

FCC Test Report

(Part 22&24&27)

Product Name : WCDMA/LTE/5G Mobile Phone
Model No : EA211001,EC211001,EC211004
FCC ID : RYQEA211001

Applicant : FIH CO., LTD.

Address : No.4, Minsheng St., Tu-Cheng Dist., New Taipei City 23679, Taiwan

Date of Receipt : 2021/04/23
Issued Date : 2021/06/22
Report No. : 2150419R-E3042110012
Report Version : V2.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issued Date : 2021/06/22

Report No.: 2150419R-E3042110012



Product Name : WCDMA/LTE/5G Mobile Phone
Applicant : FIH CO., LTD.
Address : No.4, Minsheng St., Tu-Cheng Dist., New Taipei City 23679, Taiwan
Manufacturer : FIH CO., LTD.
Trade Name : FIH
Model No. : EA211001,EC211001,EC211004
EUT Rated Voltage : DC 3.6V~4.45V
EUT Test Voltage : DC 3.85V
Measurement Standard : FCC CFR Title 47 Part 22 ; Part 24 ; Part 27
Measurement : FCC CFR Title 47 Part 2
Reference : TIA/EIA 603-E 2016
KDB 971168 D01V03R01
ANSI C63.26 2015
Test Result : Complied

Documented By : Genie Chang
(Senior Adm. Specialist / Genie Chang)

Tested By : Joe Wang
(Engineer / Joe Wang)

Approved By : wenLee
(Supervisor / Wen Lee)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	5
1.1 EUT Description	5
1.2 Antenna List.....	5
1.3 Operational Description.....	6
1.4 Configuration of tested System	7
1.5 EUT Setup Procedures	7
1.6 Test Facility	8
2. Technical Test	9
2.1. Summary of test result	9
2.2. List of test Equipment.....	10
2.3. Measurement Uncertainty	10
3. Conducted Output Power Measurement	11
3.1. Test Specification.....	11
3.2. Test Setup.....	11
3.3. Limits.....	11
3.4. Test Procedure	11
3.5. Test Result of Maximum Power Output.....	12
3.6. Maximum Conducted Power and ERP/EIRP Power.....	23
4. Occupied Bandwidth.....	26
4.1. Test Secification.....	26
4.2. Test Setup.....	26
4.3. Test Procedure	26
4.4. Test Result of Occupied Bandwidth	27
5. Spurious Emission At Antenna Terminals (+/-1MHz)	67
5.1. Test Specification.....	67
5.2. Setup	67
5.3. Limits.....	67
5.4. Test Procedure	68
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz)	69
6. Spurious Emission	116
6.1. Test Specification.....	116
6.2. Test Setup.....	116
6.3. Limits.....	117
6.4. Test Procedure	117
6.5. Test Result of Spurious Emission	118
7. Frequency Stability Under Temperature & Voltage Variations.....	210
7.1. Test Specification.....	210
7.2. Test Setup.....	210
7.3. Limits.....	210
7.4. Test Procedure	210
7.5. Test Result of Frequency Stability Under Temperature Variations	211
8. Peak to Average Ratio	217
8.1 Test Specification.....	217
8.1. Test Setup.....	217
8.2. Limits.....	217
8.3. Test Procedure	217
8.4. Test Result of Spurious Emission	218
Appendix I: Photographs of Test Configuration	
Appendix II: Photographs of the EUT	

Revision History

Report No.	Version	Description	Issued Date
2150419R-E3042110012	V1.0	Initial issue of report.	2021-06-12
2150419R-E3042110012	V2.0	Update Product Name	2021-06-22

1. GENERAL INFORMATION

1.1 EUT Description

Product Name	WCDMA/LTE/5G Mobile Phone
Model No.	EA211001,EC211001,EC211004
Test Sample	EA211001
Trade Name	FIH
IMEI No.	35552737
FCC ID	RYQEA211001
TX Frequency	LTE Band 2: 1850MHz ~1910MHz LTE Band 4: 1710MHz~1755MHz LTE Band 5: 824MHz~849MHz LTE Band 12: 699MHz~716MHz LTE Band 30: 2305MHz~2315MHz LTE Band 66: 1710MHz ~1780MHz
Rx Frequency	LTE Band 2: 1930MHz ~1990MHz LTE Band 4: 2110MHz ~2155MHz LTE Band 5: 869MHz ~894MHz LTE Band 12: 729MHz ~746MHz LTE Band 30: 2350MHz~2360MHz LTE Band 66: 2110MHz ~2200MHz
2UL CA List	CA_2A-5A, CA_2A-12A, CA_2A-14A, CA_5A-30A, CA_5A-66A, CA_5B, CA_12A-30A, CA_14A-30A, CA_14A-66A
Bandwidth	LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 5: 1.4MHz/3MHz/5MHz/10MHz LTE Band 12: 1.4MHz/3MHz/5MHz/10MHz LTE Band 30: 5MHz/10MHz LTE Band 66: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
Modulation	QPSK/16-QAM/64QAM
HW Version	5.1
SW Version	EA211001_0110U

1.2 Antenna List

No	Manufacturer	Part No	Antenna Type	Peak Gain
ANT0 (Main)	Tongda	MEFLC61001A/ MEFLC61004A	Monopole	0.6 dBi for B2 0.4 dBi for B4/B66 -5.1 dBi for B5 -2.9 dBi for B12 -0.3 dBi for B30
ANT1 (TRX)			Loop	-6.8 dBi for B2 -10.3 dBi for B4/B66 -2.0 dBi for B30
ANT2 (TRX)			Monopole	-2.5 dBi for B5 -4.1 dBi for B12

1.3 Operational Description

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator.

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined

as:

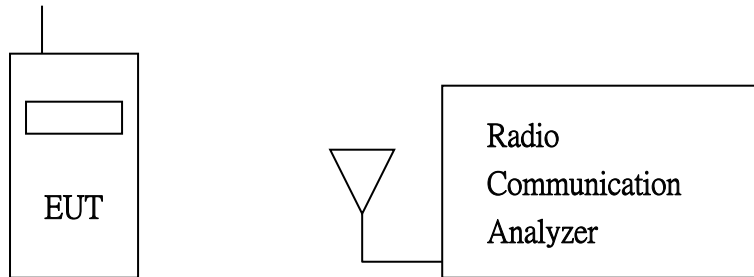
Test Mode:	LTE Band 2
	LTE Band 4/66
	LTE Band 5
	LTE Band 12
	LTE Band 30
	CA_2A-5A
	CA_2A-12A
	CA_2A-14A
	CA_5A-30A
	CA_5A-66A
	CA_5B
	CA_12A-30A
	CA_14A-30A
	CA_14A-66A

Note:

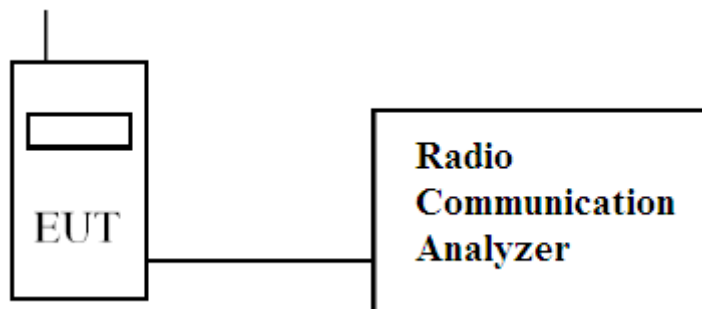
1. WWAN Module ant0 support TX/RX and support 2UL CA functions.
2. WWAN Module ant1 support TX/RX(HB) and support 2UL CA functions.
3. WWAN Module ant2 support TX/RX(LB) and support 2UL CA functions.
4. LTE Band 4 is covered by Band 66.
5. All operation modes has been verified and the report shows the worst case mode.

1.4 Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



1.5 EUT Setup Procedures

- (1) Setup the EUT and simulators as shown on 1.3
- (2) Turn on the power of all equipments.
- (3) The EUT link with base station and it will continue receive the signal.
- (4) Repeat the above procedure (3).

1.6 Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual	Laboratory
Temperature (°C)	15-35	19 ~ 25	Linkou (Valley)
Humidity (%RH)	25-75	42 ~ 58	Linkou (Valley)

USA : FCC Registration Number: TW3023

Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF
Accredited Number: 3023

Test Laboratory: DEKRA Testing and Certification Co., Ltd
Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,
Taiwan, R.O.C.
Phone number: 886-2-8601-3788
Fax number: 886-2-8601-3789
Email address: info.tw@dekra.com
Website: <http://www.dekra.com.tw>

2. Technical Test

2.1. Summary of test result

Test Item	FCC Reference section	FCC Limit	Result
RF Output Power	§2.1046	<7 Watts for §22.913(a) <2 Watts for §24.232(c) <0.25 Watts for §27.50(a) <3 Watts for §27.50(c) <1 Watts for §27.50(d)	Pass
	§22.913(a)		
	§24.232(c)		
	§27.50(a, c, d)		
Occupied Bandwidth	§2.1049	Within the frequency range	Pass
	§22.863		
	§24.238(b)		
	§27.53(a, g, h)		
Spurious Emission at Antenna Terminals	§2.1051	<-13dBm <-13dBm / <-25dBm / <-31dBm / <-37dBm / <-40dBm for §27.53(a.4)	Pass
	§22.917(a)		
	§24.238(a)		
	§27.53(a, g, h)		
Conducted Emission	§2.1051	<-13dBm <-40dBm for §27.53(a.4)	Pass
	§22.917(a)		
	§24.238(a)		
	§27.53(a, g, h)		
Field Strength of Spurious Radiation	§2.1053	<-13dBm <-40dBm for §27.53(a.4)	Pass
	§22.917(a)		
	§24.238(a)		
	§27.53(a, g, h)		
Frequency Stability for Temperature & Voltage	§2.1055	<±2.5 ppm for §22.355 Within the frequency range for §24.235, §27.54	Pass
	§22.355		
	§24.235		
	§27.54		
Peak to Average Ratio	§22.913 (d)	<13dB	Pass
	§24.232 (d)		
	§27.50		

2.2. List of test Equipment

Conducted /CTR

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY54510357	2021/05/18
Directional coupler	Agilent	87300C	MY44300353	2020/12/03
Directional coupler	Agilent	778D-012	50550	2020/12/03
Standard Temperature & Humidity Chamber	WIT	TH-1S-B	EQ-201-00146	2021/05/18
DC power supply	Agilent	E3610A	MY40009845	2020/06/30
Communication Tester	R&S	CMW500	157304	2020/12/08

Radiated / Site3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2907	2021/02/26
Horn Antenna	R&S	9120D	556	2021/05/04
Pre-Amplifier	Agilent	87405C	MY55380068	2020/09/10
Spectrum Analyzer	Agilent	N9010A	MY54510357	2021/05/18
DC power supply	Agilent	E3610A	MY40009845	2020/06/30
Communication Tester	R&S	CMW500	157304	2020/12/08

2.3. Measurement Uncertainty

Conducted Emission

The measurement uncertainty of confidence of 95% is evaluated as ± 1.52 dB

Radiated Emission (Below 1GHz)

The measurement uncertainty of confidence of 95% is evaluated as ± 4.22 dB

Radiated Emission (Above 1GHz)

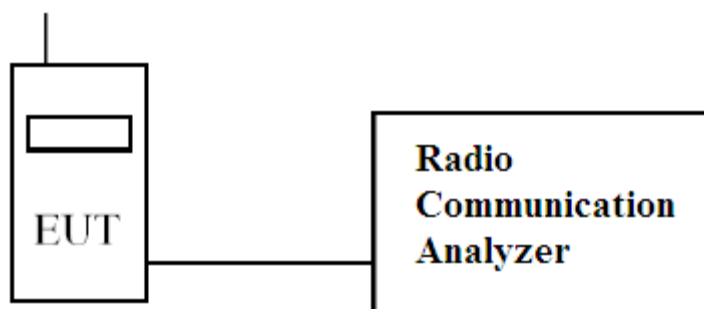
The measurement uncertainty of confidence of 95% is evaluated as ± 4.08 dB

3. Conducted Output Power Measurement

3.1. Test Specification

According to FCC Part 2.1046, 22.913, 24.232, 27.50

3.2. Test Setup



3.3. Limits

Band	Limit
LTE Band 2/1900	EIRP <2W
LTE Band 4/661700	EIRP <1W
LTE Band 5/850	ERP <7W
LTE Band 12/700	ERP <3W
LTE Band 30/2300	EIRP <0.25W

3.4. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the output power was measured at the antenna terminals of the EUT.

3.5. Test Result of Maximum Power Output

Channel	Modulation	LTE Band 2 (1900MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	23.83	23.55	23.54	23.48	23.50	23.48
		1	#Mid	23.83	23.56	23.60	23.59	23.58	23.57
		1	#Max	23.82	23.54	23.55	23.49	23.45	23.40
		50%	#0	23.79	22.50	22.59	22.55	22.54	22.63
		50%	#Mid	23.81	22.54	22.58	22.54	22.52	22.60
		50%	#Max	23.79	22.52	22.51	22.40	22.51	22.61
		100%	--	22.82	22.55	22.54	22.51	22.56	22.64
	16QAM	1	#0	22.99	22.69	22.68	22.73	22.68	22.61
		1	#Mid	22.99	22.73	22.73	22.79	22.78	22.76
		1	#Max	22.98	22.73	22.72	22.68	22.64	22.59
		50%	#0	22.82	21.70	21.73	21.72	21.69	21.74
		50%	#Mid	22.81	21.72	21.67	21.67	21.68	21.71
		50%	#Max	22.81	21.70	21.63	21.50	21.63	21.72
		100%	--	21.98	21.70	21.67	21.63	21.71	21.71
	64QAM	1	#0	22.11	21.81	21.83	21.75	21.75	21.76
		1	#Mid	22.10	21.79	21.81	21.84	21.81	21.85
		1	#Max	22.12	21.79	21.83	21.72	21.72	21.73
		50%	#0	22.05	20.67	20.73	20.71	20.75	20.74
		50%	#Mid	22.01	20.69	20.67	20.67	20.64	20.70
		50%	#Max	22.03	20.68	20.66	20.51	20.65	20.71
		100%	--	20.88	20.67	20.65	20.59	20.66	20.71
Mid	QPSK	1	#0	23.85	23.62	23.63	23.53	23.61	23.46
		1	#Mid	23.85	23.62	23.66	23.62	23.61	23.59
		1	#Max	23.87	23.58	23.65	23.53	23.55	23.46
		50%	#0	23.89	22.60	22.67	22.65	22.59	22.73
		50%	#Mid	23.87	22.56	22.62	22.57	22.56	22.63
		50%	#Max	23.86	22.56	22.58	22.44	22.51	22.50
		100%	--	22.91	22.58	22.62	22.55	22.57	22.59
	16QAM	1	#0	23.04	22.81	22.74	22.75	22.76	22.64
		1	#Mid	23.05	22.83	22.84	22.85	22.76	22.80
		1	#Max	23.14	22.80	22.74	22.76	22.77	22.63

		50%	#0	22.90	21.80	21.77	21.75	21.77	21.82
		50%	#Mid	22.88	21.75	21.73	21.70	21.68	21.72
		50%	#Max	22.87	21.76	21.70	21.54	21.60	21.58
		100%	--	22.07	21.74	21.77	21.65	21.71	21.71
	64QAM	1	#0	22.15	21.89	21.86	21.76	21.78	21.83
		1	#Mid	22.16	21.82	21.85	21.76	21.82	21.86
		1	#Max	22.09	21.89	21.83	21.69	21.82	21.79
		50%	#0	22.11	20.74	20.80	20.76	20.75	20.82
		50%	#Mid	22.08	20.70	20.75	20.69	20.67	20.73
		50%	#Max	22.07	20.72	20.71	20.52	20.66	20.54
		100%	--	20.96	20.67	20.73	20.61	20.65	20.68
High	QPSK	1	#0	23.98	23.76	23.77	23.71	23.68	23.58
		1	#Mid	23.98	23.80	23.80	23.82	23.79	23.80
		1	#Max	23.98	23.75	23.74	23.70	23.65	23.59
		50%	#0	24.00	22.77	22.79	22.82	22.76	22.81
		50%	#Mid	24.00	22.74	22.79	22.74	22.74	22.80
		50%	#Max	24.01	22.72	22.69	22.56	22.66	22.58
		100%	--	23.04	22.75	22.78	22.72	22.72	22.66
	16QAM	1	#0	23.16	22.99	22.92	22.95	22.88	22.77
		1	#Mid	23.16	22.93	22.95	22.99	22.92	22.93
		1	#Max	23.15	22.94	22.83	22.86	22.83	22.71
		50%	#0	23.05	21.96	21.91	21.96	21.88	21.91
		50%	#Mid	23.05	21.94	21.90	21.88	21.89	21.91
		50%	#Max	23.03	21.92	21.83	21.70	21.79	21.70
		100%	--	22.20	21.93	21.90	21.87	21.84	21.76
	64QAM	1	#0	22.31	22.06	22.05	21.90	21.95	21.89
		1	#Mid	22.24	22.07	22.04	22.02	21.99	22.02
		1	#Max	22.27	22.01	21.96	21.92	21.90	21.89
		50%	#0	22.24	20.94	20.94	20.93	20.86	20.88
		50%	#Mid	22.21	20.91	20.91	20.84	20.90	20.89
		50%	#Max	22.21	20.90	20.82	20.69	20.80	20.69
		100%	--	21.10	20.87	20.90	20.85	20.81	20.76

Channel	Modulation	LTE Band 5 (850MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	22.99	22.86	22.82	22.72	--	--
		1	#Mid	23.01	22.91	22.87	22.93	--	--
		1	#Max	22.98	22.87	22.86	22.81	--	--
		50%	#0	23.00	22.03	21.96	21.92	--	--
		50%	#Mid	23.03	22.05	22.00	21.97	--	--
		50%	#Max	23.04	22.04	22.04	21.92	--	--
		100%	--	22.17	22.00	21.99	21.93	--	--
	16QAM	1	#0	22.39	22.28	22.26	22.23	--	--
		1	#Mid	22.41	22.28	22.25	22.26	--	--
		1	#Max	22.42	22.29	22.31	22.23	--	--
		50%	#0	22.08	21.07	20.95	20.92	--	--
		50%	#Mid	22.15	21.09	20.97	20.99	--	--
		50%	#Max	22.16	21.10	21.00	20.94	--	--
		100%	--	21.21	21.01	20.98	20.96	--	--
	64QAM	1	#0	21.22	21.14	21.13	21.12	--	--
		1	#Mid	21.23	21.19	21.16	21.11	--	--
		1	#Max	21.24	21.19	21.14	21.11	--	--
		50%	#0	21.22	20.04	19.96	19.92	--	--
		50%	#Mid	21.22	20.06	20.01	19.98	--	--
		50%	#Max	21.26	20.07	20.03	19.91	--	--
		100%	--	20.12	20.03	19.98	19.92	--	--
Mid	QPSK	1	#0	23.02	22.88	22.85	22.78	--	--
		1	#Mid	23.03	22.92	22.92	22.94	--	--
		1	#Max	23.03	22.89	22.85	22.79	--	--
		50%	#0	23.07	22.03	22.09	22.03	--	--
		50%	#Mid	23.03	22.08	22.05	22.00	--	--
		50%	#Max	23.03	22.04	21.98	21.89	--	--
		100%	--	22.17	22.06	22.01	21.97	--	--
	16QAM	1	#0	22.39	22.30	22.26	22.25	--	--
		1	#Mid	22.36	22.29	22.26	22.28	--	--
		1	#Max	22.38	22.27	22.22	22.18	--	--
		50%	#0	22.14	21.09	21.06	21.05	--	--
		50%	#Mid	22.17	21.12	21.02	21.05	--	--
		50%	#Max	22.12	21.09	20.95	20.89	--	--
		100%	--	21.21	21.07	21.00	20.96	--	--

	64QAM	1	#0	21.22	21.19	21.14	21.10	--	--
		1	#Mid	21.31	21.19	21.13	21.12	--	--
		1	#Max	21.18	21.12	21.08	21.02	--	--
		50%	#0	21.26	20.06	20.07	20.05	--	--
		50%	#Mid	21.23	20.08	20.04	19.98	--	--
		50%	#Max	21.17	20.05	19.97	19.86	--	--
		100%	--	20.14	20.04	19.99	19.95	--	--
High	QPSK	1	#0	22.82	22.74	22.74	22.74	--	--
		1	#Mid	22.83	22.74	22.76	22.83	--	--
		1	#Max	22.82	22.68	22.72	22.64	--	--
		50%	#0	22.85	21.90	21.95	21.96	--	--
		50%	#Mid	22.87	21.87	21.85	21.89	--	--
		50%	#Max	22.87	21.85	21.79	21.72	--	--
		100%	--	21.97	21.89	21.89	21.85	--	--
	16QAM	1	#0	22.22	22.15	22.15	22.18	--	--
		1	#Mid	22.22	22.13	22.10	22.21	--	--
		1	#Max	22.20	22.13	22.10	22.06	--	--
		50%	#0	21.97	20.97	20.92	20.96	--	--
		50%	#Mid	21.94	20.95	20.84	20.93	--	--
		50%	#Max	21.95	20.88	20.75	20.70	--	--
		100%	--	20.99	20.93	20.88	20.86	--	--
	64QAM	1	#0	21.04	20.99	21.00	21.02	--	--
		1	#Mid	21.01	20.99	21.04	21.01	--	--
		1	#Max	20.98	20.97	20.92	20.92	--	--
		50%	#0	21.06	19.88	19.92	19.94	--	--
		50%	#Mid	21.05	19.90	19.85	19.89	--	--
		50%	#Max	21.04	19.86	19.80	19.70	--	--
		100%	--	19.94	19.84	19.85	19.83	--	--

Channel	Modulation	LTE Band 12 (700MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	23.39	23.36	23.30	23.23	--	--
		1	#Mid	23.40	23.38	23.29	23.30	--	--
		1	#Max	23.40	23.34	23.28	23.26	--	--
		50%	#0	23.36	22.31	22.27	22.11	--	--
		50%	#Mid	23.36	22.29	22.23	22.26	--	--
		50%	#Max	23.37	22.28	22.30	22.14	--	--
		100%	--	22.36	22.30	22.30	22.12	--	--
	16QAM	1	#0	22.60	22.60	22.50	22.42	--	--
		1	#Mid	22.65	22.59	22.52	22.49	--	--
		1	#Max	22.63	22.57	22.53	22.42	--	--
		50%	#0	22.32	21.35	21.24	21.14	--	--
		50%	#Mid	22.38	21.34	21.23	21.25	--	--
		50%	#Max	22.35	21.38	21.26	21.16	--	--
		100%	--	21.42	21.31	21.29	21.12	--	--
	64QAM	1	#0	21.41	21.41	21.40	21.26	--	--
		1	#Mid	21.51	21.43	21.37	21.33	--	--
		1	#Max	21.40	21.44	21.41	21.29	--	--
		50%	#0	21.44	20.30	20.25	20.13	--	--
		50%	#Mid	21.44	20.28	20.24	20.22	--	--
		50%	#Max	21.43	20.33	20.33	20.13	--	--
		100%	--	20.31	20.30	20.28	20.10	--	--
Mid	QPSK	1	#0	23.31	23.26	23.24	23.17	--	--
		1	#Mid	23.31	23.31	23.27	23.26	--	--
		1	#Max	23.32	23.35	23.31	23.30	--	--
		50%	#0	23.33	22.27	22.28	22.13	--	--
		50%	#Mid	23.31	22.25	22.25	22.24	--	--
		50%	#Max	23.32	22.25	22.15	22.06	--	--
		100%	--	22.32	22.25	22.21	22.12	--	--
	16QAM	1	#0	22.54	22.52	22.43	22.44	--	--
		1	#Mid	22.51	22.54	22.43	22.45	--	--
		1	#Max	22.49	22.53	22.47	22.49	--	--
		50%	#0	22.30	21.34	21.23	21.14	--	--
		50%	#Mid	22.27	21.29	21.22	21.25	--	--
		50%	#Max	22.27	21.30	21.15	21.07	--	--
		100%	--	21.35	21.28	21.20	21.11	--	--

	64QAM	1	#0	21.37	21.36	21.30	21.24	--	--
		1	#Mid	21.39	21.36	21.38	21.30	--	--
		1	#Max	21.43	21.40	21.33	21.35	--	--
		50%	#0	21.41	20.29	20.26	20.11	--	--
		50%	#Mid	21.38	20.25	20.25	20.22	--	--
		50%	#Max	21.40	20.27	20.17	20.05	--	--
		100%	--	20.30	20.25	20.17	20.07	--	--
High	QPSK	1	#0	23.33	23.33	23.25	23.16	--	--
		1	#Mid	23.34	23.36	23.29	23.30	--	--
		1	#Max	23.38	23.37	23.32	23.29	--	--
		50%	#0	23.36	22.31	22.30	22.25	--	--
		50%	#Mid	23.37	22.30	22.26	22.25	--	--
		50%	#Max	23.37	22.28	22.24	22.14	--	--
		100%	--	22.37	22.30	22.28	22.24	--	--
	16QAM	1	#0	22.57	22.58	22.45	22.36	--	--
		1	#Mid	22.57	22.60	22.50	22.48	--	--
		1	#Max	22.58	22.56	22.54	22.48	--	--
		50%	#0	22.33	21.35	21.26	21.26	--	--
		50%	#Mid	22.34	21.34	21.22	21.25	--	--
		50%	#Max	22.29	21.35	21.23	21.16	--	--
		100%	--	21.40	21.31	21.26	21.23	--	--
	64QAM	1	#0	21.37	21.38	21.33	21.21	--	--
		1	#Mid	21.39	21.38	21.36	21.33	--	--
		1	#Max	21.38	21.39	21.41	21.31	--	--
		50%	#0	21.42	20.30	20.29	20.24	--	--
		50%	#Mid	21.44	20.31	20.24	20.24	--	--
		50%	#Max	21.43	20.31	20.26	20.11	--	--
		100%	--	20.31	20.31	20.26	20.21	--	--

Channel	Modulation	LTE Band 30 (2300MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	23.23	--	--	--
		1	#Mid	--	--	23.23	--	--	--
		1	#Max	--	--	23.21	--	--	--
		50%	#0	--	--	22.25	--	--	--
		50%	#Mid	--	--	22.23	--	--	--
		50%	#Max	--	--	22.24	--	--	--
		100%	--	--	--	22.25	--	--	--
	16QAM	1	#0	--	--	22.42	--	--	--
		1	#Mid	--	--	22.42	--	--	--
		1	#Max	--	--	22.48	--	--	--
		50%	#0	--	--	21.23	--	--	--
		50%	#Mid	--	--	21.20	--	--	--
		50%	#Max	--	--	21.22	--	--	--
		100%	--	--	--	21.25	--	--	--
	64QAM	1	#0	--	--	21.34	--	--	--
		1	#Mid	--	--	21.39	--	--	--
		1	#Max	--	--	21.34	--	--	--
		50%	#0	--	--	20.23	--	--	--
		50%	#Mid	--	--	20.19	--	--	--
		50%	#Max	--	--	20.21	--	--	--
		100%	--	--	--	20.21	--	--	--
Mid	QPSK	1	#0	--	--	23.22	23.14	--	--
		1	#Mid	--	--	23.21	23.20	--	--
		1	#Max	--	--	23.21	23.11	--	--
		50%	#0	--	--	22.24	22.12	--	--
		50%	#Mid	--	--	22.24	22.16	--	--
		50%	#Max	--	--	22.18	22.12	--	--
		100%	--	--	--	22.20	22.17	--	--
	16QAM	1	#0	--	--	22.44	22.34	--	--
		1	#Mid	--	--	22.45	22.45	--	--
		1	#Max	--	--	22.43	22.32	--	--
		50%	#0	--	--	21.20	21.14	--	--
		50%	#Mid	--	--	21.21	21.19	--	--
		50%	#Max	--	--	21.17	21.13	--	--
		100%	--	--	--	21.20	21.17	--	--

	64QAM	1	#0	--	--	21.34	21.26	--	--
		1	#Mid	--	--	21.34	21.35	--	--
		1	#Max	--	--	21.29	21.23	--	--
		50%	#0	--	--	20.21	20.15	--	--
		50%	#Mid	--	--	20.22	20.20	--	--
		50%	#Max	--	--	20.17	20.14	--	--
		100%	--	--	--	20.19	20.13	--	--
High	QPSK	1	#0	--	--	23.24	--	--	--
		1	#Mid	--	--	23.27	--	--	--
		1	#Max	--	--	23.26	--	--	--
		50%	#0	--	--	22.25	--	--	--
		50%	#Mid	--	--	22.25	--	--	--
		50%	#Max	--	--	22.21	--	--	--
		100%	--	--	--	22.25	--	--	--
	16QAM	1	#0	--	--	22.47	--	--	--
		1	#Mid	--	--	22.44	--	--	--
		1	#Max	--	--	22.42	--	--	--
		50%	#0	--	--	21.20	--	--	--
		50%	#Mid	--	--	21.20	--	--	--
		50%	#Max	--	--	21.17	--	--	--
		100%	--	--	--	21.22	--	--	--
	64QAM	1	#0	--	--	21.32	--	--	--
		1	#Mid	--	--	21.36	--	--	--
		1	#Max	--	--	21.27	--	--	--
		50%	#0	--	--	20.23	--	--	--
		50%	#Mid	--	--	20.23	--	--	--
		50%	#Max	--	--	20.20	--	--	--
		100%	--	--	--	20.21	--	--	--

Channel	Modulation	LTE Band 4/66 (1700MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	23.37	23.14	23.13	23.13	23.10	23.07
		1	#Mid	23.34	23.20	23.20	23.26	23.25	23.27
		1	#Max	23.38	23.17	23.20	23.20	23.23	23.14
		50%	#0	23.34	22.15	22.20	22.14	22.17	22.29
		50%	#Mid	23.37	22.15	22.19	22.18	22.18	22.29
		50%	#Max	23.36	22.15	22.18	22.11	22.16	22.23
		100%	--	22.36	22.14	22.17	22.13	22.18	22.28
	16QAM	1	#0	22.57	22.32	22.33	22.37	22.32	22.26
		1	#Mid	22.55	22.30	22.37	22.51	22.48	22.48
		1	#Max	22.54	22.33	22.37	22.39	22.42	22.45
		50%	#0	22.36	21.36	21.32	21.29	21.29	21.41
		50%	#Mid	22.35	21.36	21.29	21.30	21.32	21.41
		50%	#Max	22.37	21.36	21.26	21.18	21.30	21.37
		100%	--	21.53	21.33	21.29	21.24	21.28	21.36
	64QAM	1	#0	21.67	21.44	21.40	21.40	21.45	21.36
		1	#Mid	21.62	21.43	21.41	21.52	21.51	21.54
		1	#Max	21.58	21.48	21.47	21.49	21.53	21.51
		50%	#0	21.58	20.32	20.34	20.27	20.30	20.39
		50%	#Mid	21.57	20.31	20.32	20.34	20.31	20.40
		50%	#Max	21.56	20.36	20.30	20.19	20.28	20.34
		100%	--	20.45	20.29	20.26	20.26	20.26	20.35
Mid	QPSK	1	#0	23.65	23.45	23.42	23.46	23.38	23.31
		1	#Mid	23.63	23.48	23.49	23.49	23.46	23.46
		1	#Max	23.66	23.44	23.49	23.41	23.37	23.31
		50%	#0	23.68	22.48	22.54	22.51	22.48	22.54
		50%	#Mid	23.69	22.46	22.48	22.47	22.47	22.46
		50%	#Max	23.71	22.40	22.42	22.23	22.36	22.24
		100%	--	22.68	22.49	22.47	22.40	22.43	22.40
	16QAM	1	#0	22.82	22.66	22.65	22.68	22.65	22.57
		1	#Mid	22.88	22.65	22.68	22.73	22.70	22.66
		1	#Max	22.87	22.60	22.67	22.68	22.60	22.52
		50%	#0	22.65	21.67	21.68	21.66	21.62	21.64
		50%	#Mid	22.66	21.68	21.60	21.57	21.61	21.60
		50%	#Max	22.66	21.63	21.49	21.34	21.48	21.35
		100%	--	21.87	21.63	21.59	21.53	21.53	21.49

	64QAM	1	#0	21.99	21.74	21.72	21.74	21.73	21.68
		1	#Mid	21.94	21.71	21.75	21.75	21.76	21.75
		1	#Max	21.91	21.69	21.69	21.67	21.66	21.60
		50%	#0	21.89	20.64	20.67	20.64	20.64	20.64
		50%	#Mid	21.90	20.61	20.62	20.55	20.59	20.59
		50%	#Max	21.88	20.57	20.56	20.35	20.47	20.33
		100%	--	20.75	20.57	20.56	20.51	20.49	20.47
High	QPSK	1	#0	23.86	23.64	23.57	23.55	23.50	23.48
		1	#Mid	23.86	23.66	23.66	23.65	23.60	23.57
		1	#Max	23.87	23.63	23.62	23.58	23.53	23.48
		50%	#0	23.87	22.65	22.73	22.64	22.53	22.52
		50%	#Mid	23.90	22.63	22.66	22.63	22.56	22.62
		50%	#Max	23.90	22.62	22.56	22.38	22.46	22.41
		100%	--	22.87	22.64	22.63	22.54	22.53	22.44
	16QAM	1	#0	23.06	22.82	22.82	22.85	22.82	22.70
		1	#Mid	23.11	22.86	22.82	22.86	22.85	22.81
		1	#Max	23.05	22.83	22.77	22.78	22.77	22.67
		50%	#0	22.86	21.85	21.82	21.74	21.68	21.63
		50%	#Mid	22.90	21.83	21.75	21.74	21.67	21.72
		50%	#Max	22.88	21.82	21.66	21.50	21.61	21.53
		100%	--	22.05	21.78	21.75	21.67	21.63	21.58
	64QAM	1	#0	22.12	21.86	21.87	21.85	21.82	21.72
		1	#Mid	22.15	21.90	21.94	21.93	21.91	21.85
		1	#Max	22.11	21.85	21.87	21.83	21.84	21.78
		50%	#0	22.06	20.83	20.85	20.76	20.65	20.59
		50%	#Mid	22.08	20.78	20.78	20.73	20.70	20.72
		50%	#Max	22.08	20.76	20.70	20.50	20.59	20.52
		100%	--	20.93	20.74	20.75	20.64	20.62	20.58

2UL_CA_5B														
Maximum Average Output Power														
Channel	Bandwidth (MHz)	PCC					SCC					Total Power (dBm)		
		BW (MHz)	Channel	Frquency (MHz)	RB No.	RB offest	BW (MHz)	Channel	Frquency (MHz)	RB No.	RB offest	QPSK	16QAM	64QAM
Low	5+10	5	20428	826.8	1	0	10	20500	834	1	49	13.14	13.04	13.01
					1	24				1	0	23.66	22.73	20.65
					25	0				50	0	21.99	21.01	20.99
	10+5	10	20450	829	1	0	5	20522	836.2	1	24	13.08	13.09	13.01
					1	49				1	0	23.59	22.74	20.65
					50	0				25	0	21.96	20.99	20.98
	10+10	10	20450	829	1	0	10	20549	838.9	1	49	12.94	13.06	12.91
					1	49				1	0	23.65	22.88	20.72
					50	0				50	0	21.86	20.85	20.85
Mid	5+10	5	20478	831.8	1	0	10	20550	839	1	49	13.14	13.13	13.11
					1	24				1	0	23.67	22.89	20.89
					25	0				50	0	22.02	21.05	21.04
	10+5	10	20500	834	1	0	5	20572	841.2	1	24	13.02	12.87	12.98
					1	49				1	0	23.53	22.56	20.55
					50	0				25	0	21.92	20.93	20.89
	10+10	10	20476	831.6	1	0	10	20575	841.5	1	49	12.95	13.02	12.93
					1	49				1	0	23.63	22.85	20.67
					50	0				50	0	21.95	20.91	20.91
High	5+10	5	20528	836.8	1	0	10	20600	844	1	49	13.05	13.01	12.99
					1	24				1	0	23.61	22.69	20.71
					25	0				50	0	21.95	20.97	20.99
	10+5	10	20550	839	1	0	5	20622	846.2	1	24	12.81	12.96	12.89
					1	49				1	0	23.45	22.59	20.48
					50	0				25	0	21.72	20.74	20.73
	10+10	10	20501	834.1	1	0	10	20600	844	1	49	12.98	12.86	12.92
					1	49				1	0	23.59	22.68	20.61
					50	0				50	0	21.98	20.98	20.91

3.6. Maximum Conducted Power and ERP/EIRP Power

According to KDB 412172 D01 Section 1.2 Power Approach

$$\text{EIRP} = P_T + G_T - L_C = \text{ERP} + 2.15 \text{ dB}, \text{ERP} = \text{EIRP} - 2.15 \text{ dB}$$

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
2	1.4M	QPSK	24.01	0.252	0.6	0.289	2
		16QAM	23.16	0.207	0.6	0.238	2
		64QAM	22.31	0.170	0.6	0.195	2
	3M	QPSK	23.80	0.240	0.6	0.275	2
		16QAM	22.99	0.199	0.6	0.229	2
		64QAM	22.07	0.161	0.6	0.185	2
	5M	QPSK	23.80	0.240	0.6	0.275	2
		16QAM	22.95	0.197	0.6	0.226	2
		64QAM	22.05	0.160	0.6	0.184	2
	10M	QPSK	23.82	0.241	0.6	0.277	2
		16QAM	22.99	0.199	0.6	0.229	2
		64QAM	22.02	0.159	0.6	0.183	2
	15M	QPSK	23.79	0.239	0.6	0.275	2
		16QAM	22.92	0.196	0.6	0.225	2
		64QAM	21.99	0.158	0.6	0.182	2
	20M	QPSK	23.80	0.240	0.6	0.275	2
		16QAM	22.93	0.196	0.6	0.225	2
		64QAM	22.02	0.159	0.6	0.183	2

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
5	1.4M	QPSK	23.07	0.203	-2.5	0.070	7
		16QAM	22.42	0.175	-2.5	0.060	7
		64QAM	21.31	0.135	-2.5	0.046	7
	3M	QPSK	22.92	0.196	-2.5	0.067	7
		16QAM	22.30	0.170	-2.5	0.058	7
		64QAM	21.19	0.132	-2.5	0.045	7
	5M	QPSK	22.92	0.196	-2.5	0.067	7
		16QAM	22.31	0.170	-2.5	0.058	7
		64QAM	21.16	0.131	-2.5	0.045	7
	10M	QPSK	22.94	0.197	-2.5	0.067	7
		16QAM	22.28	0.169	-2.5	0.058	7
		64QAM	21.12	0.129	-2.5	0.044	7

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
12	1.4M	QPSK	23.40	0.219	-2.9	0.068	3
		16QAM	22.65	0.184	-2.9	0.058	3
		64QAM	21.51	0.142	-2.9	0.044	3
	3M	QPSK	23.38	0.218	-2.9	0.068	3
		16QAM	22.60	0.182	-2.9	0.057	3
		64QAM	21.44	0.139	-2.9	0.044	3
	5M	QPSK	23.32	0.215	-2.9	0.067	3
		16QAM	22.54	0.179	-2.9	0.056	3
		64QAM	21.41	0.138	-2.9	0.043	3
	10M	QPSK	23.30	0.214	-2.9	0.067	3
		16QAM	22.49	0.177	-2.9	0.055	3
		64QAM	21.35	0.136	-2.9	0.043	3

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
30	5M	QPSK	23.27	0.212	-0.3	0.198	0.25
		16QAM	22.48	0.177	-0.3	0.165	0.25
		64QAM	21.39	0.138	-0.3	0.129	0.25
	10M	QPSK	23.20	0.209	-0.3	0.195	0.25
		16QAM	22.45	0.176	-0.3	0.164	0.25
		64QAM	21.35	0.136	-0.3	0.127	0.25

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
4/66	1.4M	QPSK	23.90	0.245	0.4	0.269	1
		16QAM	23.11	0.205	0.4	0.224	1
		64QAM	22.15	0.164	0.4	0.180	1
	3M	QPSK	23.66	0.232	0.4	0.255	1
		16QAM	22.86	0.193	0.4	0.212	1
		64QAM	21.90	0.155	0.4	0.170	1
	5M	QPSK	23.66	0.232	0.4	0.255	1
		16QAM	22.82	0.191	0.4	0.210	1
		64QAM	21.94	0.156	0.4	0.171	1
	10M	QPSK	23.65	0.232	0.4	0.254	1
		16QAM	22.86	0.193	0.4	0.212	1
		64QAM	21.93	0.156	0.4	0.171	1
	15M	QPSK	23.60	0.229	0.4	0.251	1
		16QAM	22.85	0.193	0.4	0.211	1
		64QAM	21.91	0.155	0.4	0.170	1
	20M	QPSK	23.57	0.228	0.4	0.249	1
		16QAM	22.81	0.191	0.4	0.209	1
		64QAM	21.85	0.153	0.4	0.168	1

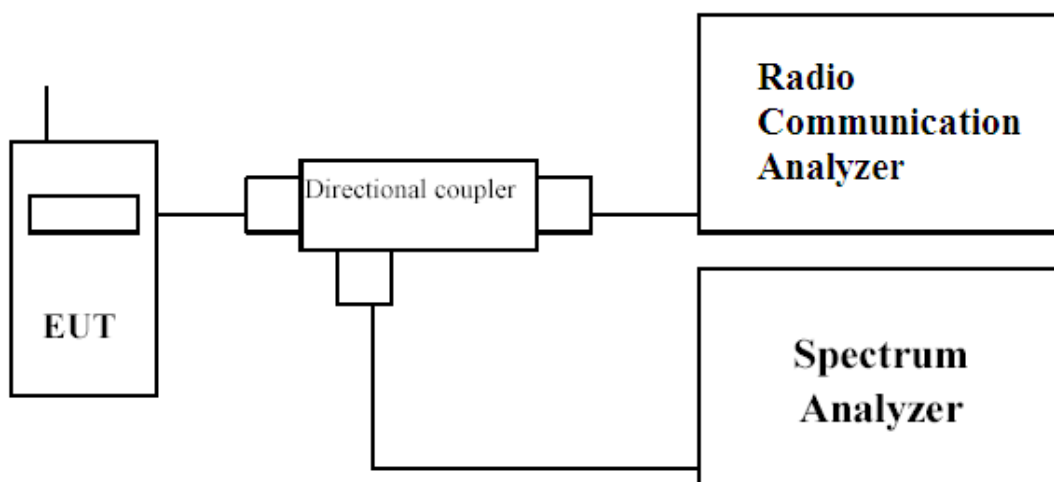
LTE 2UL Band	BW (MHz)	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
5B	5+10	QPSK	23.67	0.233	-2.5	0.080	7
		16QAM	22.89	0.195	-2.5	0.067	7
		64QAM	21.04	0.127	-2.5	0.044	7
	10+5	QPSK	23.59	0.229	-2.5	0.078	7
		16QAM	22.74	0.188	-2.5	0.064	7
		64QAM	20.98	0.125	-2.5	0.043	7
	10+10	QPSK	23.65	0.232	-2.5	0.079	7
		16QAM	22.88	0.194	-2.5	0.067	7
		64QAM	20.91	0.123	-2.5	0.042	7

4. Occupied Bandwidth

4.1. Test Secification

According to FCC Part 2.1049, 22.917, 24.238, 27.53

4.2. Test Setup



4.3. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the occupied bandwidth was measured at the antenna terminals of the EUT. The Resolution BW of the analyzer is set to 1 %~5% of the emission bandwidth. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The plots below show the resultant display from the Spectrum Analyser.

4.4. Test Result of Occupied Bandwidth

Product	WCDMA/LTE/5G Mobile Phone
Test Mode	Occupied Bandwidth
Test Site	CTR

LTE Band 2								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	18607	1850.7	1.0971	1.0946	1.1017	1.307	1.281	1.313
1.4M	18900	1880	1.1019	1.0953	1.0933	1.279	1.300	1.288
1.4M	19193	1909.3	1.0939	1.1010	1.0933	1.296	1.307	1.299
3M	18615	1851.5	2.7320	2.7351	2.7386	3.033	3.035	3.002
3M	18900	1880	2.7326	2.7258	2.7229	3.014	3.014	3.011
3M	19185	1908.5	2.7336	2.7256	2.7254	3.016	3.024	3.009
5M	18625	1852.5	4.5196	4.4953	4.4991	4.978	4.994	4.958
5M	18900	1880	4.5049	4.5205	4.4981	4.992	4.968	4.952
5M	19175	1907.5	4.4992	4.5156	4.5031	4.931	4.993	4.957
10M	18650	1855	9.0767	9.0731	9.0664	10.02	9.950	9.989
10M	18900	1880	9.0390	9.0545	9.0419	9.913	9.978	9.893
10M	19150	1905	9.0520	9.0397	9.0467	9.949	9.945	9.911
15M	18675	1857.5	13.530	13.511	13.483	14.71	14.68	14.60
15M	18900	1880	13.444	13.483	13.470	14.66	14.67	14.64
15M	19125	1902.5	13.458	13.472	13.498	14.58	14.51	14.62
20M	18700	1860	18.589	18.649	18.526	20.37	20.42	20.47
20M	18900	1880	18.582	18.511	18.533	20.38	20.33	20.39
20M	19100	1900	18.456	18.522	18.499	20.37	20.39	20.25

LTE Band 5								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	20407	824.7	1.0951	1.0984	1.0899	1.294	1.302	1.288
1.4M	20525	836.5	1.0952	1.0898	1.1016	1.313	1.281	1.304
1.4M	20643	848.3	1.1032	1.0960	1.0947	1.289	1.311	1.282
3M	20415	825.5	2.7305	2.7248	2.7380	3.028	3.005	3.015
3M	20525	836.5	2.7335	2.7283	2.7231	3.011	3.018	3.000
3M	20635	847.5	2.7310	2.7256	2.7222	3.010	3.023	3.010
5M	20425	826.5	4.5141	4.4934	4.4948	4.964	4.971	4.976
5M	20525	836.5	4.5055	4.5206	4.5054	4.964	4.956	4.977
5M	20625	846.5	4.4930	4.5082	4.4911	4.954	4.969	4.941
10M	20450	829	9.0468	9.0413	9.0434	10.05	9.899	9.926
10M	20525	836.5	9.0505	9.0543	9.0275	9.941	9.922	9.869
10M	20600	844	9.0436	9.0457	9.0472	9.890	9.909	9.881

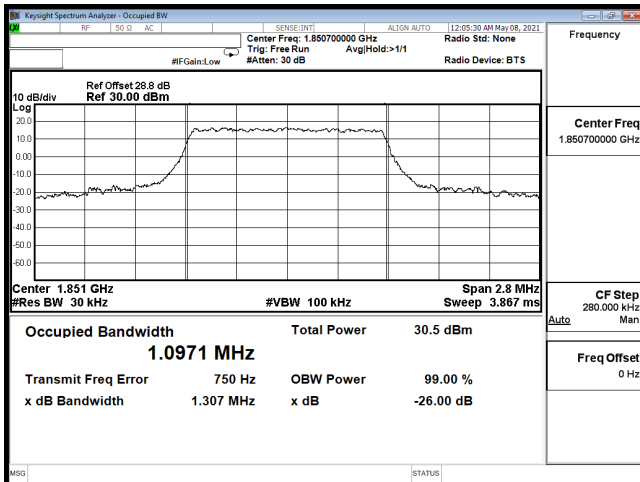
LTE Band 12								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	23017	699.7	1.0953	1.0987	1.0919	1.302	1.307	1.288
1.4M	23095	707.5	1.0952	1.0917	1.1046	1.312	1.279	1.315
1.4M	23173	715.3	1.1037	1.0958	1.0938	1.284	1.296	1.279
3M	23025	700.5	2.7305	2.7340	2.7399	3.027	3.039	3.012
3M	23095	707.5	2.7350	2.7268	2.7276	3.020	3.014	3.017
3M	23165	714.5	2.7321	2.7213	2.7249	3.014	3.033	3.016
5M	23035	701.5	4.5179	4.4959	4.5007	4.958	4.968	4.973
5M	23095	707.5	4.5062	4.5215	4.5039	5.007	4.956	4.998
5M	23155	713.5	4.4982	4.5171	4.4989	4.970	4.998	4.986
10M	23060	704	9.0530	9.0424	9.0432	10.02	9.888	10.09
10M	23095	707.5	9.0260	9.0266	9.0282	9.887	9.962	9.910
10M	23130	711	9.0761	9.0621	9.0630	9.995	9.981	9.983

LTE Band 30								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5M	27685	2307.5	4.5085	4.5176	4.5117	4.996	4.994	4.978
5M	27710	2310	4.4990	4.5165	4.5002	4.968	4.996	4.972
5M	27735	2312.5	4.5075	4.4914	4.4992	4.961	4.965	4.969
10M	--	--	--	--	--	--	--	--
10M	27710	2310	9.0660	9.0684	9.0378	10.07	9.956	9.975
10M	--	--	--	--	--	--	--	--

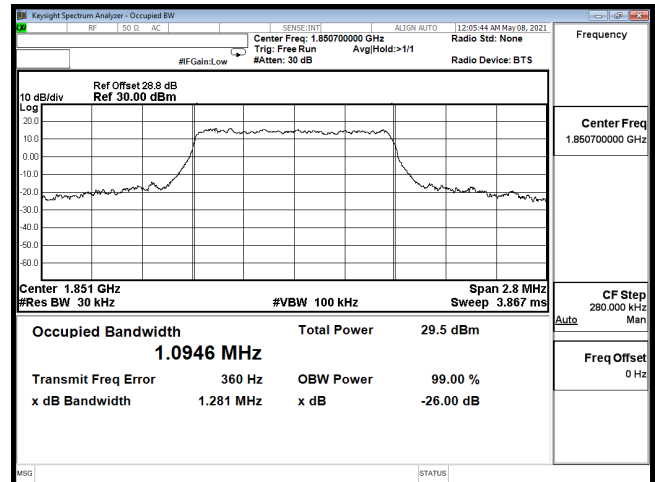
LTE Band 66								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	131979	1710.7	1.0974	1.0938	1.1043	1.307	1.270	1.312
1.4M	132322	1745	1.1033	1.0962	1.0936	1.299	1.292	1.276
1.4M	132665	1779.3	1.0956	1.1013	1.0920	1.292	1.308	1.293
3M	131987	1711.5	2.7337	2.7360	2.7400	3.033	3.007	3.022
3M	132322	1745	2.7347	2.7258	2.7269	3.026	3.007	3.010
3M	132657	1778.5	2.7310	2.7237	2.7239	3.024	3.032	3.015
5M	131997	1712.5	4.5154	4.4924	4.4998	4.969	4.961	4.969
5M	132322	1745	4.5075	4.5211	4.5074	4.978	4.971	4.953
5M	132647	1777.5	4.4925	4.5057	4.5002	4.922	4.985	4.960
10M	132022	1715	9.0591	9.0742	9.0594	10.31	9.904	9.952
10M	132322	1745	9.0362	9.0526	9.0449	9.898	10.01	9.889
10M	132622	1775	9.0512	9.0503	9.0474	9.947	9.963	9.919
15M	132047	1717.5	13.495	13.492	13.458	15.03	14.64	14.67
15M	132322	1745	13.449	13.488	13.460	14.56	14.63	14.87
15M	132597	1772.5	13.457	13.469	13.483	14.66	14.56	14.59
20M	132072	1720	18.576	18.654	18.444	20.37	20.40	20.44
20M	132322	1745	18.530	18.482	18.526	20.39	20.37	20.31
20M	132572	1770	18.498	18.510	18.512	20.41	20.34	20.35

2UL_CA_5B								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5M +10M	20428	826.8	13.899	13.900	13.884	14.74	14.78	14.74
5M +10M	20478	831.8	13.912	13.907	13.925	14.79	14.76	14.74
5M +10M	20528	836.8	13.910	13.899	13.915	14.78	14.75	14.71
10M +5M	20450	829	13.882	13.883	13.897	14.84	14.73	14.72
10M +5M	20500	834	13.905	13.892	13.900	14.80	14.73	14.72
10M +5M	20550	839	13.897	13.902	13.906	14.74	14.73	14.78
10M +10M	20450	829	19.374	19.298	19.353	21.22	21.13	21.17
10M +10M	20476	831.6	19.443	19.411	19.463	21.23	21.27	21.15
10M +10M	20501	834.1	19.387	19.399	19.455	21.19	21.11	21.20

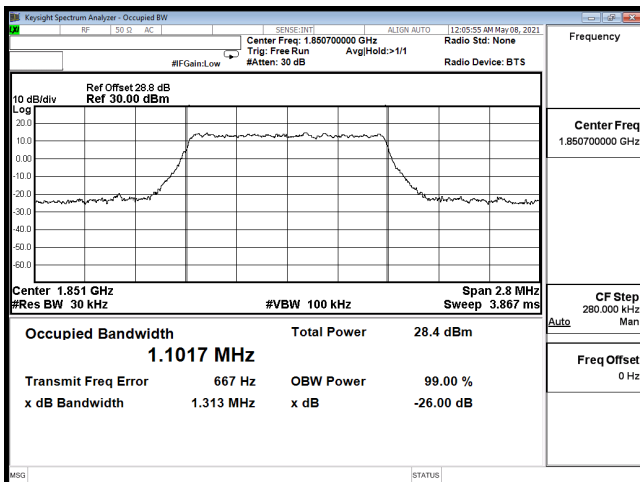
Product	WCDMA/LTE/5G Mobile Phone		
Test Mode	Occupied Bandwidth		
Date of Test	2021/05/08	Test Site	CTR
Test Condition	Band 2 QPSK/16QAM/64QAM		



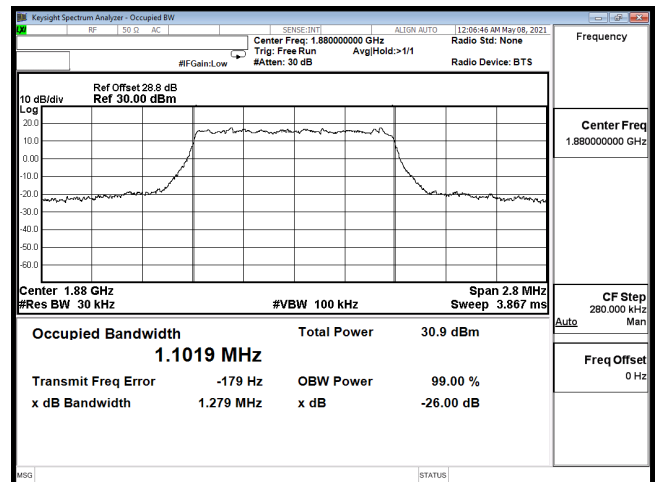
OCC-B2_1.4M-CH18607-QPSK



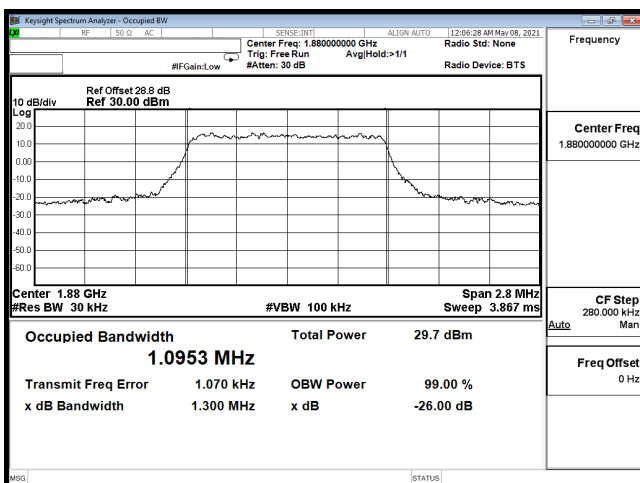
OCC-B2_1.4M-CH18607-16QAM



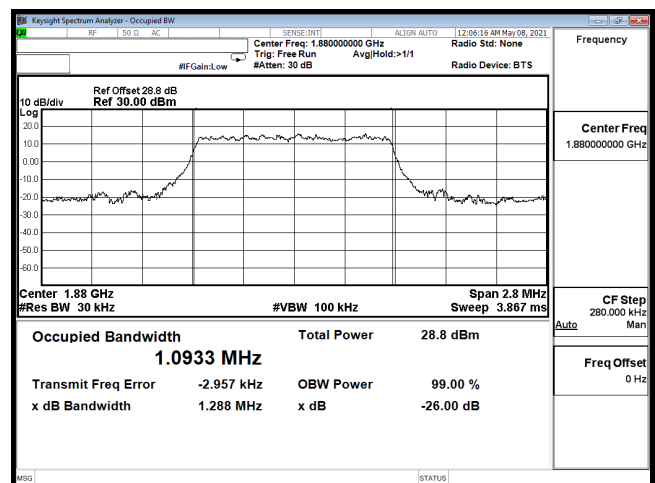
OCC-B2_1.4M-CH18607-64QAM



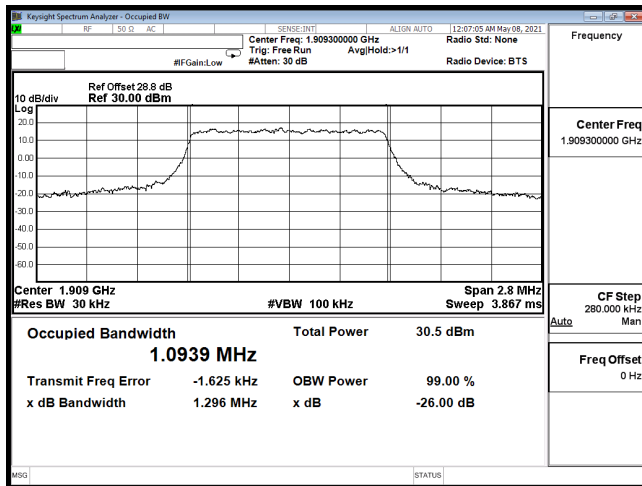
OCC-B2_1.4M-CH18900-QPSK



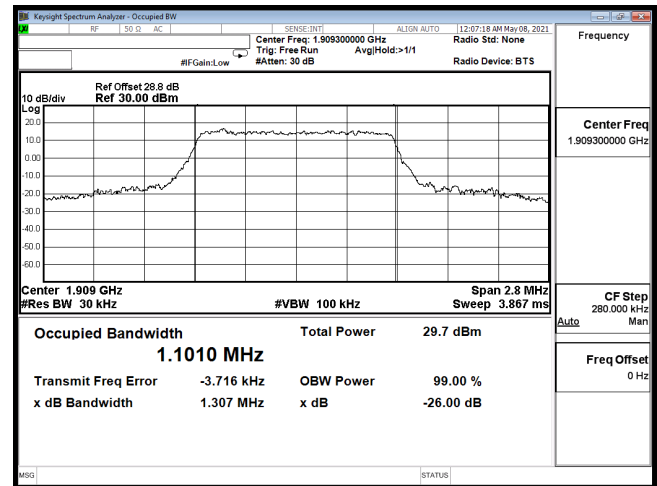
OCC-B2_1.4M-CH18900-16QAM



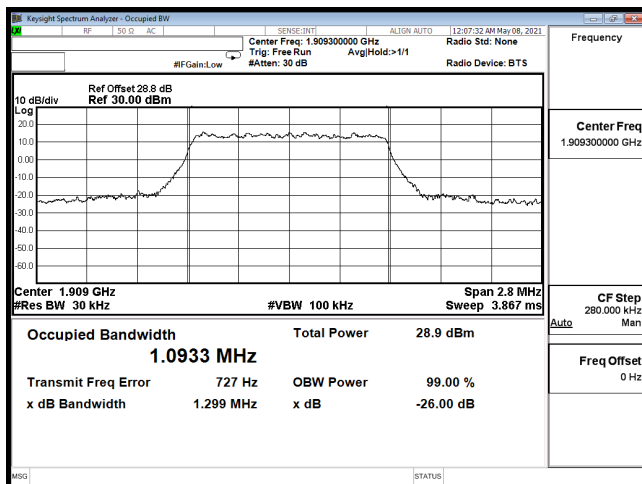
OCC-B2_1.4M-CH18900-64QAM



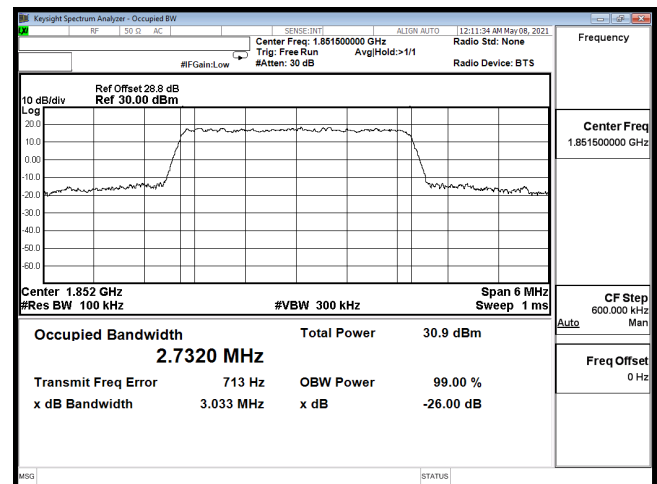
OCC-B2_1.4M-CH19193-QPSK



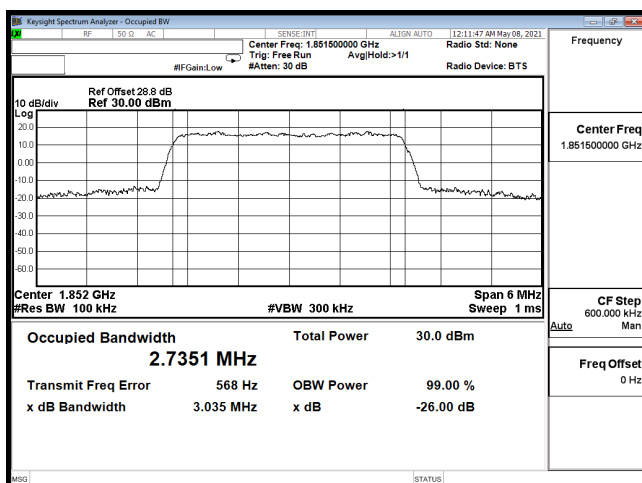
OCC-B2_1.4M-CH19193-16QAM



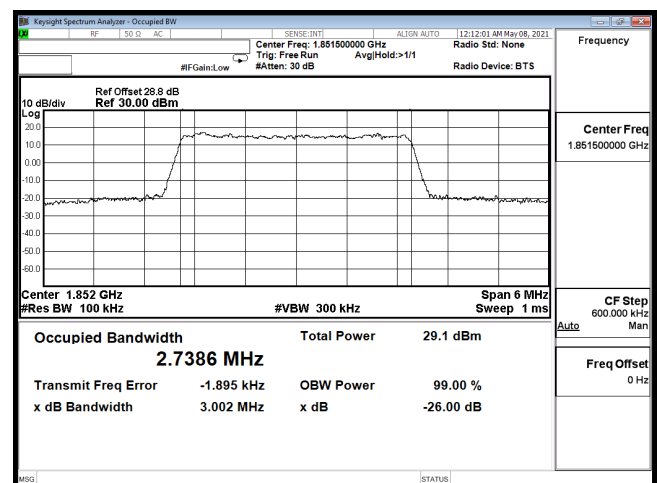
OCC-B2_1.4M-CH19193-64QAM



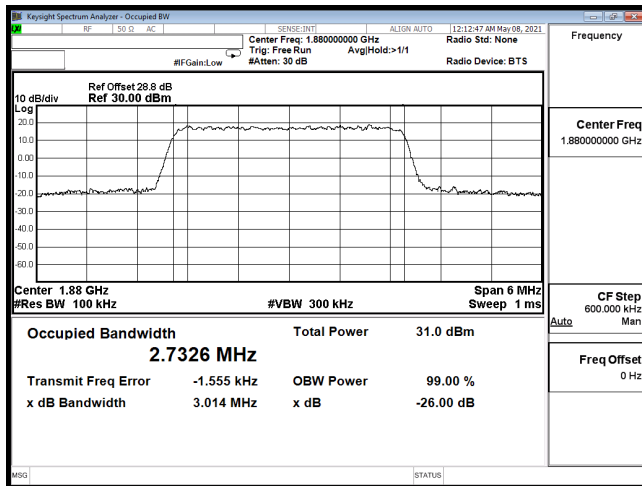
OCC-B2_3M-CH18615-QPSK



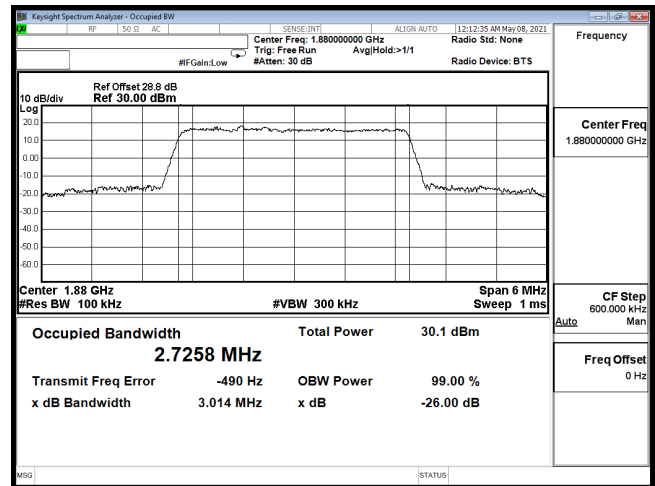
OCC-B2_3M-CH18615-16QAM



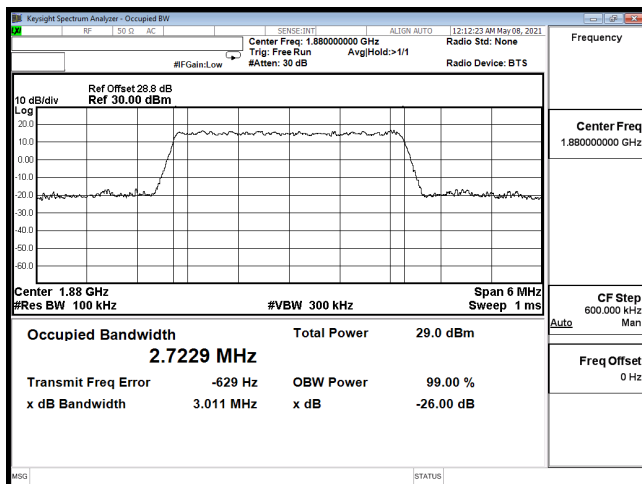
OCC-B2_3M-CH18615-64QAM



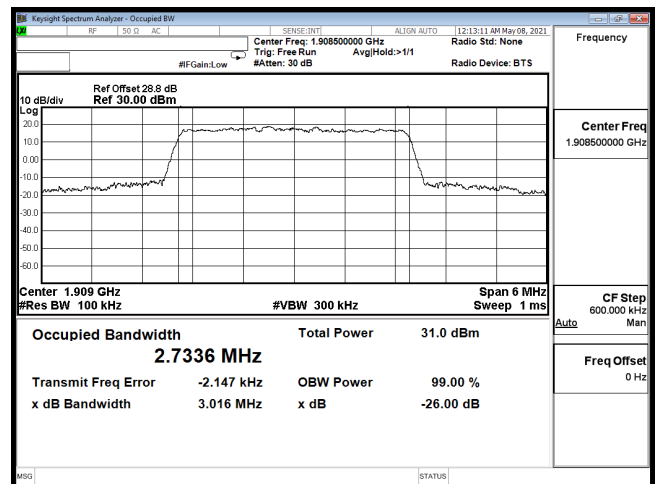
OCC-B2_3M-CH18900-QPSK



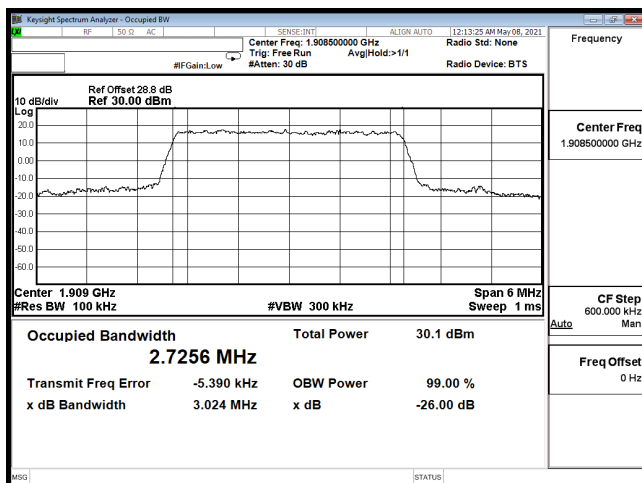
OCC-B2_3M-CH18900-16QAM



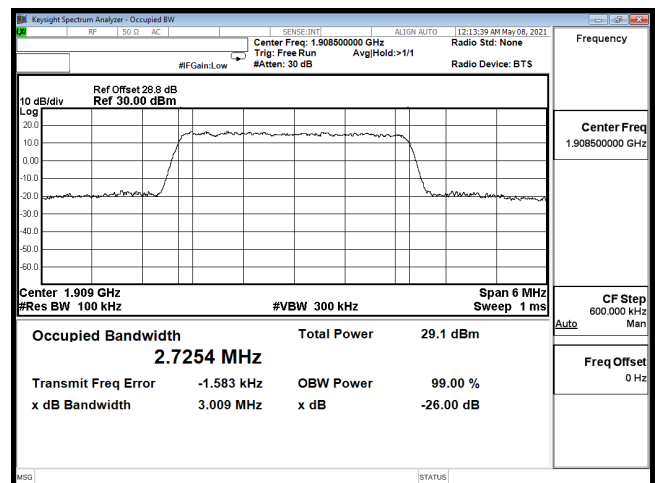
OCC-B2_3M-CH18900-64QAM



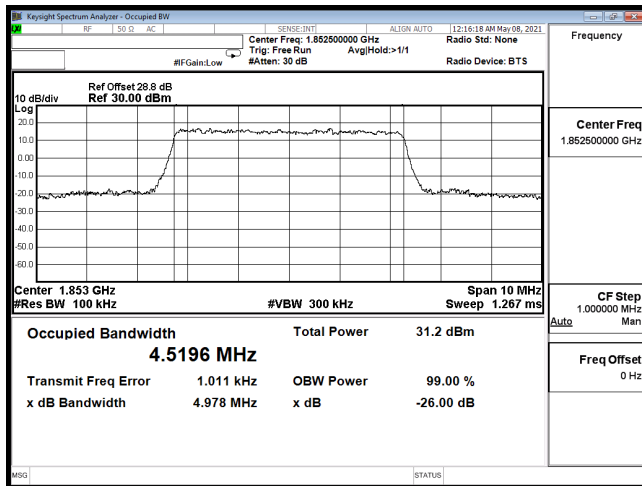
OCC-B2_3M-CH19185-QPSK



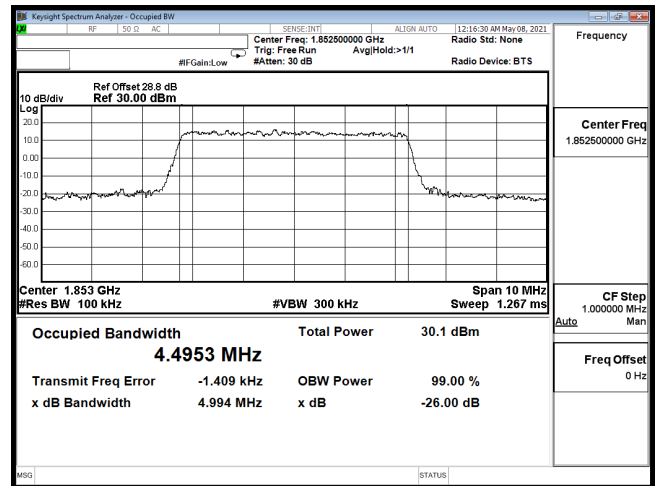
OCC-B2_3M-CH19185-16QAM



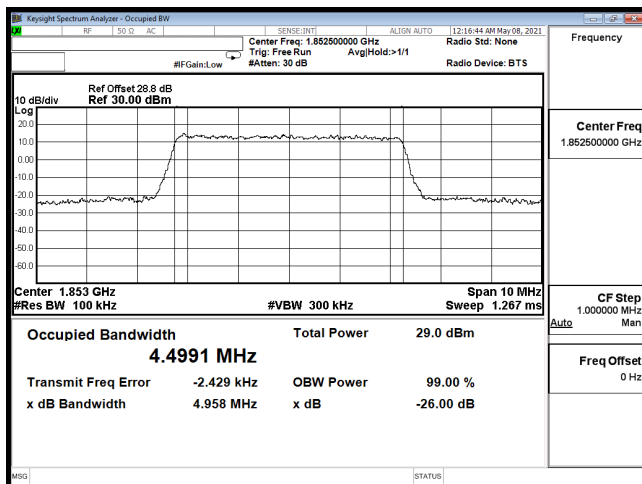
OCC-B2_3M-CH19185-64QAM



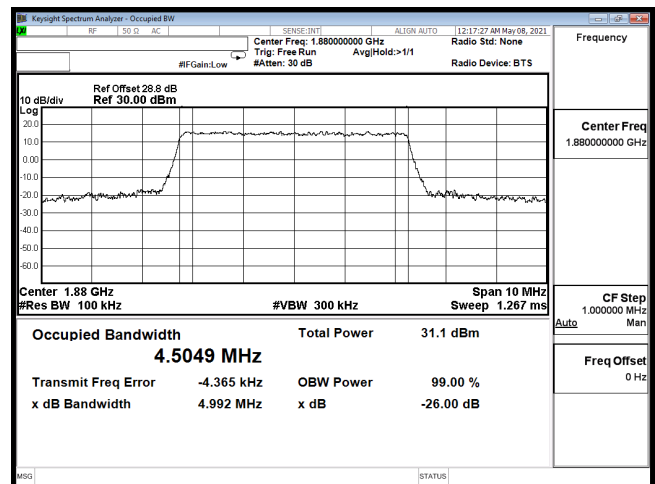
OCC-B2_5M-CH18625-QPSK



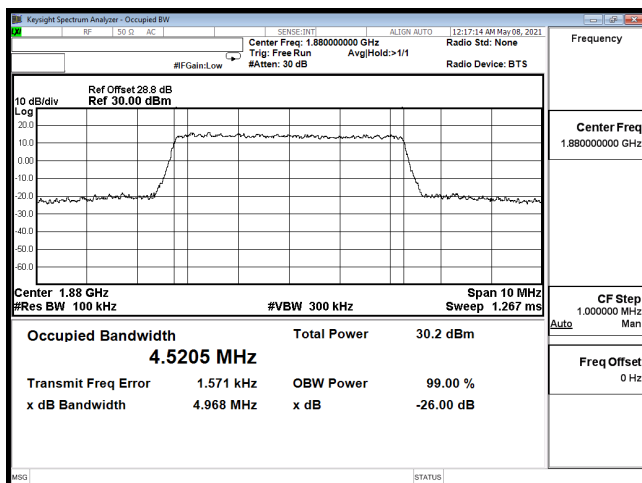
OCC-B2_5M-CH18625-16QAM



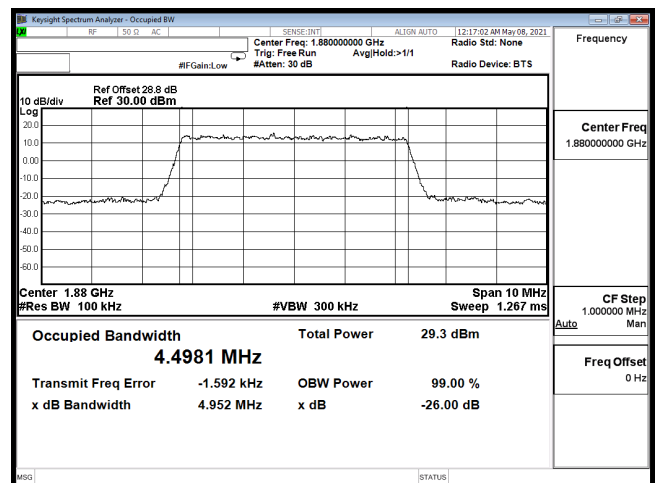
OCC-B2_5M-CH18625-64QAM



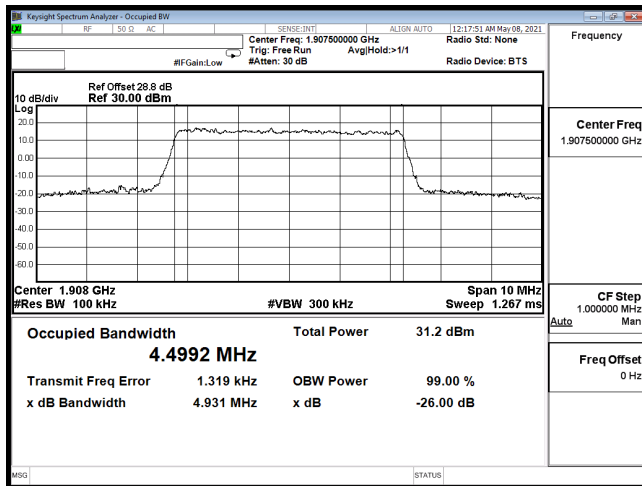
OCC-B2_5M-CH18900-16QAM



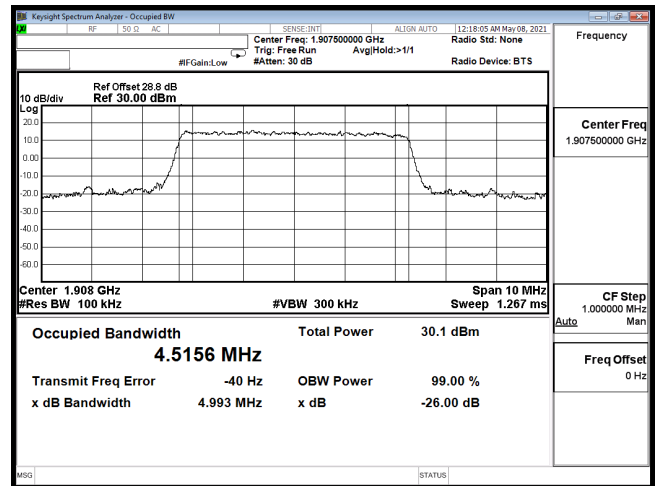
OCC-B2_5M-CH18900-64QAM



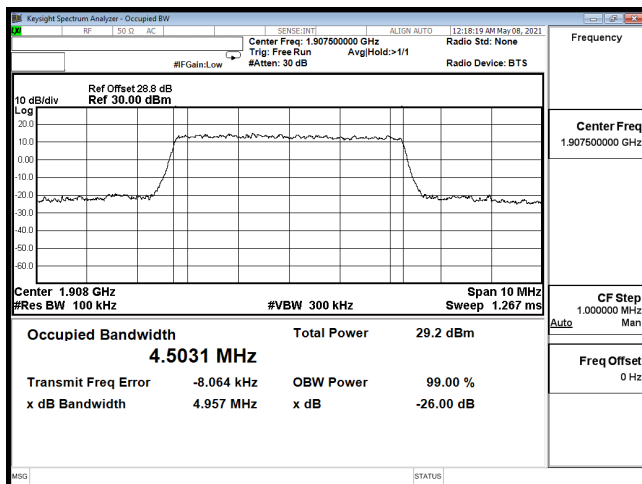
OCC-B2_5M-CH18900-16QAM



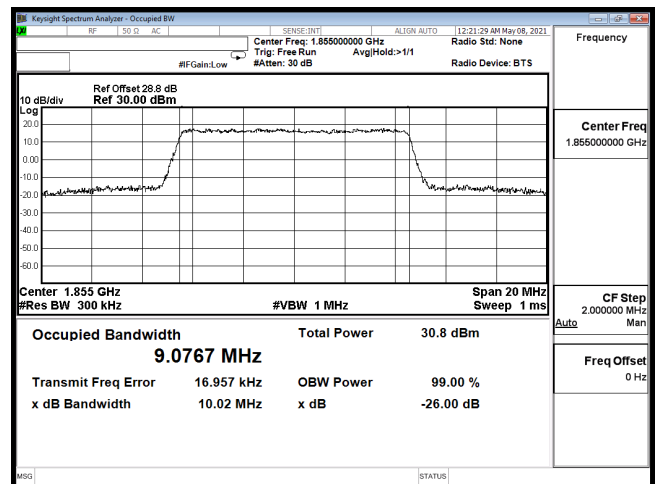
OCC-B2_5M-CH19175-QPSK



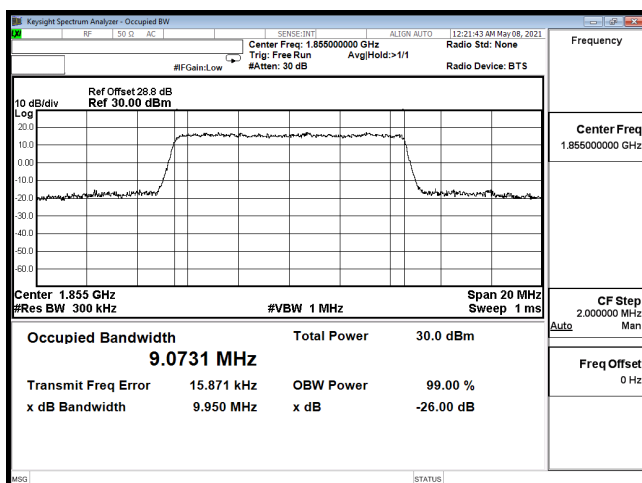
OCC-B2_5M-CH19175-16QAM



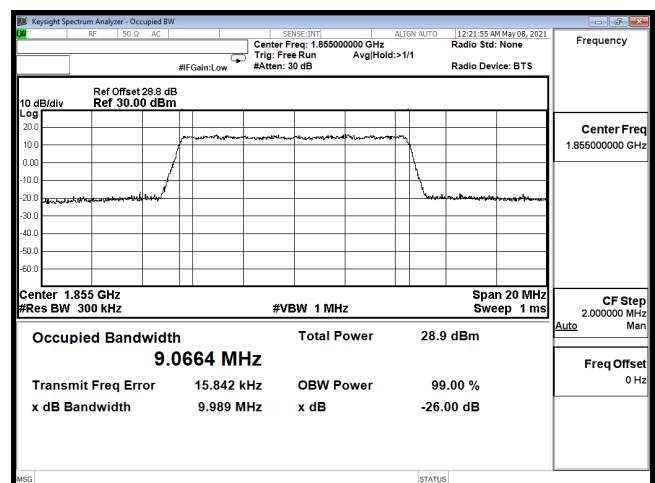
OCC-B2_5M-CH19175-64QAM



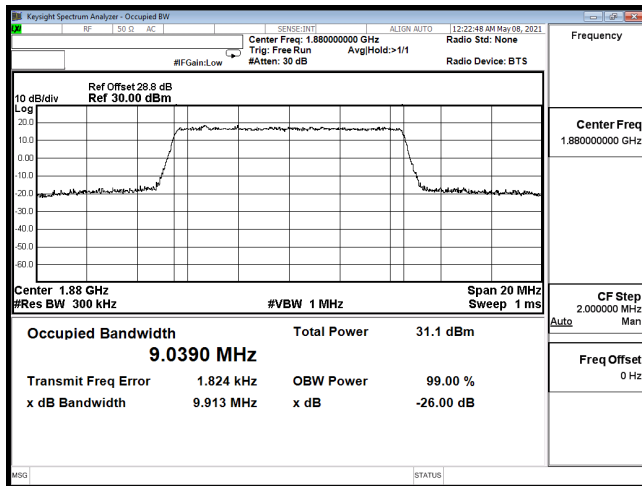
OCC-B2_10M-CH18650-QPSK



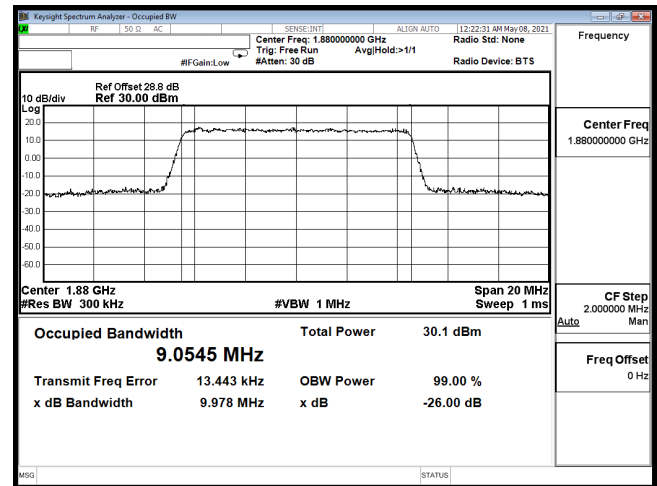
OCC-B2_10M-CH18650-16QAM



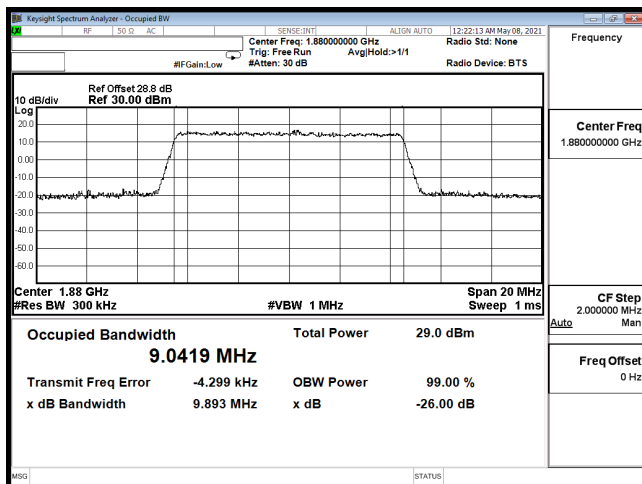
OCC-B2_10M-CH18650-64QAM



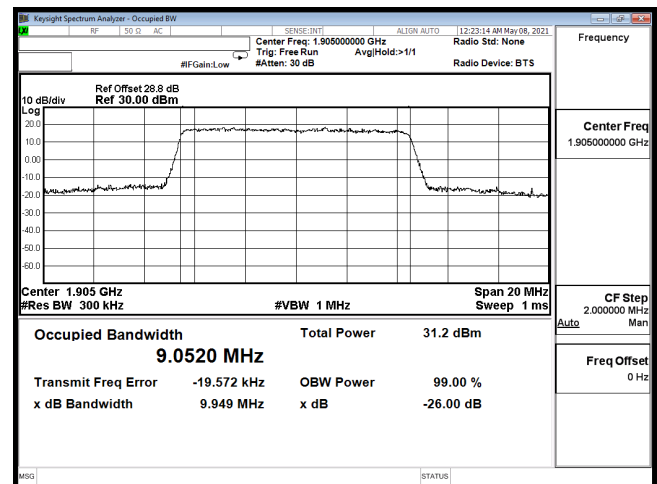
OCC-B2_10M-CH18900-QPSK



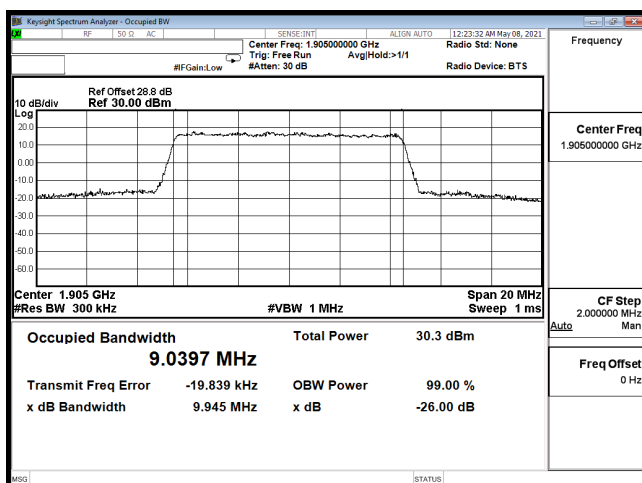
OCC-B2_10M-CH18900-16QAM



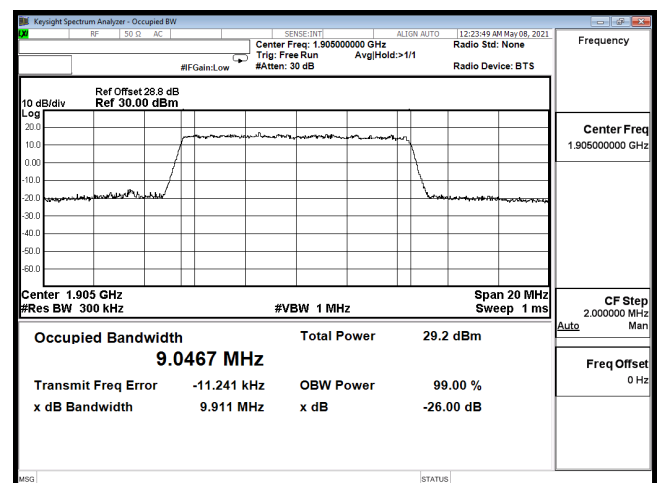
OCC-B2_10M-CH18900-QPSK



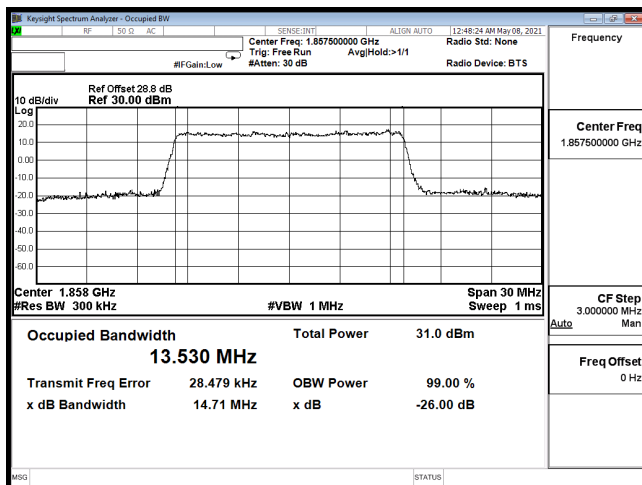
OCC-B2_10M-CH18900-16QAM



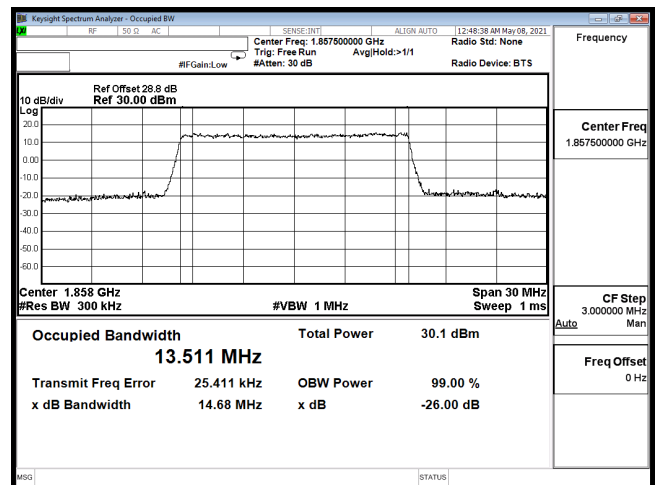
OCC-B2_10M-CH18900-64QAM



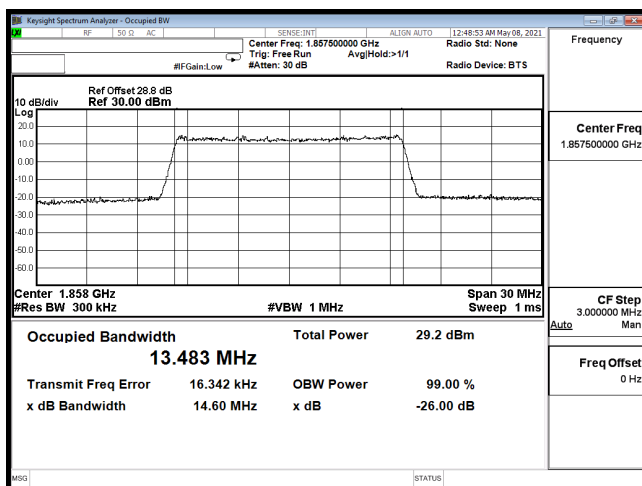
OCC-B2_10M-CH19150-QPSK



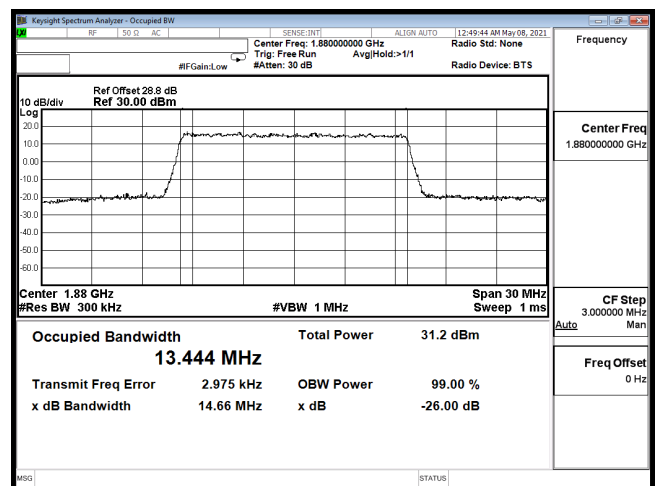
OCC-B2_15M-CH18675-QPSK



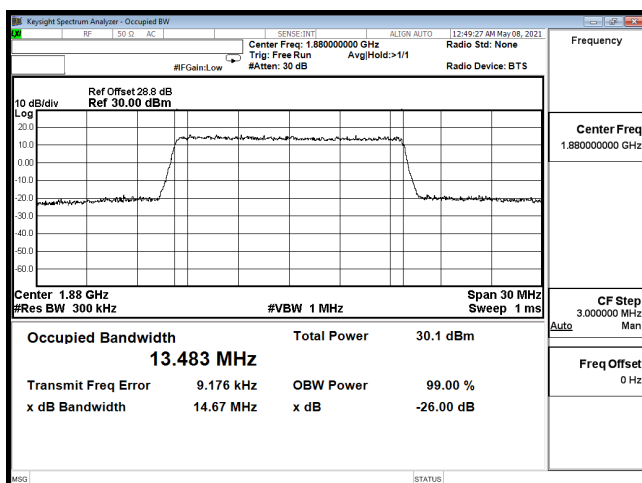
OCC-B2_15M-CH18675-16QAM



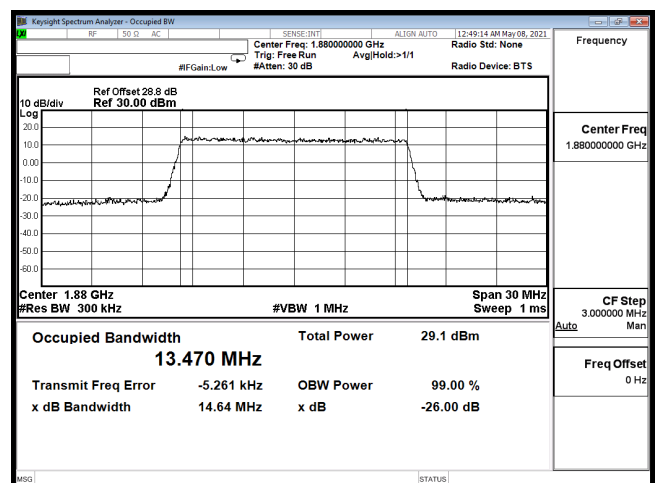
OCC-B2_15M-CH18675-64QAM



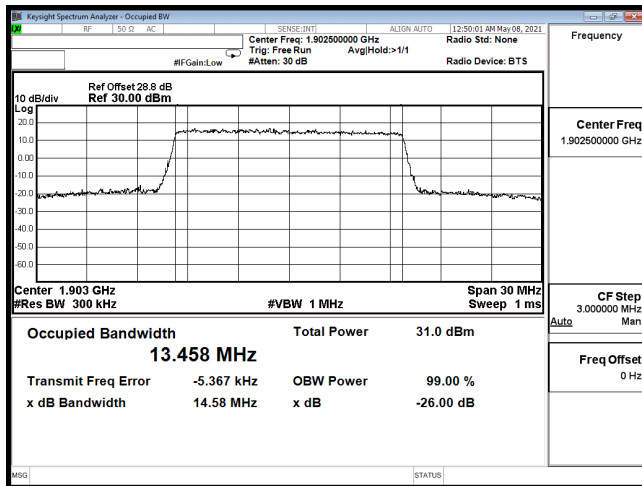
OCC-B2_15M-CH18900-QPSK



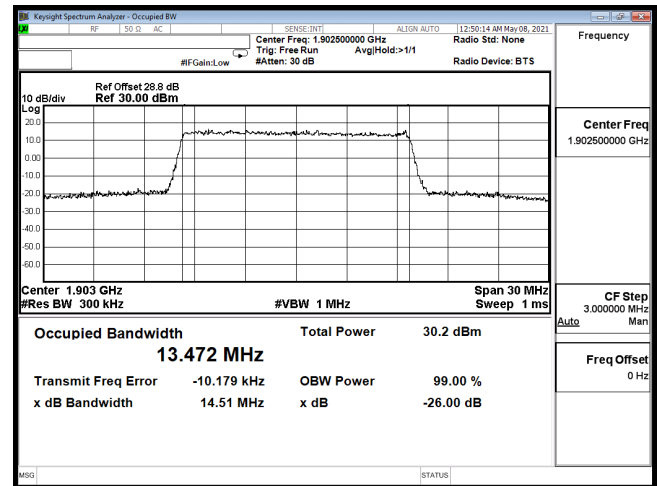
OCC-B2_15M-CH18900-16QAM



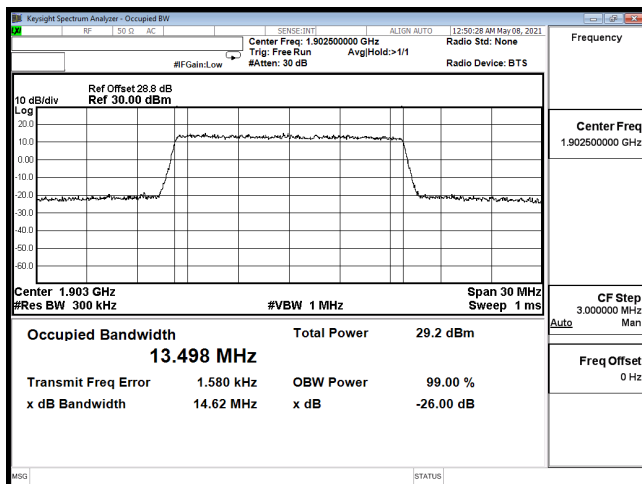
OCC-B2_15M-CH18900-64QAM



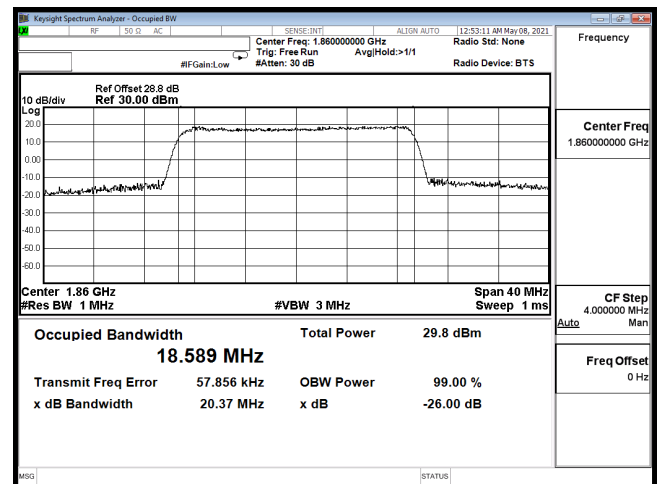
OCC-B2_15M-CH19125-QPSK



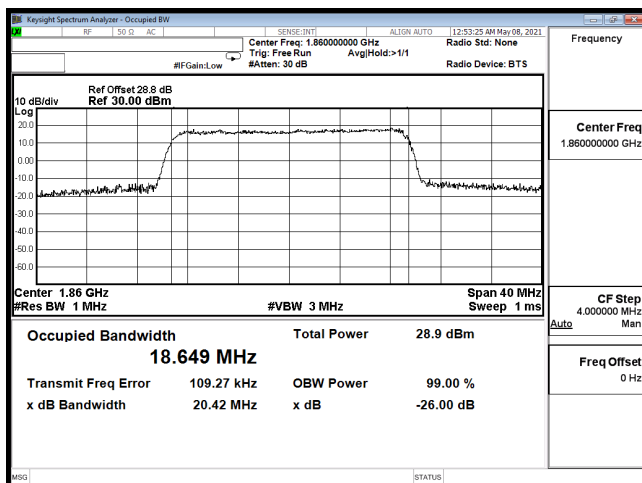
OCC-B2_15M-CH19125-16QAM



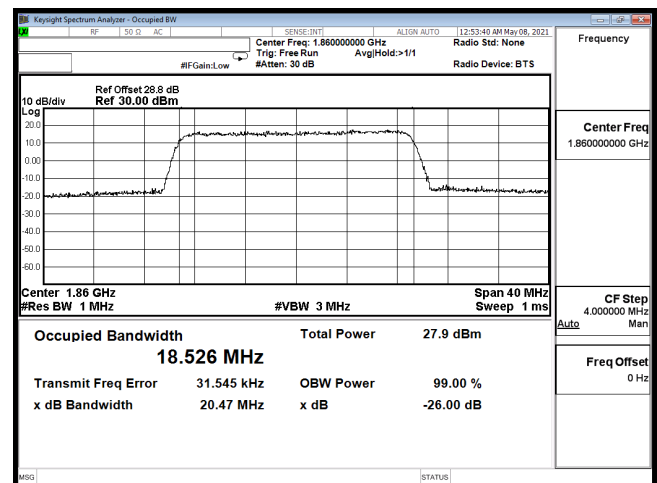
OCC-B2_15M-CH19125-64QAM



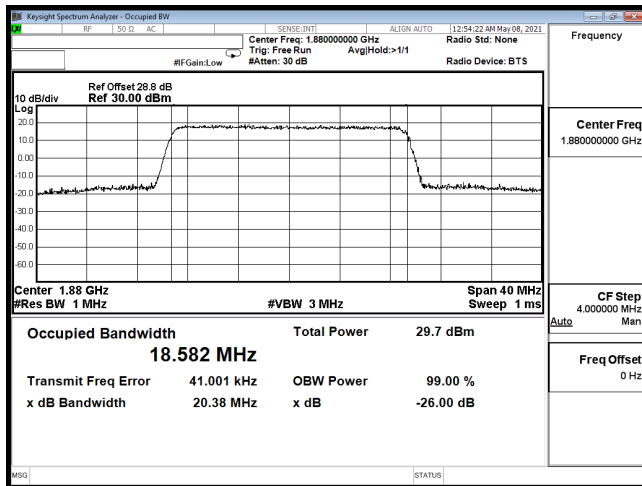
OCC-B2_20M-CH18700-QPSK



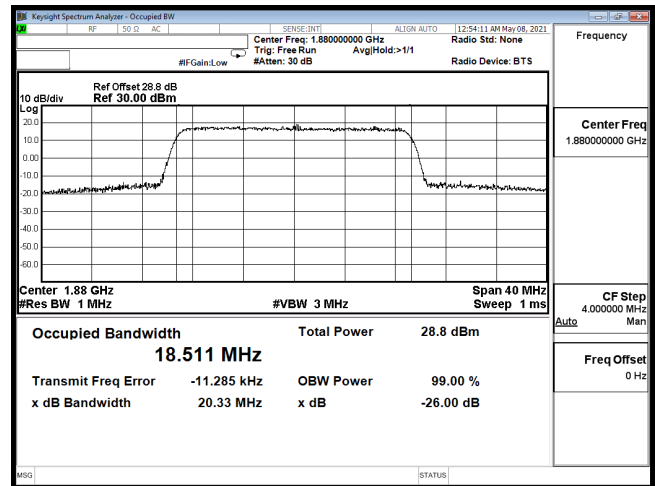
OCC-B2_20M-CH18700-16QAM



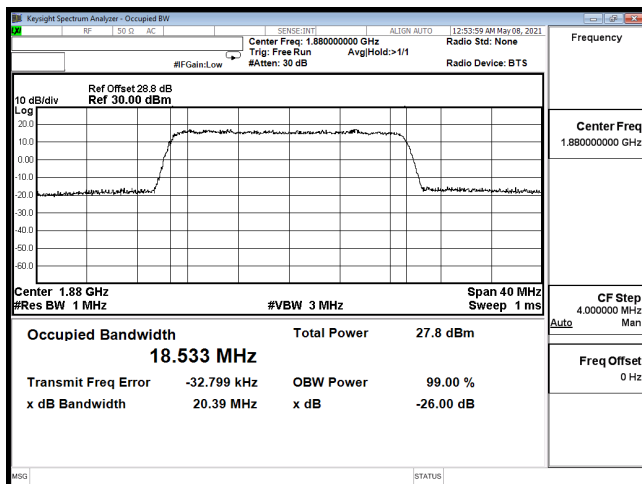
OCC-B2_20M-CH18700-64QAM



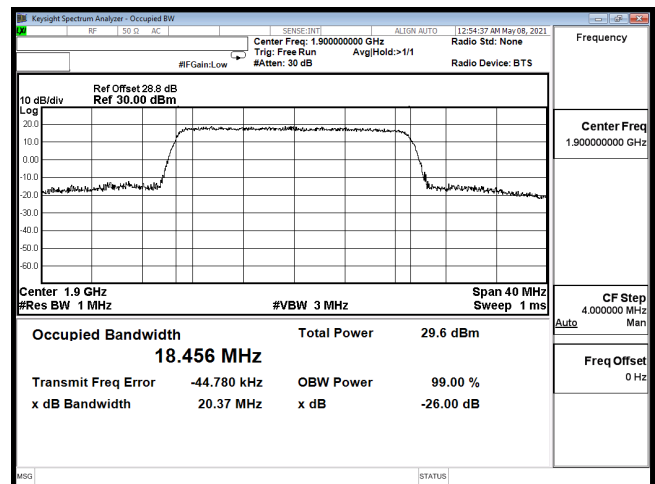
OCC-B2_20M-CH18900-QPSK



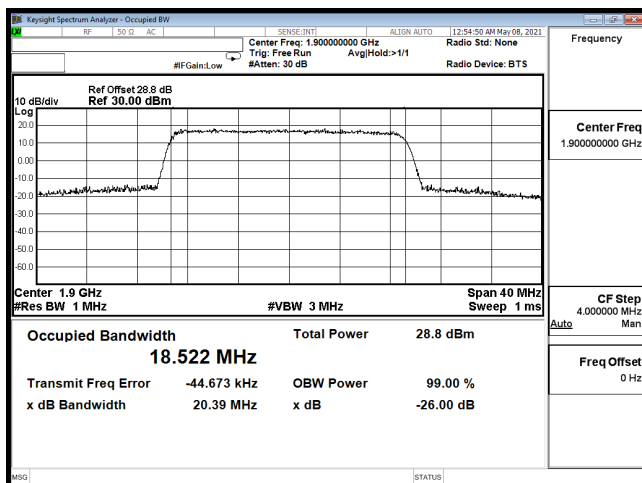
OCC-B2_20M-CH18900-16QAM



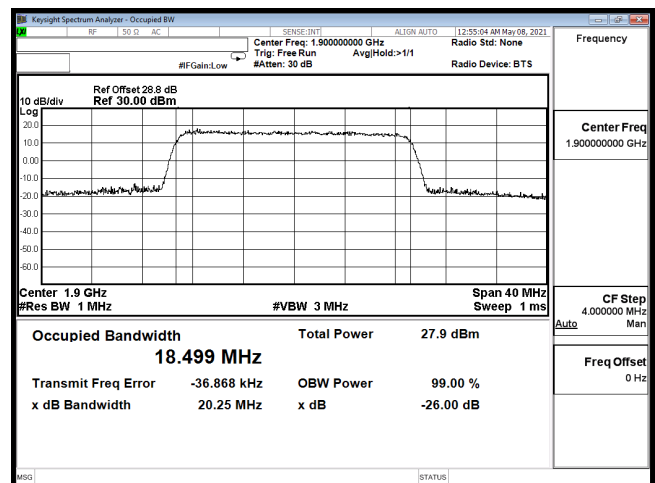
OCC-B2_20M-CH18900-64QAM



OCC-B2_20M-CH19100-16QAM

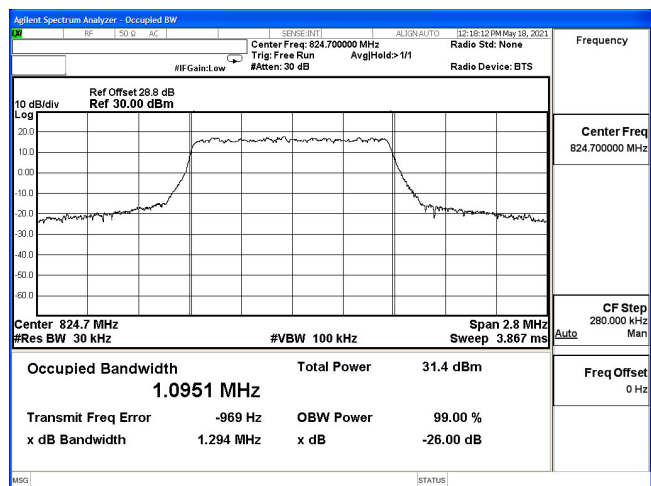


OCC-B2_20M-CH19100-64QAM

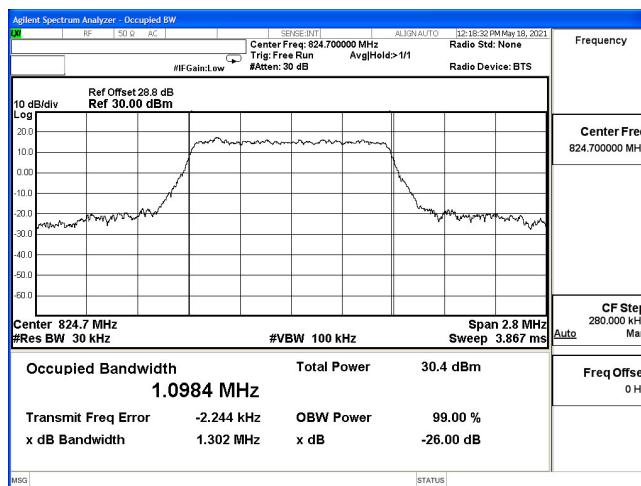


OCC-B2_20M-CH19100-16QAM

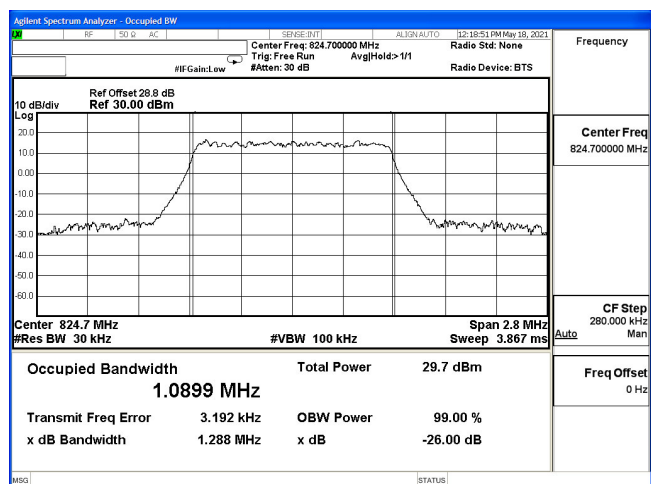
Product	WCDMA/LTE/5G Mobile Phone		
Test Mode	Occupied Bandwidth		
Date of Test	2021/05/18	Test Site	CTR
Test Condition	Band 5 QPSK/16QAM/64QAM		



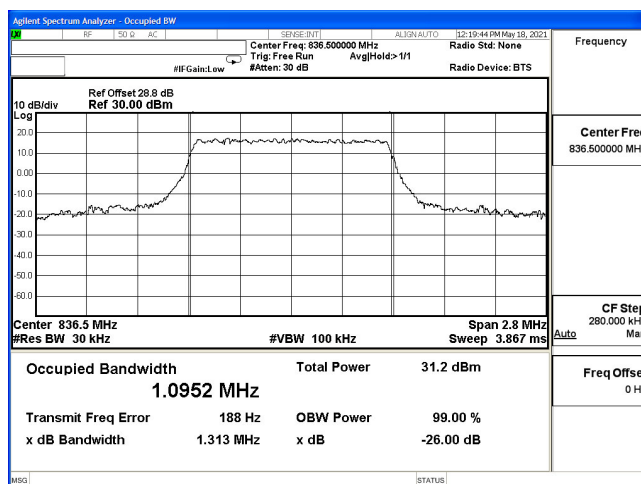
OCC-B5_1.4M-CH20407-QPSK



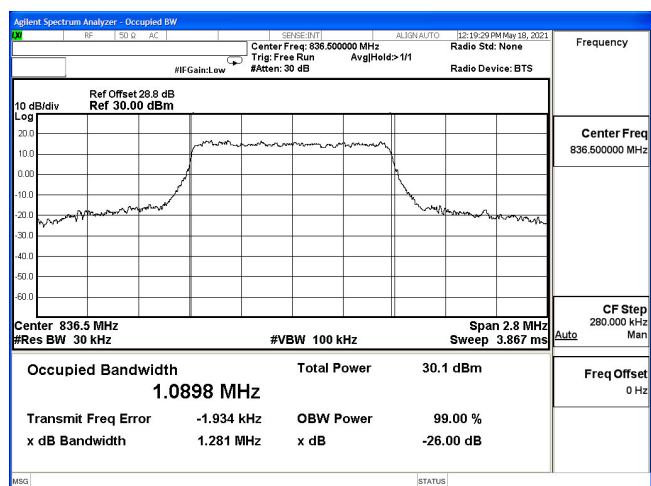
OCC-B5_1.4M-CH20407-16QAM



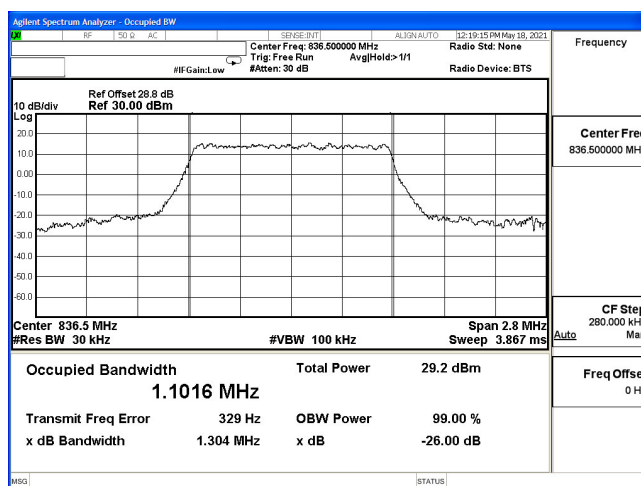
OCC-B5_1.4M-CH20407-64QAM



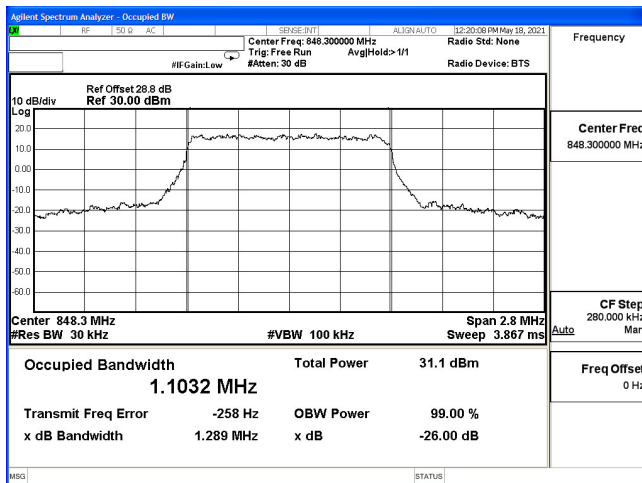
OCC-B5_1.4M-CH20525-QPSK



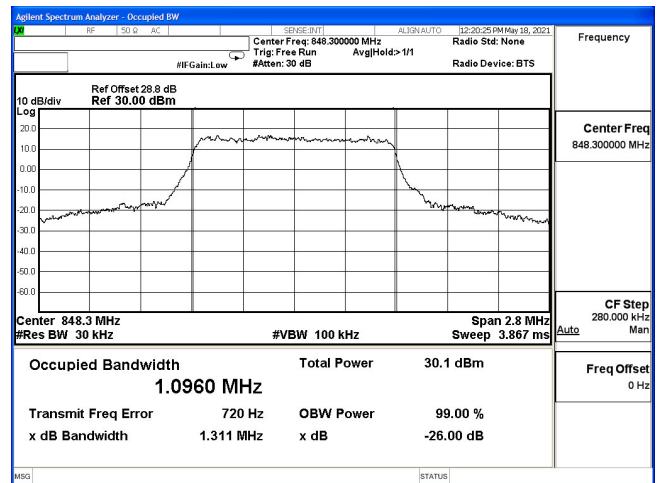
OCC-B5_1.4M-CH20525-16QAM



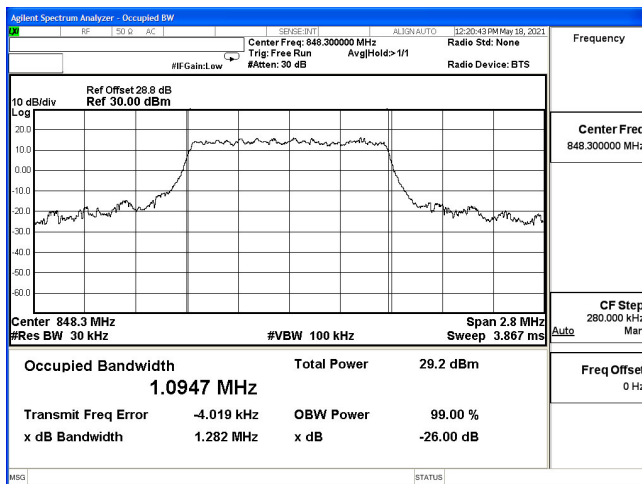
OCC-B5_1.4M-CH20525-64QAM



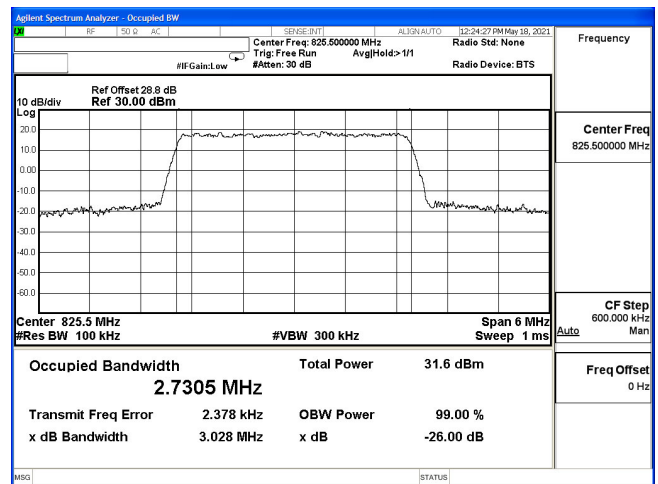
OCC-B5_1.4M-CH20643-QPSK



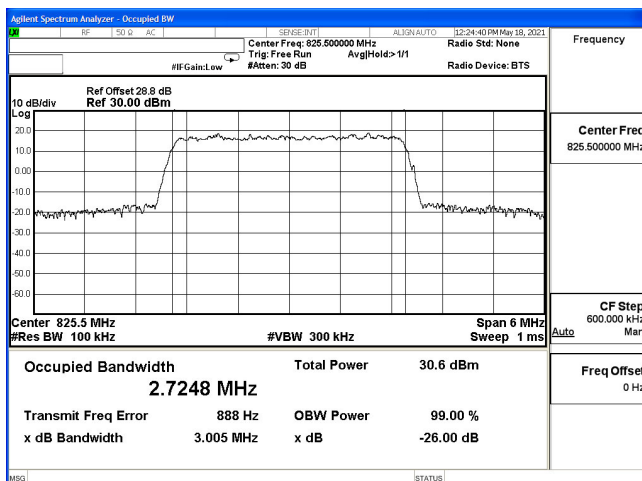
OCC-B5_1.4M-CH20643-16QAM



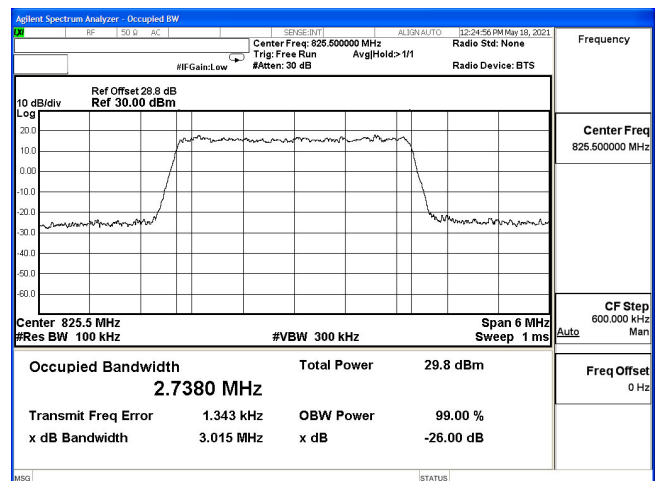
OCC-B5_1.4M-CH20643-64QAM



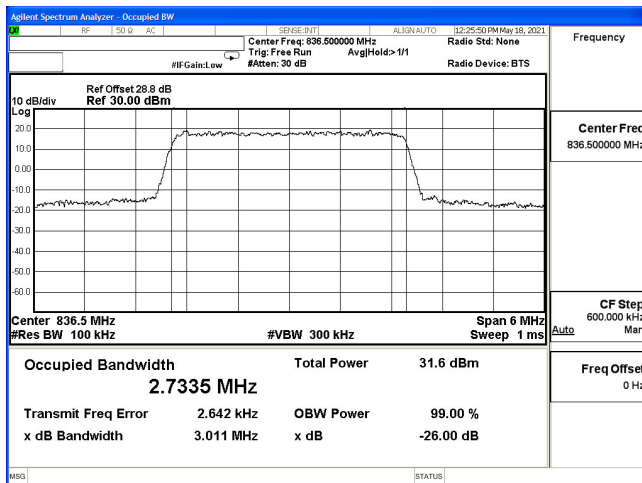
OCC-B5_3M-CH20415-QPSK



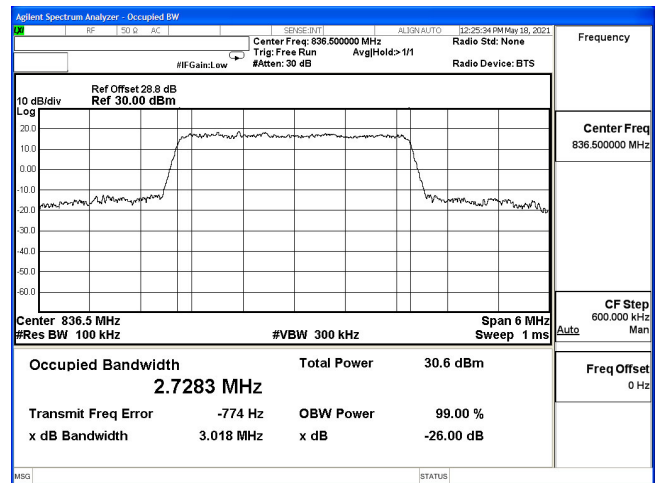
OCC-B5_3M-CH20415-16QAM



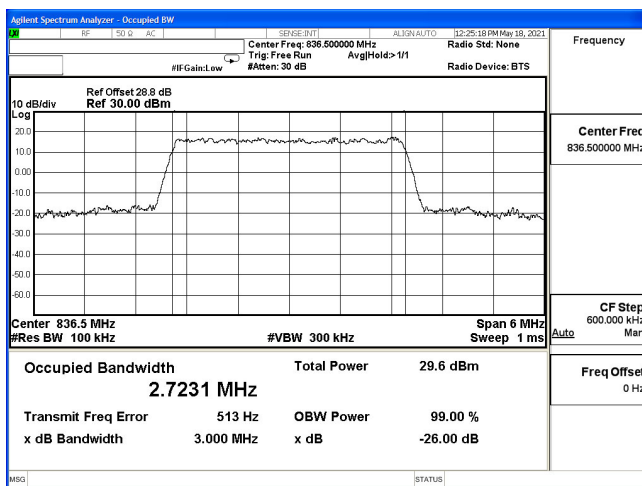
OCC-B5_3M-CH20415-64QAM



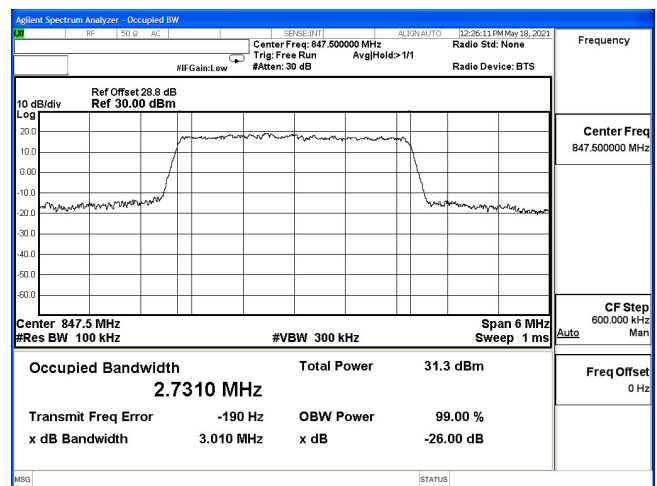
OCC-B5_3M-CH20525-QPSK



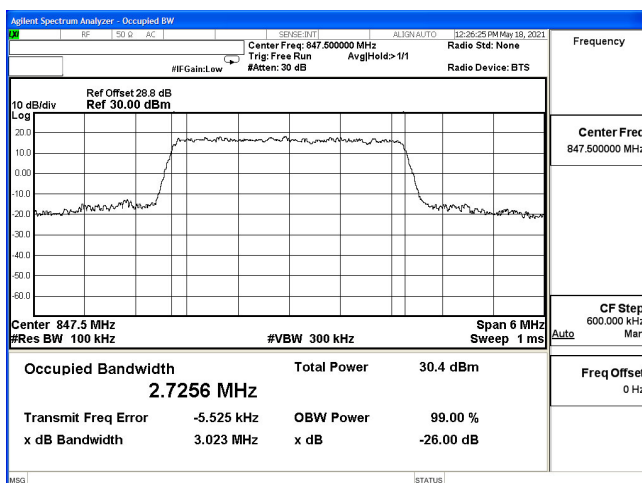
OCC-B5_3M-CH20525-16QAM



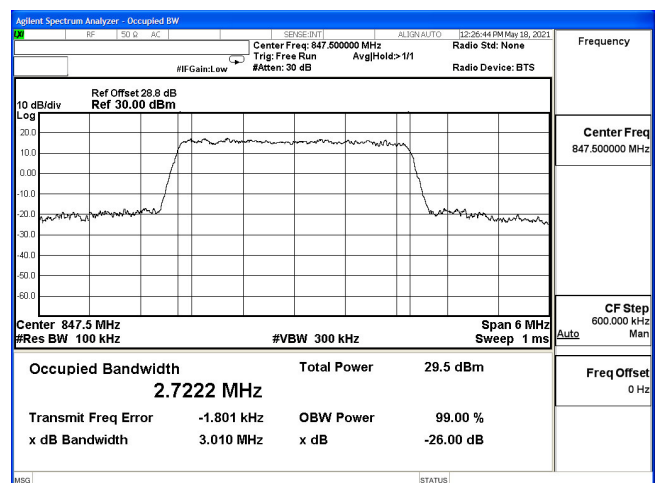
OCC-B5_3M-CH20525-64QAM



OCC-B5_3M-CH20635-QPSK



OCC-B5_3M-CH20635-16QAM



OCC-B5_3M-CH20635-64QAM