93	22.91	PASS
LTE Band5	1.4	20407	3	#Max	QPSK	22.96	22.94	PASS
LTE Band5	1.4	20407	6	#0	QPSK	21.93	21.91	PASS
LTE Band5	1.4	20407	1	#0	QAM16	22.02	22.00	PASS
LTE Band5	1.4	20407	1	#Mid	QAM16	22.11	22.09	PASS
LTE Band5	1.4	20407	1	#Max	QAM16	22.07	22.05	PASS
LTE Band5	1.4	20407	3	#0	QAM16	22.14	22.12	PASS
LTE Band5	1.4	20407	3	#Mid	QAM16	22.14	22.12	PASS
LTE Band5	1.4	20407	3	#Max	QAM16	22.15	22.13	PASS
LTE Band5	1.4	20407	6	#0	QAM16	21.11	21.09	PASS
LTE Band5	1.4	20525	1	#0	QPSK	23.26	23.00	PASS
LTE Band5	1.4	20525	1	#Mid	QPSK	23.28	23.02	PASS
LTE Band5	1.4	20525	1	#Max	QPSK	23.29	23.03	PASS
LTE Band5	1.4	20525	3	#0	QPSK	23.23	22.97	PASS
LTE Band5	1.4	20525	3	#Mid	QPSK	23.22	22.96	PASS
LTE Band5	1.4	20525	3	#Max	QPSK	23.21	22.95	PASS
LTE Band5	1.4	20525	6	#0	QPSK	22.15	21.89	PASS

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LTE Band5	1.4	20525	1	#0	QAM16	22.36	22.10	PASS
LTE Band5	1.4	20525	1	#Mid	QAM16	22.40	22.14	PASS
LTE Band5	1.4	20525	1	#Max	QAM16	22.43	22.17	PASS
LTE Band5	1.4	20525	3	#0	QAM16	22.25	21.99	PASS
LTE Band5	1.4	20525	3	#Mid	QAM16	22.22	21.96	PASS
LTE Band5	1.4	20525	3	#Max	QAM16	22.26	22.00	PASS
LTE Band5	1.4	20525	6	#0	QAM16	21.40	21.14	PASS
LTE Band5	1.4	20643	1	#0	QPSK	22.32	22.46	PASS
LTE Band5	1.4	20643	1	#Mid	QPSK	22.09	22.23	PASS
LTE Band5	1.4	20643	1	#Max	QPSK	22.03	22.17	PASS
LTE Band5	1.4	20643	3	#0	QPSK	22.15	22.29	PASS
LTE Band5	1.4	20643	3	#Mid	QPSK	22.13	22.27	PASS
LTE Band5	1.4	20643	3	#Max	QPSK	22.00	22.14	PASS
LTE Band5	1.4	20643	6	#0	QPSK	21.06	21.20	PASS
LTE Band5	1.4	20643	1	#0	QAM16	21.19	21.33	PASS
LTE Band5	1.4	20643	1	#Mid	QAM16	20.99	21.13	PASS
LTE Band5	1.4	20643	1	#Max	QAM16	20.96	21.10	PASS
LTE Band5	1.4	20643	3	#0	QAM16	21.19	21.33	PASS
LTE Band5	1.4	20643	3	#Mid	QAM16	21.14	21.28	PASS
LTE Band5	1.4	20643	3	#Max	QAM16	21.03	21.17	PASS
LTE Band5	1.4	20643	6	#0	QAM16	20.25	20.39	PASS
LTE Band5	3	20415	1	#0	QPSK	22.96	22.94	PASS
LTE Band5	3	20415	1	#Mid	QPSK	22.89	22.87	PASS
LTE Band5	3	20415	1	#Max	QPSK	22.91	22.89	PASS
LTE Band5	3	20415	8	#0	QPSK	21.93	21.91	PASS
LTE Band5	3	20415	8	#Mid	QPSK	21.99	21.97	PASS
LTE Band5	3	20415	8	#Max	QPSK	21.93	21.91	PASS
LTE Band5	3	20415	15	#0	QPSK	21.94	21.92	PASS
LTE Band5	3	20415	1	#0	QAM16	22.29	22.27	PASS
LTE Band5	3	20415	1	#Mid	QAM16	22.25	22.23	PASS
LTE Band5	3	20415	1	#Max	QAM16	22.28	22.26	PASS
LTE Band5	3	20415	8	#0	QAM16	21.08	21.06	PASS
LTE Band5	3	20415	8	#Mid	QAM16	21.12	21.10	PASS
LTE Band5	3	20415	8	#Max	QAM16	21.08	21.06	PASS
LTE Band5	3	20415	15	#0	QAM16	20.95	20.93	PASS
LTE Band5	3	20525	1	#0	QPSK	23.21	22.95	PASS
LTE Band5	3	20525	1	#Mid	QPSK	23.30	23.04	PASS
LTE Band5	3	20525	1	#Max	QPSK	23.27	23.01	PASS
LTE Band5	3	20525	8	#0	QPSK	22.13	21.87	PASS
LTE Band5	3	20525	8	#Mid	QPSK	22.13	21.87	PASS
LTE Band5	3	20525	8	#Max	QPSK	22.18	21.92	PASS
LTE Band5	3	20525	15	#0	QPSK	22.17	21.91	PASS

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LTE Band5	3	20525	1	#0	QAM16	22.30	22.04	PASS
LTE Band5	3	20525	1	#Mid	QAM16	22.43	22.17	PASS
LTE Band5	3	20525	1	#Max	QAM16	22.36	22.10	PASS
LTE Band5	3	20525	8	#0	QAM16	21.39	21.13	PASS
LTE Band5	3	20525	8	#Mid	QAM16	21.37	21.11	PASS
LTE Band5	3	20525	8	#Max	QAM16	21.44	21.18	PASS
LTE Band5	3	20525	15	#0	QAM16	21.29	21.03	PASS
LTE Band5	3	20635	1	#0	QPSK	22.67	22.81	PASS
LTE Band5	3	20635	1	#Mid	QPSK	22.26	22.40	PASS
LTE Band5	3	20635	1	#Max	QPSK	22.05	22.19	PASS
LTE Band5	3	20635	8	#0	QPSK	21.47	21.61	PASS
LTE Band5	3	20635	8	#Mid	QPSK	21.48	21.62	PASS
LTE Band5	3	20635	8	#Max	QPSK	21.16	21.30	PASS
LTE Band5	3	20635	15	#0	QPSK	21.28	21.42	PASS
LTE Band5	3	20635	1	#0	QAM16	21.56	21.70	PASS
LTE Band5	3	20635	1	#Mid	QAM16	21.18	21.32	PASS
LTE Band5	3	20635	1	#Max	QAM16	20.98	21.12	PASS
LTE Band5	3	20635	8	#0	QAM16	20.61	20.75	PASS
LTE Band5	3	20635	8	#Mid	QAM16	20.63	20.77	PASS
LTE Band5	3	20635	8	#Max	QAM16	20.33	20.47	PASS
LTE Band5	3	20635	15	#0	QAM16	20.38	20.52	PASS
LTE Band5	5	20425	1	#0	QPSK	23.03	23.01	PASS
LTE Band5	5	20425	1	#Mid	QPSK	22.94	22.92	PASS
LTE Band5	5	20425	1	#Max	QPSK	22.88	22.86	PASS
LTE Band5	5	20425	12	#0	QPSK	21.95	21.93	PASS
LTE Band5	5	20425	12	#Mid	QPSK	21.95	21.93	PASS
LTE Band5	5	20425	12	#Max	QPSK	21.90	21.88	PASS
LTE Band5	5	20425	25	#0	QPSK	21.96	21.94	PASS
LTE Band5	5	20425	1	#0	QAM16	22.34	22.32	PASS
LTE Band5	5	20425	1	#Mid	QAM16	22.28	22.26	PASS
LTE Band5	5	20425	1	#Max	QAM16	22.24	22.22	PASS
LTE Band5	5	20425	12	#0	QAM16	21.07	21.05	PASS
LTE Band5	5	20425	12	#Mid	QAM16	21.09	21.07	PASS
LTE Band5	5	20425	12	#Max	QAM16	21.02	21.00	PASS
LTE Band5	5	20425	25	#0	QAM16	21.00	20.98	PASS
LTE Band5	5	20525	1	#0	QPSK	23.14	22.88	PASS
LTE Band5	5	20525	1	#Mid	QPSK	23.27	23.01	PASS
LTE Band5	5	20525	1	#Max	QPSK	23.31	23.05	PASS
LTE Band5	5	20525	12	#0	QPSK	22.15	21.89	PASS
LTE Band5	5	20525	12	#Mid	QPSK	22.12	21.86	PASS
LTE Band5	5	20525	12	#Max	QPSK	22.23	21.97	PASS
LTE Band5	5	20525	25	#0	QPSK	22.16	21.90	PASS

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LTE Band5	5	20525	1	#0	QAM16	22.32	22.06	PASS
LTE Band5	5	20525	1	#Mid	QAM16	22.48	22.22	PASS
LTE Band5	5	20525	1	#Max	QAM16	22.49	22.23	PASS
LTE Band5	5	20525	12	#0	QAM16	21.36	21.10	PASS
LTE Band5	5	20525	12	#Mid	QAM16	21.36	21.10	PASS
LTE Band5	5	20525	12	#Max	QAM16	21.48	21.22	PASS
LTE Band5	5	20525	25	#0	QAM16	21.39	21.13	PASS
LTE Band5	5	20625	1	#0	QPSK	22.95	23.09	PASS
LTE Band5	5	20625	1	#Mid	QPSK	22.47	22.61	PASS
LTE Band5	5	20625	1	#Max	QPSK	22.10	22.24	PASS
LTE Band5	5	20625	12	#0	QPSK	21.75	21.89	PASS
LTE Band5	5	20625	12	#Mid	QPSK	21.79	21.93	PASS
LTE Band5	5	20625	12	#Max	QPSK	21.31	21.45	PASS
LTE Band5	5	20625	25	#0	QPSK	21.51	21.65	PASS
LTE Band5	5	20625	1	#0	QAM16	22.22	22.36	PASS
LTE Band5	5	20625	1	#Mid	QAM16	21.83	21.97	PASS
LTE Band5	5	20625	1	#Max	QAM16	21.39	21.53	PASS
LTE Band5	5	20625	12	#0	QAM16	20.96	21.10	PASS
LTE Band5	5	20625	12	#Mid	QAM16	20.99	21.13	PASS
LTE Band5	5	20625	12	#Max	QAM16	20.49	20.63	PASS
LTE Band5	5	20625	25	#0	QAM16	20.64	20.78	PASS
LTE Band5	10	20450	1	#0	QPSK	23.01	22.99	PASS
LTE Band5	10	20450	1	#Mid	QPSK	22.83	22.81	PASS
LTE Band5	10	20450	1	#Max	QPSK	23.03	23.01	PASS
LTE Band5	10	20450	25	#0	QPSK	21.89	21.87	PASS
LTE Band5	10	20450	25	#Mid	QPSK	21.93	21.91	PASS
LTE Band5	10	20450	25	#Max	QPSK	21.92	21.90	PASS
LTE Band5	10	20450	50	#0	QPSK	21.88	21.86	PASS
LTE Band5	10	20450	1	#0	QAM16	22.29	22.27	PASS
LTE Band5	10	20450	1	#Mid	QAM16	22.17	22.15	PASS
LTE Band5	10	20450	1	#Max	QAM16	22.31	22.29	PASS
LTE Band5	10	20450	25	#0	QAM16	21.14	21.12	PASS
LTE Band5	10	20450	25	#Mid	QAM16	21.13	21.11	PASS
LTE Band5	10	20450	25	#Max	QAM16	21.24	21.22	PASS
LTE Band5	10	20450	50	#0	QAM16	20.96	20.94	PASS
LTE Band5	10	20525	1	#0	QPSK	23.05	22.79	PASS
LTE Band5	10	20525	1	#Mid	QPSK	23.33	23.07	PASS
LTE Band5	10	20525	1	#Max	QPSK	23.32	23.06	PASS
LTE Band5	10	20525	25	#0	QPSK	21.99	21.73	PASS
LTE Band5	10	20525	25	#Mid	QPSK	21.99	21.73	PASS
LTE Band5	10	20525	25	#Max	QPSK	22.23	21.97	PASS
LTE Band5	10	20525	50	#0	QPSK	22.23	21.97	PASS

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LTE Band5	10	20525	1	#0	QAM16	22.18	21.92	PASS
LTE Band5	10	20525	1	#Mid	QAM16	22.43	22.17	PASS
LTE Band5	10	20525	1	#Max	QAM16	22.51	22.25	PASS
LTE Band5	10	20525	25	#0	QAM16	21.33	21.07	PASS
LTE Band5	10	20525	25	#Mid	QAM16	21.27	21.01	PASS
LTE Band5	10	20525	25	#Max	QAM16	21.57	21.31	PASS
LTE Band5	10	20525	50	#0	QAM16	21.51	21.25	PASS
LTE Band5	10	20600	1	#0	QPSK	23.28	23.02	PASS
LTE Band5	10	20600	1	#Mid	QPSK	22.96	22.70	PASS
LTE Band5	10	20600	1	#Max	QPSK	22.18	21.92	PASS
LTE Band5	10	20600	25	#0	QPSK	22.02	21.76	PASS
LTE Band5	10	20600	25	#Mid	QPSK	22.03	21.77	PASS
LTE Band5	10	20600	25	#Max	QPSK	21.62	21.36	PASS
LTE Band5	10	20600	50	#0	QPSK	21.74	21.48	PASS
LTE Band5	10	20600	1	#0	QAM16	22.13	21.87	PASS
LTE Band5	10	20600	1	#Mid	QAM16	21.85	21.59	PASS
LTE Band5	10	20600	1	#Max	QAM16	21.06	20.80	PASS
LTE Band5	10	20600	25	#0	QAM16	21.10	20.84	PASS
LTE Band5	10	20600	25	#Mid	QAM16	21.15	20.89	PASS
LTE Band5	10	20600	25	#Max	QAM16	20.72	20.46	PASS
LTE Band5	10	20600	50	#0	QAM16	20.85	20.59	PASS

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5.2. Occupied Bandwidth

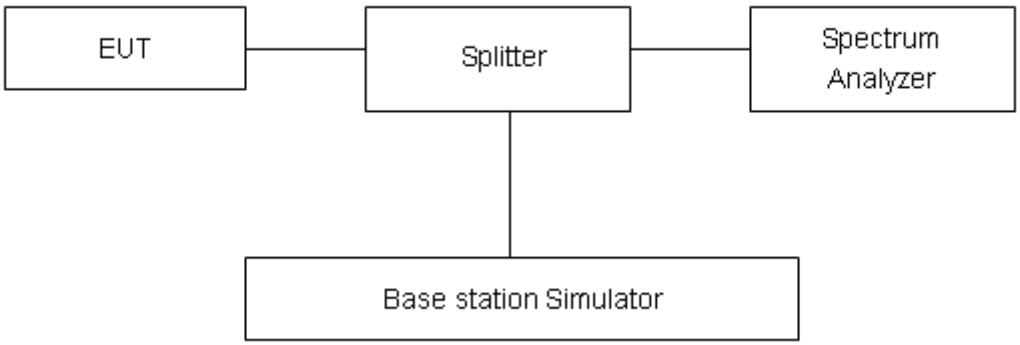
Ambient condition

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 51kHz, VBW is set to 160kHz for WCDMA Band V,
RBW is set to 30 kHz, VBW is set to 91kHz for LTE Band 5 (1.4MHz),
RBW is set to 62 kHz, VBW is set to 180kHz for LTE Band 5 (3MHz),
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 5 (5MHz),
RBW is set to 200 kHz, VBW is set to 620kHz for LTE Band 5 (10MHz),
99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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

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Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band V (RMC)	4132	826.4	4.1229	4.7030
	4183	836.6	4.1193	4.6890
	4233	846.6	4.1250	4.6790

LTE Band 5						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20407	824.7	1.1129	1.5150
			20525	836.5	1.1149	1.5260
			20643	848.3	1.1144	1.4820
		3	20415	825.5	2.7267	3.2910
			20525	836.5	2.7148	3.2160
			20635	847.5	2.7300	3.2450
		5	20425	826.5	4.5459	5.1340
			20525	836.5	4.5299	5.1300
			20625	846.5	4.5249	5.1400
		10	20450	829	9.0471	10.5200
			20525	836.5	9.0174	10.3700
			20600	844	8.9811	10.2400
	16QAM	1.4	20407	824.7	1.1230	1.5380
			20525	836.5	1.1083	1.5420
			20643	848.3	1.1151	1.4760
		3	20415	825.5	2.7190	3.2950
			20525	836.5	2.7219	3.2250
			20635	847.5	2.7207	3.2930
		5	20425	826.5	4.5149	5.0360
			20525	836.5	4.5393	5.1310
			20625	846.5	4.5276	5.0760
		10	20450	829	9.0249	10.3700
			20525	836.5	9.0021	10.3700
			20600	844	9.0073	10.3900

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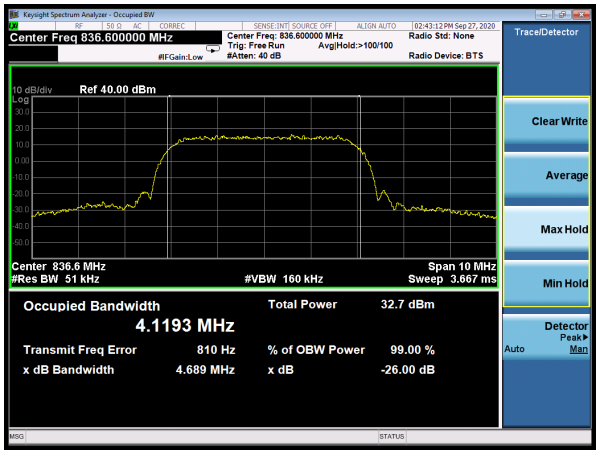
WCDMA Band V CH-Low

WCDMA Band V CH-Middle



WCDMA Band V CH-High

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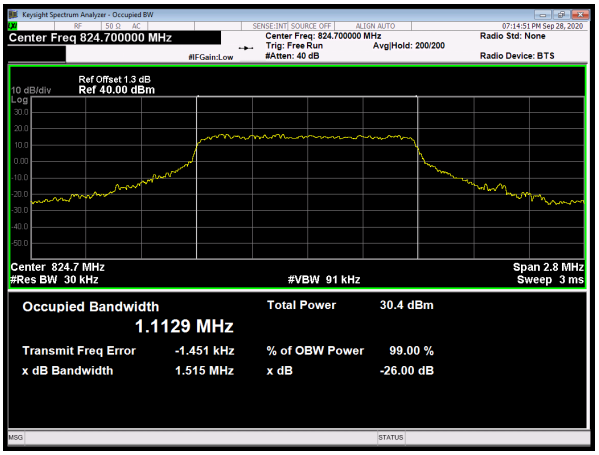
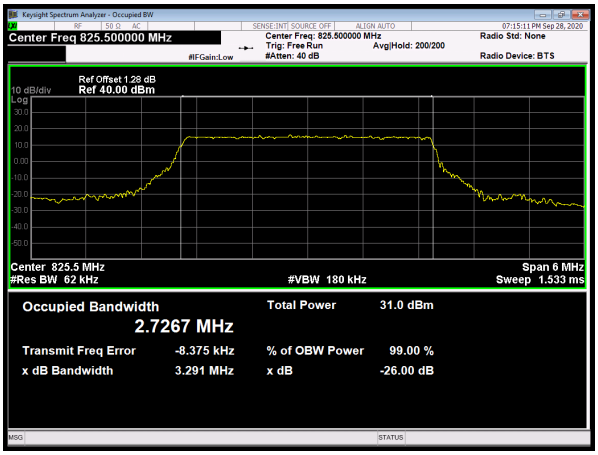
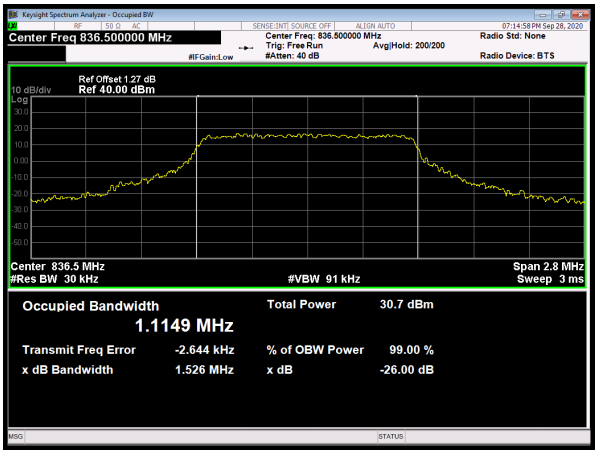
LTE Band 5 QPSK 1.4MHz CH-Low



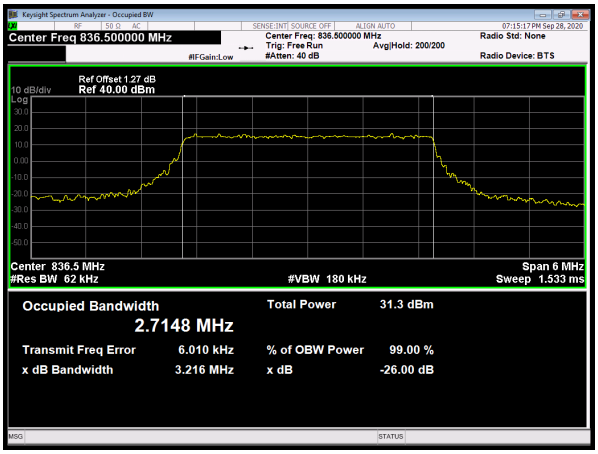
LTE Band 5 QPSK 3MHz CH-Low



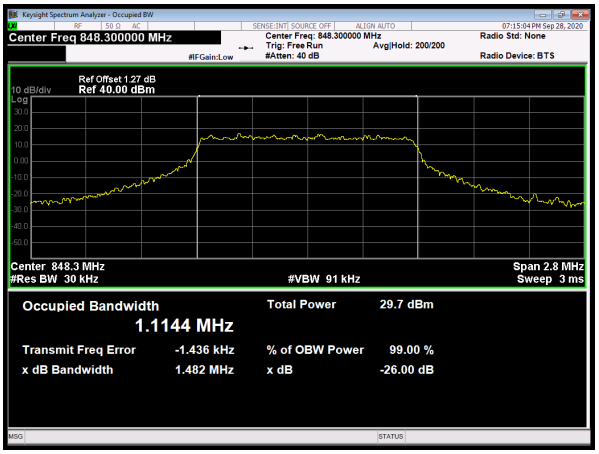
LTE Band 5 QPSK 1.4MHz CH-Middle



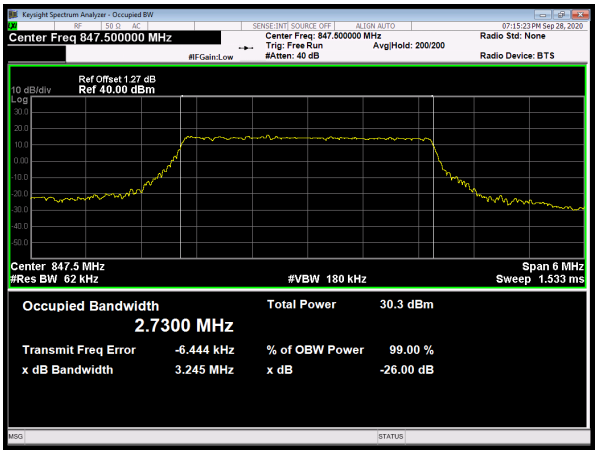
LTE Band 5 QPSK 3MHz CH-Middle



LTE Band 5 QPSK 1.4MHz CH-High



LTE Band 5 QPSK 3MHz CH-High



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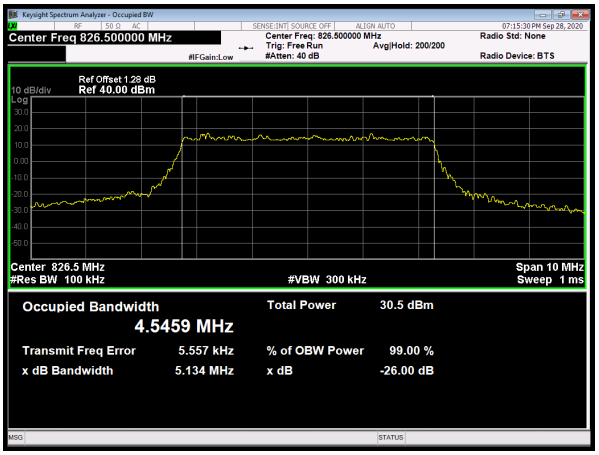
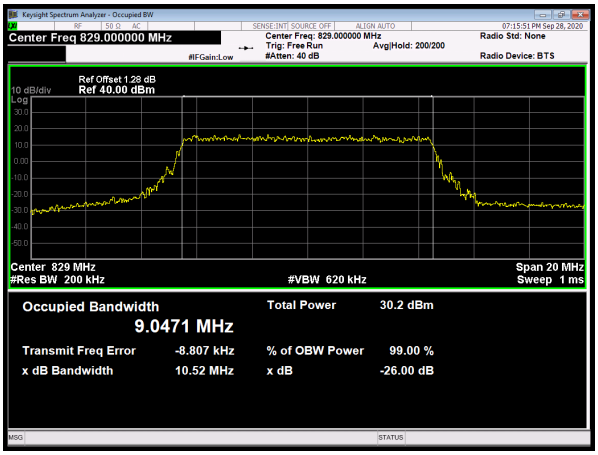
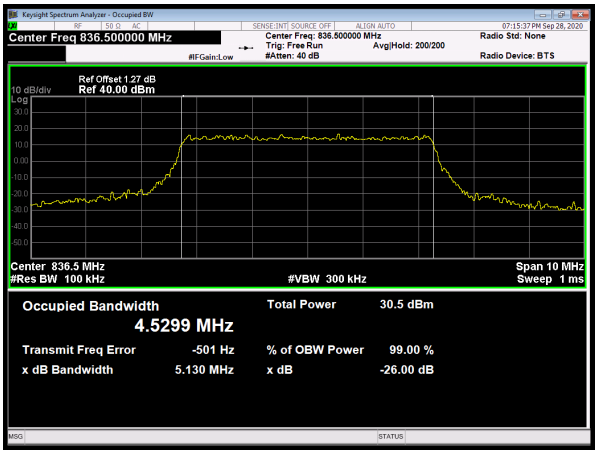
LTE Band 5 QPSK 5MHz CH-Low



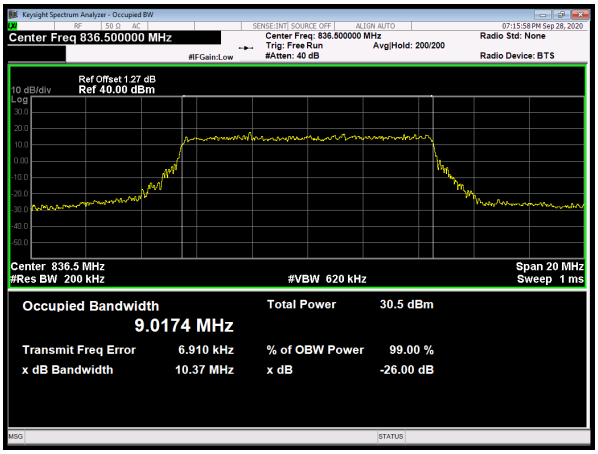
LTE Band 5 QPSK 10MHz CH-Low



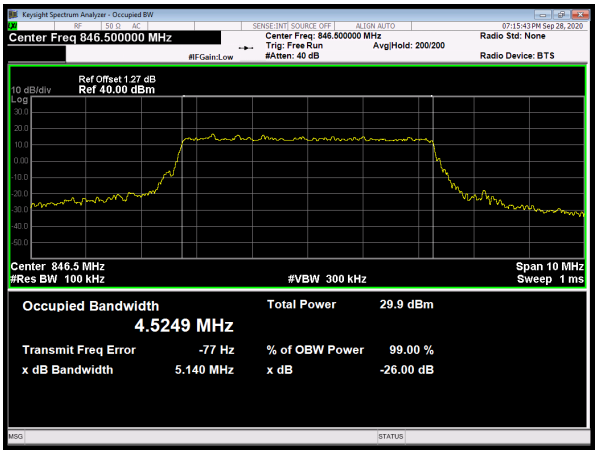
LTE Band 5 QPSK 5MHz CH-Middle



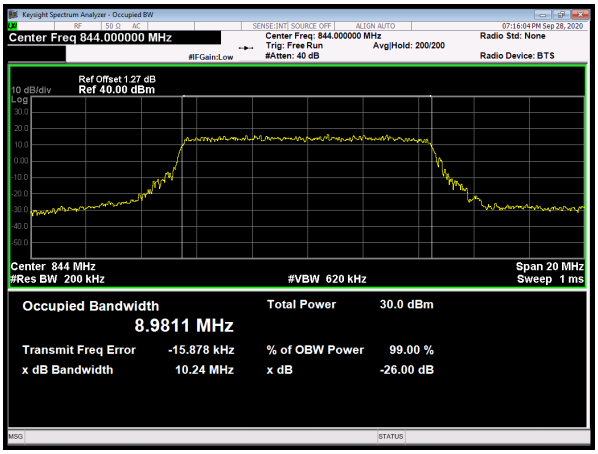
LTE Band 5 QPSK 10MHz CH-Middle



LTE Band 5 QPSK 5MHz CH-High



LTE Band 5 QPSK 10MHz CH-High



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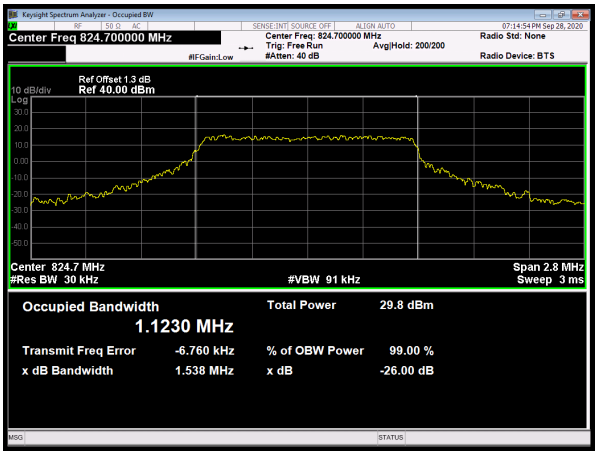
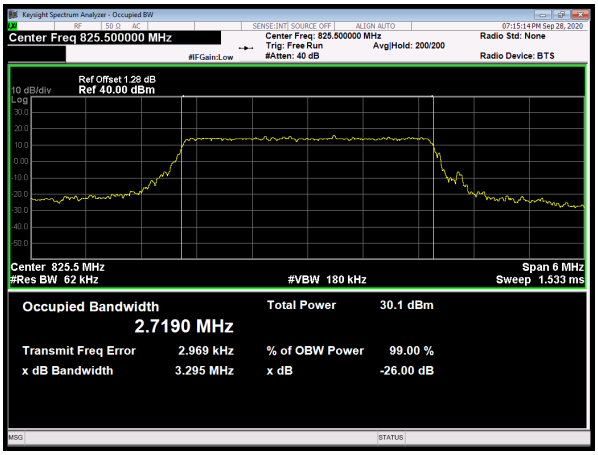
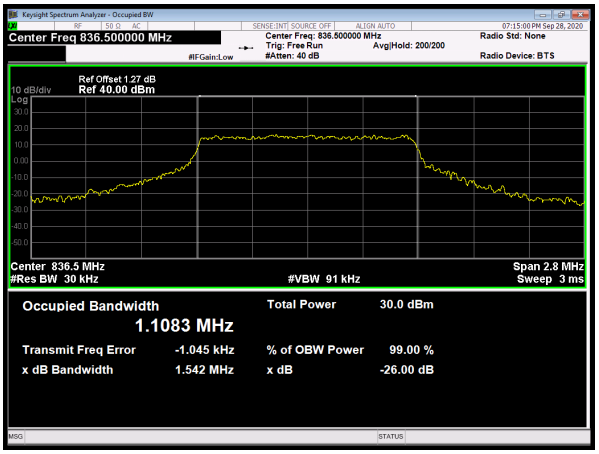
LTE Band 5 16QAM 1.4MHz CH-Low



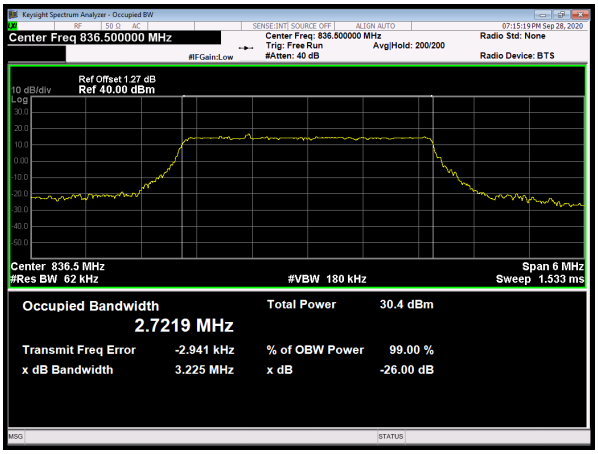
LTE Band 5 16QAM 3MHz CH-Low



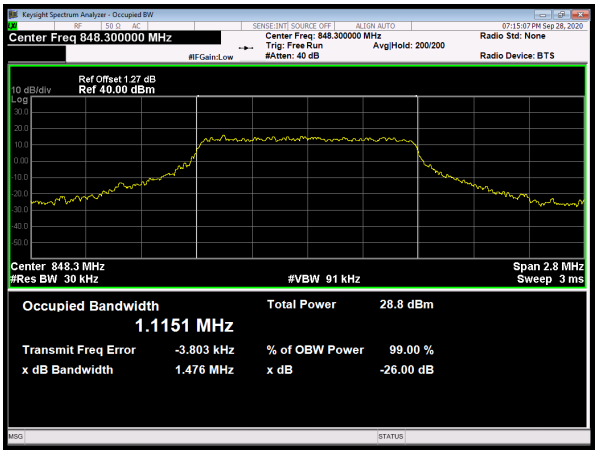
LTE Band 5 16QAM 1.4MHz CH-Middle



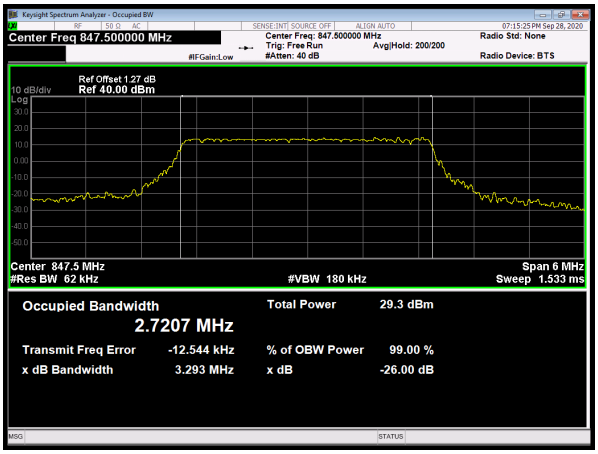
LTE Band 5 16QAM 3MHz CH-Middle



LTE Band 5 16QAM 1.4MHz CH-High



LTE Band 5 16QAM 3MHz CH-High



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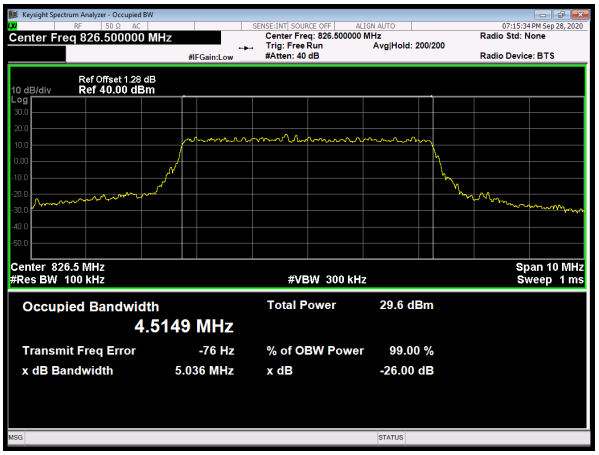
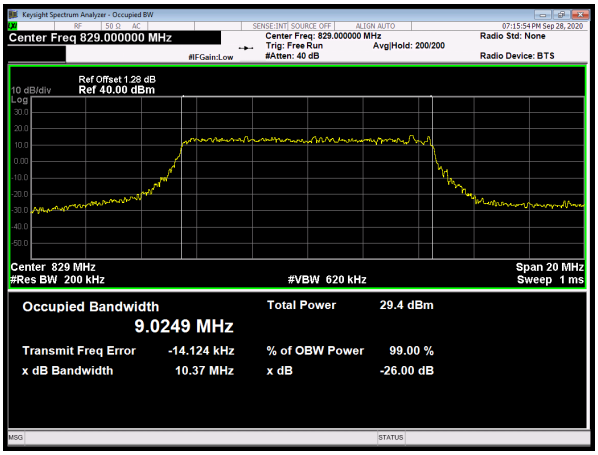
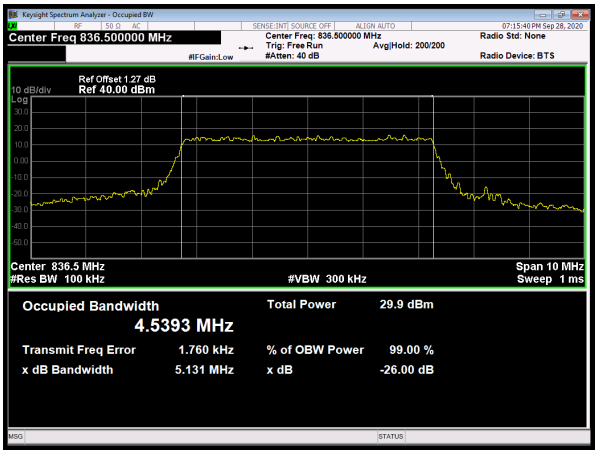
LTE Band 5 16QAM 5MHz CH-Low



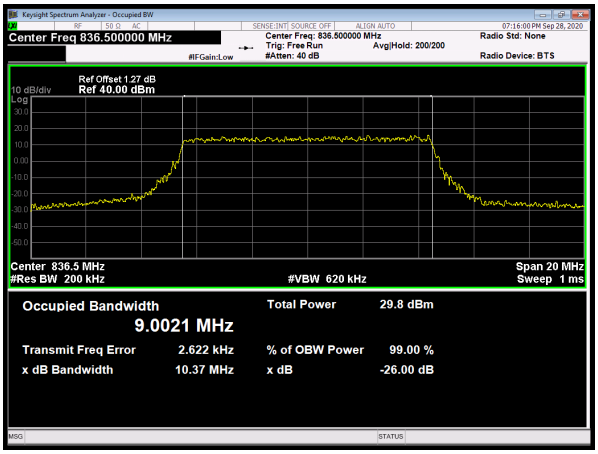
LTE Band 5 16QAM 10MHz CH-Low



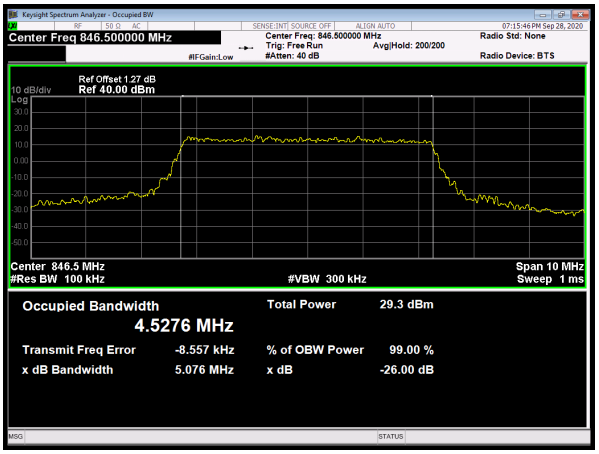
LTE Band 5 16QAM 5MHz CH-Middle



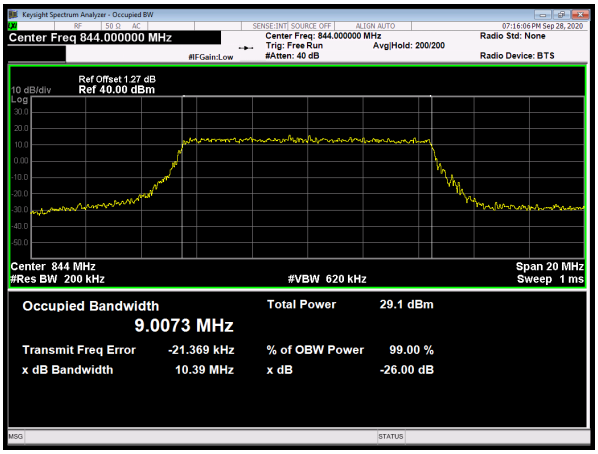
LTE Band 5 16QAM 10MHz CH-Middle



LTE Band 5 16QAM 5MHz CH-High



LTE Band 5 16QAM 10MHz CH-High



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