Test Report No:
2420385R-RFUSV24S-A

TEST REPORT
FCC Rules&Regulations

Product Name	Module
Brand Name	Semtech
Model No.	HL7900
FCC ID	N7NHL79
Applicant´s Name / Address	Sierra Wireless, ULC 13811 Wireless Way, Richmond, BC V6V 3A4, Canada
Manufacturer's Name / Address	Sierra Wireless, ULC 13811 Wireless Way, Richmond, BC V6V 3A4, Canada
Test Method Requested, Standard	FCC CFR Title 47 Part 22 Subpart H FCC CFR Title 47 Part 24 Subpart E FCC CFR Title 47 Part 27 Subpart F, Subpart L FCC CFR Title 47 Part 90 Subpart S ANSI/TIA-603-E-2016 ANSI C63.26-2015
Verdict Summary	IN COMPLIANCE
Documented By	Amelia Wu
Approved By	Rueyyan Lin
Date of Receipt	Feb. 23, 2024
Date of Issue	Aug. 02, 2024
Report Version	V1.0

INDEX

Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

General Conditions

1. The test results relate only to the samples tested.
2. 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.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. 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.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Aug. 02, 2024

Summary of Test Result

Report Clause	Test Items	Band	Ref Std. Clause	Limit	Result (PASS/FAIL)	Remark
3	RF Output Power	2, 25	§2.1033 §2.1046 §24.232	< 2 Watts	PASS	-
		4, 66	§2.1033 §2.1046 §27.50	< 1 Watts	PASS	-
		5	§2.1033 §2.1046 §22.913	< 7 Watts ERP	PASS	-
		12, 13	§2.1033 §2.1046 §27.50	< 3 Watts ERP	PASS	-
		26	§2.1033 §2.1046 §90.635(b) §22.913	< 100 Watts	PASS	-
		70	§27.50	< 1 Watts	PASS	-
		85	§2.1046 §27.50	< 3 Watts	PASS	-
4	Occupied Bandwidth	2, 4, 5, 12, 13, 25, 26, 66 70, 85	§2.1049	N/A	PASS	-
5	Peak to Average Power Ratio	2, 25	§24.232	≦ 13 dB	PASS	-
		4, 12, 13, 66, 70, 85	§27.50	≦ 13 dB	PASS	-
		5, 26	§22.913	≦ 13 dB	PASS	-
6	Spurious Emission	2	§2.1053 §24.238	< -13 dBm	PASS	-
		4, 12, 66, 70	§27.53	< -13 dBm	PASS	-
		5	§22.917	< -13 dBm	PASS	-
		13	§27.53	< -13 dBm < −70 dBW/MHz e.i.r.p. of all emissions, including harmonics in the band 1559-1610 MHz	PASS	-
		25	§27.238	< -13 dBm	PASS	-
		26	§90.691 §22.917	< -13 dBm	PASS	-
		85	§2.1053 §27.53	< -13 dBm	PASS	-
7	Conducted Band Edge	2	§24.238	< -13 dBm	PASS	-
		4, 12, 66, 70, 85	§2.1053 §27.53	< -13 dBm	PASS	-
		5	§2.1053 §22.917	< -13 dBm	PASS	-
		13	§2.1053 §27.53	< -13 dBm < -35 dBm (763-775 MHz & 793-805 MHz)	PASS	-
		25	§2.1053 §24.238	< -13 dBm	PASS	-
		26	§2.1053 §90.691 §22.917	< -13 dBm	PASS	-

8	Frequency Stability	2, 25	§2.1055 §24.235	± 2.5 ppm	PASS	-
		4, 12, 13, 66, 70, 85	§2.1055 §27.54	± 2.5 ppm	PASS	-
		5	§2.1055 §22.335	± 2.5 ppm	PASS	-
		26	§2.1055 §90.213	± 2.5 ppm	PASS	-

Comments and Explanations
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1. General Information

1.1. EUT Description

Uplink Frequency Range (MHz)	LTE Band 2: 1850~1910 LTE Band 4: 1710~1755 LTE Band 5: 824~849 LTE Band 12: 699~716 LTE Band 13: 777~787 LTE Band 25: 1850~1915 LTE Band 26: 814~849 LTE Band 66: 1710~1780 LTE Band 70: 1695~1710 LTE Band 85: 698~716
Downlink Frequency Range (MHz)	LTE Band 2: 1930~1990 LTE Band 4: 2110~2115 LTE Band 5: 869~894 LTE Band 12: 729~746 LTE Band 13: 746~756 LTE Band 25: 1930~1995 LTE Band 26: 859~894 LTE Band 66: 2110~2200 LTE Band 70: 1995~2020 LTE Band 85: 728~746
Bandwidth (MHz)	LTE Band 2: 1.4 / 3 / 5 / 10 / 15 / 20 LTE Band 4: 1.4 / 3 / 5 / 10 / 15 / 20 LTE Band 5: 1.4 / 3 / 5 / 10 LTE Band 12: 1.4 / 3 / 5 / 10 LTE Band 13: 5 / 10 LTE Band 25: 1.4 / 3 / 5 / 10 / 15 / 20 LTE Band 26: 1.4 / 3 / 5 / 10 / 15 LTE Band 66: 1.4 / 3 / 5 / 10 / 15 / 20 LTE Band 70: 5 / 10 / 15 / 20 LTE Band 85: 5 / 10
Type of Modulation	Cat-M1: QPSK / 16QAM
	NB-IoT: BPSK / QPSK
IMEI No.	359146140000876

Antenna Information					
Ant.	Brand Name	Model No.	Type	Support LTE Band	Gain (dBi)
1	Pulse	SPDA24617/3900	Dipole	Band 5, Band 12, Band 13, Band 26, Band 26, Band 85	1
				Band 2, Band 4, Band 25, Band 66, Band 70	2.5

1.2. EUT Information

EUT Power Type	From Host system
Hardware Version	1.0
Software Version	BF_CORE_02_01_00_01_42521

1.3. Testing Applied Standards

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

- FCC CFR Title 47 Part 22 Subpart H
- FCC CFR Title 47 Part 24 Subpart E
- FCC CFR Title 47 Part 27, Subpart F, Subpart L
- ANSI/TIA-603-E (2016)
- ANSI C63.26-2015
- FCC KDB 971168 D01 v03r01

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

1.4. Testing Location Information

Testing Location Information		
Test Laboratory：DEKRA Testing and Certification Co., Ltd.		
	1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.
	2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.
Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted Emission	HC-SR12	Max Chang	20~25 / 60~64	2024/03/27~2024/04/16
Radiated Emission	HC-CB02	Luffy Lin Cyril Chen	21~24 / 62~65	2024/04/16~2024/04/18

1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

Test Item	Uncertainty
RF Output Power	± 1.16 dB
Occupied Bandwidth	± 217.9 Hz
Peak to Average Power Ratio	± 2.47 dB
Spurious Emissions	± 3.52 dB below 1 GHz ± 3.56 dB above 1 GHz
Conducted Band Edge	± 2.47 dB
Frequency Stability	± 217.9 Hz

1.6. List of Test Equipment

HC-SR12

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	0.3-40 GHz	2023/10/25	2024/10/24
Pulse Power Sensor	Anritsu	MA2411B	1531043	0.3-40 GHz	2023/10/25	2024/10/24
EXA Signal Analyzer	Keysight	N9010A	MY51440132	10 Hz-44 GHz	2023/12/11	2024/12/10
Pulse Power Sensor	Anritsu	MA2411B	1531044	0.3-40 GHz	2023/10/25	2024/10/24
Spectrum Analyzer	Keysight	N9010B	MY57110159	10 Hz-7 GHz	2024/03/01	2025/02/28
Signal & Spectrum Analyzer	R&S	FSV40	101869	10Hz-40GHz	2023/07/03	2024/07/02

HC-CB02

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	10 Hz-40 GHz	2023/10/03	2024/10/02
EXA Signal Analyzer	Keysight	N9010A	MY51440132	10 Hz-44 GHz	2023/12/11	2024/12/10
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1209	30 MHz-2 GHz	2023/06/13	2024/06/12
Horn Antenna	Schwarzbeck	BBHA 9170	203	18G-40GHz	2024/02/02	2025/02/01
Pre-Amplifier	EMCI	EMC01820I	980365	30M-8 GHz,20 dB	2024/04/02	2025/04/01
Radio Communication Tester	Anritsu	MT8821C	6261915489	LTE & Cat.M1 & NB-IOT	2023/10/30	2024/10/29
Pre-Amplifier	EMEC	EM01G18GA	060741	1G-18 GHz,50 dB	2023/05/05	2024/05/04
Pre-Amplifier	DEKRA	AP-400C	201801231	18G-40 GHz,48 dB	2023/10/03	2024/10/02
Coaxial Cable(13m)	Suhner	SF104	HC-CB02	30M-18 GHz	2023/08/14	2024/08/13
Coaxial Cable(3m)	Suhner,Rosnol	SF102_UP0264	HC-CB02-1	18G-40 GHz 3 m	2023/08/14	2024/08/13
Radiated Software	Audix	e3 V9	HC-CB02_1	N/A	N/A	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition			
Testing Voltage	Vnom (DC 3.7V)	Vmax (DC 4.35V)	Vmin (DC 2.5V)
Temperature	Tnom (25℃)	Tmax (70℃)	Tmin (-30℃)

2.2. The Worst Case Measurement Configuration

Test Mode	Mode 1: LTE Cat-M1 Band 2 / 25
	Mode 2: LTE Cat-M1 Band 4 / 66
	Mode 3: LTE Cat-M1 Band 5 / 26 (Part 22)
	Mode 4: LTE Cat-M1 Band 12
	Mode 5: LTE Cat-M1 Band 13
	Mode 6: LTE Cat-M1 Band 26 (Part 90)
	Mode 7: LTE NB-IoT Band 2 / 25
	Mode 8: LTE NB-IoT Band 4 / 66
	Mode 9: LTE NB-IoT Band 5 / 26 (Part 22)
	Mode 10: LTE NB-IoT Band 12
	Mode 11: LTE NB-IoT Band 13
	Mode 12: LTE NB-IoT 1 Band 26 (Part 90)
	Mode 13: LTE NB-IoT Band 70
	Mode 14: LTE NB-IoT Band 85

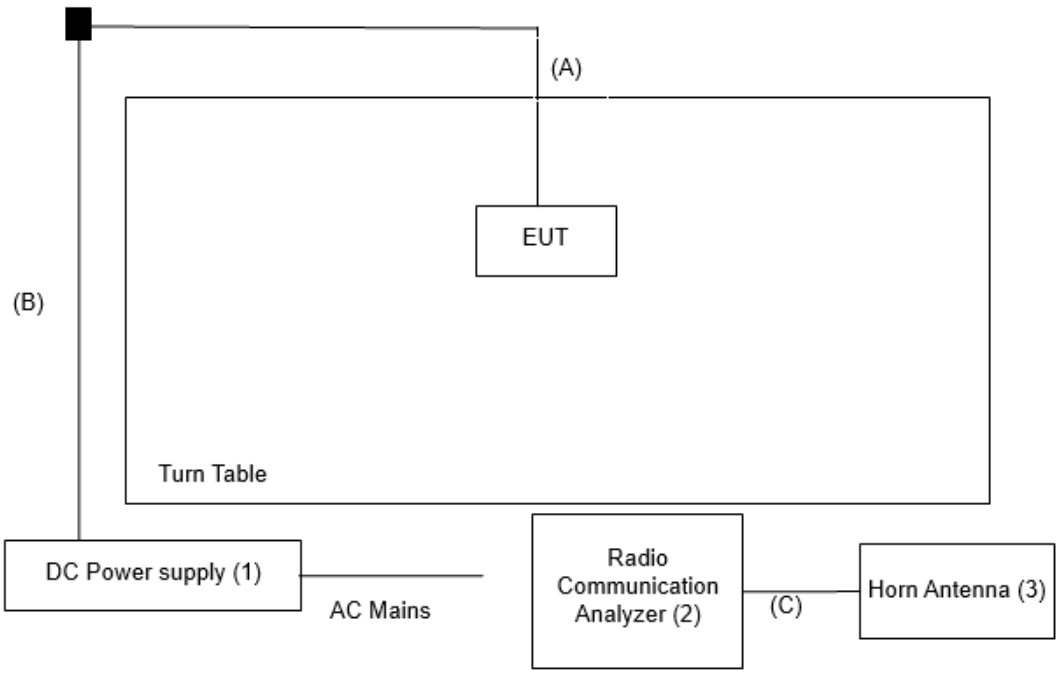
Note:
1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The device was tested under all bandwidths, RB configurations and modulations.
   The worst case was found in “QPSK” and show in “Conducted Band Edge”.
   The worst case is listed as below and show in “Spurious Emission”.
   Cat-M1:
   Band 12 / 13 / 26 (Part 90): QPSK / 10M / 1RB0
   Band 2 / 4 / 25 / 66: QPSK / 20M / 1RB0
   Band 5 / 26 (Part 22): 15M 15M 1RB0
   NB-IoT: BPSK / 3.75k / 1RB0
3. The EUT contains two WWAN functions.
4. LTE Band 2 is covered by LTE Band 25.
5. LTE Band 4 is covered by LTE Band 66.
6. LTE Band 5 is covered by LTE Band 26.
7. The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission test.
   The worst case was found at Y axis, so the measurement will follow this same test configuration.

2.3. Tested System Details

No.	Equipment	Brand Name	Model No.	Serial No.
1	DC Power supply	Topward	6303D	809497
2	Radio Communication Analyzer	Anritsu	MT8821C	6262044740
3	Horn Antenna	Schwarzbeck	BBHA 9120D	1640

2.4. Configuration of Tested System

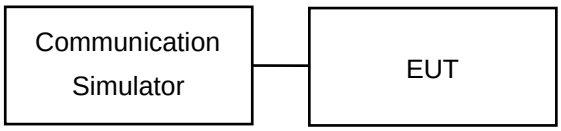
Connection Diagram



Signal Cable Type		Signal cable Description
A	DC Cable*2	Non-Shielded, 1.9m
B	DC Cable*2	Non-Shielded, 10m
C	RF Cable*1	Shielded, 10m

3. RF Output Power

3.1. Test Setup



3.2. Test Procedure

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum conducted RF output power under transmission mode and specific channel frequency. The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$ERP \text{ or } EIRP = P_{Meas} + G_T - L_C$$

where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

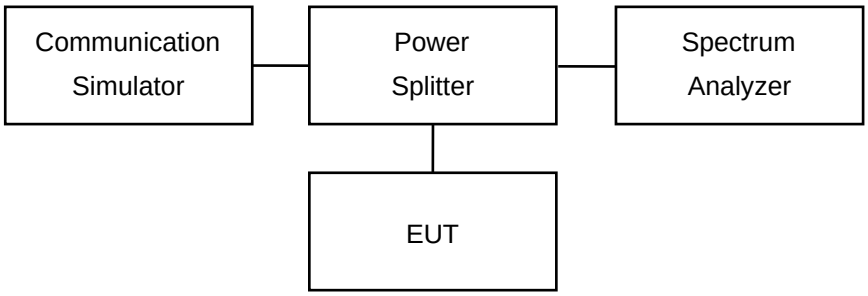
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB

3.3. Test Result of RF Output Power

Refer as Appendix A

4. Occupied Bandwidth

4.1. Test Setup



4.2. Test Procedures

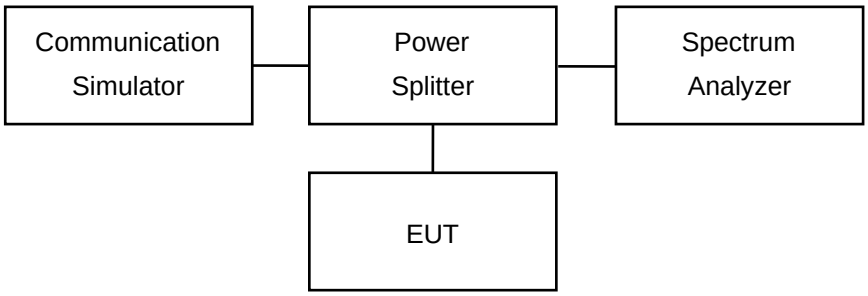
The EUT makes a call to the communication simulator. The 26dB bandwidth and 99% occupied bandwidth measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.

4.3. Test Result of Occupied Bandwidth

Refer as Appendix B

5. Peak to Average Power Ratio

5.1. Test Setup



5.2. Test Procedure

1. The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.
2. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth.
3. Set the number of counts to a value that stabilizes the measured CCDF curve.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

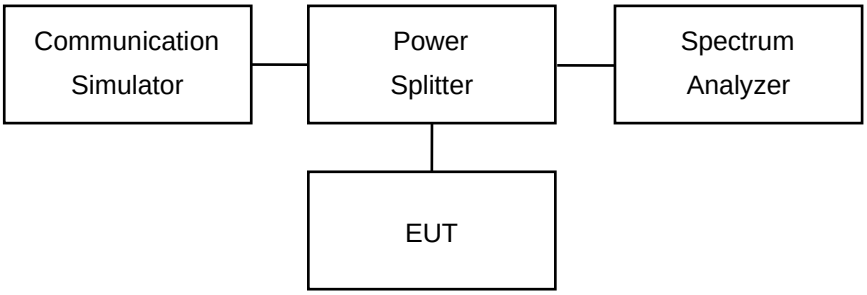
5.3. Test Result of Peak to Average Power Ratio

Refer as Appendix C

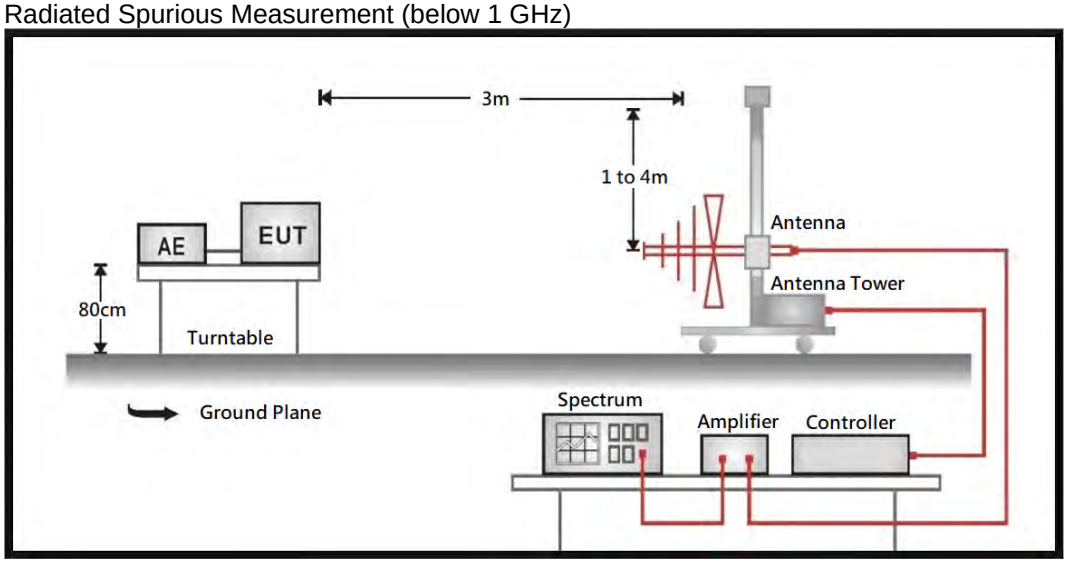
6. Spurious Emission

6.1. Test Setup

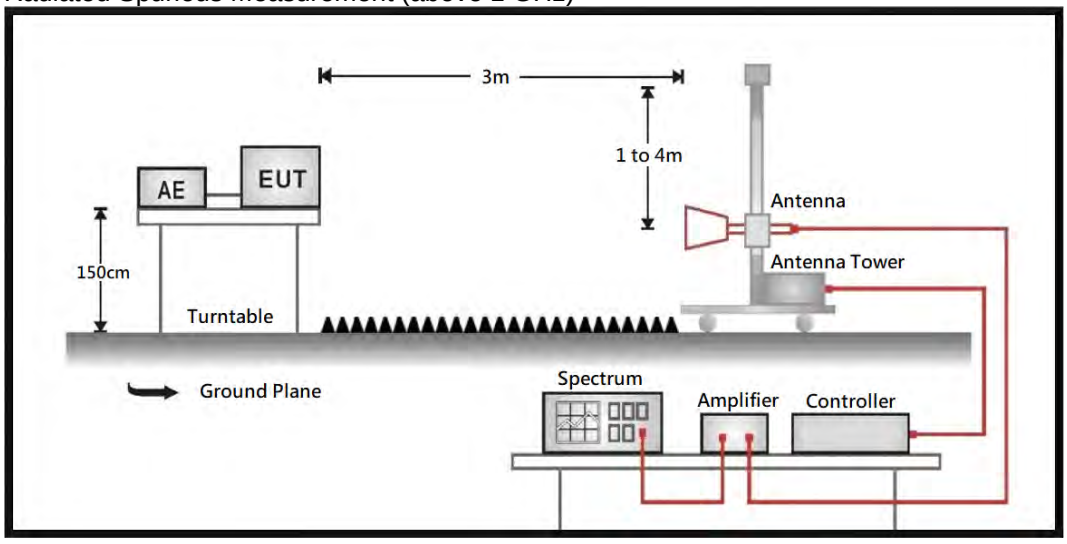
Conducted Spurious Measurement



Radiated Spurious Measurement (below 1 GHz)



Radiated Spurious Measurement (above 1 GHz)



6.2. Test Procedure

Conducted Spurious Measurement:

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement. The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10^{th} harmonic.

Radiated Spurious Measurement:

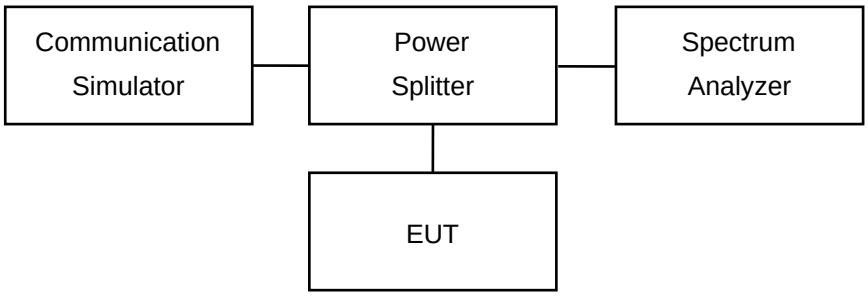
The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations. The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10th harmonic. Taking the record of maximum spurious emission.

6.3. Test Result of Spurious Emission

Refer as Appendix D

7. Conducted Band Edge

7.1. Test Setup



7.2. Test Procedure

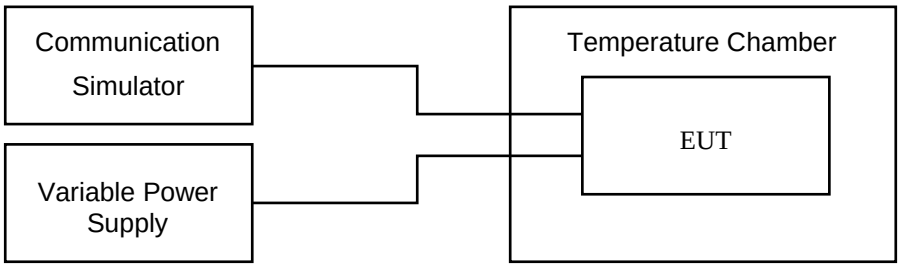
1. The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.
2. In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.

7.3. Test Result of Conducted Band Edge

Refer as Appendix E

8. Frequency Stability

8.1. Test Setup



8.2. Test Procedures

Frequency Stability under Temperature Variations:

The EUT under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a communication simulator. The EUT was placed inside the temperature chamber. Set the EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC or DC power supply to power the EUT and set the voltage to rated voltage. Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

8.3. Test Result of Frequency Stability

Refer as Appendix F

Appendix A. Test Result of RF Output Power

Mode 1: LTE Cat-M1 Band 2 / 25

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 1.4MHz	26047 / 1850.7	QPSK	1	0	Low	23.54	0.402	2
			6	0		22.44	0.312	2
		16-QAM	1	0		23.11	0.364	2
			5	0		21.76	0.267	2
	26365 / 1882.5	QPSK	1	0		23.48	0.396	2
			6	0		22.32	0.303	2
		16-QAM	1	0		23.31	0.381	2
			5	0		21.59	0.256	2
	26683 / 1914.3	QPSK	1	5	Low	23.38	0.387	2
			6	0		22.51	0.317	2
		16-QAM	1	5		23.29	0.379	2
			5	1		21.86	0.273	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 3MHz	26055 / 1851.5	QPSK	1	0	Low	23.45	0.394	2
			6	0		22.44	0.312	2
		16-QAM	1	0		23.10	0.363	2
			5	0		21.81	0.270	2
	26365 / 1882.5	QPSK	1	0		23.31	0.381	2
			6	0		22.55	0.320	2
		16-QAM	1	0		23.09	0.362	2
			5	0		21.70	0.263	2
	26675 / 1913.5	QPSK	1	5	High	23.65	0.412	2
			6	0		22.43	0.311	2
		16-QAM	1	5		23.25	0.376	2
			5	1		21.62	0.258	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 5MHz	26065 / 1852.5	QPSK	1	0	Low	23.37	0.386	2
			6	0		22.88	0.345	2
		16-QAM	1	0		23.51	0.399	2
			5	0		21.81	0.270	2
	26365 / 1882.5	QPSK	1	0		23.24	0.375	2
			6	0		22.69	0.330	2
		16-QAM	1	0		23.51	0.399	2
			5	0		21.80	0.269	2
	26665 / 1912.5	QPSK	1	5	High	23.51	0.399	2
			6	0		22.93	0.349	2
		16-QAM	1	5		22.91	0.348	2
			5	1		21.98	0.281	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 10MHz	26090 / 1855	QPSK	1	0	Low	23.60	0.407	2
			6	0		22.31	0.303	2
		16-QAM	1	0		23.12	0.365	2
			5	0		21.67	0.261	2
	26365 / 1882.5	QPSK	1	0		23.30	0.380	2
			6	0		22.41	0.310	2
		16-QAM	1	0		23.06	0.360	2
			5	0		21.66	0.261	2
	26640 / 1910	QPSK	1	5	High	23.69	0.416	2
			6	0		22.56	0.321	2
		16-QAM	1	5		23.49	0.397	2
			5	1		21.61	0.258	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 15MHz	26115 / 1857.5	QPSK	1	0	Low	23.46	0.394	2
			6	0		22.54	0.319	2
		16-QAM	1	0		23.42	0.391	2
			5	0		21.66	0.261	2
	26365 / 1882.5	QPSK	1	0		23.50	0.398	2
			6	0		22.37	0.307	2
		16-QAM	1	0		23.18	0.370	2
			5	0		21.84	0.272	2
	26615 / 1907.5	QPSK	1	5	High	23.34	0.384	2
			6	0		22.41	0.310	2
		16-QAM	1	5		23.34	0.384	2
			5	1		21.69	0.262	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 25 / 20MHz	26140 / 1860	QPSK	1	0	Low	23.66	0.413	2
			6	0		22.32	0.303	2
		16-QAM	1	0		23.46	0.394	2
			5	0		21.85	0.272	2
	26365 / 1882.5	QPSK	1	0		23.70	0.417	2
			6	0		22.55	0.320	2
		16-QAM	1	0		23.44	0.393	2
			5	0		21.89	0.275	2
	26590 / 1905	QPSK	1	5	High	23.38	0.387	2
			6	0		22.52	0.318	2
		16-QAM	1	5		23.02	0.356	2
			5	1		21.81	0.270	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 2: LTE Cat-M1 Band 4 / 66

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 1.4MHz	131979 / 1710.7	QPSK	1	0	Low	23.67	0.414	1
			6	0		22.58	0.322	1
		16-QAM	1	0		23.21	0.372	1
			5	0		21.68	0.262	1
	132322 / 1745	QPSK	1	0		23.54	0.402	1
			6	0		22.30	0.302	1
		16-QAM	1	0		23.21	0.372	1
			5	0		21.89	0.275	1
	132665 / 1779.3	QPSK	1	5	Low	23.63	0.410	1
			6	0		22.34	0.305	1
		16-QAM	1	5		23.45	0.394	1
			5	1		21.66	0.261	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 3MHz	131987 / 1711.5	QPSK	1	0	Low	23.56	0.404	1
			6	0		22.30	0.302	1
		16-QAM	1	0		23.27	0.378	1
			5	0		21.68	0.262	1
	132322 / 1745	QPSK	1	0		23.51	0.399	1
			6	0		22.58	0.322	1
		16-QAM	1	0		22.99	0.354	1
			5	0		21.69	0.262	1
	132657 / 1778.5	QPSK	1	5	High	23.65	0.412	1
			6	0		22.50	0.316	1
		16-QAM	1	5		23.25	0.376	1
			5	1		21.66	0.261	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 5MHz	131997 / 1712.5	QPSK	1	0	Low	23.51	0.399	1
			6	0		22.78	0.337	1
		16-QAM	1	0		23.75	0.422	1
			5	0		22.00	0.282	1
	132322 / 1745	QPSK	1	0		23.39	0.388	1
			6	0		22.90	0.347	1
		16-QAM	1	0		23.65	0.412	1
			5	0		21.93	0.277	1
	132647 / 1777.5	QPSK	1	5	Low	23.53	0.401	1
			6	0		22.87	0.344	1
		16-QAM	1	5		23.36	0.385	1
			5	1		21.92	0.277	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 10MHz	132022 / 1715	QPSK	1	0	Low	23.32	0.382	1
			6	0		22.53	0.318	1
		16-QAM	1	0		23.31	0.381	1
			5	0		21.82	0.270	1
	132322 / 1745	QPSK	1	0		23.45	0.394	1
			6	0		22.58	0.322	1
		16-QAM	1	0		23.38	0.387	1
			5	0		21.68	0.262	1
	132622 / 1775	QPSK	1	5	High	23.66	0.413	1
			6	0		22.37	0.307	1
		16-QAM	1	5		23.09	0.362	1
			5	1		21.61	0.258	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 15MHz	132047 / 1717.5	QPSK	1	0	Low	23.43	0.392	1
			6	0		22.59	0.323	1
		16-QAM	1	0		23.31	0.381	1
			5	0		21.68	0.262	1
	132322 / 1745	QPSK	1	0		23.65	0.412	1
			6	0		22.36	0.306	1
		16-QAM	1	0		23.06	0.360	1
			5	0		21.69	0.262	1
	132597 / 1772.5	QPSK	1	5	High	23.55	0.403	1
			6	0		22.40	0.309	1
		16-QAM	1	5		23.41	0.390	1
			5	1		21.66	0.261	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 / 20MHz	132072 / 1720	QPSK	1	0	Low	23.65	0.412	1
			6	0		22.50	0.316	1
		16-QAM	1	0		23.01	0.356	1
			5	0		21.88	0.274	1
	132322 / 1745	QPSK	1	0		24.08	0.455	1
			6	0		22.42	0.310	1
		16-QAM	1	0		23.04	0.358	1
			5	0		21.89	0.275	1
	132572 / 1770	QPSK	1	5	High	23.68	0.415	1
			6	0		22.55	0.320	1
		16-QAM	1	5		23.14	0.366	1
			5	1		21.74	0.265	1

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 3: LTE Cat-M1 Band 5 / 26 (Part 22)

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 1.4MHz	26797 / 824.7	QPSK	1	0	Low	23.47	0.171	7
			6	0		22.30	0.130	7
		16-QAM	1	5		23.45	0.170	7
			5	1		21.73	0.114	7
	26915 / 836.5	QPSK	1	0		23.37	0.167	7
			6	0		22.35	0.132	7
		16-QAM	1	5		23.42	0.169	7
			5	1		21.68	0.113	7
	27033 / 848.3	QPSK	1	5	Low	23.42	0.169	7
			6	0		22.41	0.134	7
		16-QAM	1	5		23.50	0.172	7
			5	1		21.80	0.116	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 3MHz	26805 / 825.5	QPSK	1	0	Low	23.56	0.174	7
			6	0		22.47	0.136	7
		16-QAM	1	5		23.24	0.162	7
			5	1		21.86	0.118	7
	26915 / 836.5	QPSK	1	0		23.55	0.174	7
			6	0		22.50	0.136	7
		16-QAM	1	5		23.48	0.171	7
			5	1		21.68	0.113	7
	27025 / 847.5	QPSK	1	5	High	23.50	0.172	7
			6	0		22.56	0.138	7
		16-QAM	1	5		23.20	0.160	7
			5	1		21.88	0.118	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 5MHz	26815 / 826.5	QPSK	1	0	Low	23.58	0.175	7
			6	0		22.43	0.134	7
		16-QAM	1	5		23.39	0.167	7
			5	1		21.65	0.112	7
	26915 / 836.5	QPSK	1	0		23.34	0.166	7
			6	0		22.33	0.131	7
		16-QAM	1	5		23.37	0.167	7
			5	1		21.69	0.113	7
	27015 / 846.5	QPSK	1	5	High	23.35	0.166	7
			6	0		22.57	0.139	7
		16-QAM	1	5		23.00	0.153	7
			5	1		21.66	0.112	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 10MHz	26840 / 829	QPSK	1	0	Low	23.35	0.166	7
			6	0		22.40	0.133	7
		16-QAM	1	5		23.28	0.163	7
			5	1		21.80	0.116	7
	26915 / 836.5	QPSK	1	0		23.67	0.179	7
			6	0		22.42	0.134	7
		16-QAM	1	5		23.28	0.163	7
			5	1		21.79	0.116	7
	26990 / 844	QPSK	1	5	High	23.62	0.177	7
			6	0		22.55	0.138	7
		16-QAM	1	5		23.47	0.171	7
			5	1		21.88	0.118	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 15MHz	26865 / 831.5	QPSK	1	0	Low	23.44	0.169	7
			6	0		22.40	0.133	7
		16-QAM	1	5		23.47	0.171	7
			5	1		21.88	0.118	7
	26915 / 836.5	QPSK	1	0		23.68	0.179	7
			6	0		22.51	0.137	7
		16-QAM	1	5		23.32	0.165	7
			5	1		21.86	0.118	7
	26965 / 841.5	QPSK	1	5	High	23.36	0.166	7
			6	0		22.35	0.132	7
		16-QAM	1	5		23.06	0.155	7
			5	1		21.82	0.117	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 4: LTE Cat-M1 Band 12

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 12 / 1.4MHz	23017 / 699.7	QPSK	1	0	Low	23.18	0.160	3
			6	0		21.61	0.111	3
		16-QAM	1	0		22.67	0.142	3
			5	0		21.51	0.109	3
	23095 / 707.5	QPSK	1	0		23.15	0.158	3
			6	0		21.69	0.113	3
		16-QAM	1	0		22.49	0.136	3
			5	0		21.23	0.102	3
	23173 / 715.3	QPSK	1	5	Low	23.33	0.165	3
			6	0		21.70	0.114	3
		16-QAM	1	5		23.03	0.154	3
			5	1		21.80	0.116	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 12 / 3MHz	23025 700.5	QPSK	1	0	Low	23.66	0.178	3
			6	0		22.38	0.133	3
		16-QAM	1	0		23.16	0.159	3
			5	0		21.85	0.117	3
	23095 707.5	QPSK	1	0		23.54	0.173	3
			6	0		22.38	0.133	3
		16-QAM	1	0		23.43	0.169	3
			5	0		21.88	0.118	3
	23165 714.5	QPSK	1	5	High	23.62	0.177	3
			6	0		22.55	0.138	3
		16-QAM	1	5		23.12	0.157	3
			5	1		21.76	0.115	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 12 / 5MHz	23035 / 701.5	QPSK	1	0	Low	23.46	0.170	3
			6	0		22.36	0.132	3
		16-QAM	1	0		23.14	0.158	3
			5	0		21.69	0.113	3
	23095 / 707.5	QPSK	1	0		23.33	0.165	3
			6	0		22.40	0.133	3
		16-QAM	1	0		23.30	0.164	3
			5	0		21.61	0.111	3
	23155 / 713.5	QPSK	1	5	High	23.29	0.164	3
			6	0		22.48	0.136	3
		16-QAM	1	5		23.22	0.161	3
			5	1		21.67	0.113	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 12 / 10MHz	23060 / 704	QPSK	1	0	Low	23.49	0.171	3
			6	0		22.52	0.137	3
		16-QAM	1	0		23.06	0.155	3
			5	0		21.89	0.119	3
	23095 / 707.5	QPSK	1	0		23.69	0.179	3
			6	0		22.54	0.138	3
		16-QAM	1	0		23.46	0.170	3
			5	0		21.83	0.117	3
	23130 / 711	QPSK	1	5	High	23.53	0.173	3
			6	0		22.51	0.137	3
		16-QAM	1	5		23.42	0.169	3
			5	1		21.77	0.115	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 5: LTE Cat-M1 Band 13

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 13 / 5MHz	23205 / 779.5	QPSK	1	0	Low	23.24	0.162	3
			6	0		22.65	0.141	3
		16-QAM	1	0		23.50	0.172	3
			5	0		21.78	0.116	3
	23230 / 782	QPSK	1	0		23.27	0.163	3
			6	0		22.79	0.146	3
		16-QAM	1	0		23.46	0.170	3
			5	0		21.77	0.115	3
	23255 / 784.5	QPSK	1	5	High	23.41	0.168	3
			6	0		22.67	0.142	3
		16-QAM	1	5		23.55	0.174	3
			5	1		21.92	0.119	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 13 / 10MHz	23230 / 782	QPSK	1	0	Low	23.58	0.175	3
			6	0		22.50	0.136	3
		16-QAM	1	0		23.19	0.160	3
			5	0		21.73	0.114	3
		QPSK	1	5	High	23.33	0.165	3
			6	0		22.48	0.136	3
		16-QAM	1	5		23.21	0.161	3
			5	1		21.79	0.116	3

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 6: LTE Cat-M1 Band 26 (Part 90)

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 1.4MHz	26697 / 814.7	QPSK	1	0	Low	23.61	0.176	100
			6	0		22.60	0.140	100
		16-QAM	1	0		23.42	0.169	100
			5	0		21.62	0.111	100
	26740 / 819	QPSK	1	0		23.70	0.180	100
			6	0		22.31	0.131	100
		16-QAM	1	0		23.06	0.155	100
			5	0		21.80	0.116	100
	26783 / 823.3	QPSK	1	5	Low	23.63	0.177	100
			6	0		22.30	0.130	100
		16-QAM	1	5		23.49	0.171	100
			5	1		21.79	0.116	100

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 3MHz	26705 / 815.5	QPSK	1	0	Low	23.48	0.171	100
			6	0		22.58	0.139	100
		16-QAM	1	0		23.02	0.154	100
			5	0		21.79	0.116	100
	26740 / 819	QPSK	1	0		23.58	0.175	100
			6	0		22.57	0.139	100
		16-QAM	1	0		23.31	0.164	100
			5	0		21.83	0.117	100
	26775 / 822.5	QPSK	1	5	High	23.50	0.172	100
			6	0		22.34	0.132	100
		16-QAM	1	5		23.30	0.164	100
			5	1		21.81	0.116	100

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 5MHz	26715 / 816.5	QPSK	1	0	Low	23.41	0.168	100
			6	0		22.74	0.144	100
		16-QAM	1	0		23.42	0.169	100
			5	0		21.93	0.120	100
	26740 / 819	QPSK	1	0		23.49	0.171	100
			6	0		22.68	0.142	100
		16-QAM	1	0		23.47	0.171	100
			5	0		21.84	0.117	100
	26765 / 821.5	QPSK	1	5	High	23.43	0.169	100
			6	0		22.72	0.144	100
		16-QAM	1	5		23.65	0.178	100
			5	1		21.78	0.116	100

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Band / Bandwidth (MHz)	Channel / Freq. (MHz)	Modulation	RB No.	RB offset	NB Position	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 26 / 10MHz	26740 / 819	QPSK	1	0	Low	23.73	0.181	100
			6	0		22.50	0.136	100
		16-QAM	1	0		23.43	0.169	100
			5	0		21.66	0.112	100
		QPSK	1	5	High	23.29	0.164	100
			6	0		22.32	0.131	100
		16-QAM	1	5		23.18	0.160	100
			5	1		21.77	0.115	100

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 7: LTE NB-IoT Band 2 / 25

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
26042	1850.2	BPSK	3.75	1	0	23.22	0.373	2
			15	1	0	22.90	0.347	2
		QPSK	3.75	1	0	23.29	0.379	2
			15	1	0	22.88	0.345	2
				12	0	22.04	0.284	2
26365	1882.5	BPSK	3.75	1	0	23.42	0.391	2
			15	1	0	23.26	0.377	2
		QPSK	3.75	1	0	23.19	0.371	2
			15	1	0	22.83	0.341	2
				12	0	21.94	0.278	2
26688	1914.8	BPSK	3.75	1	47	23.25	0.376	2
			15	1	11	22.99	0.354	2
		QPSK	3.75	1	47	23.40	0.389	2
			15	1	11	22.96	0.352	2
				12	0	22.07	0.286	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(\text{Power(dBm)}/10)})*10^{-3}$

Mode 8: LTE NB-IoT Band 4 / 66

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
131974	1710.2	BPSK	3.75	1	0	23.37	0.386	2
			15	1	0	22.81	0.340	2
		QPSK	3.75	1	0	23.38	0.387	2
			15	1	0	22.85	0.343	2
				12	0	21.99	0.281	2
132322	1745	BPSK	3.75	1	0	23.42	0.391	2
			15	1	0	23.26	0.377	2
		QPSK	3.75	1	0	23.31	0.381	2
			15	1	0	22.86	0.344	2
				12	0	22.07	0.286	2
132670	1779.8	BPSK	3.75	1	47	23.37	0.386	2
			15	1	11	23.06	0.360	2
		QPSK	3.75	1	47	23.30	0.380	2
			15	1	11	22.90	0.347	2
				12	0	22.24	0.298	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 9: LTE NB-IoT Band 5 / 26 (Part 22)

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
26792	824.2	BPSK	3.75	1	0	23.28	0.163	7
			15	1	0	23.33	0.165	7
		QPSK	3.75	1	0	23.20	0.160	7
			15	1	0	23.31	0.164	7
				12	0	22.02	0.122	7
26915	836.5	BPSK	3.75	1	0	23.42	0.169	7
			15	1	0	23.40	0.168	7
		QPSK	3.75	1	0	23.39	0.167	7
			15	1	0	23.40	0.168	7
				12	0	22.16	0.126	7
27038	848.8	BPSK	3.75	1	47	23.32	0.165	7
			15	1	11	23.28	0.163	7
		QPSK	3.75	1	47	23.21	0.161	7
			15	1	11	23.25	0.162	7
				12	0	21.92	0.119	7

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(\text{Power(dBm)}/10)})*10^{-3}$

Mode 10: LTE NB-IoT Band 12

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
23012	699.2	BPSK	3.75	1	0	23.08	0.156	2
			15	1	0	23.16	0.159	2
		QPSK	3.75	1	0	23.07	0.156	2
			15	1	0	23.10	0.157	2
				12	0	21.79	0.116	2
23095	707.5	BPSK	3.75	1	0	23.20	0.160	2
			15	1	0	23.12	0.157	2
		QPSK	3.75	1	0	23.03	0.154	2
			15	1	0	23.11	0.157	2
				12	0	21.94	0.120	2
23178	715.8	BPSK	3.75	1	47	23.06	0.155	2
			15	1	11	23.15	0.158	2
		QPSK	3.75	1	47	23.12	0.157	2
			15	1	11	23.17	0.159	2
				12	0	21.91	0.119	2

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(\text{Power(dBm)}/10)})*10^{-3}$

Mode 11: LTE NB-IoT Band 13

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
23182	777.2	BPSK	3.75	1	0	23.18	0.160	2
			15	1	0	23.31	0.164	2
		QPSK	3.75	1	0	23.21	0.161	2
			15	1	0	23.22	0.161	2
				12	0	21.92	0.119	2
23230	782	BPSK	3.75	1	0	23.33	0.165	2
			15	1	0	23.28	0.163	2
		QPSK	3.75	1	0	23.23	0.161	2
			15	1	0	23.28	0.163	2
				12	0	21.88	0.118	2
23278	786.8	BPSK	3.75	1	47	23.22	0.161	2
			15	1	11	23.27	0.163	2
		QPSK	3.75	1	47	23.18	0.160	2
			15	1	11	23.12	0.157	2
				12	0	21.94	0.120	2

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(\text{Power(dBm)}/10)})*10^{-3}$

Mode 12: LTE NB-IoT Band 26

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
26692	814.2	BPSK	3.75	1	0	23.19	0.160	100
			15	1	0	23.34	0.166	100
		QPSK	3.75	1	0	23.18	0.160	100
			15	1	0	23.26	0.163	100
				12	0	21.94	0.120	100
26740	819	BPSK	3.75	1	0	23.35	0.166	100
			15	1	0	23.32	0.165	100
		QPSK	3.75	1	0	23.22	0.161	100
			15	1	0	23.25	0.162	100
				12	0	22.00	0.122	100
26788	823.8	BPSK	3.75	1	47	23.28	0.163	100
			15	1	11	23.29	0.164	100
		QPSK	3.75	1	47	23.17	0.159	100
			15	1	11	23.25	0.162	100
				12	0	21.98	0.121	100

Note:

1. ERP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15dB

2. ERP (W) = $(10^{(\text{Power(dBm)}/10)})*10^{-3}$

Mode 13: LTE NB-IoT Band 70

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
132974	1695.2	BPSK	3.75	1	0	23.02	0.356	2
			15	1	0	23.10	0.363	2
		QPSK	3.75	1	0	23.10	0.363	2
			15	1	0	23.14	0.366	2
				12	0	21.74	0.265	2
133047	1702.5	BPSK	3.75	1	0	23.16	0.368	2
			15	1	0	23.00	0.355	2
		QPSK	3.75	1	0	23.07	0.361	2
			15	1	0	23.15	0.367	2
				12	0	21.75	0.266	2
133120	1709.8	BPSK	3.75	1	47	23.04	0.358	2
			15	1	11	23.10	0.363	2
		QPSK	3.75	1	47	23.12	0.365	2
			15	1	11	23.08	0.361	2
				12	0	21.75	0.266	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Mode 14: LTE NB-IoT Band 85

Channel	Frequency (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
134004	698.2	BPSK	3.75	1	0	23.02	0.252	2
			15	1	0	23.09	0.256	2
		QPSK	3.75	1	0	23.03	0.253	2
			15	1	0	23.10	0.257	2
				12	0	21.79	0.190	2
134092	707	BPSK	3.75	1	0	23.21	0.264	2
			15	1	0	23.14	0.259	2
		QPSK	3.75	1	0	23.11	0.258	2
			15	1	0	23.06	0.255	2
				12	0	21.85	0.193	2
134180	715.8	BPSK	3.75	1	47	23.11	0.258	2
			15	1	11	23.07	0.255	2
		QPSK	3.75	1	47	23.16	0.261	2
			15	1	11	23.09	0.256	2
				12	0	21.82	0.191	2

Note:

1. EIRP (W) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) = $(10^{(Power(dBm)/10)})*10^{-3}$

Appendix B. Test Result of Occupied Bandwidth

Mode 1: LTE Cat-M1 Band 2 / 25

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4	QPSK	26047	1850.7	1.275	1.074	N/A
		26365	1882.5	1.302	1.082	N/A
		26683	1914.3	1.254	1.080	N/A
	16-QAM	26047	1850.7	1.220	0.912	N/A
		26365	1882.5	1.272	0.928	N/A
		26683	1914.3	1.257	0.940	N/A
3	QPSK	26055	1851.5	1.283	1.074	N/A
		26365	1882.5	1.275	1.080	N/A
		26675	1913.5	1.275	1.074	N/A
	16-QAM	26055	1851.5	1.219	0.912	N/A
		26365	1882.5	1.263	0.914	N/A
		26675	1913.5	1.226	0.917	N/A
5	QPSK	26065	1852.5	1.272	1.085	N/A
		26365	1882.5	1.282	1.076	N/A
		26665	1912.5	1.267	1.079	N/A
	16-QAM	26065	1852.5	1.241	0.916	N/A
		26365	1882.5	1.232	0.906	N/A
		26665	1912.5	1.201	0.919	N/A
10	QPSK	26090	1855.0	1.273	1.081	N/A
		26365	1882.5	1.292	1.077	N/A
		26640	1910.0	1.278	1.075	N/A
	16-QAM	26090	1855.0	1.244	0.921	N/A
		26365	1882.5	1.245	0.920	N/A
		26640	1910.0	1.256	0.918	N/A
15	QPSK	26115	1857.5	1.277	1.092	N/A
		26365	1882.5	1.269	1.092	N/A
		26615	1907.5	1.290	1.091	N/A
	16-QAM	26115	1857.5	1.179	0.920	N/A
		26365	1882.5	1.210	0.920	N/A
		26615	1907.5	1.220	0.917	N/A
20	QPSK	26140	1860.0	1.272	1.093	N/A
		26365	1882.5	1.296	1.095	N/A
		26590	1905.0	1.287	1.087	N/A
	16-QAM	26140	1860.0	1.263	0.923	N/A
		26365	1882.5	1.273	0.924	N/A
		26590	1905.0	1.240	0.933	N/A

Mode 1: LTE Cat-M1 Band 2 / 25

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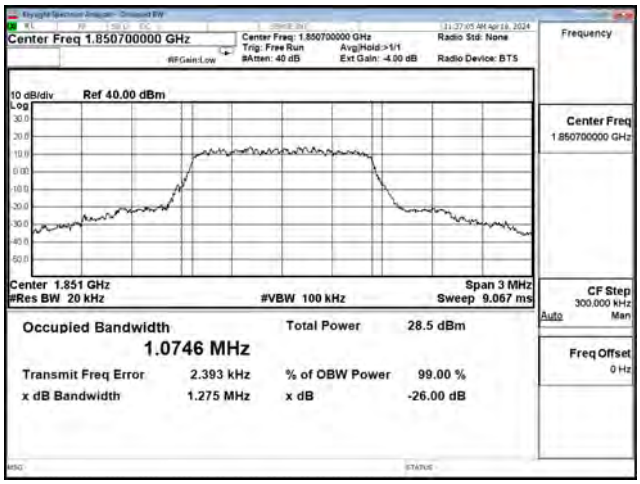	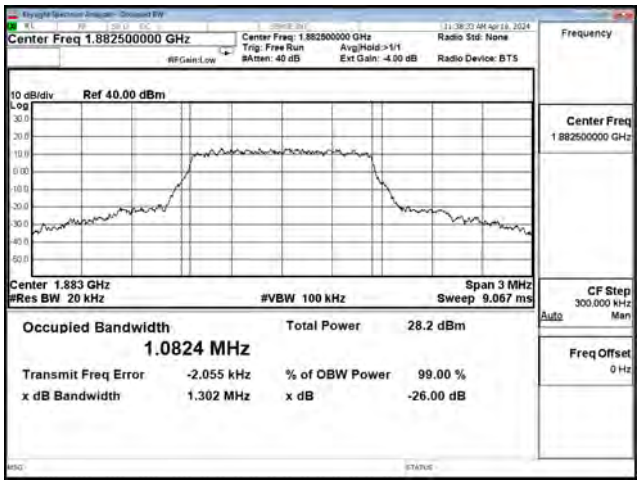
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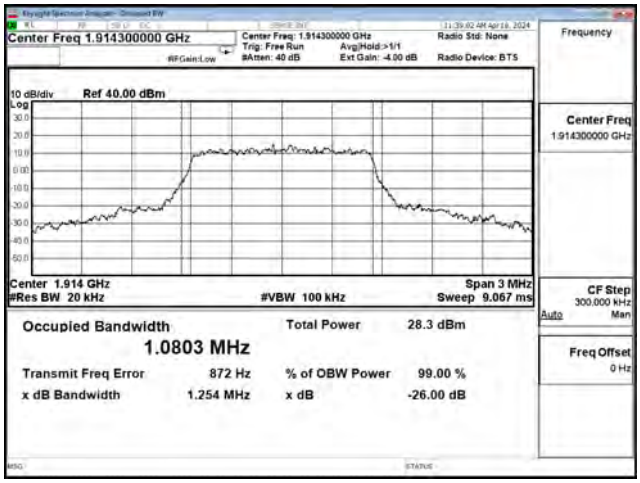	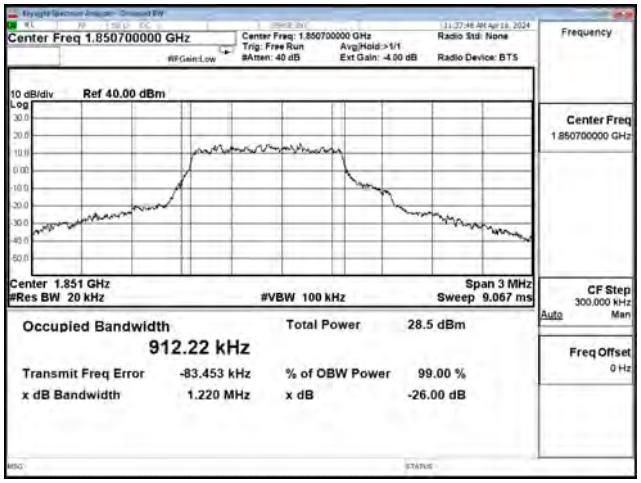
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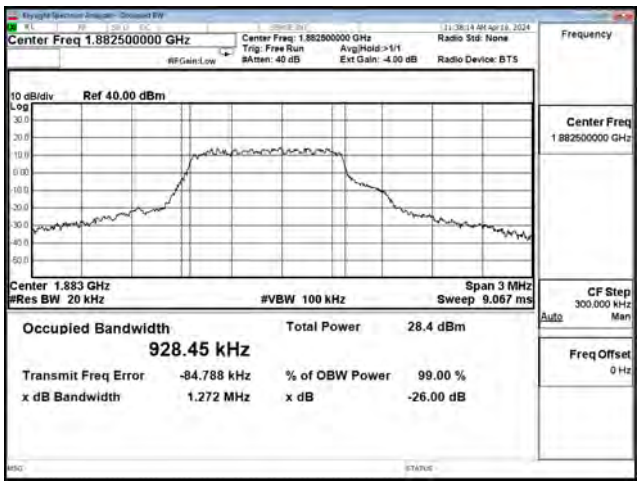	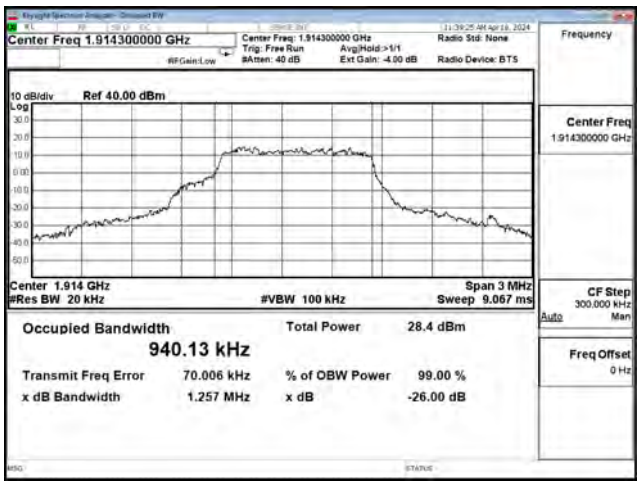

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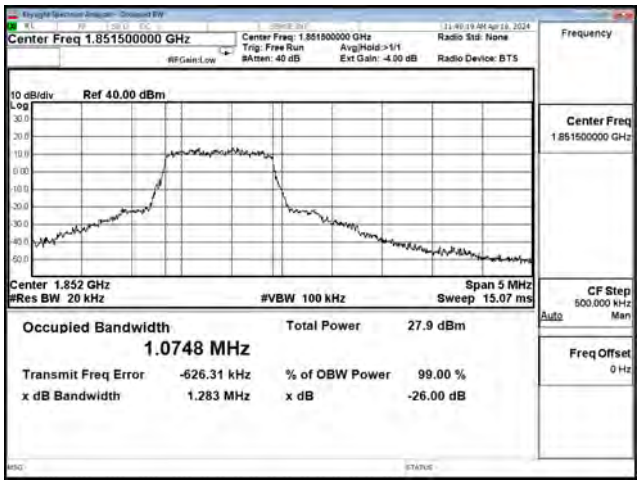	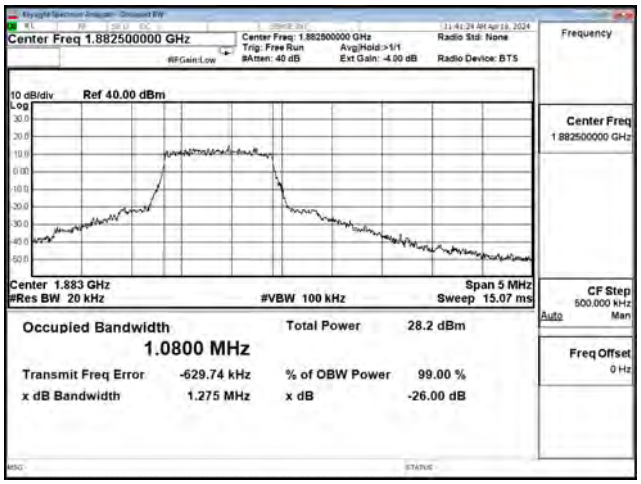
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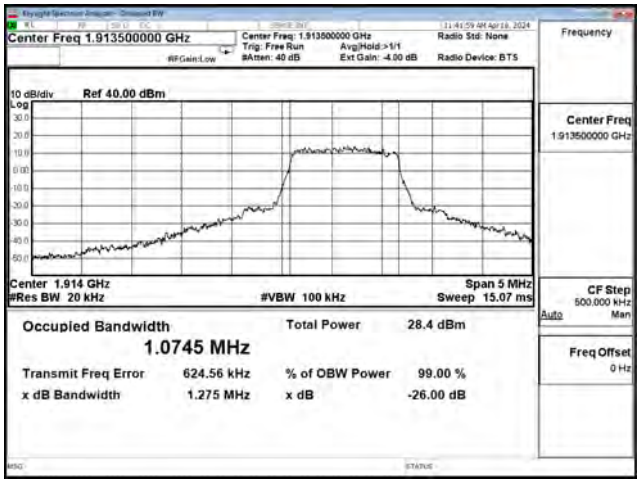	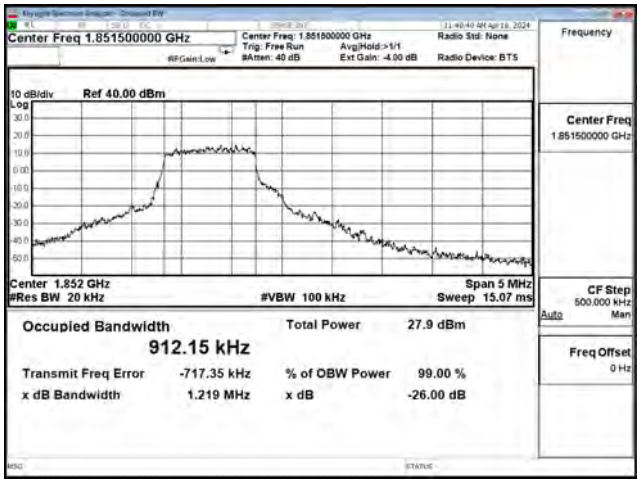
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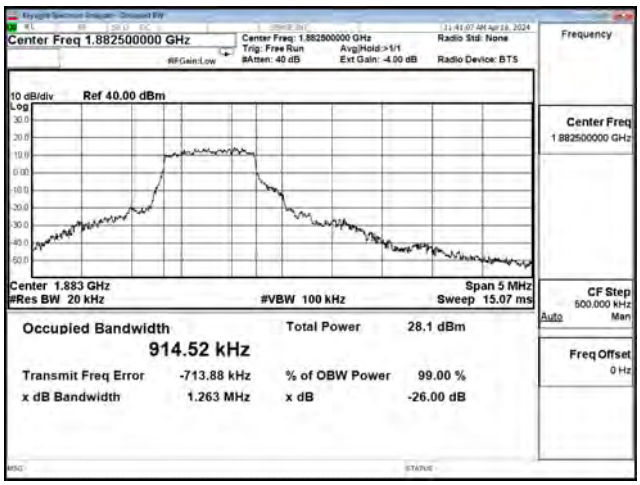	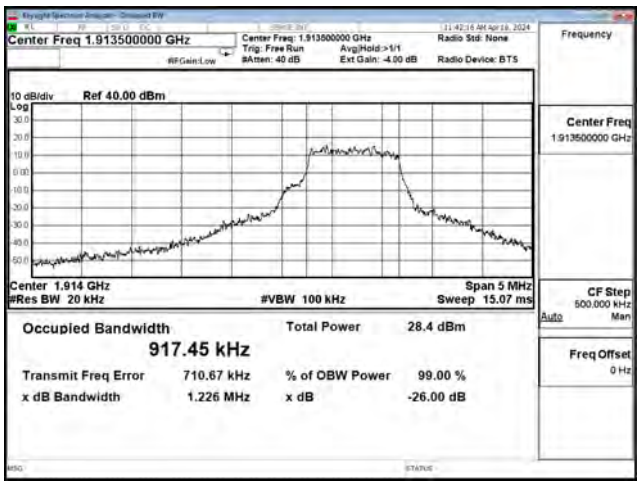

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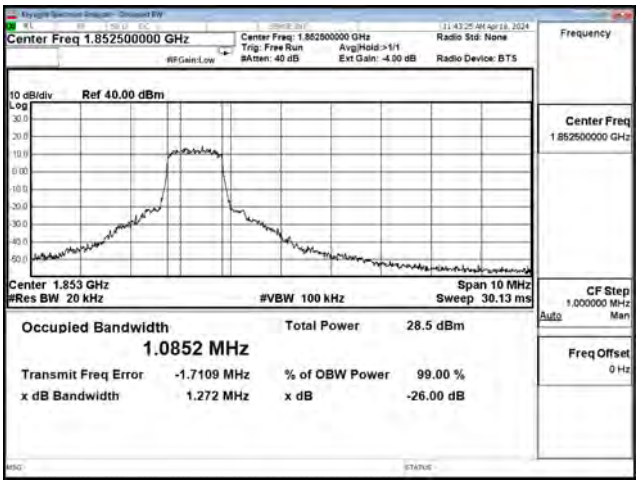	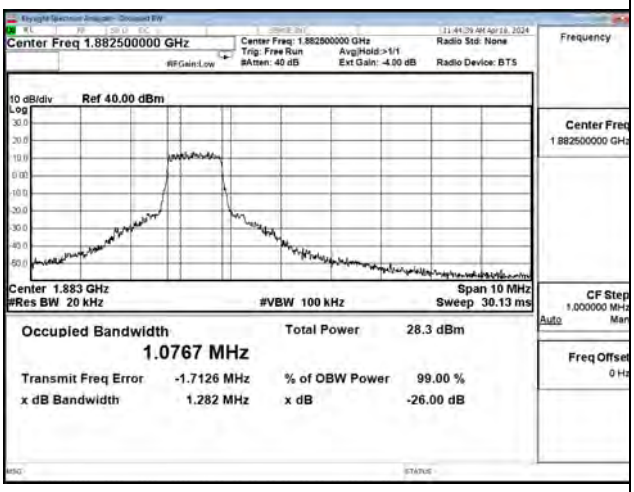
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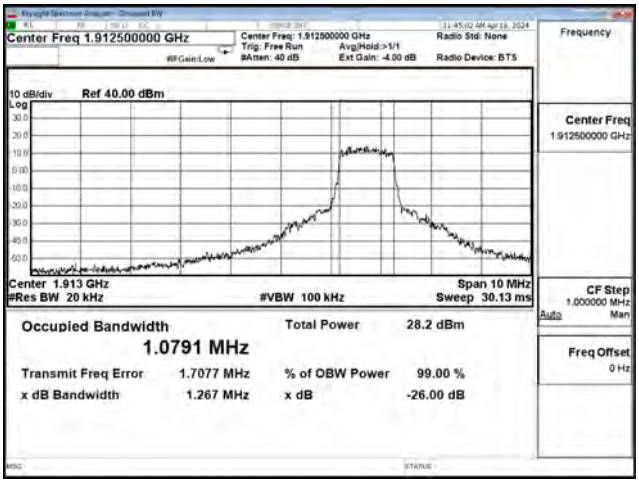	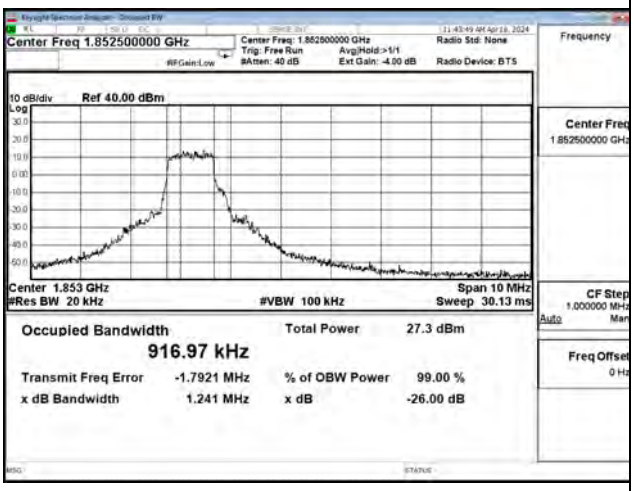
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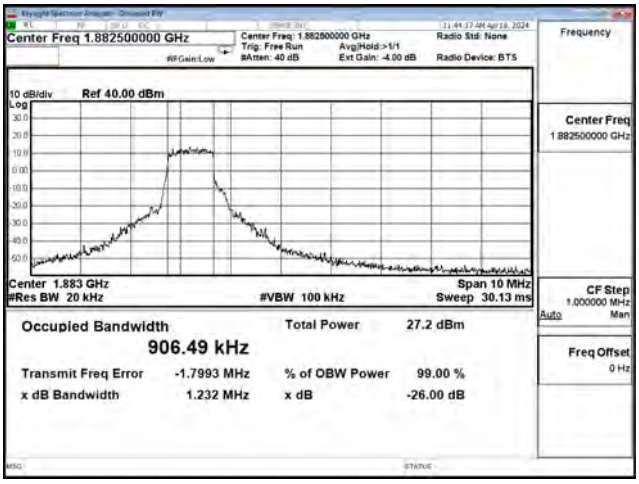	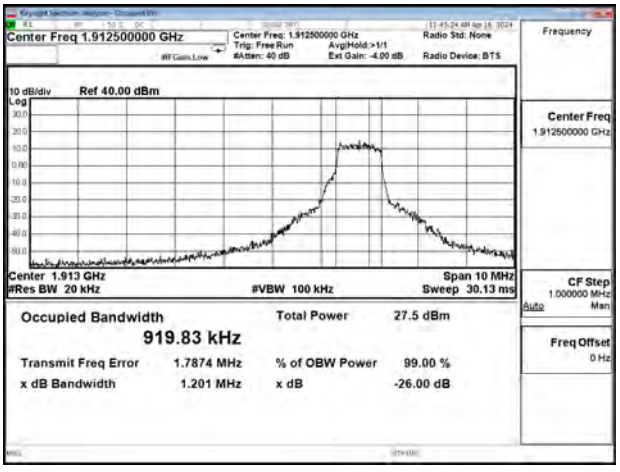

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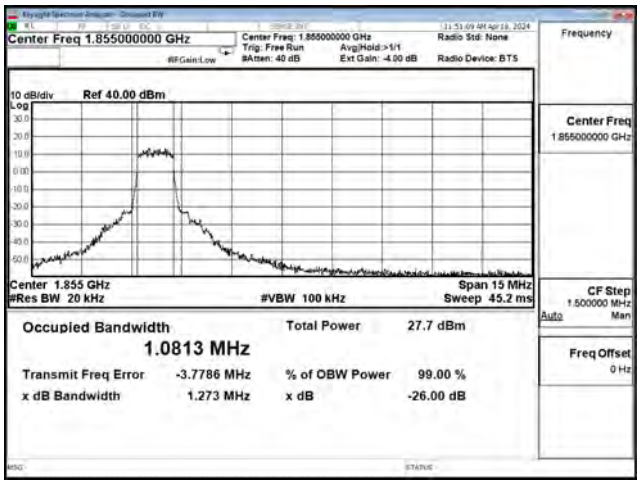	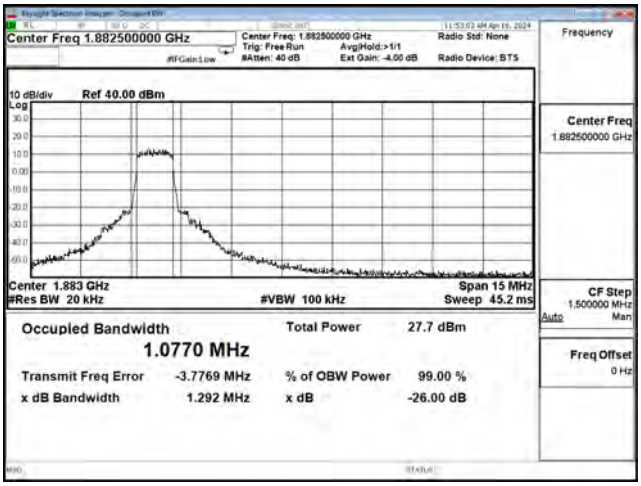
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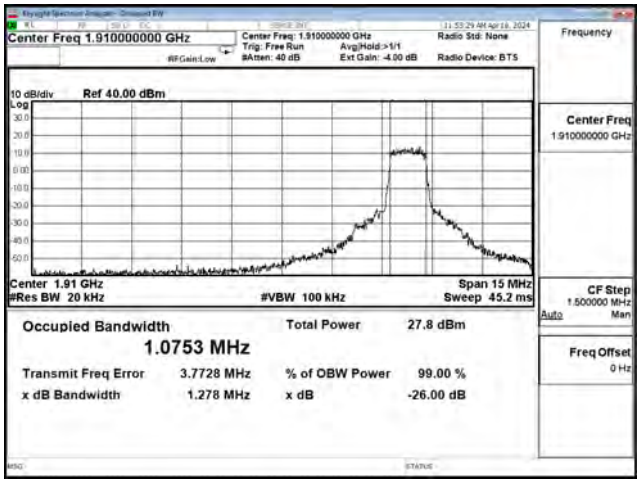	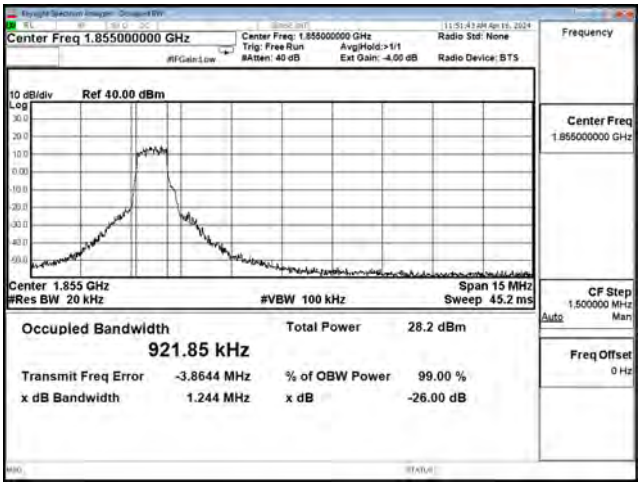
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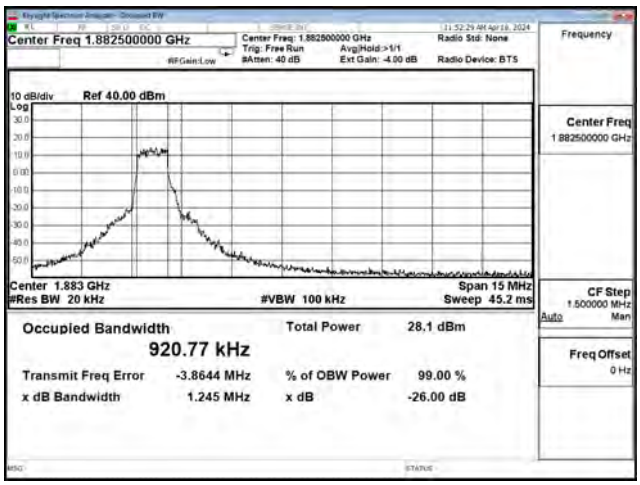	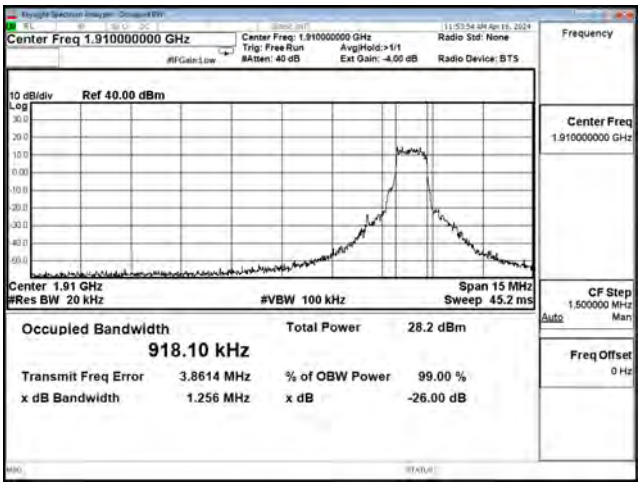

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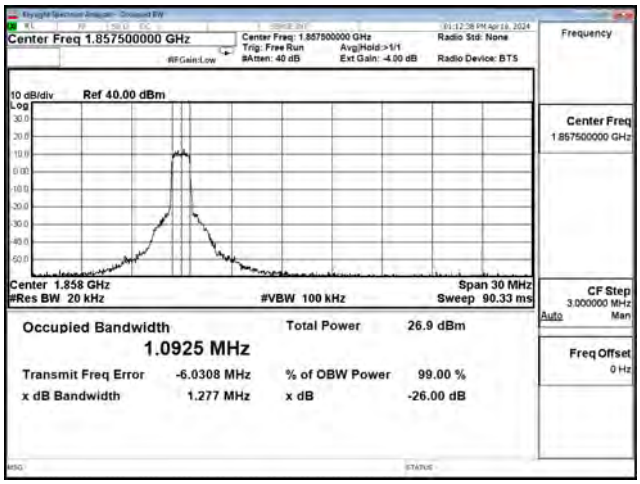	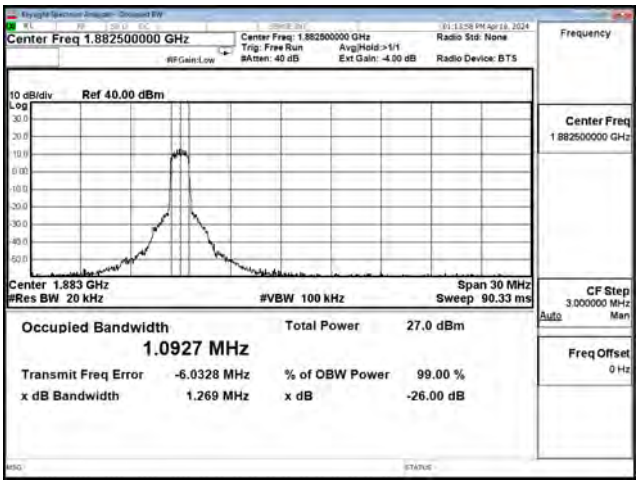
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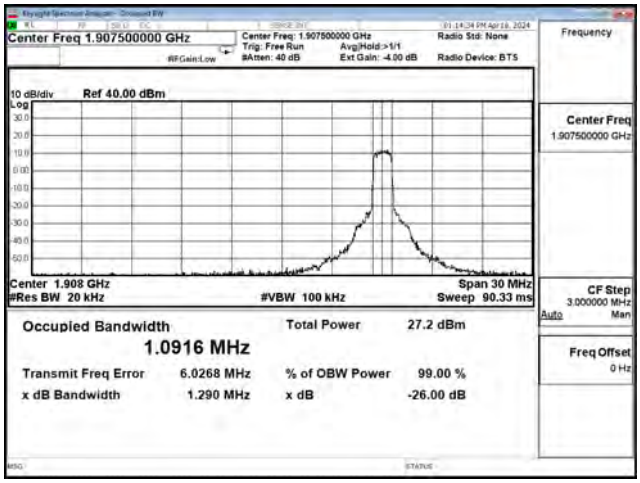	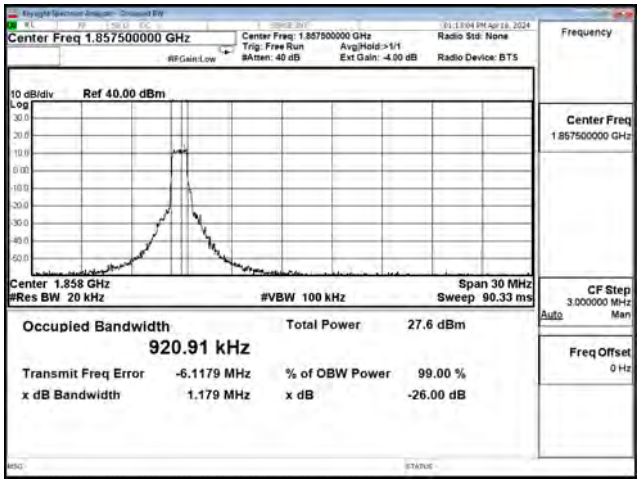
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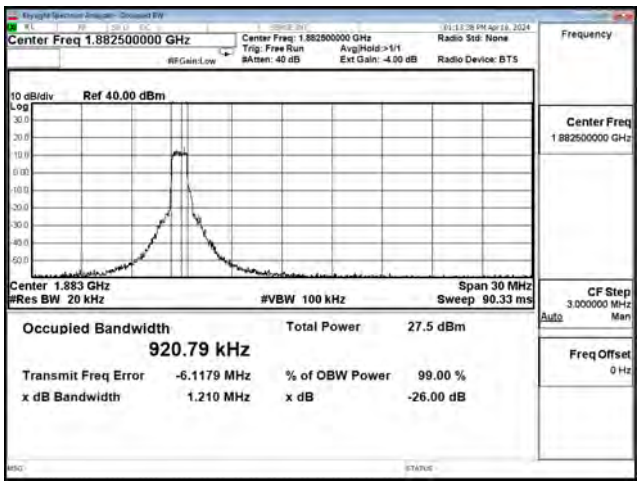	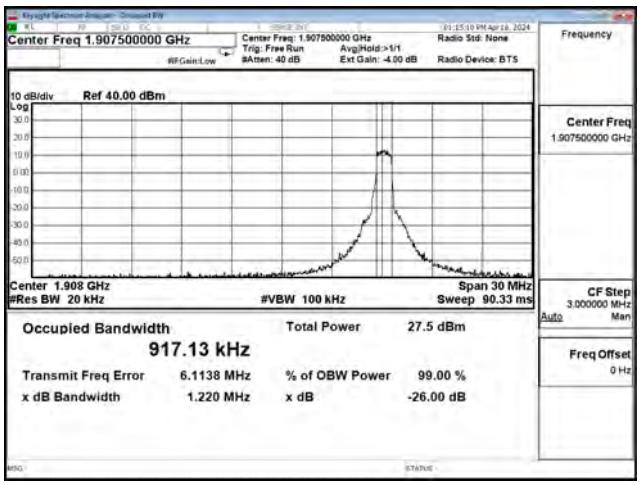

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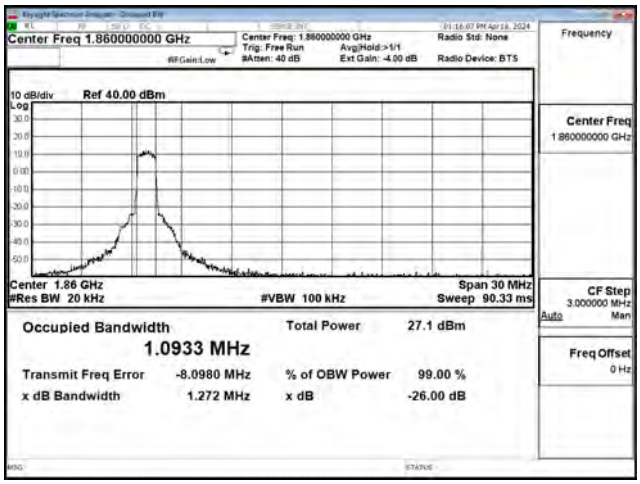	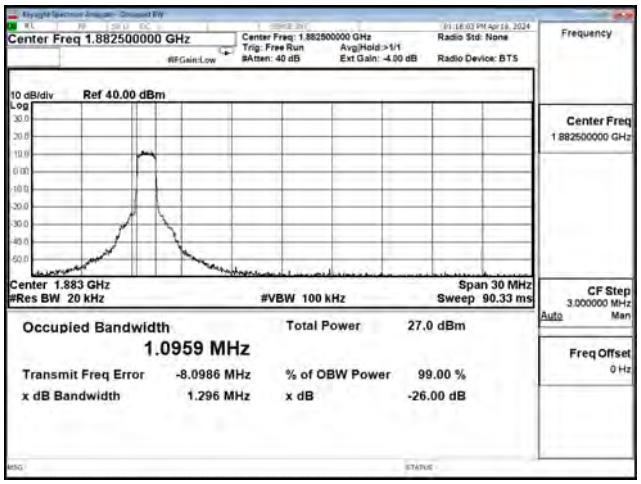
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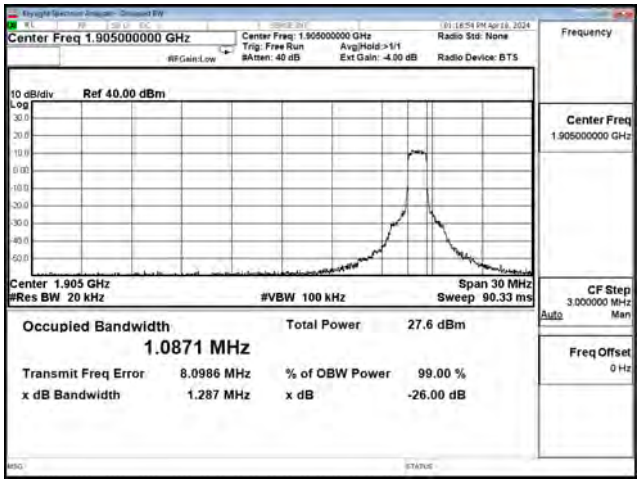	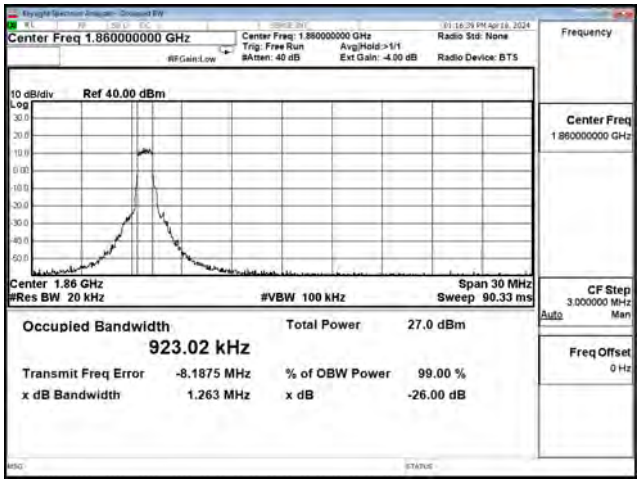
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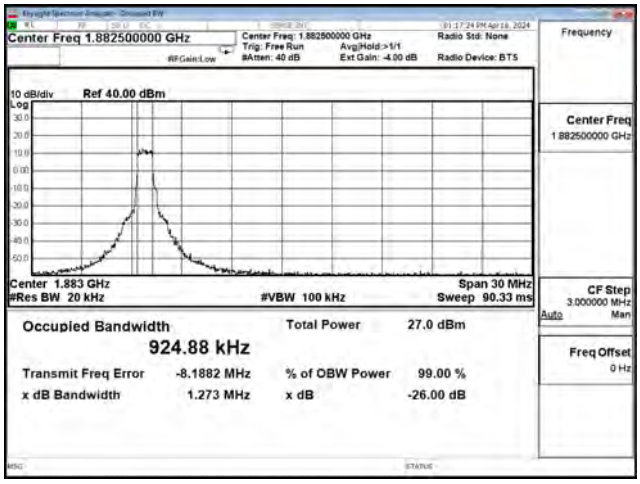	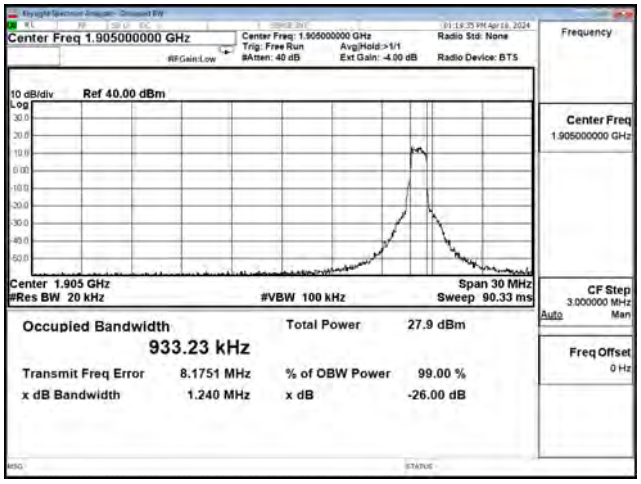

Mode 2: LTE Cat-M1 Band 4 / 66

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4	QPSK	131979	1710.7	1.278	1.077	N/A
		132322	1745.0	1.271	1.075	N/A
		132665	1779.3	1.279	1.073	N/A
	16-QAM	131979	1710.7	1.201	0.911	N/A
		132322	1745.0	1.265	0.914	N/A
		132665	1779.3	1.252	0.922	N/A
3	QPSK	131987	1711.5	1.266	1.072	N/A
		132322	1745.0	1.280	1.078	N/A
		132657	1778.5	1.276	1.072	N/A
	16-QAM	131987	1711.5	1.212	0.909	N/A
		132322	1745.0	1.233	0.914	N/A
		132657	1778.5	1.248	0.919	N/A
5	QPSK	131997	1712.5	1.265	1.076	N/A
		132322	1745.0	1.277	1.075	N/A
		132647	1777.5	1.265	1.083	N/A
	16-QAM	131997	1712.5	1.185	0.908	N/A
		132322	1745.0	1.212	0.907	N/A
		132647	1777.5	1.234	0.915	N/A
10	QPSK	132022	1715.0	1.269	1.080	N/A
		132322	1745.0	1.283	1.077	N/A
		132622	1775.0	1.267	1.084	N/A
	16-QAM	132022	1715.0	1.170	0.903	N/A
		132322	1745.0	1.221	0.907	N/A
		132622	1775.0	1.256	0.918	N/A
15	QPSK	132047	1717.5	1.287	1.096	N/A
		132322	1745.0	1.289	1.091	N/A
		132597	1772.5	1.282	1.085	N/A
	16-QAM	132047	1717.5	1.205	0.921	N/A
		132322	1745.0	1.226	0.923	N/A
		132597	1772.5	1.174	0.916	N/A
20	QPSK	132072	1720.0	1.269	1.089	N/A
		132322	1745.0	1.281	1.089	N/A
		132572	1770.0	1.267	1.092	N/A
	16-QAM	132072	1720.0	1.258	0.923	N/A
		132322	1745.0	1.263	0.923	N/A
		132572	1770.0	1.213	0.919	N/A

Mode 2: LTE Cat-M1 Band 4 / 66

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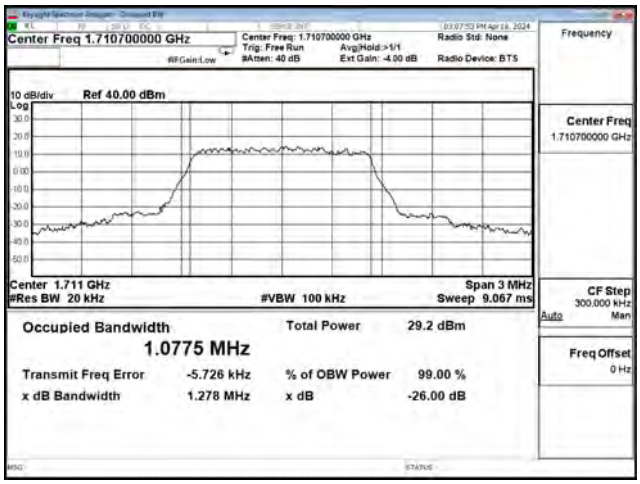	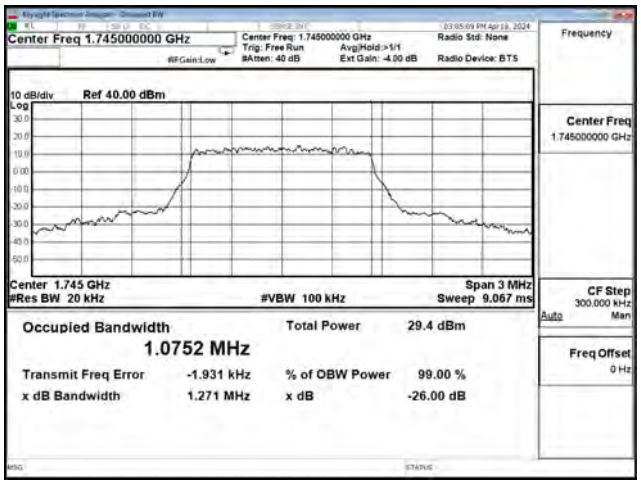
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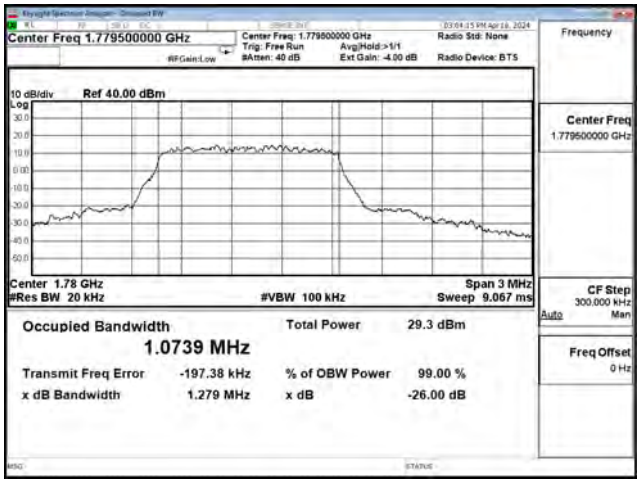	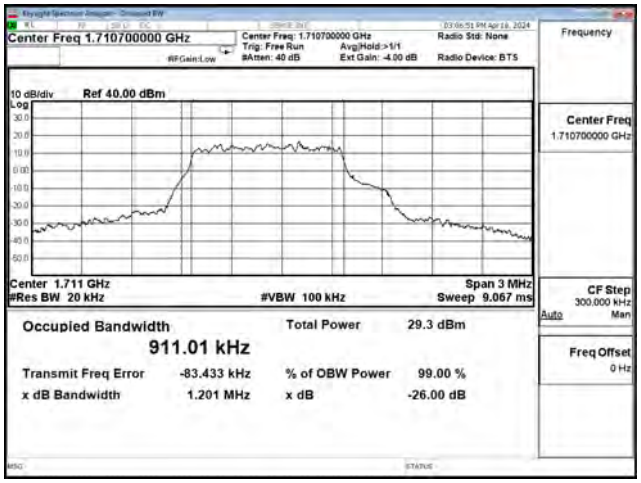
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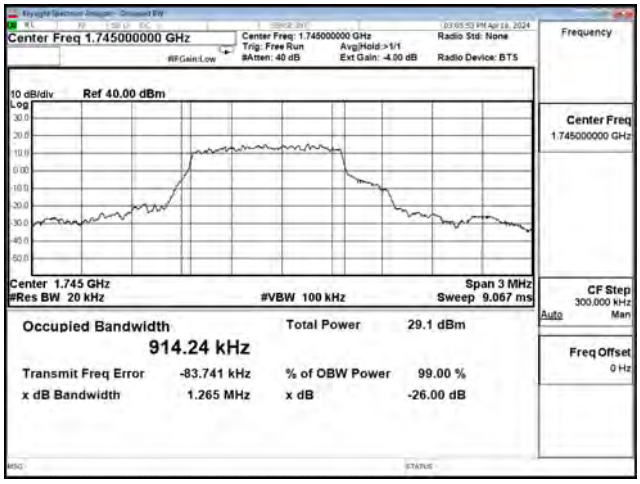	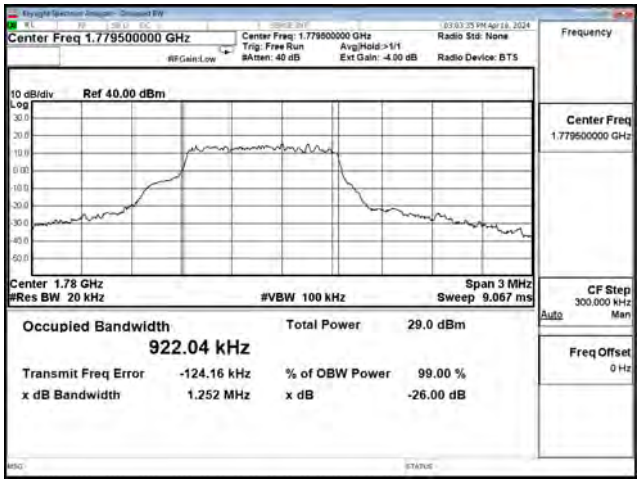

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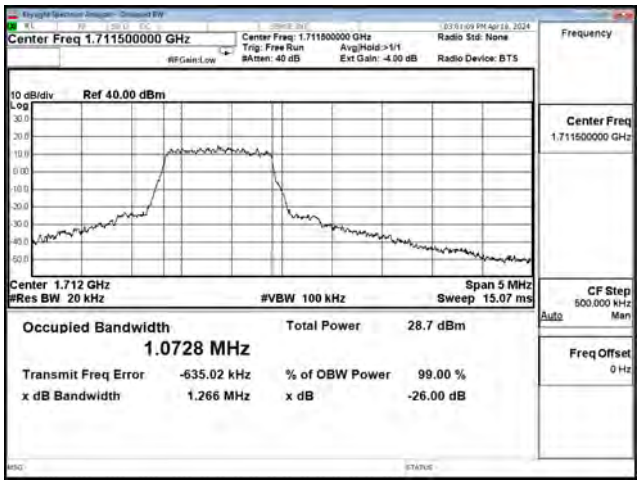	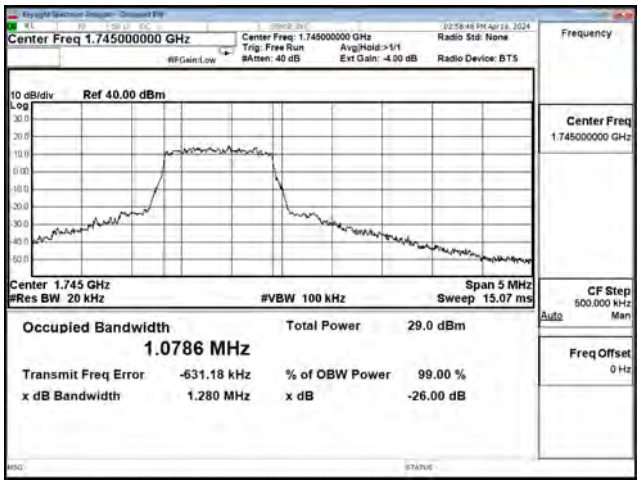
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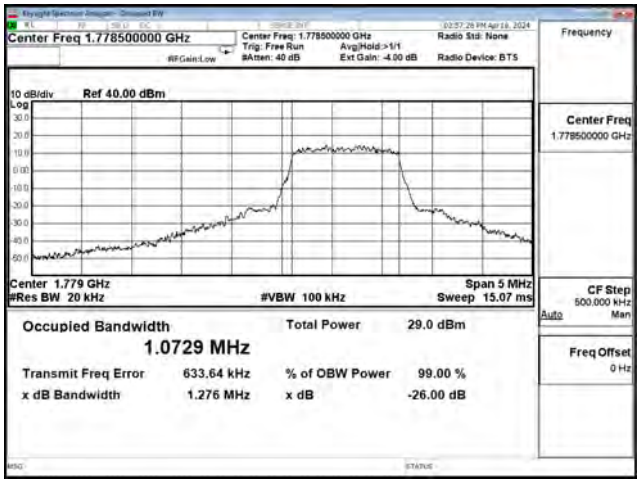	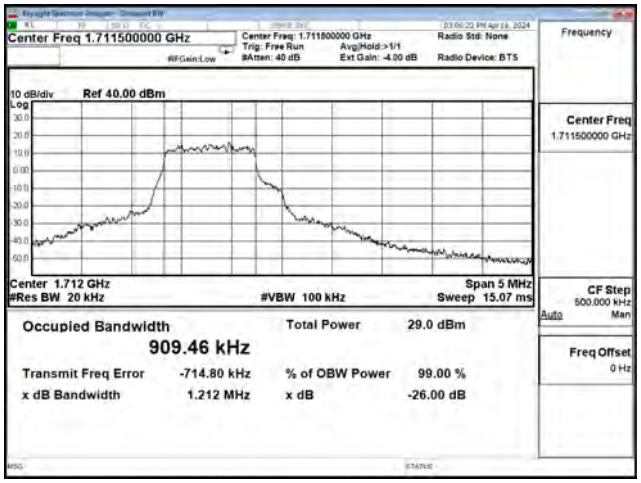
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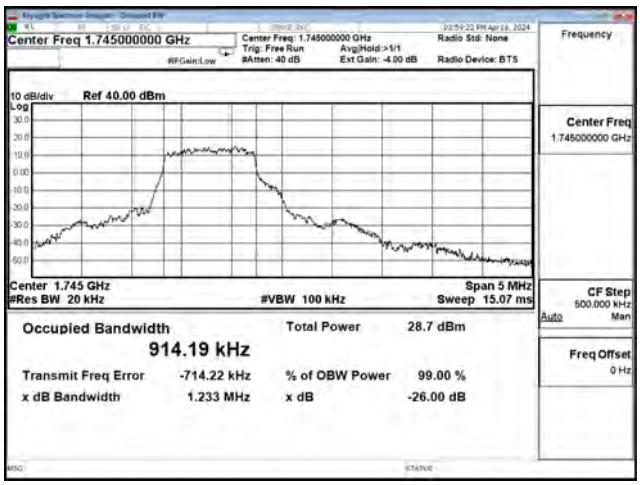	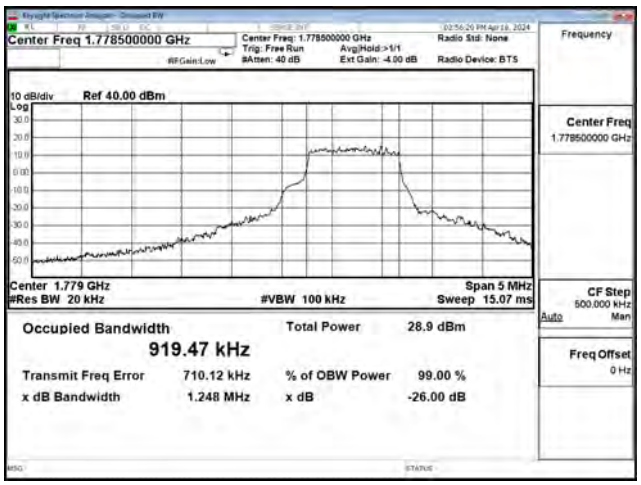

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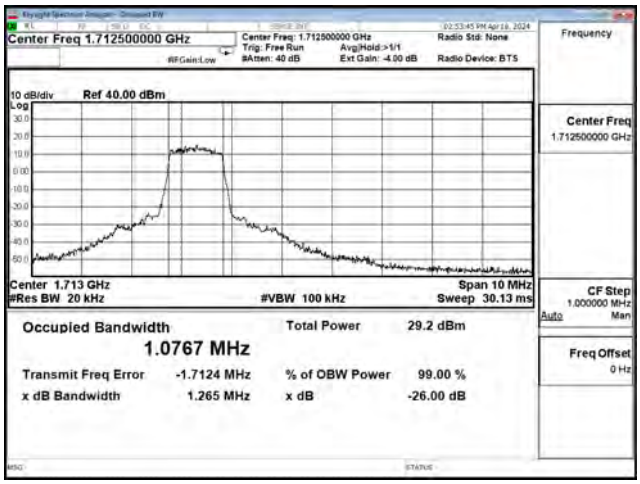	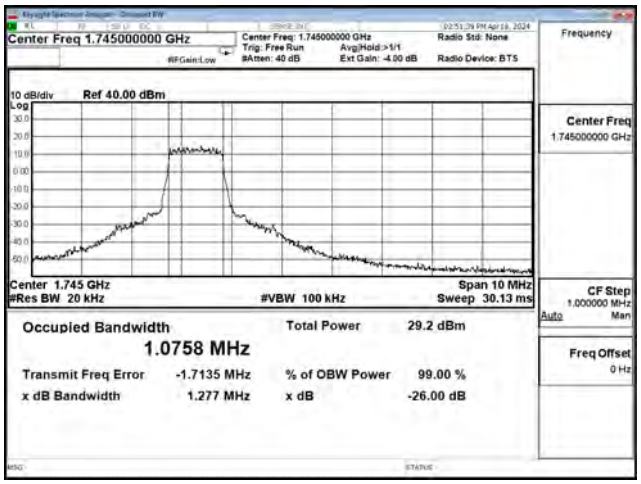
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	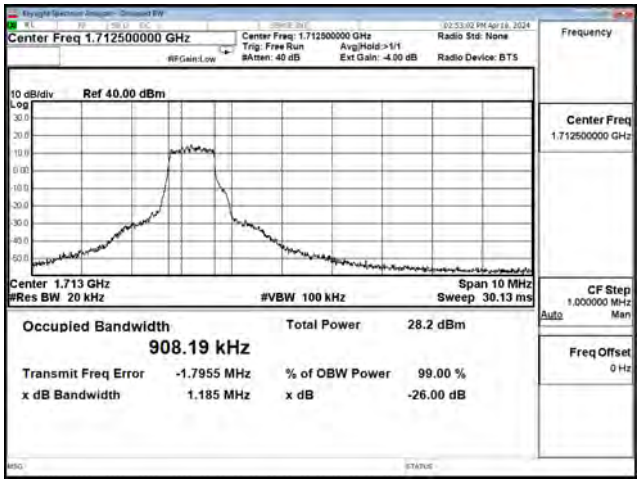
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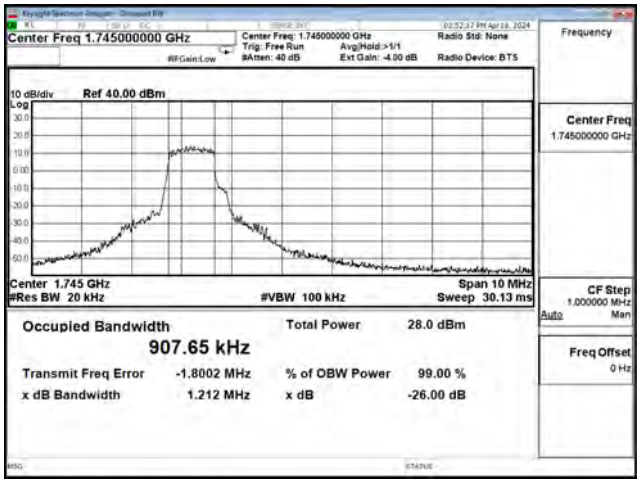	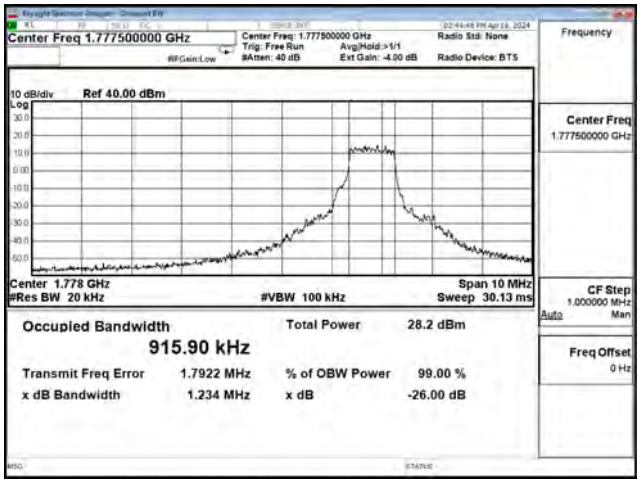

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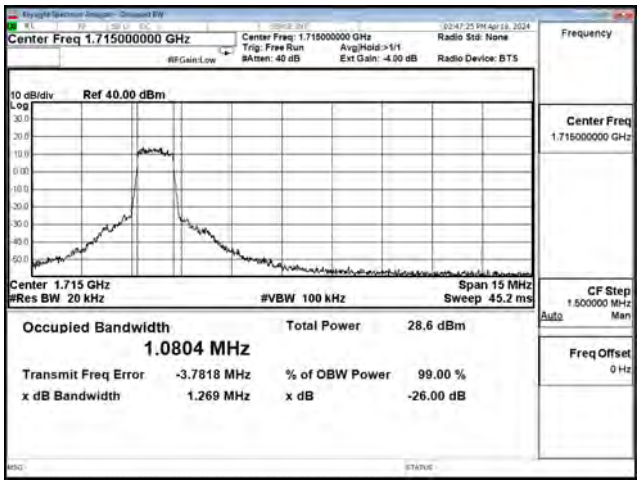	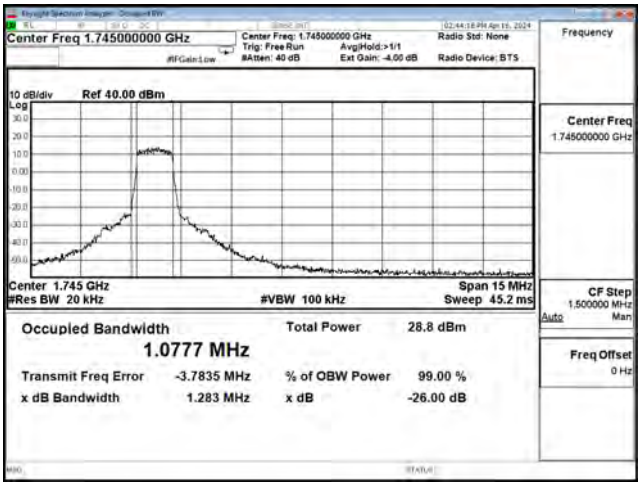
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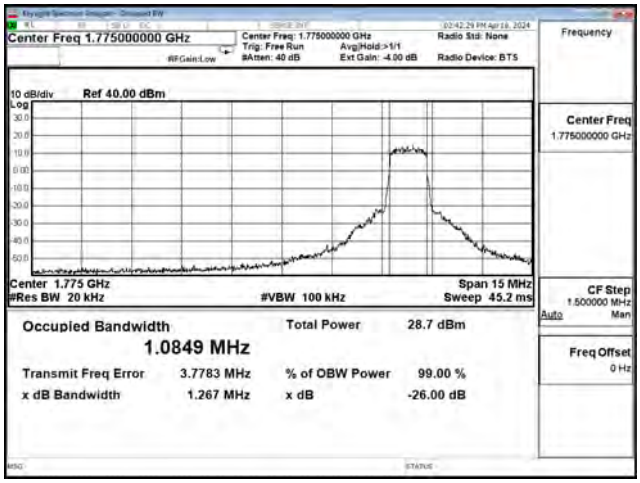	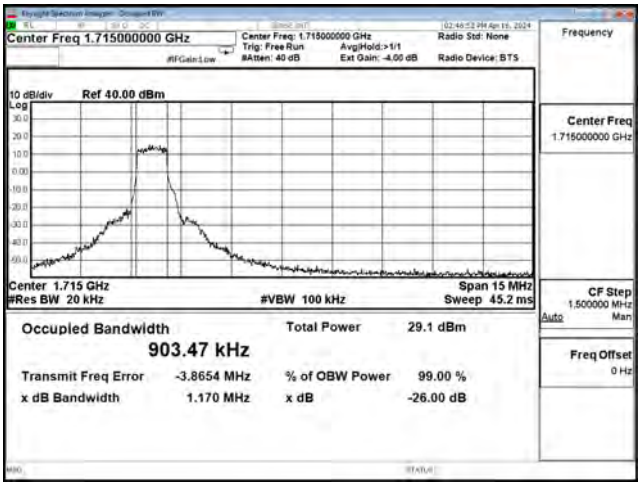
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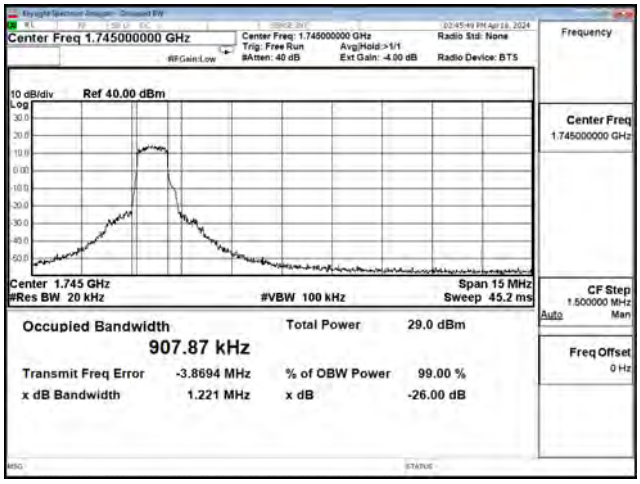	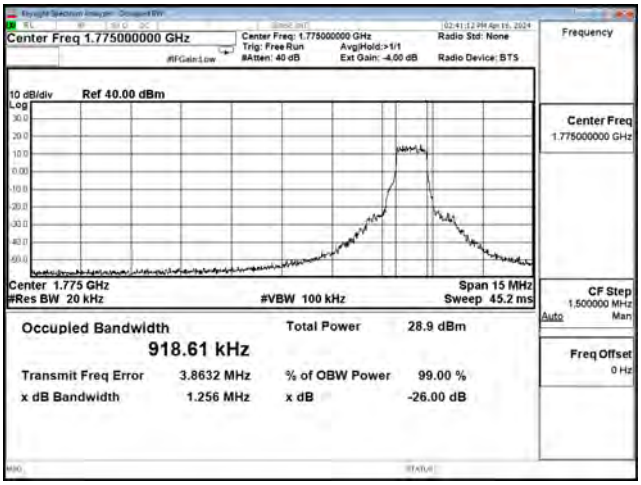

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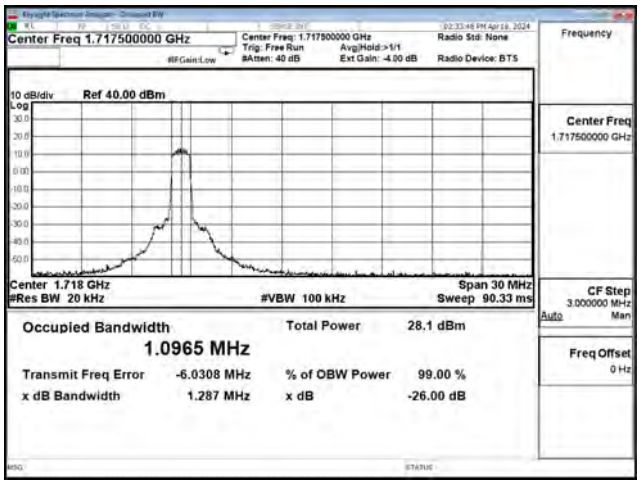	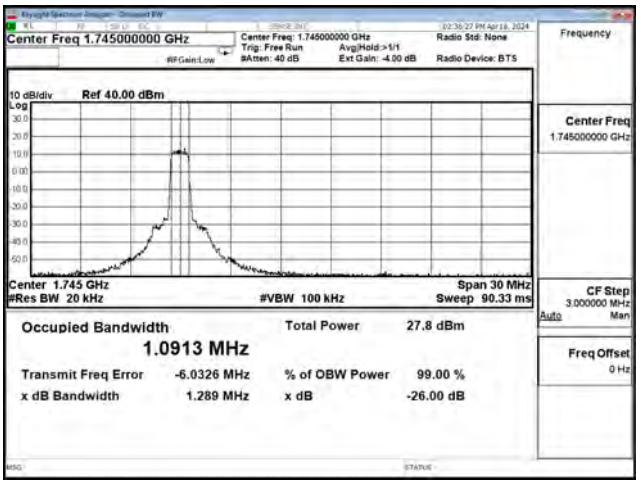
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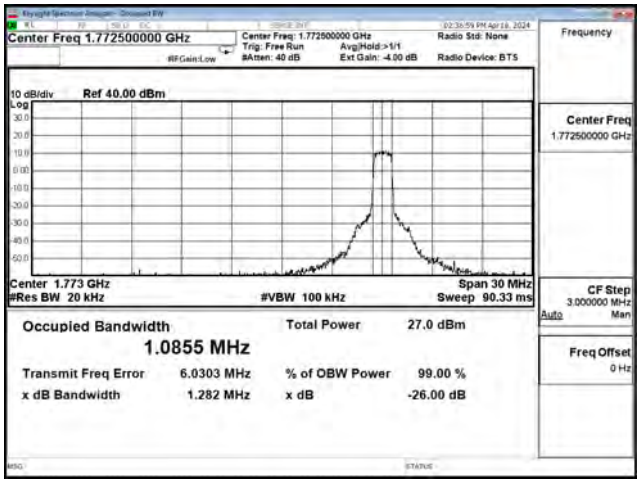	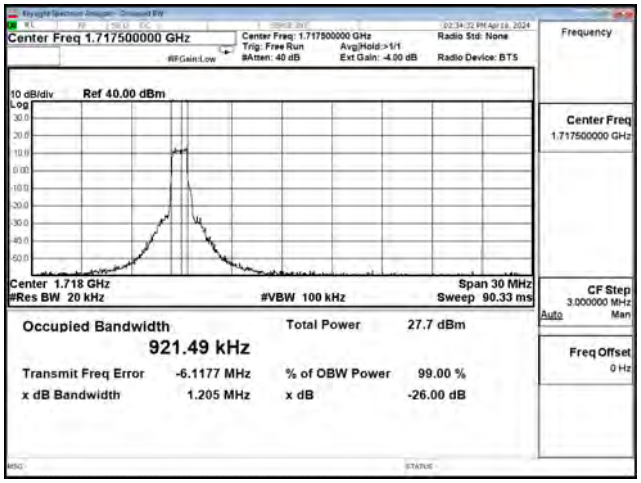
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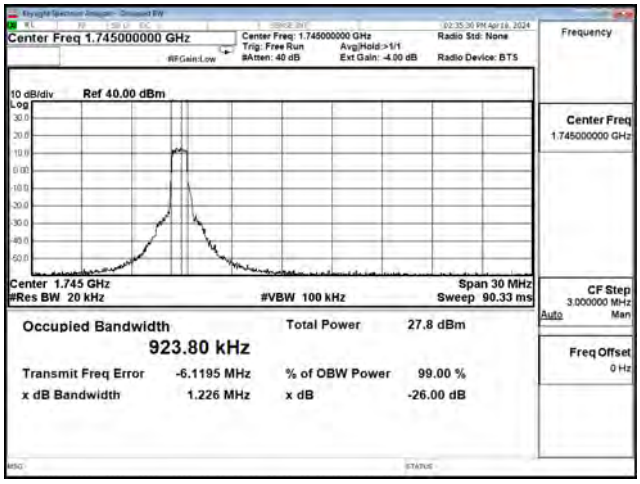	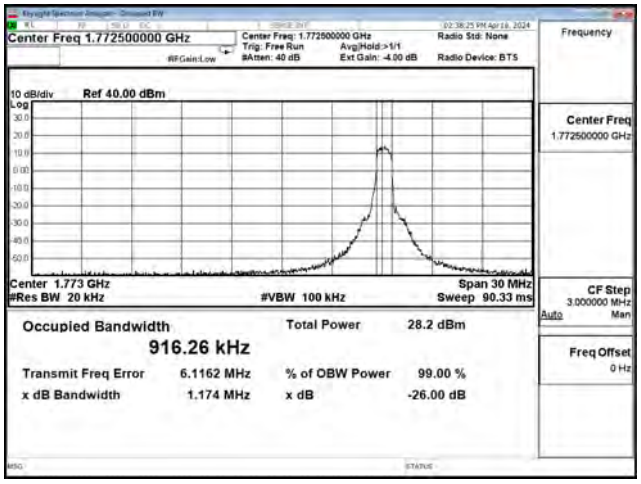

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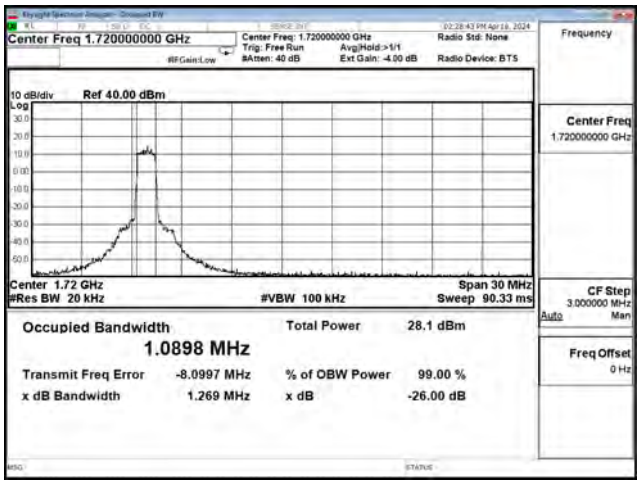	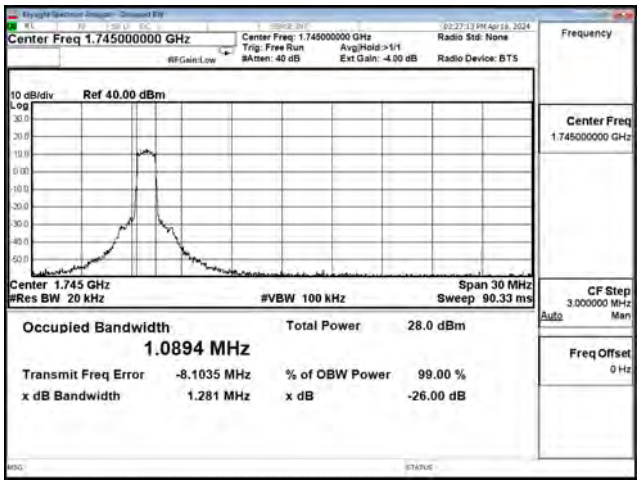
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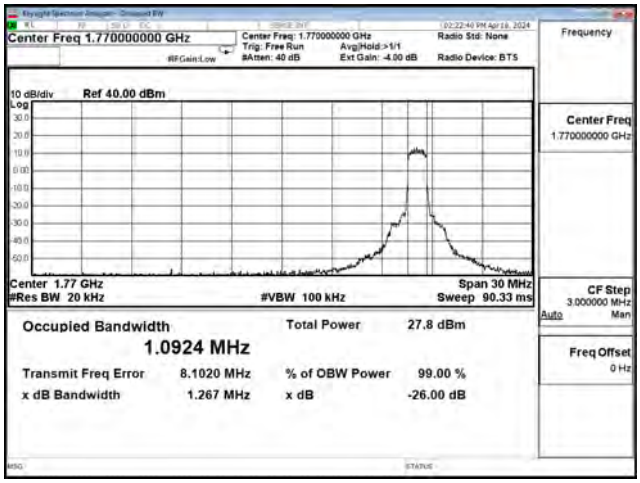	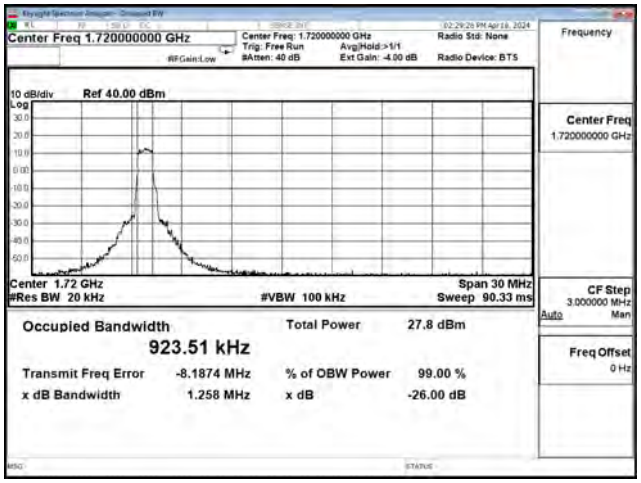
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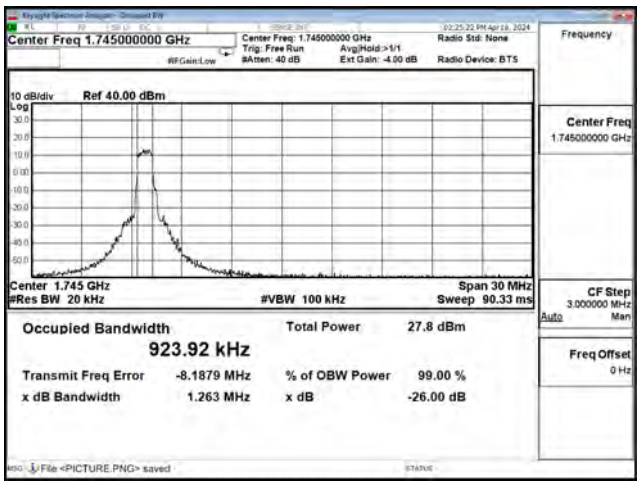
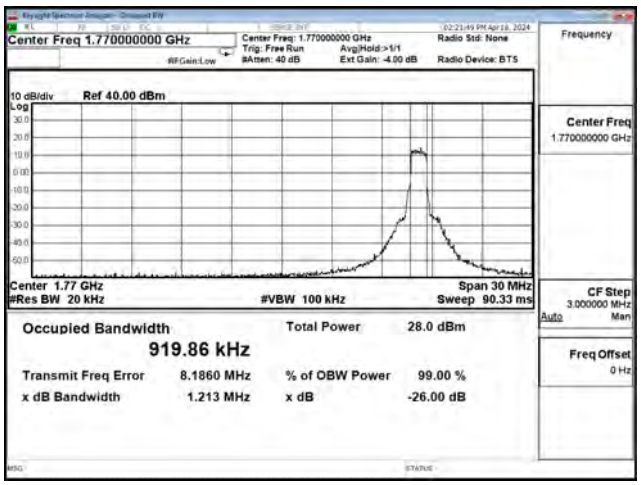
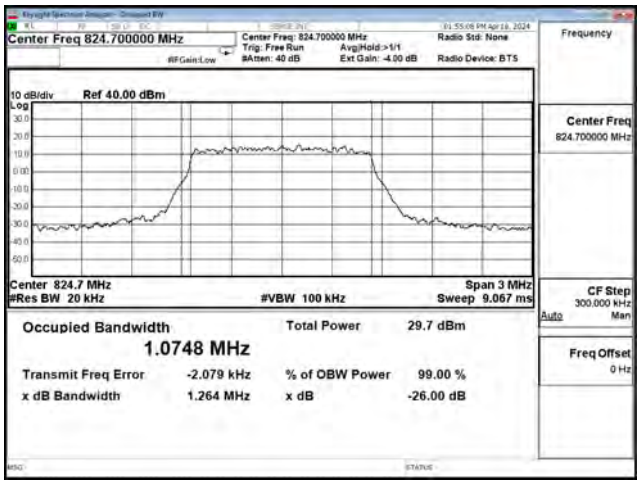
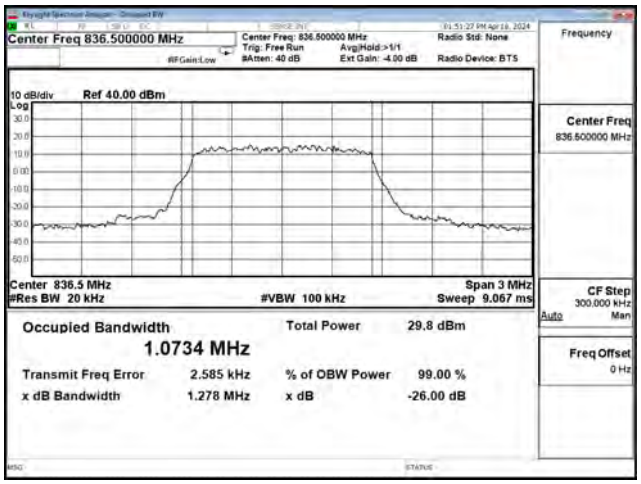
	

Mode 3: LTE Cat-M1 Band 5 / 26 (Part 22)

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4	QPSK	26797	824.7	1.264	1.074	N/A
		26915	836.5	1.278	1.073	N/A
		27033	848.3	1.278	1.073	N/A
	16-QAM	26797	824.7	1.254	0.913	N/A
		26915	836.5	1.206	0.909	N/A
		27033	848.3	1.242	0.919	N/A
3	QPSK	26805	825.5	1.278	1.074	N/A
		26915	836.5	1.286	1.074	N/A
		27025	847.5	1.277	1.072	N/A
	16-QAM	26805	825.5	1.206	0.909	N/A
		26915	836.5	1.178	0.908	N/A
		27025	847.5	1.239	0.913	N/A
5	QPSK	26815	826.5	1.267	1.075	N/A
		26915	836.5	1.280	1.075	N/A
		27015	846.5	1.275	1.082	N/A
	16-QAM	26815	826.5	1.154	0.909	N/A
		26915	836.5	1.207	0.908	N/A
		27015	846.5	1.231	0.913	N/A
10	QPSK	26840	829.0	1.284	1.077	N/A
		26915	836.5	1.269	1.078	N/A
		26990	844.0	1.275	1.085	N/A
	16-QAM	26840	829.0	1.224	0.907	N/A
		26915	836.5	1.244	0.919	N/A
		26990	844.0	1.244	0.918	N/A
15	QPSK	26865	831.5	1.257	1.087	N/A
		26915	836.5	1.284	1.091	N/A
		26965	841.5	1.290	1.088	N/A
	16-QAM	26865	831.5	1.232	0.922	N/A
		26915	836.5	1.219	0.921	N/A
		26965	841.5	1.234	0.917	N/A

Mode 3: LTE Cat-M1 Band 5 / 26 (Part 22)

QPSK_CH26797_1.4M_6RB0	QPSK_CH26915_1.4M_6RB0
	
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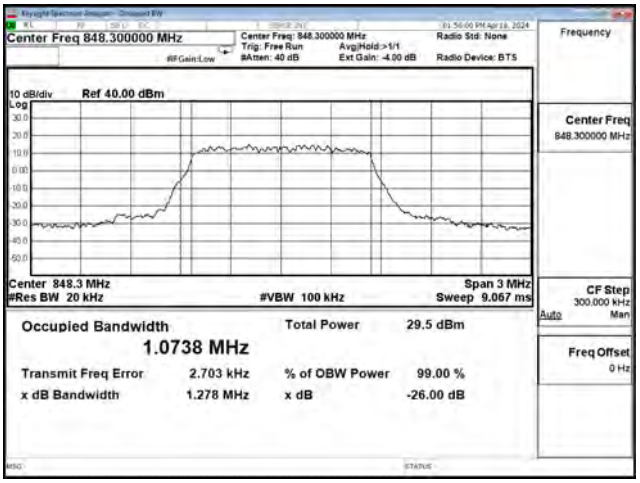	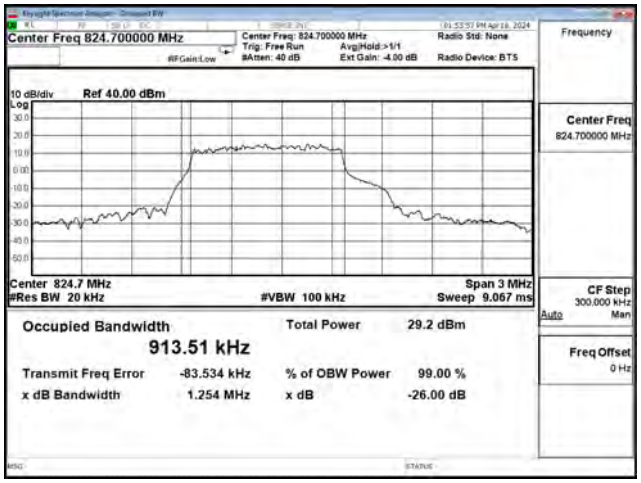
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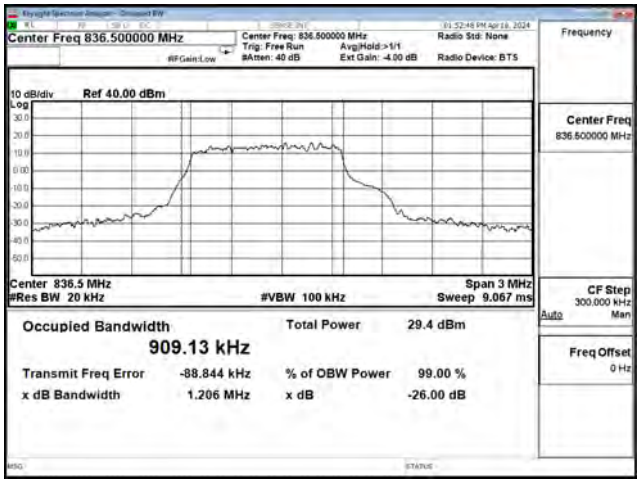	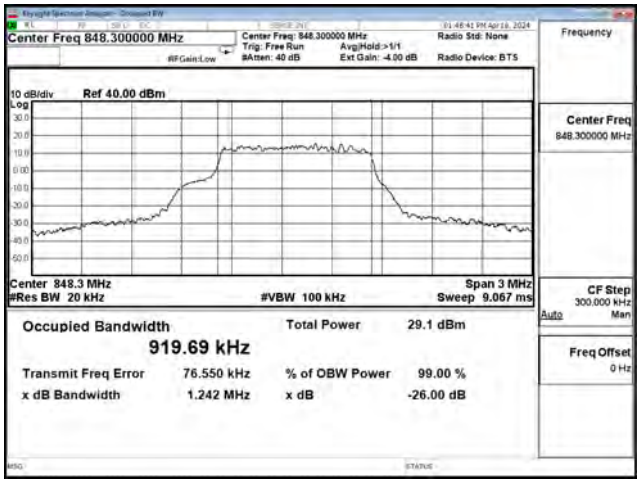

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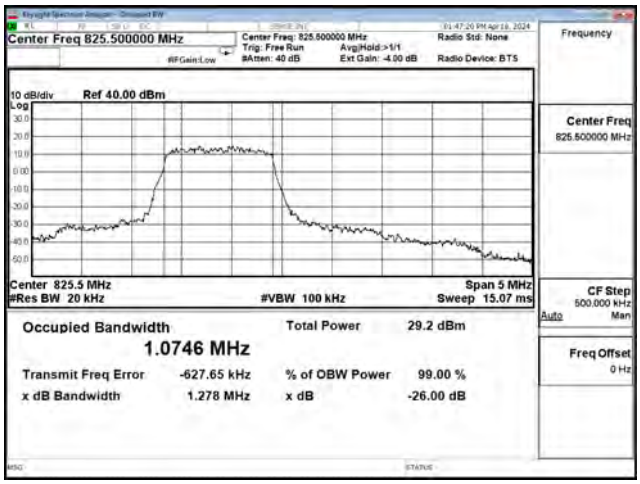	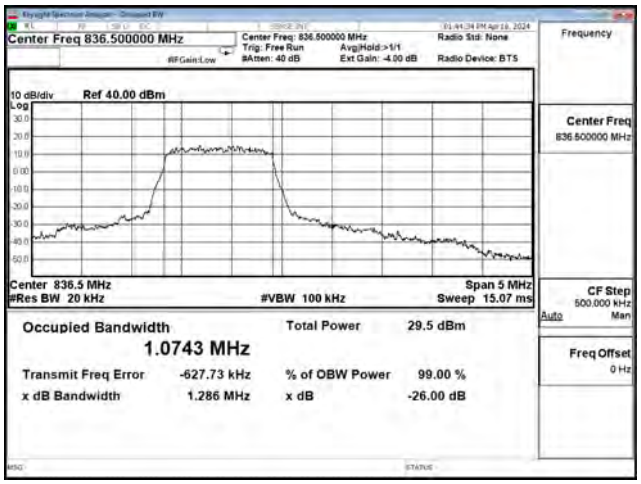
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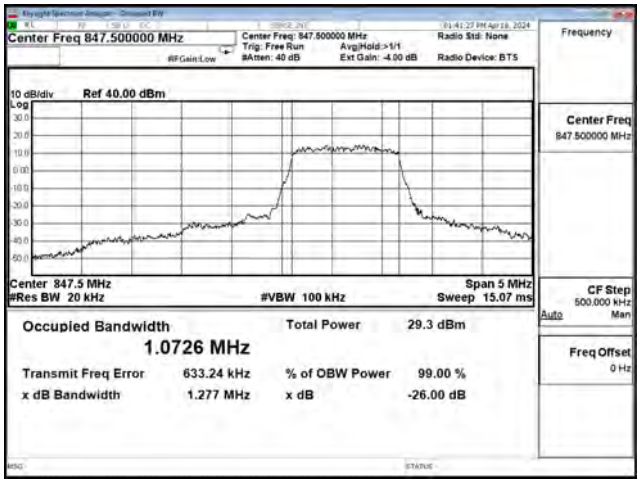	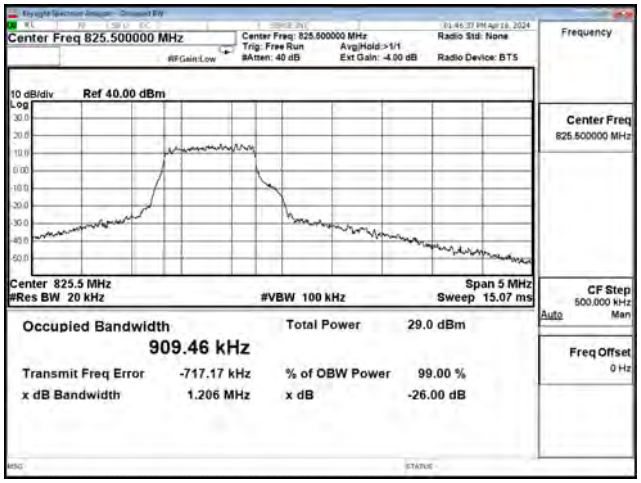
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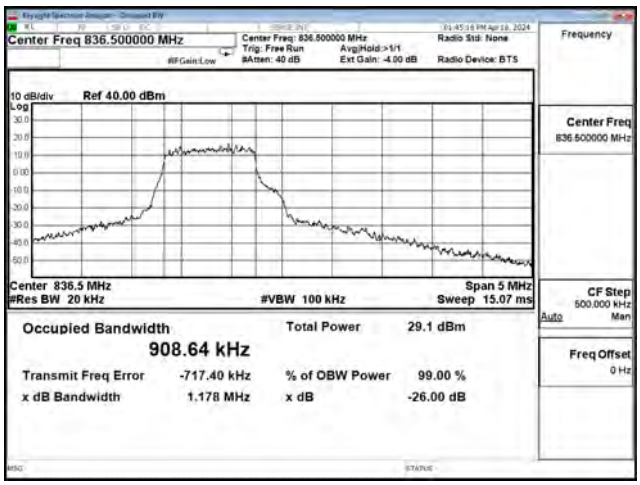	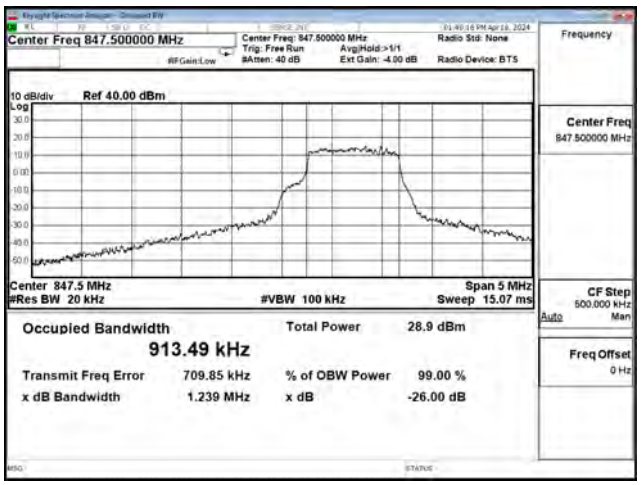

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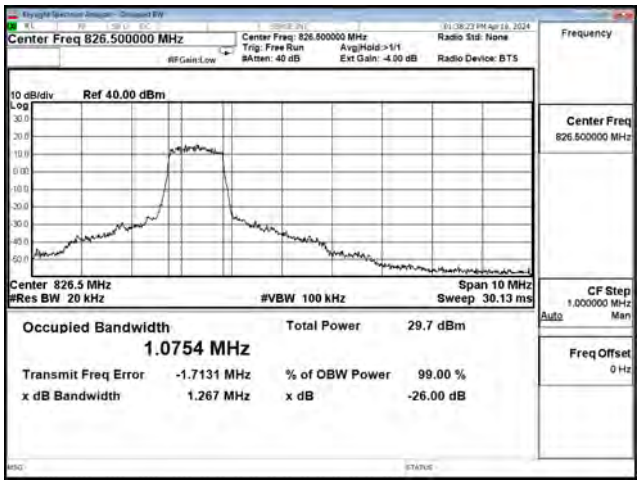	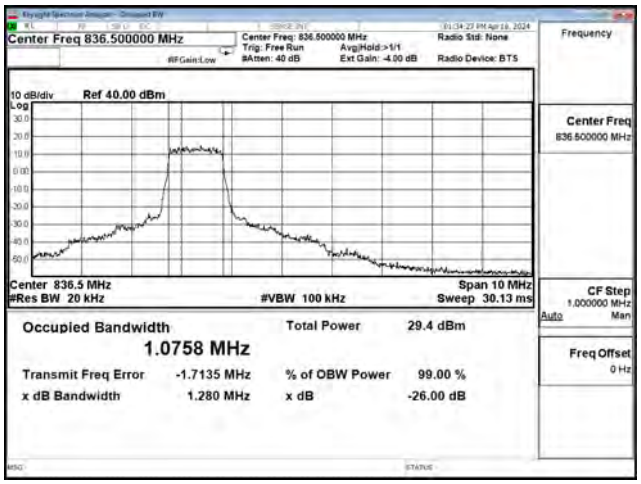
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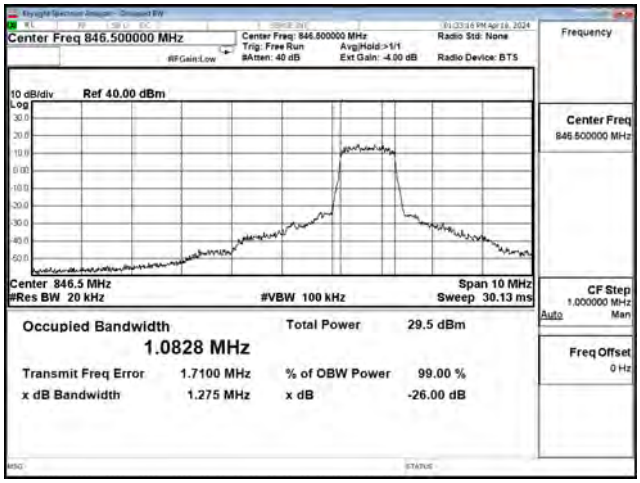	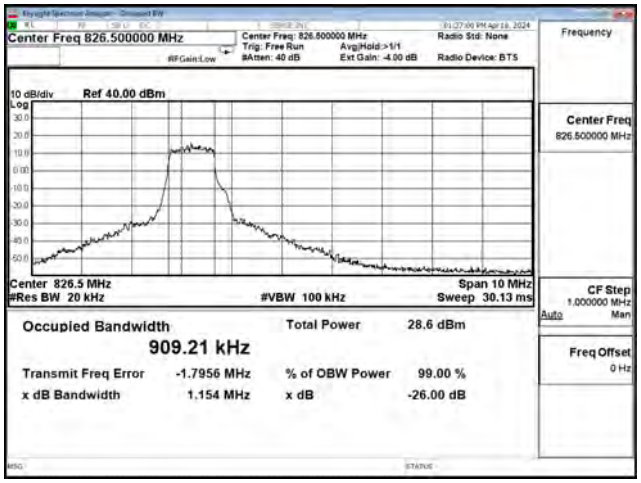
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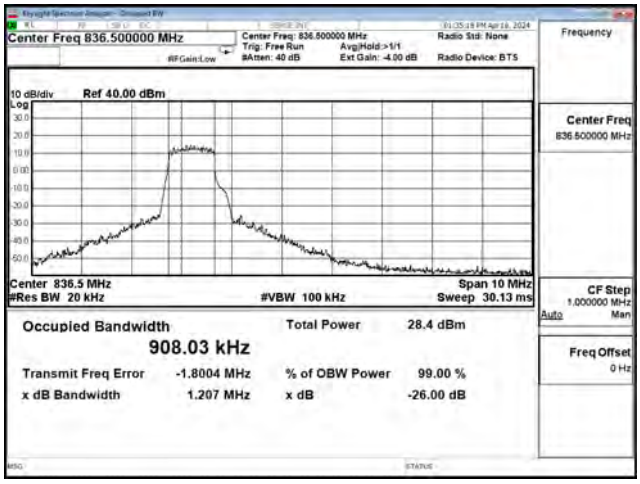	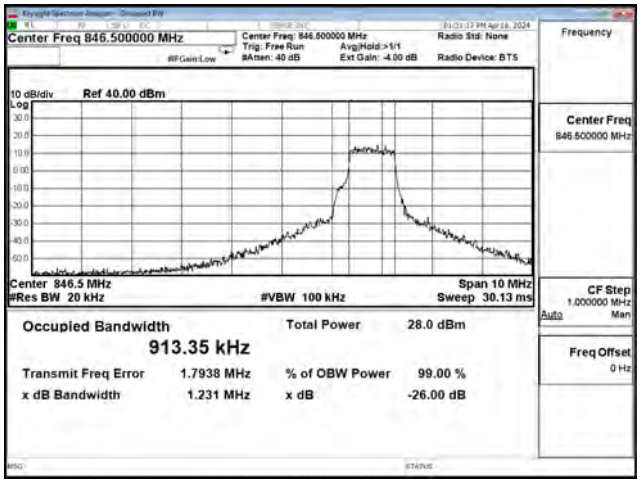

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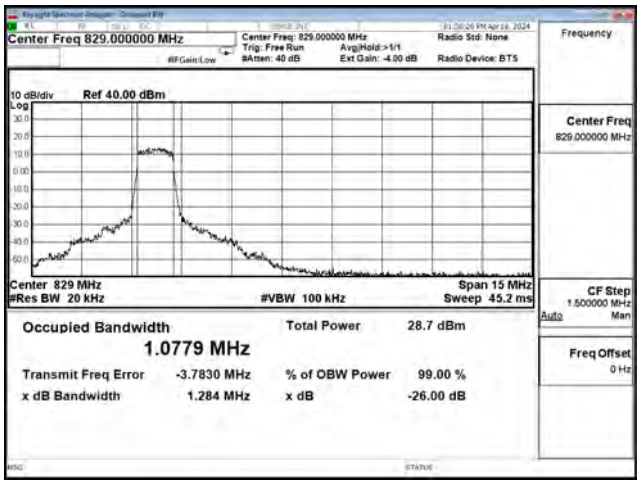	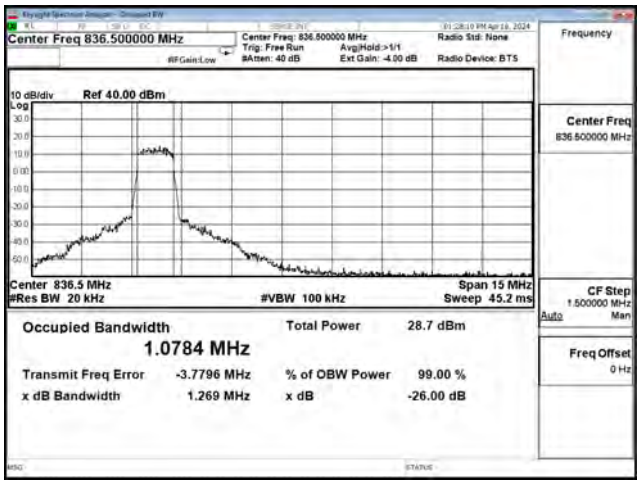
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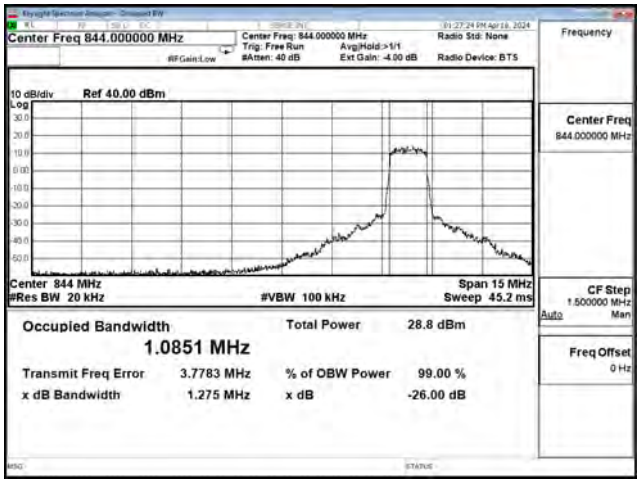	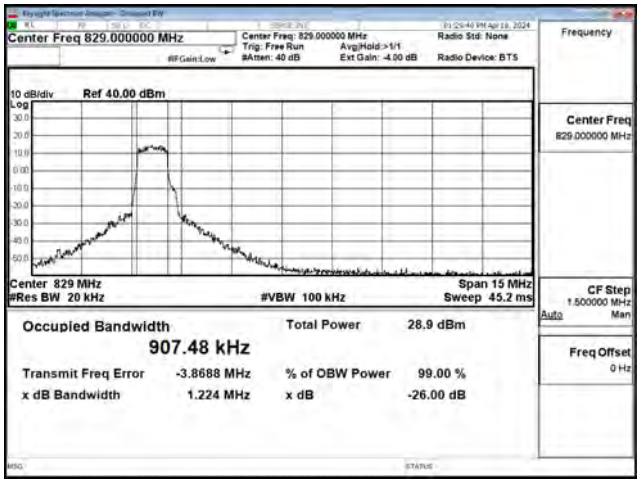
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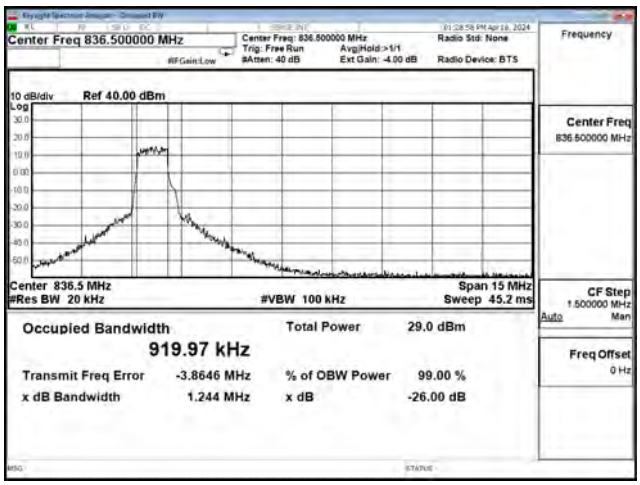	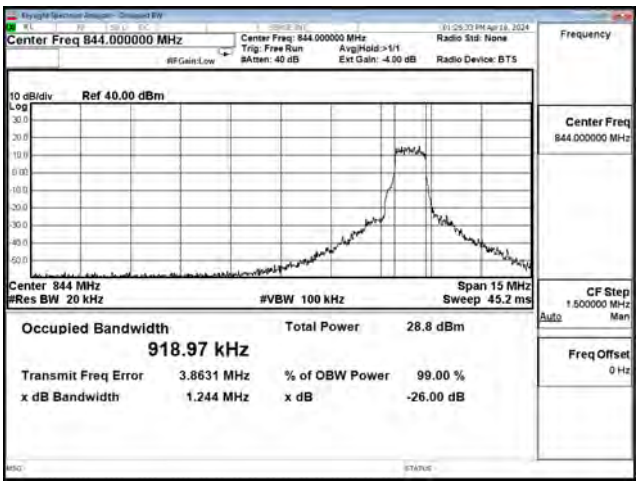

Mode 4: LTE Cat-M1 Band 12

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4	QPSK	23017	699.7	1.276	1.072	N/A
		23095	707.5	1.266	1.074	N/A
		23173	715.3	1.274	1.077	N/A
	16-QAM	23017	699.7	1.204	0.908	N/A
		23095	707.5	1.252	0.912	N/A
		23173	715.3	1.234	0.917	N/A
3	QPSK	23025	700.5	1.280	1.080	N/A
		23095	707.5	1.281	1.074	N/A
		23165	714.5	1.271	1.072	N/A
	16-QAM	23025	700.5	1.246	0.911	N/A
		23095	707.5	1.199	0.909	N/A
		23165	714.5	1.232	0.912	N/A
5	QPSK	23035	701.5	1.263	1.083	N/A
		23095	707.5	1.266	1.081	N/A
		23155	713.5	1.279	1.076	N/A
	16-QAM	23035	701.5	1.258	0.916	N/A
		23095	707.5	1.248	0.915	N/A
		23155	713.5	1.225	0.937	N/A
10	QPSK	23060	704.0	1.288	1.079	N/A
		23095	707.5	1.255	1.080	N/A
		23130	711.0	1.279	1.085	N/A
	16-QAM	23060	704.0	1.193	0.907	N/A
		23095	707.5	1.236	0.918	N/A
		23130	711.0	1.253	0.915	N/A

Mode 4: LTE Cat-M1 Band 12

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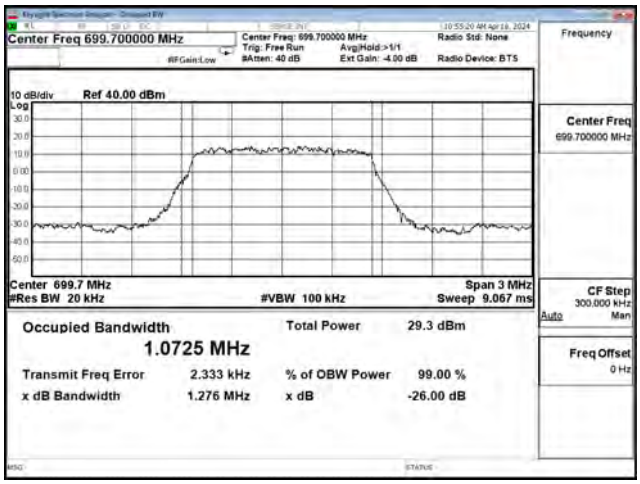	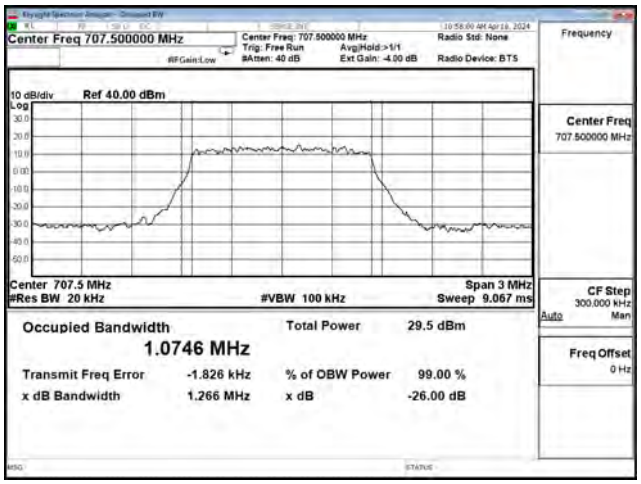
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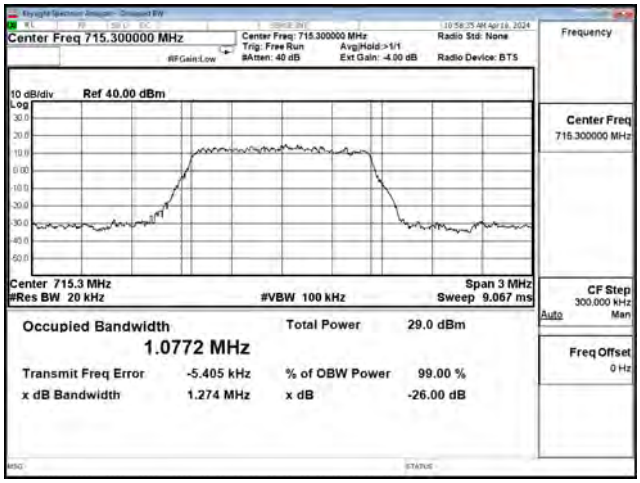	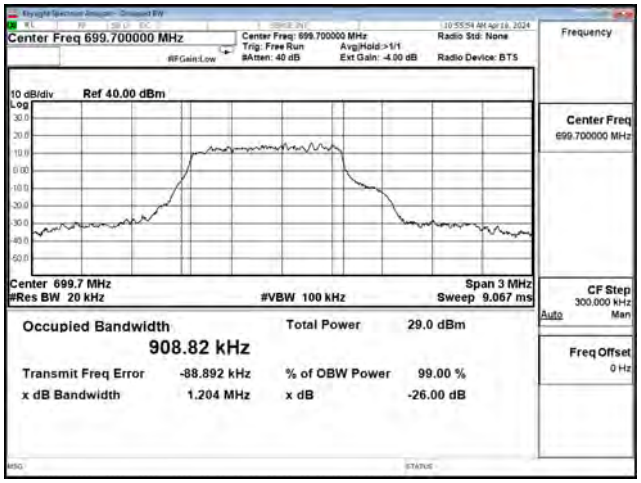
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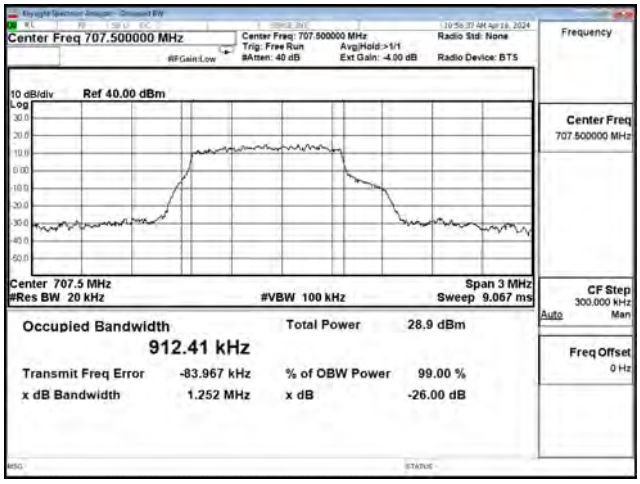	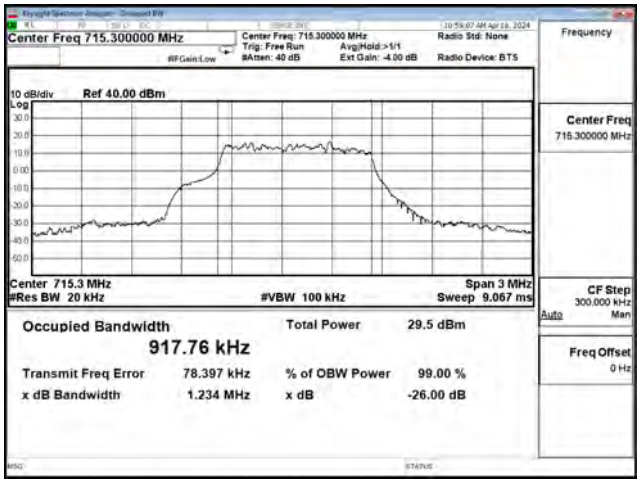

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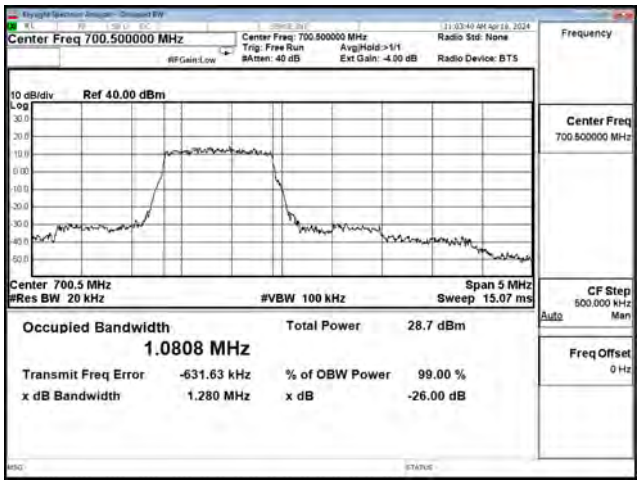	
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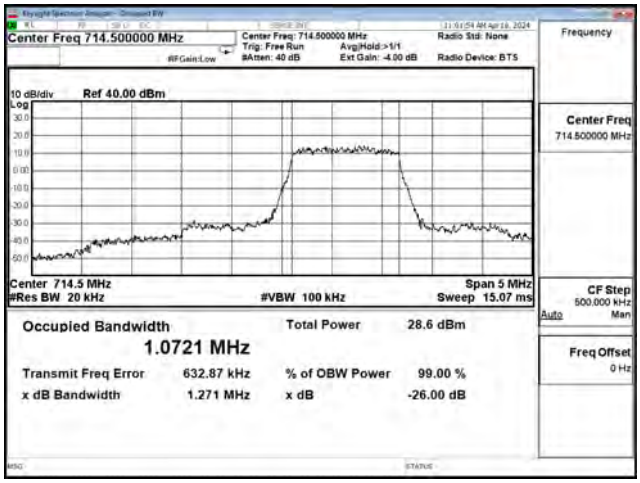	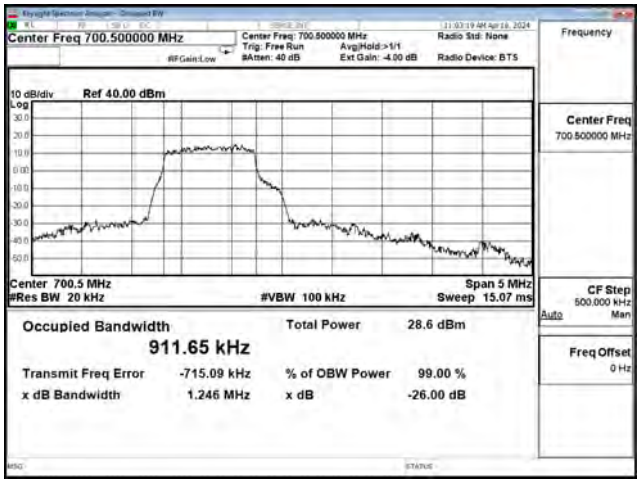
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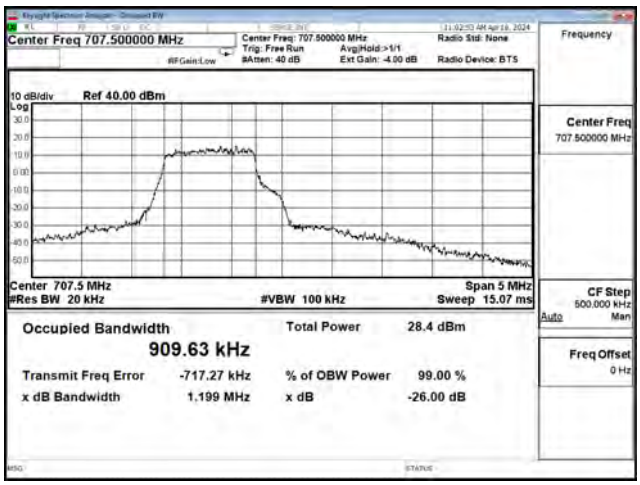	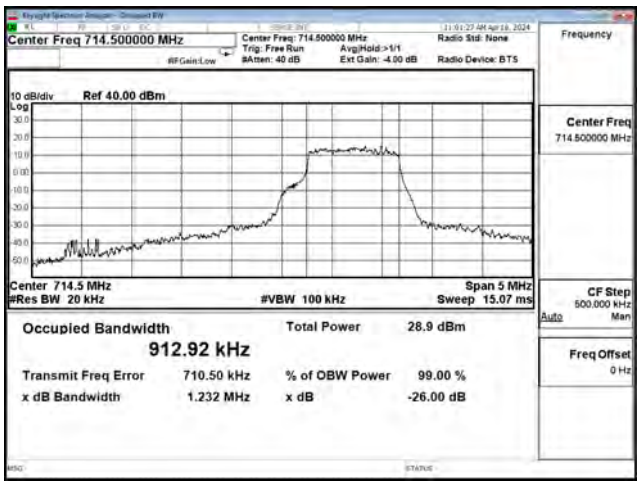

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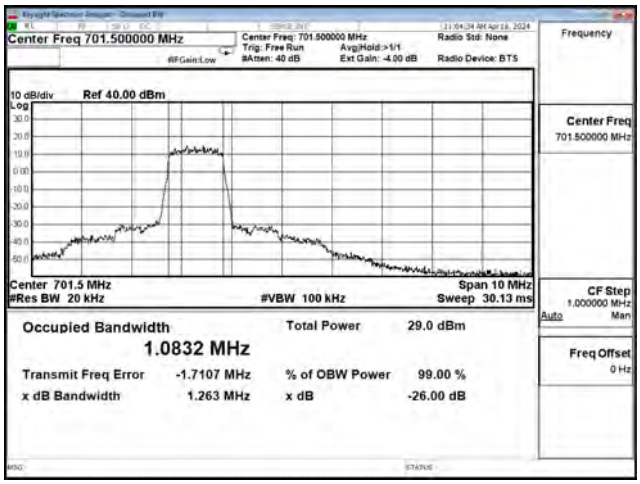	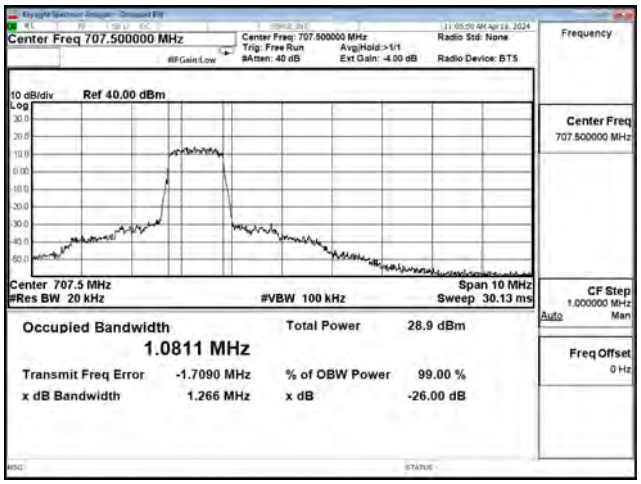
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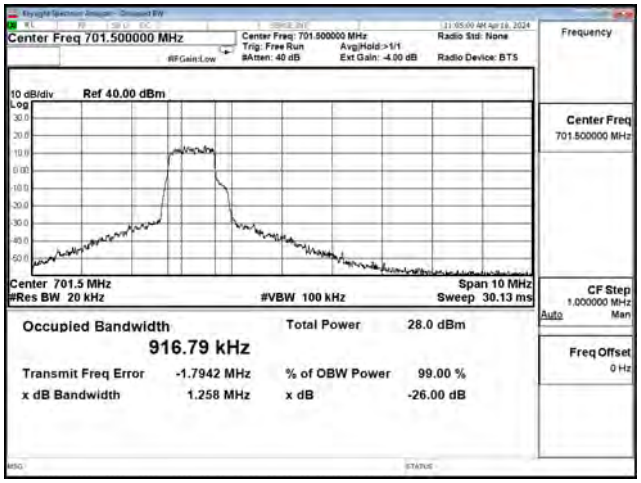
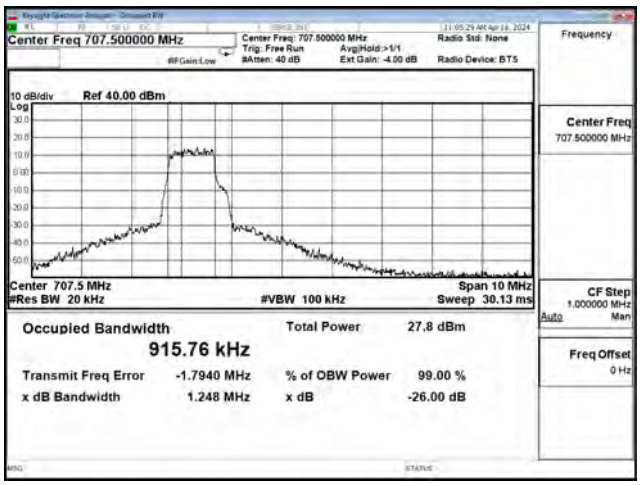
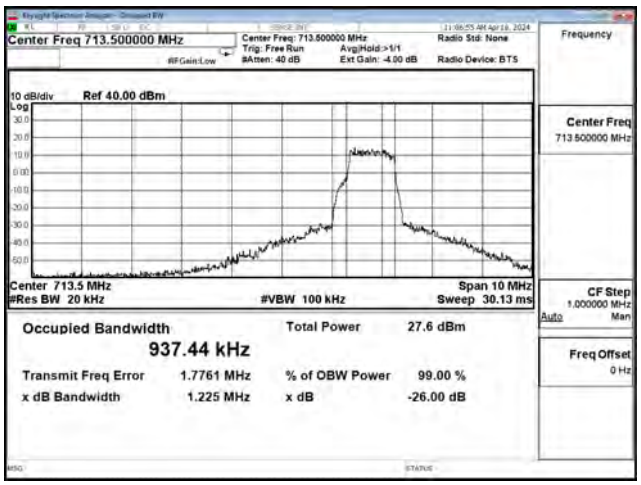
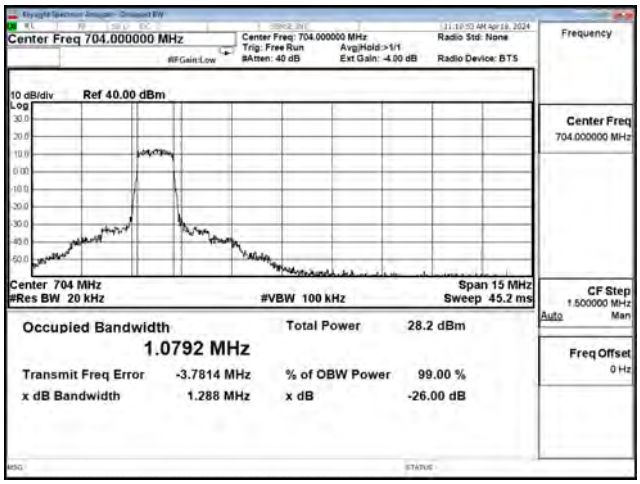
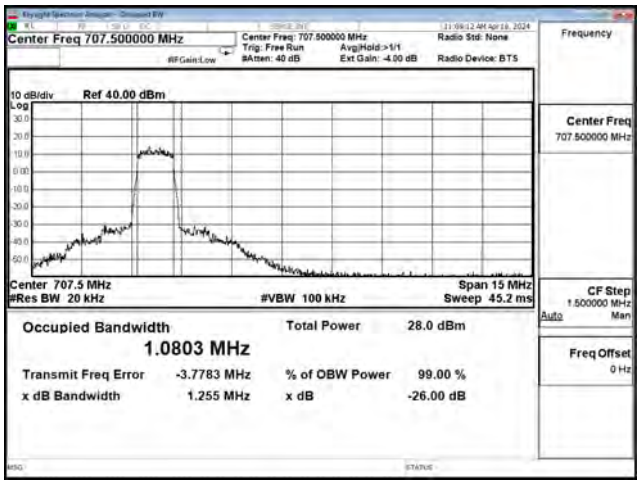
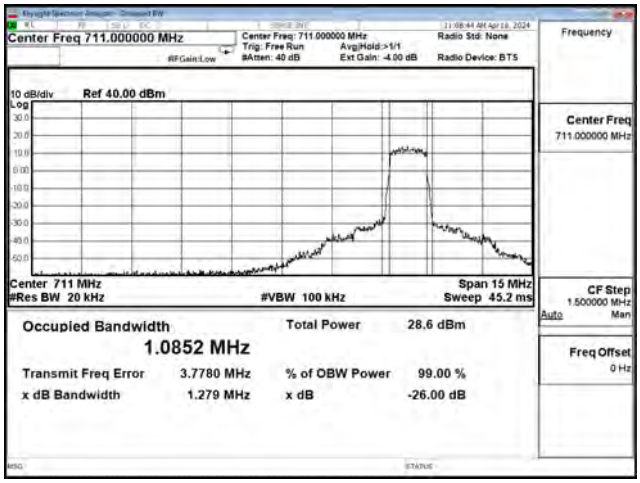
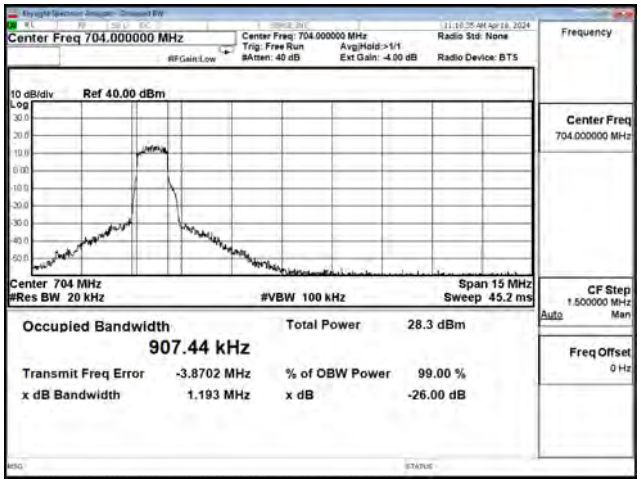
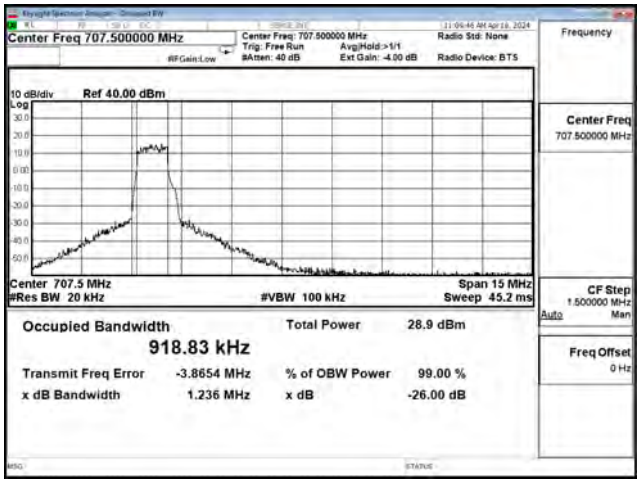
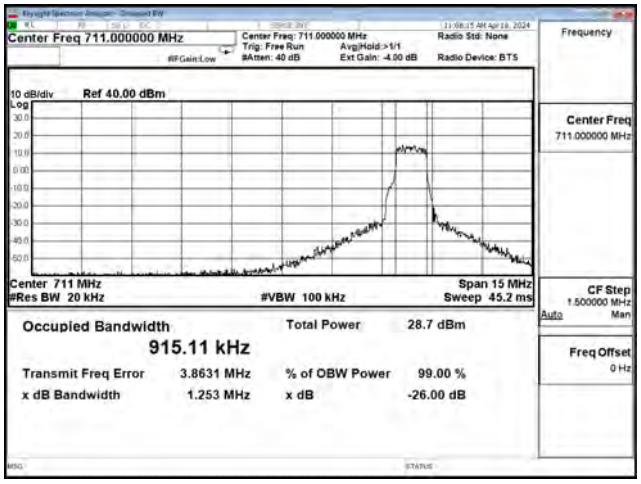
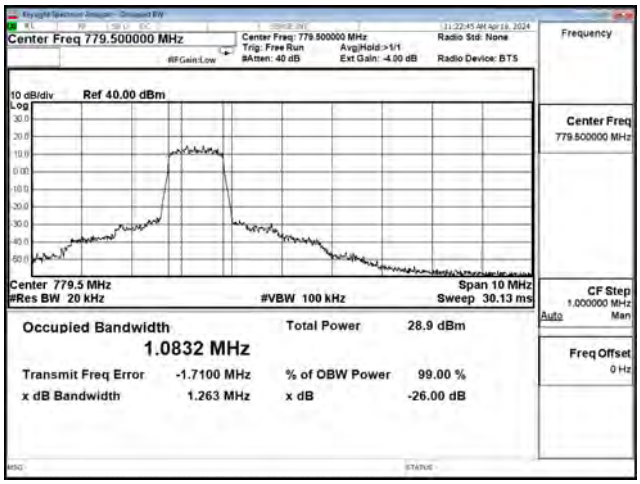
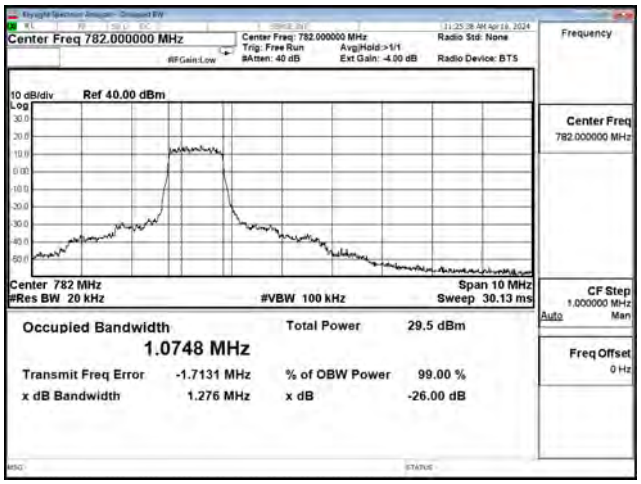
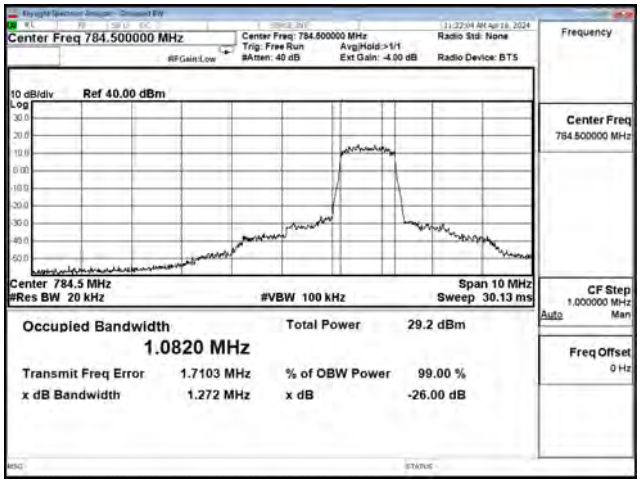
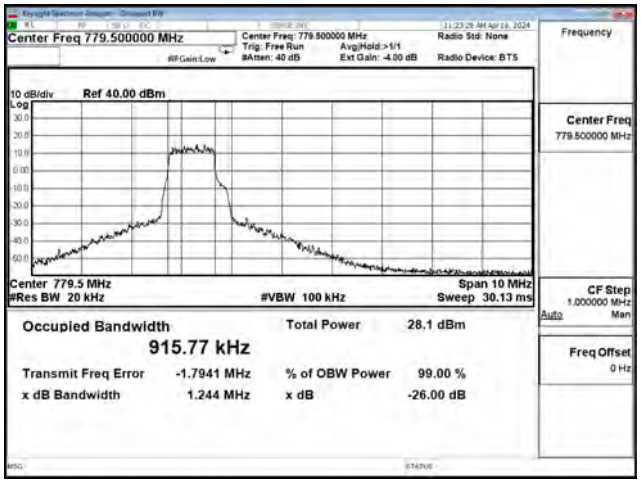
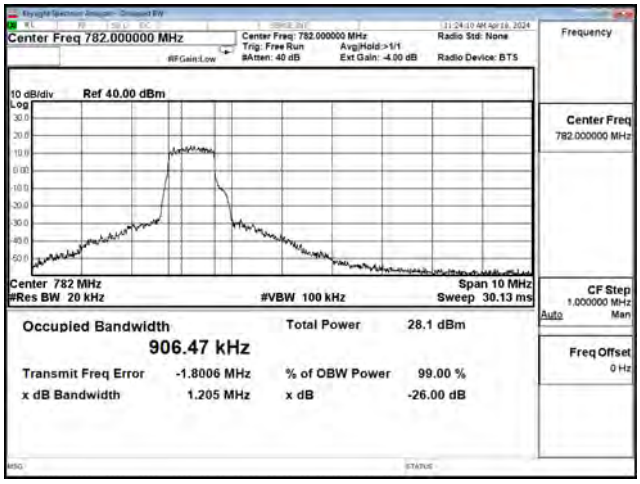
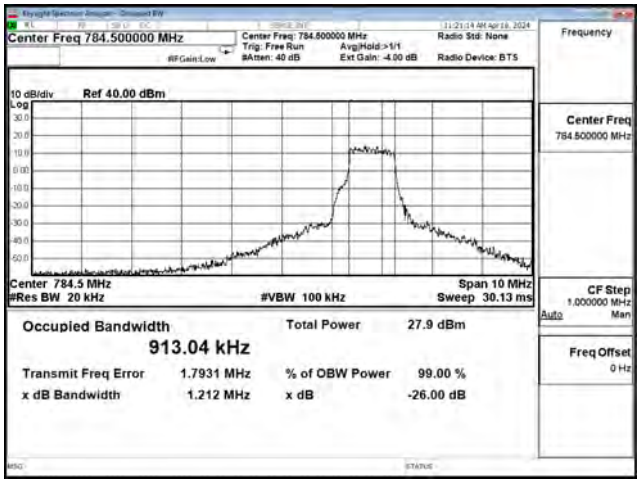
	
16QAM_CH23095_5M_5RB0	16QAM_CH23155_5M_5RB1
	

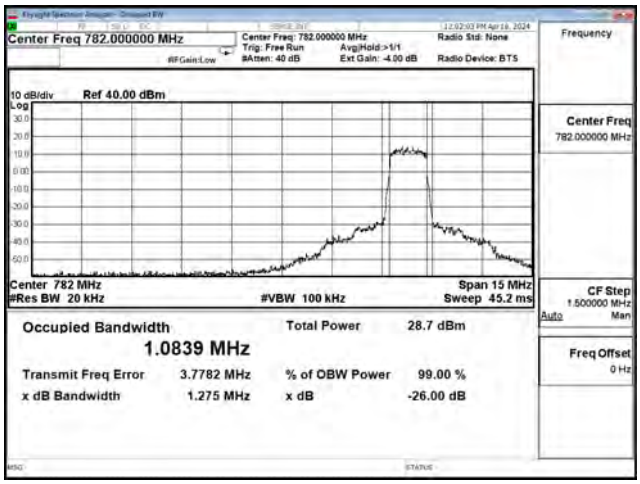
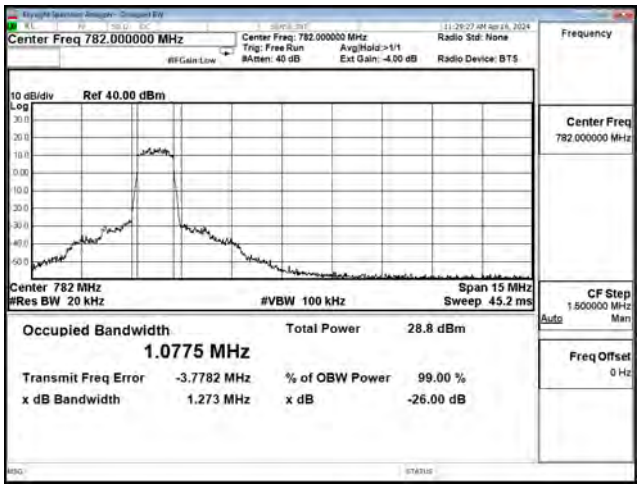
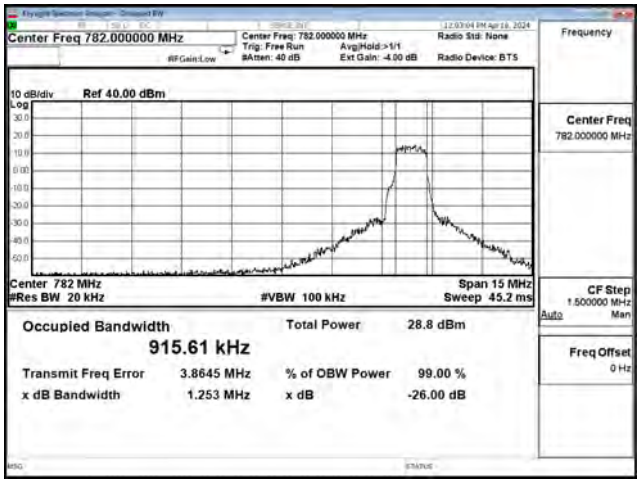
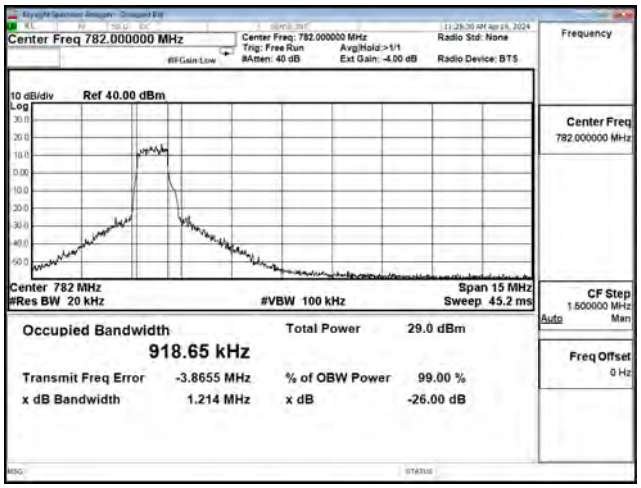
QPSK_CH23060_10M_6RB0	QPSK_CH23095_10M _6RB0
	
QPSK_CH23130_10M_6RB0	16QAM_CH23060_10M_5RB0
	
16QAM_CH23095_10M_5RB0	16QAM_CH23130_10M_5RB1
	

Mode 5: LTE Cat-M1 Band 13

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
5	QPSK	23205	779.5	1.263	1.083	N/A
		23230	782.0	1.276	1.074	N/A
		23255	784.5	1.272	1.082	N/A
	16-QAM	23205	779.5	1.244	0.915	N/A
		23230	782.0	1.205	0.906	N/A
		23255	784.5	1.212	0.913	N/A
10	QPSK	23230	782 low	1.273	1.077	N/A
		23230	782 high	1.275	1.083	N/A
	16-QAM	23230	782 low	1.214	0.918	N/A
		23230	782 high	1.253	0.915	N/A

Mode 5: LTE Cat-M1 Band 13

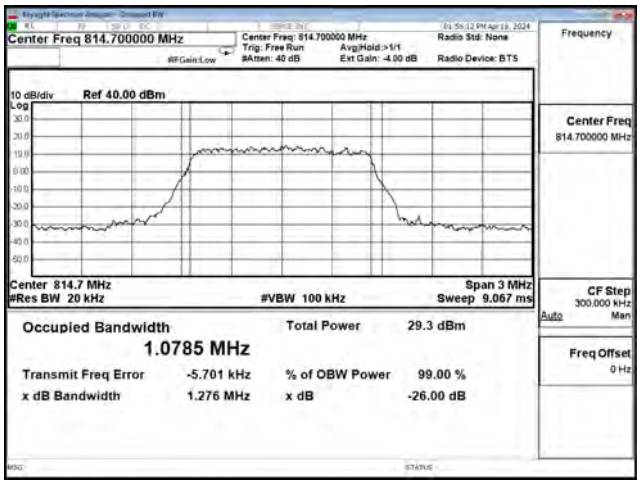
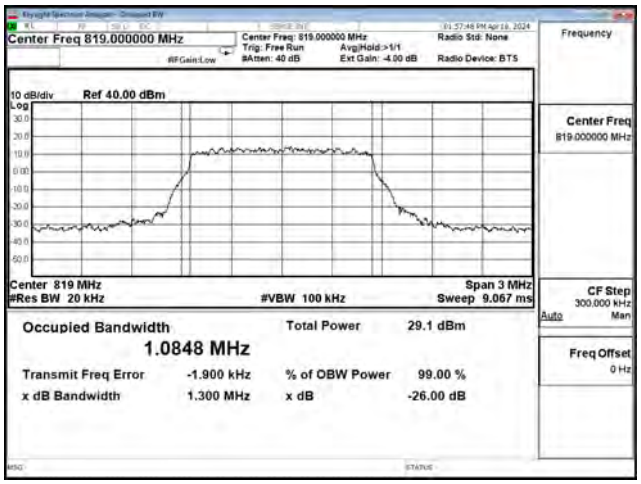
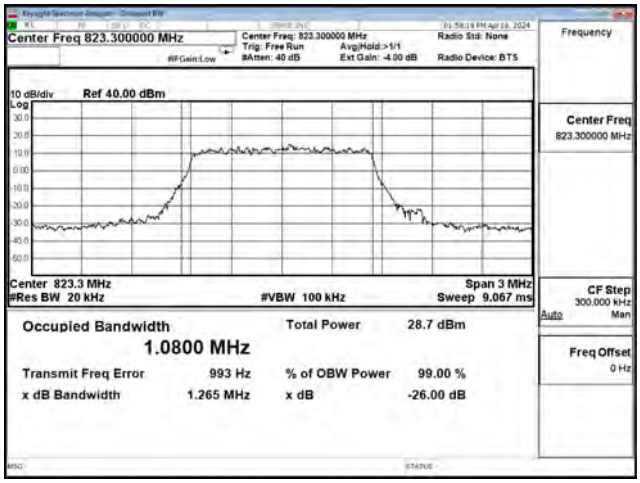
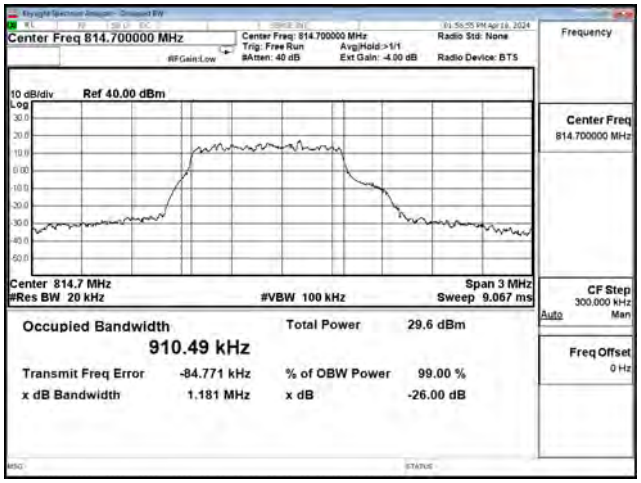
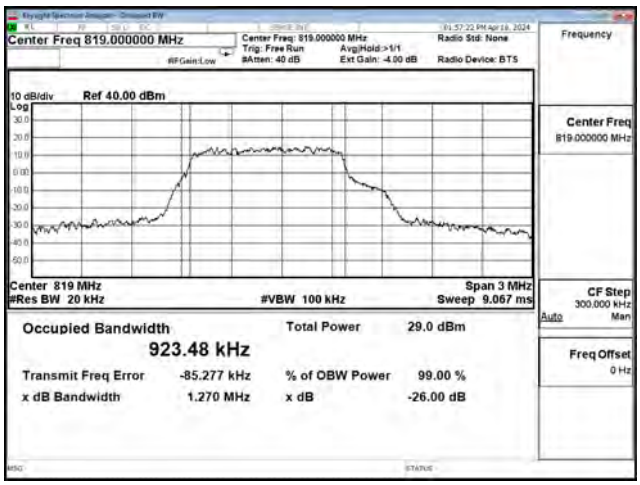
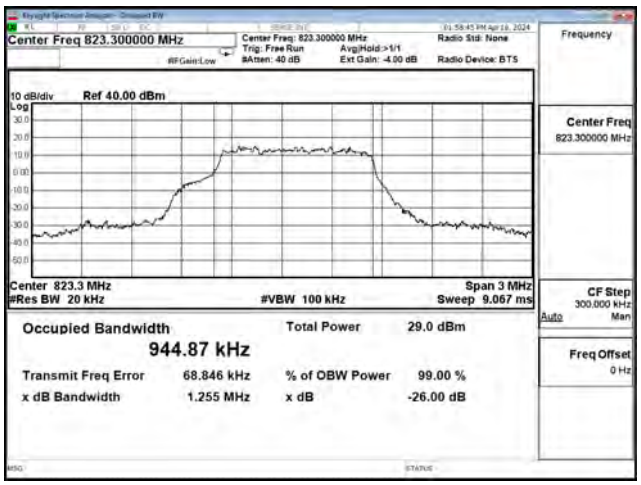
QPSK_CH23205_5M_6RB0	QPSK_CH23230_5M_6RB0
	
QPSK_CH23255_5M_6RB0	16QAM_CH23205_5M_5RB0
	
16QAM_CH23230_5M_5RB0	16QAM_CH23255_5M_5RB1
	

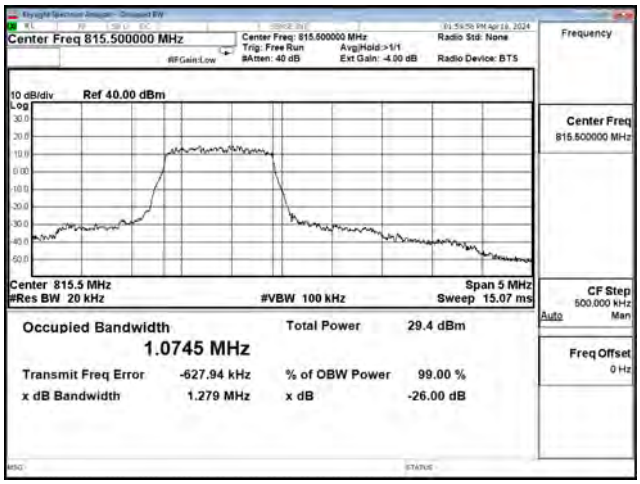
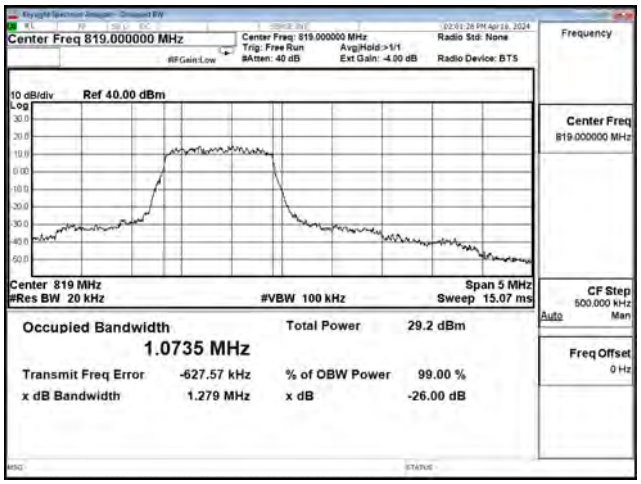
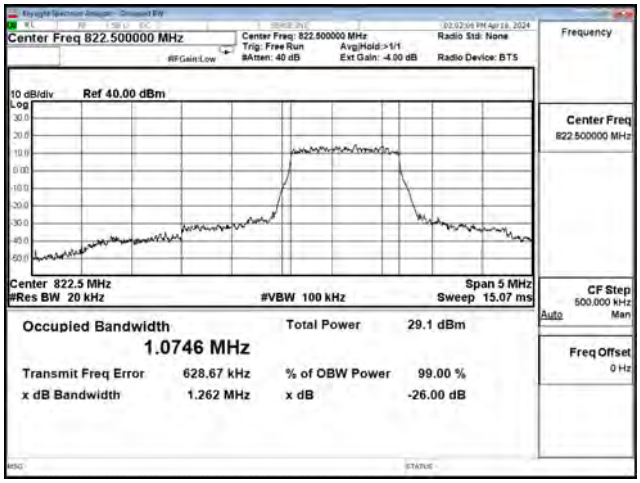
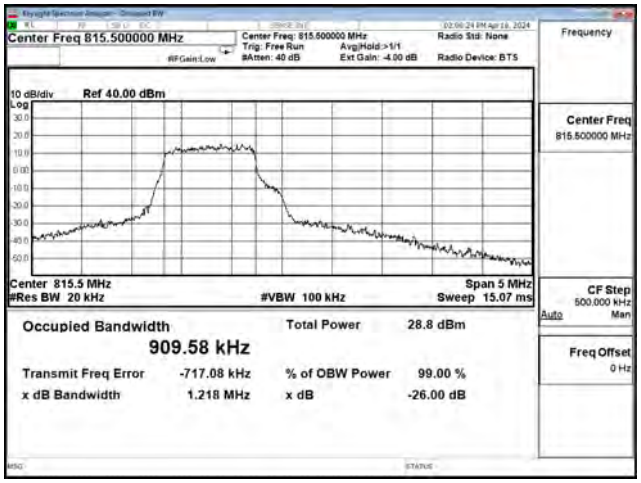
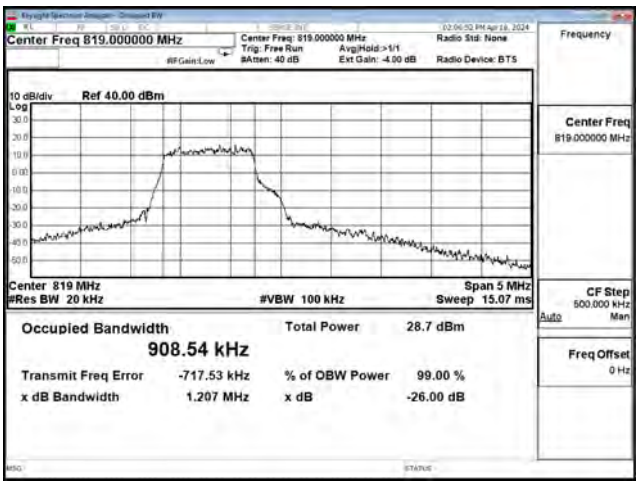
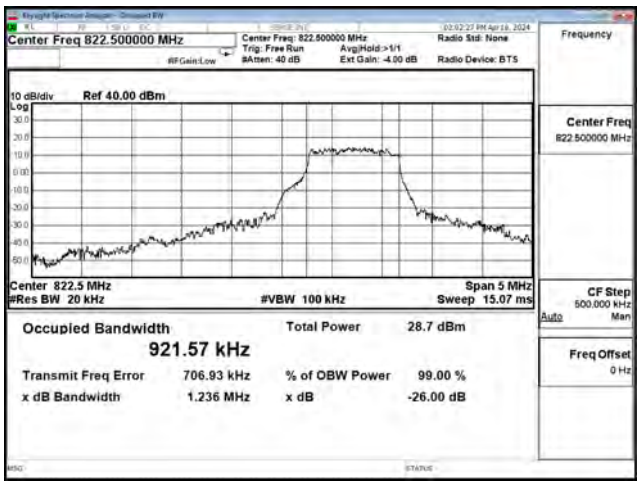
QPSK_CH23230_10M_6RB0_hight	QPSK _CH23230_10M_6RB0
	
16QAM _CH23230_10M_5RB0_hight	16QAM_CH23230_10M_5RB0
	

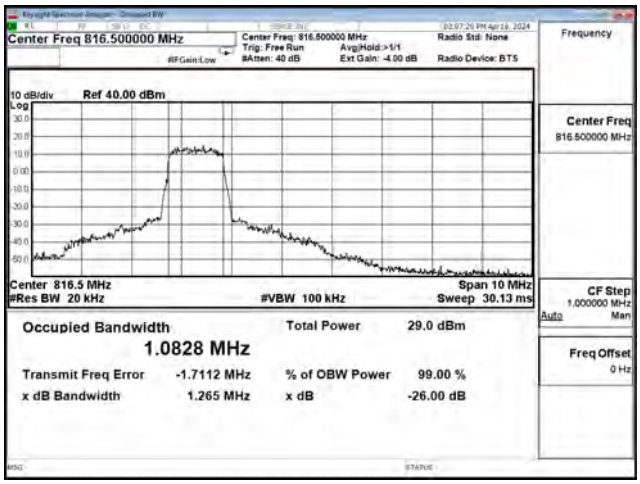
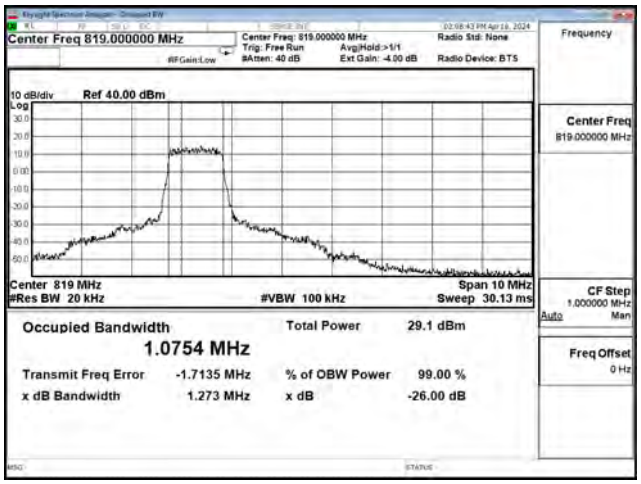
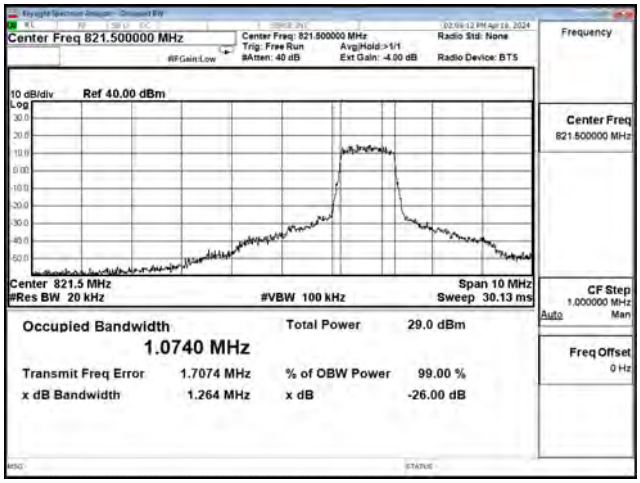
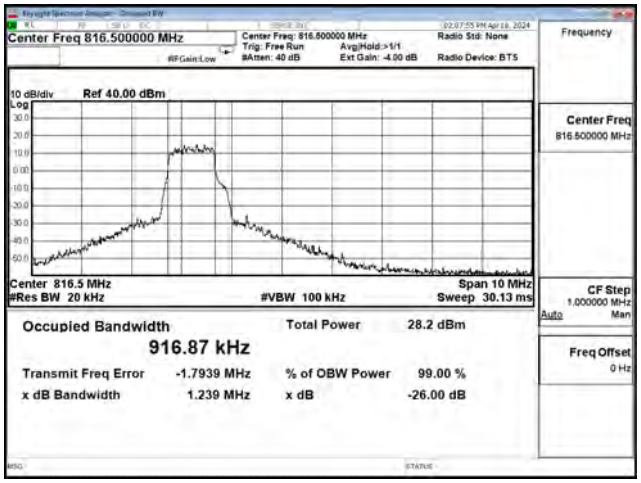
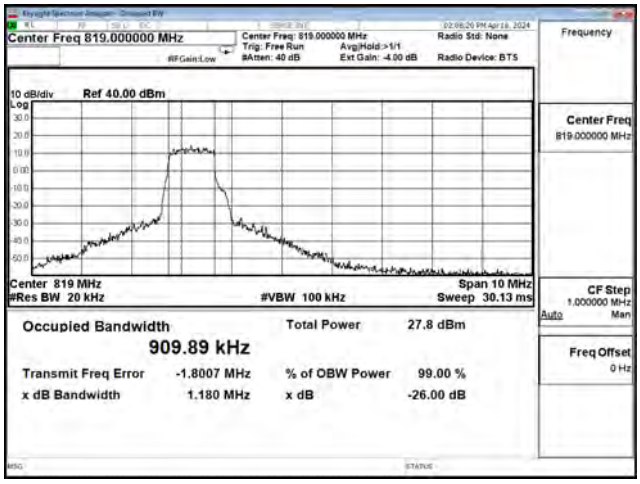
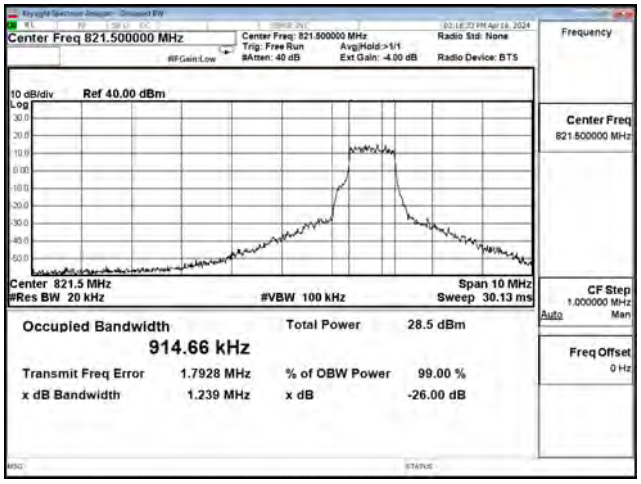
Mode 6: LTE Cat-M1 Band 26 (Part 90)

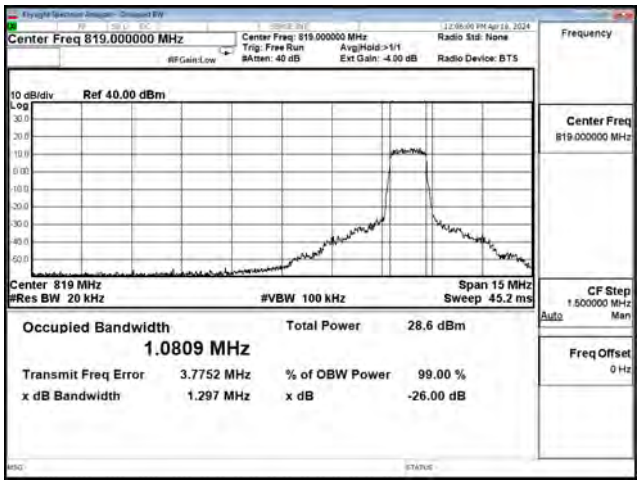
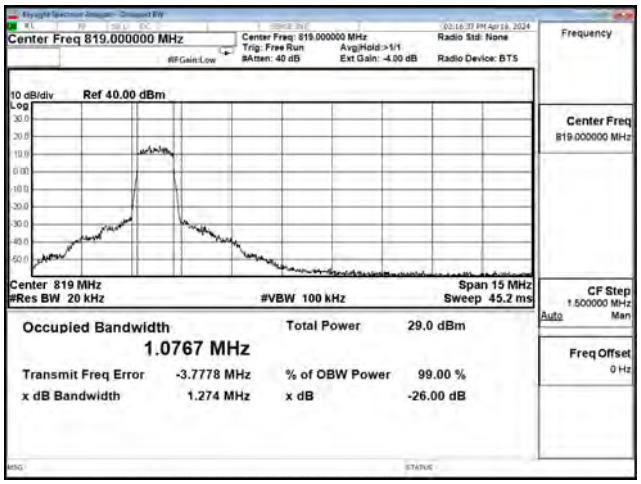
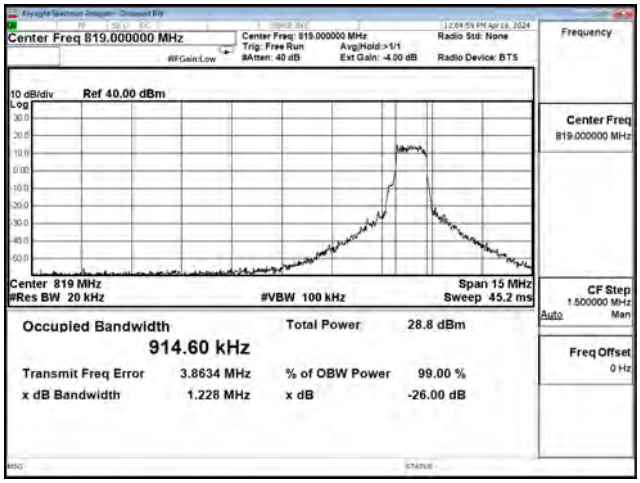
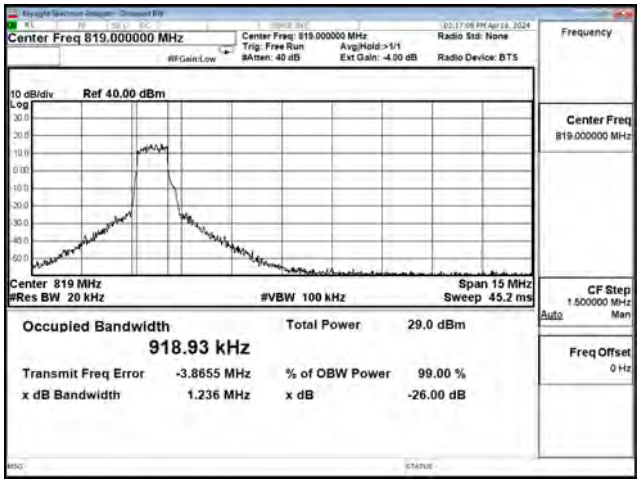
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4	QPSK	26697	814.7	1.276	1.087	N/A
		26740	819.0	1.300	1.084	N/A
		26783	823.3	1.265	1.080	N/A
	16-QAM	26697	814.7	1.181	0.910	N/A
		26740	819.0	1.270	0.923	N/A
		26783	823.3	1.255	0.944	N/A
3	QPSK	26705	815.5	1.279	1.074	N/A
		26740	819.0	1.279	1.073	N/A
		26775	822.5	1.262	1.074	N/A
	16-QAM	26705	815.5	1.218	0.909	N/A
		26740	819.0	1.207	0.908	N/A
		26775	822.5	1.236	0.921	N/A
5	QPSK	26715	816.5	1.265	1.082	N/A
		26740	819.0	1.273	1.075	N/A
		26765	821.5	1.264	1.074	N/A
	16-QAM	26715	816.5	1.239	0.916	N/A
		26740	819.0	1.180	0.909	N/A
		26765	821.5	1.239	0.914	N/A
10	QPSK	26740	819 low	1.274	1.076	N/A
		26740	819 high	1.297	1.080	N/A
	16-QAM	26740	819 low	1.236	0.918	N/A
		26740	819 high	1.228	0.914	N/A

Mode 6: LTE Cat-M1 Band 26 (Part 90)

QPSK_CH26697_1.4M_6RB0	QPSK_CH26740_1.4M_6RB0
	
QPSK_CH26783_1.4M_6RB0	**16QAM_CH26697_1.4M_5RB0**
	
16QAM_CH26740_1.4M_5RB0	**16QAM_CH26783_ 1.4M_5RB1**
	

QPSK_CH26705_ 3M_6RB0	QPSK_CH26740_ 3M_6RB0
	
QPSK_CH26775_ 3M_6RB0	16QAM_CH26705_ 3M_5RB0
	
16QAM_CH26740_ 3M_5RB0	16QAM_CH26775_ 3M_5RB1
	

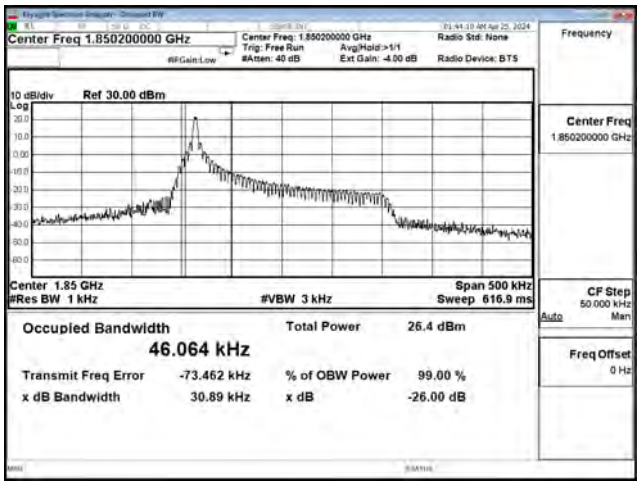
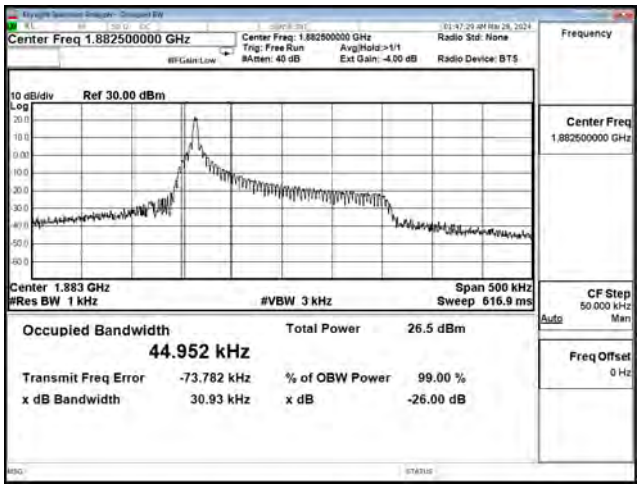
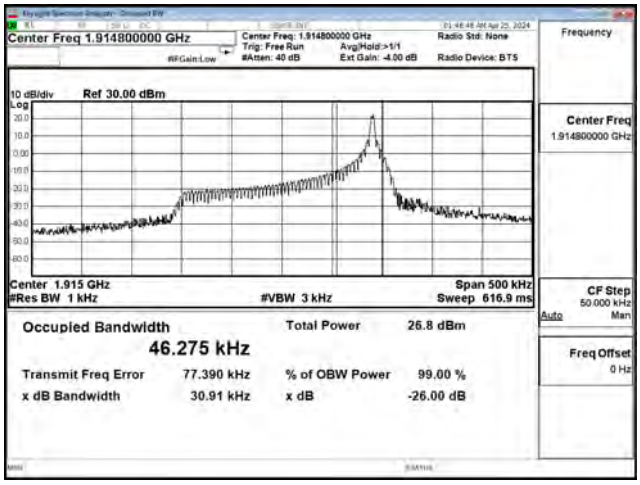
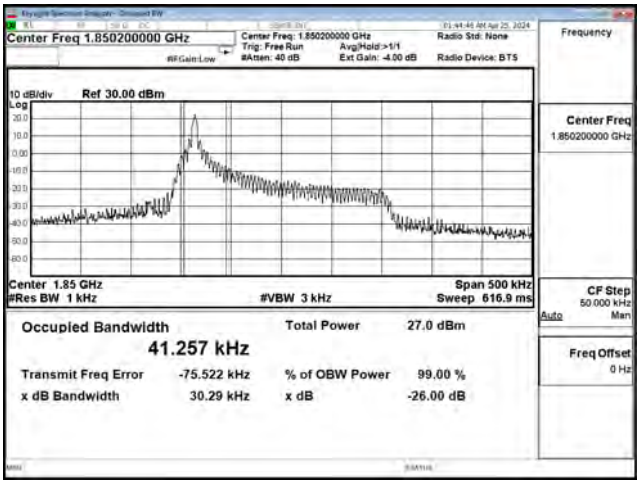
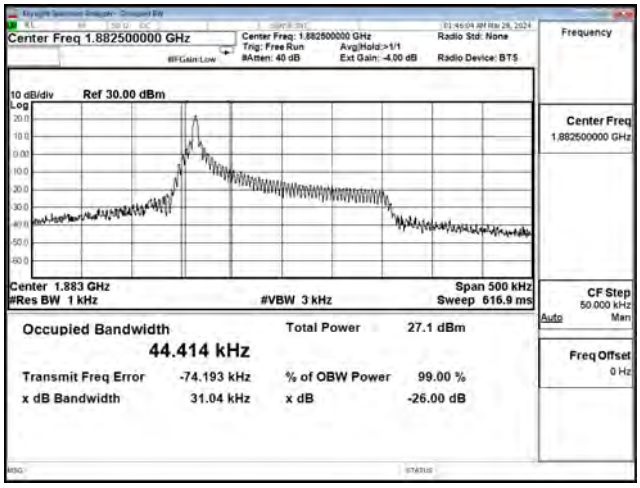
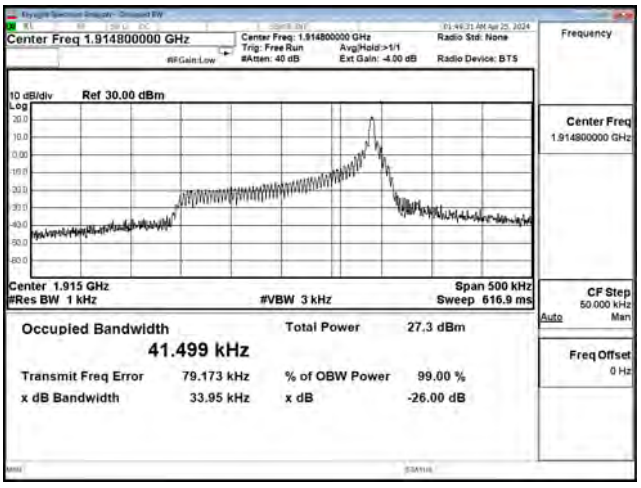
QPSK_CH26715_5M_6RB0	QPSK_CH26740_5M_6RB0
	
QPSK_CH26765_5M_6RB0	16QAM_CH26715_5M_5RB0
	
16QAM_CH26740_5M_5RB0	16QAM_CH26765_5M_5RB1
	

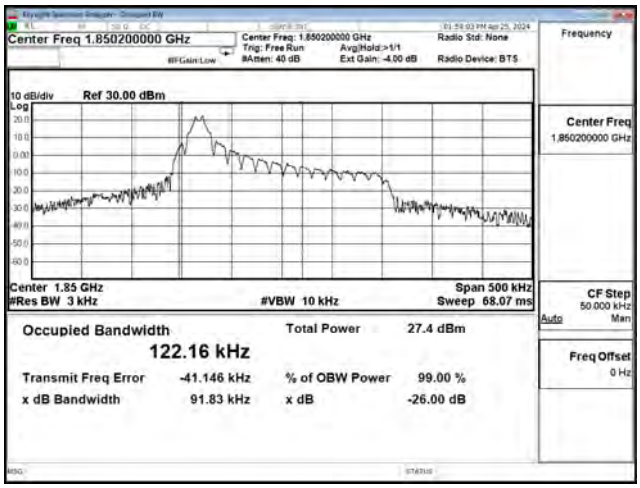
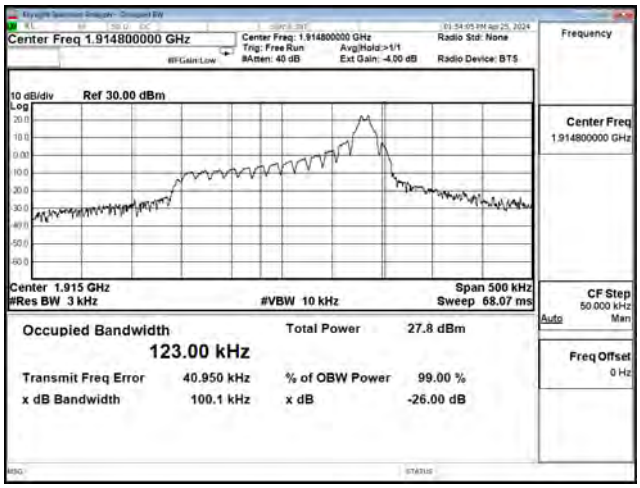
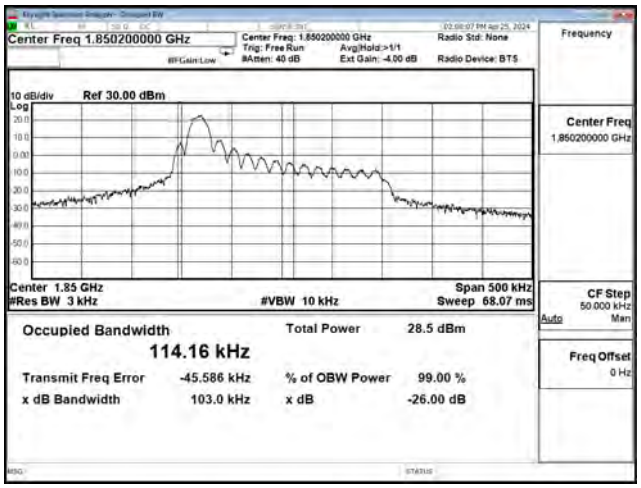
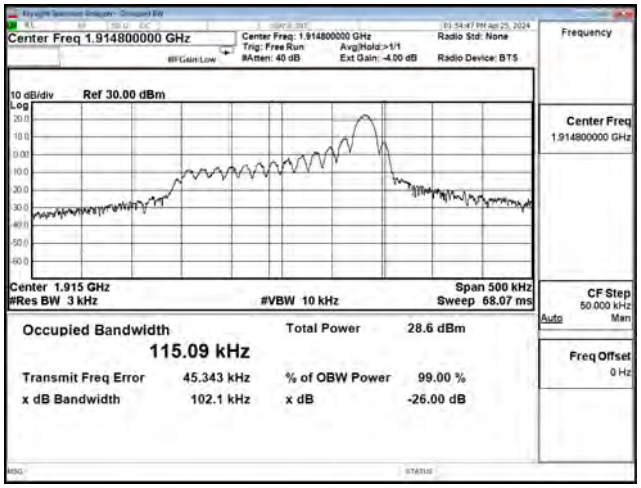
QPSK_CH26740_10M_6RB0_high	QPSK_CH26740_10M_6RB0 _low
	
QPSK_CH26740_10M_5RB0 _high	16QAM_CH26740_10M_5RB0 _low
	

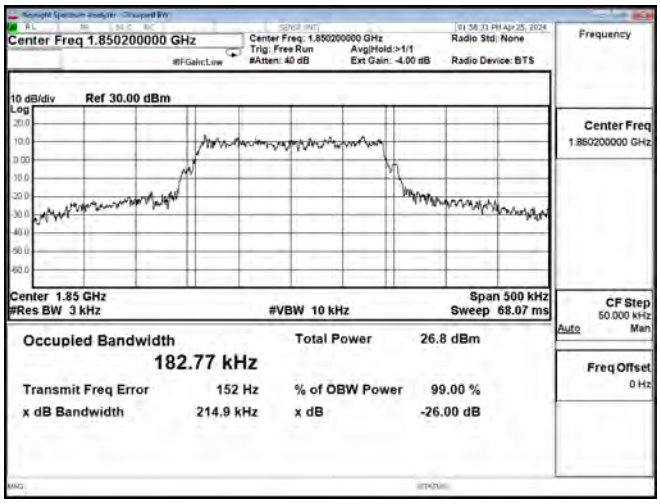
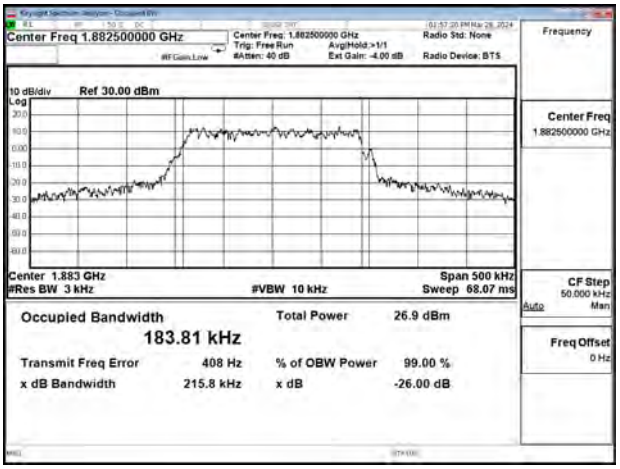
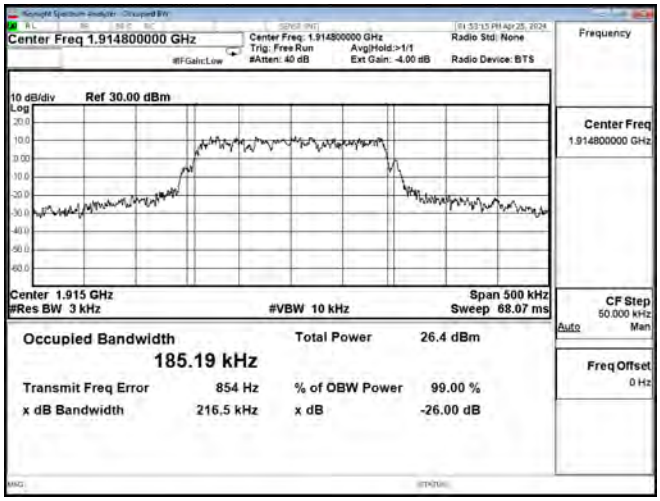
Mode 7: LTE NB-IoT Band 2 / 25

Channel	Freq. (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Measure Level (kHz)		Limit (MHz)
						26dB BW	99% BW	
26042	1850.2	BPSK	3.75	1	0	30.890	46.064	NA
			15	1	0	91.830	122.160	NA
		QPSK	3.75	1	0	30.290	41.257	NA
			15	1	0	103.000	114.160	NA
				12	0	214.900	182.770	NA
26365	1882.5	BPSK	3.75	1	0	30.930	44.952	NA
			15	1	0	92.310	122.650	NA
		QPSK	3.75	1	0	31.040	44.414	NA
			15	1	0	102.300	114.400	NA
				12	0	215.800	183.810	NA
26688	1914.8	BPSK	3.75	1	47	30.910	46.275	NA
			15	1	11	100.100	123.000	NA
		QPSK	3.75	1	47	33.950	41.499	NA
			15	1	11	102.100	115.090	NA
				12	0	216.500	185.190	NA

Mode 7: LTE NB-IoT Band 2 / 25

BPSK_CH26042_3.75k_1RB0	BPSK_CH26365_3.75k_1RB0
	
BPSK_CH26688_3.75k _1RB47	QPSK_CH26042_3.75k_1RB0
	
QPSK _CH26365_3.75k _1RB0	QPSK _CH26688_3.75k _1RB47
	

BPSK_CH26042_15k_1RB0	BPSK_CH26365_15k_1RB0
	
BPSK_CH26688_15k _1RB11	QPSK_CH26042_15k_1RB0
	
QPSK_CH26365_15k _1RB0	QPSK_CH26688_15k _1RB11
	

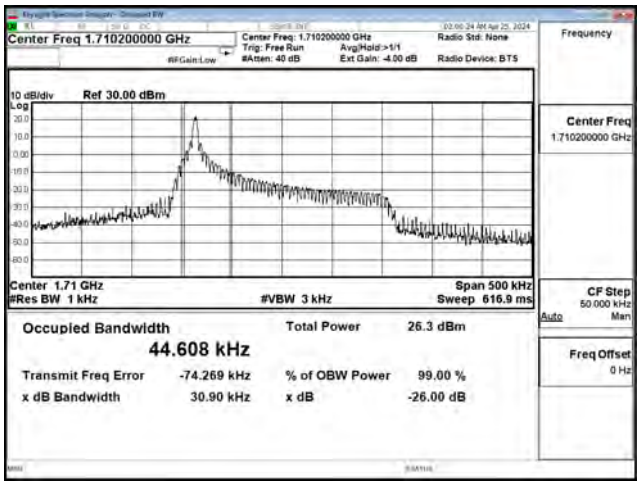
QPSK_CH26042_15k_12RB0	QPSK_CH26365_15k_12RB0
	
QPSK_CH26688_15k_12RB0	
	

Mode 8: LTE NB-IoT Band 4 / 66

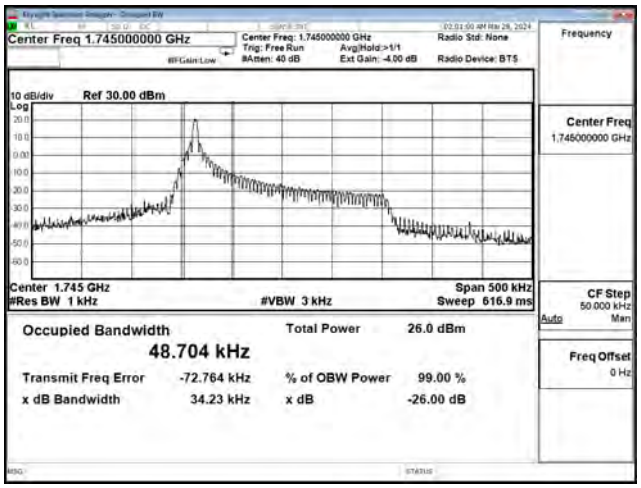
Channel	Freq. (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Measure Level (kHz)		Limit (MHz)
						26dB BW	99% BW	
131974	1710.2	BPSK	3.75	1	0	30.900	44.608	NA
			15	1	0	92.470	121.190	NA
		QPSK	3.75	1	0	34.150	45.106	NA
			15	1	0	103.600	114.230	NA
				12	0	215.900	183.910	NA
132322	1745	BPSK	3.75	1	0	34.230	48.704	NA
			15	1	0	90.640	121.280	NA
		QPSK	3.75	1	0	34.050	43.493	NA
			15	1	0	102.800	113.530	NA
				12	0	213.600	183.030	NA
132670	1779.8	BPSK	3.75	1	47	30.630	44.643	NA
			15	1	11	99.240	122.390	NA
		QPSK	3.75	1	47	33.590	43.512	NA
			15	1	11	102.300	111.900	NA
				12	0	215.500	184.220	NA

Mode 8: LTE NB-IoT Band 4 / 66

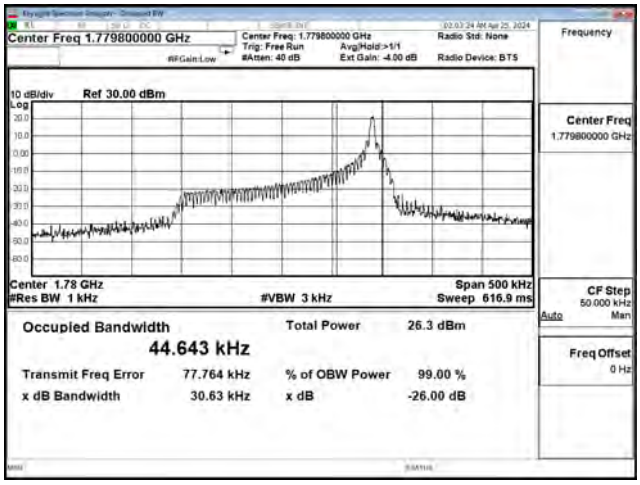
BPSK_CH131974_3.75k_1RB0



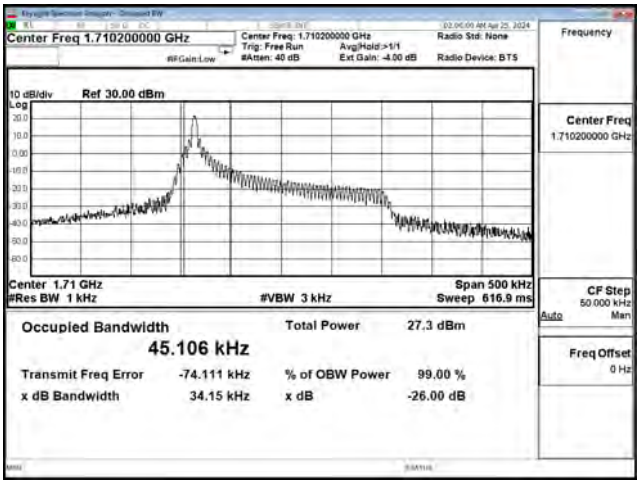
BPSK_CH132322_3.75k_1RB0



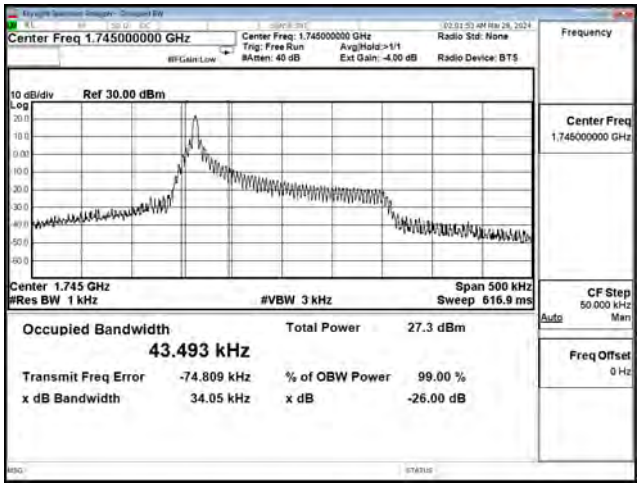
BPSK_CH132670_3.75k _1RB47



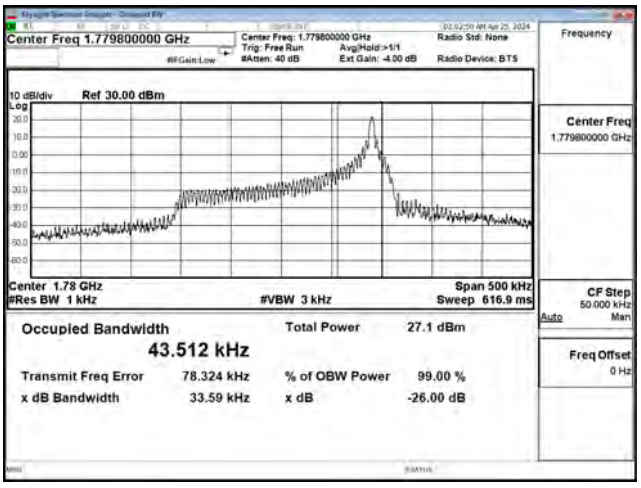
QPSK_CH131979_3.75k _1RB0

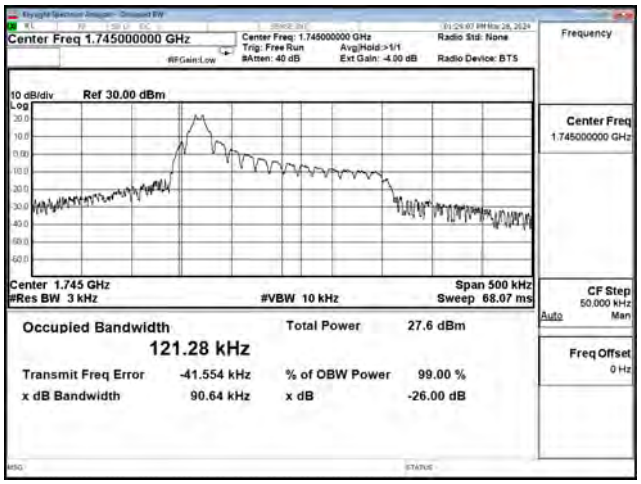
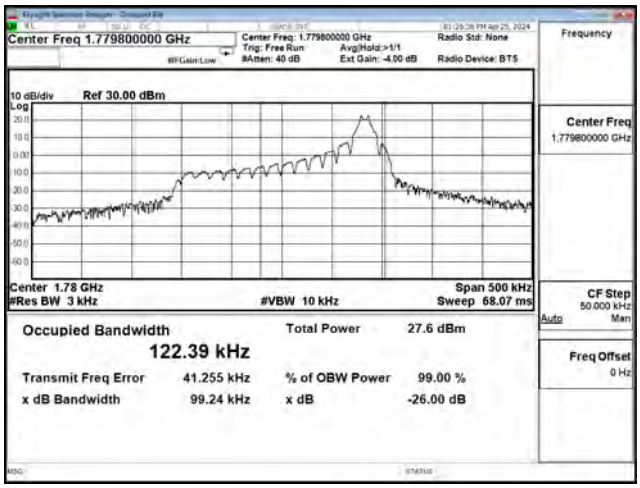
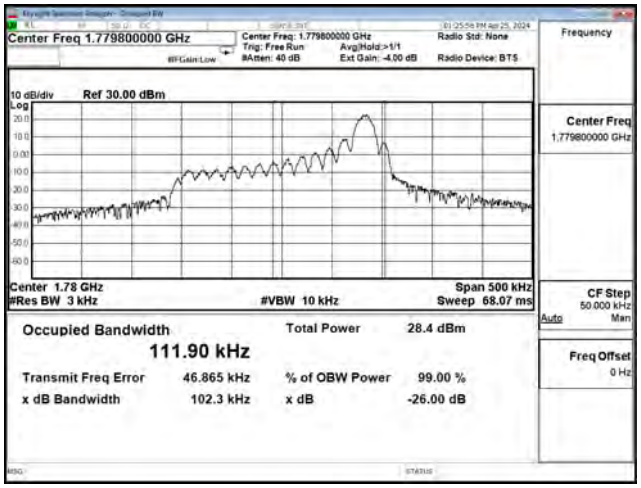


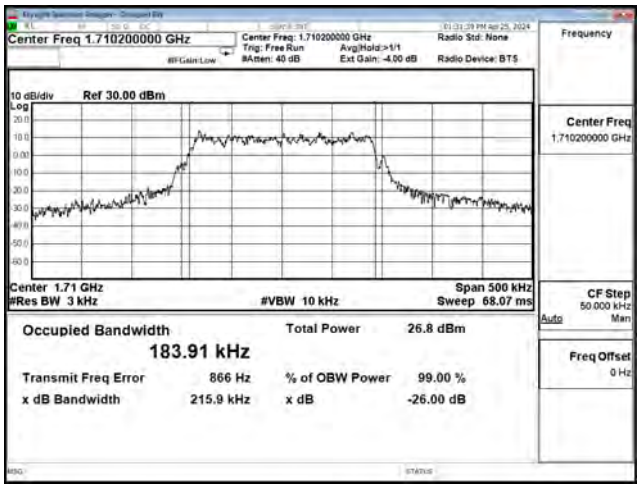
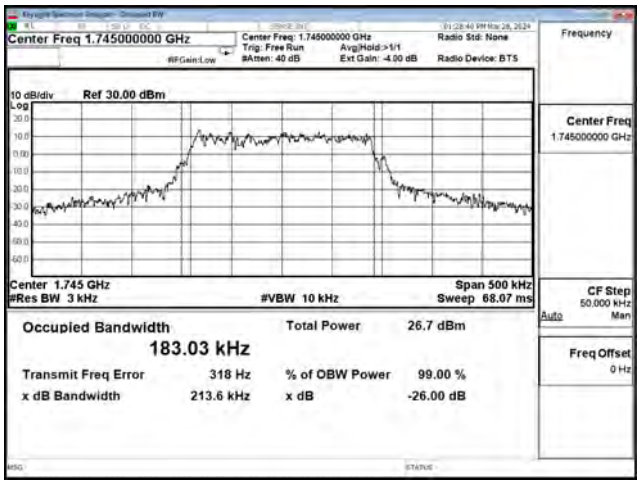
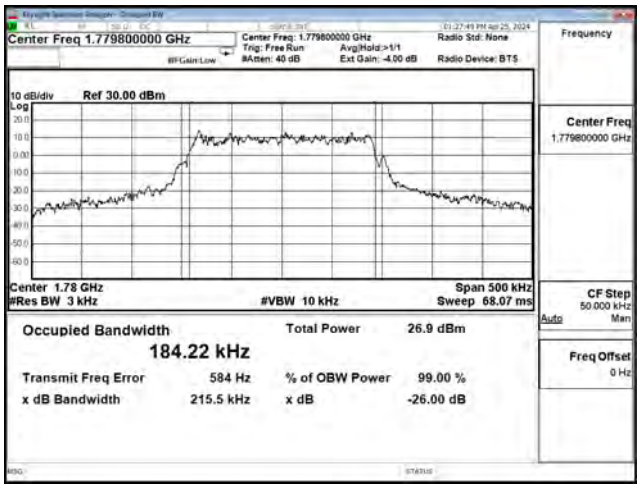
QPSK_CH132322_3.75k _1RB0



16QAM_ CH132670_ 3.75k _1RB47



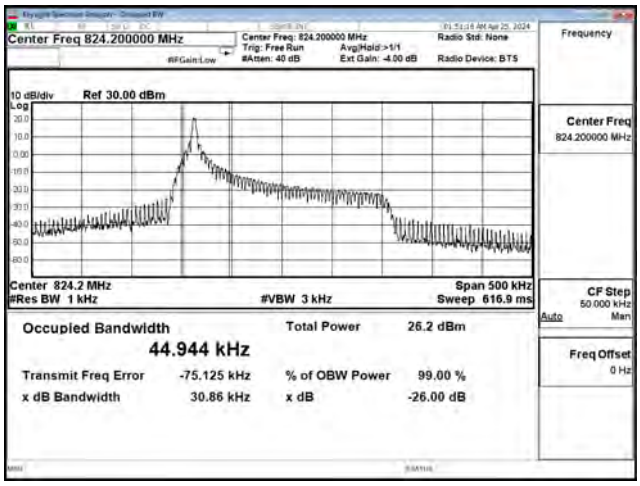
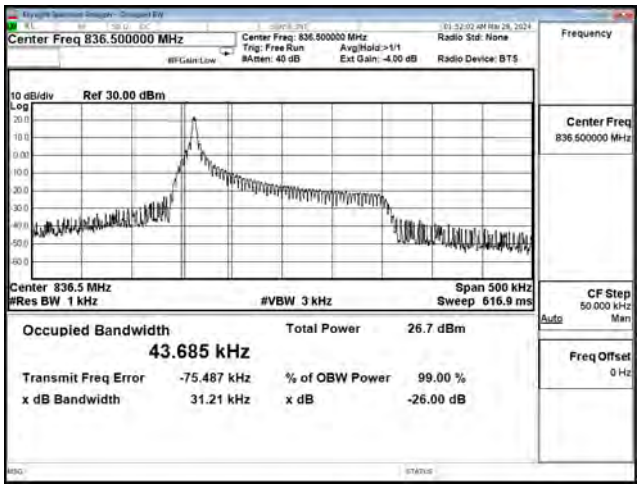
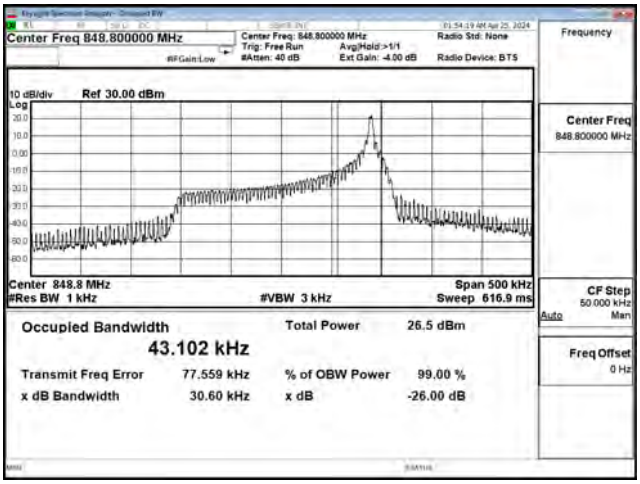
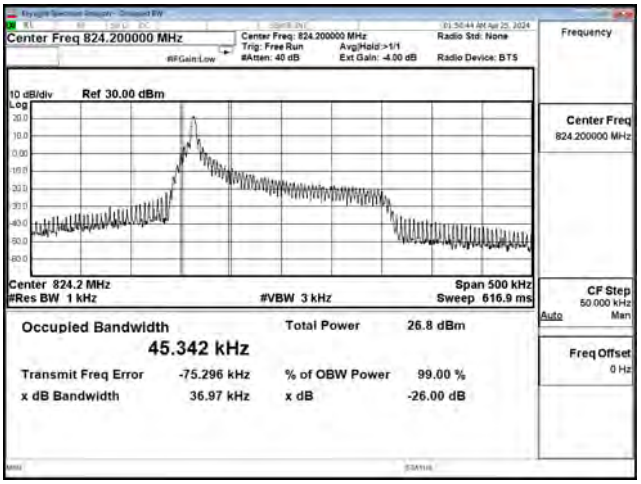
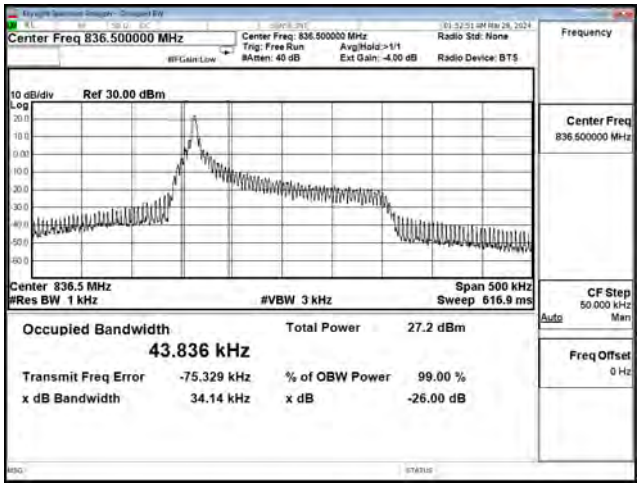
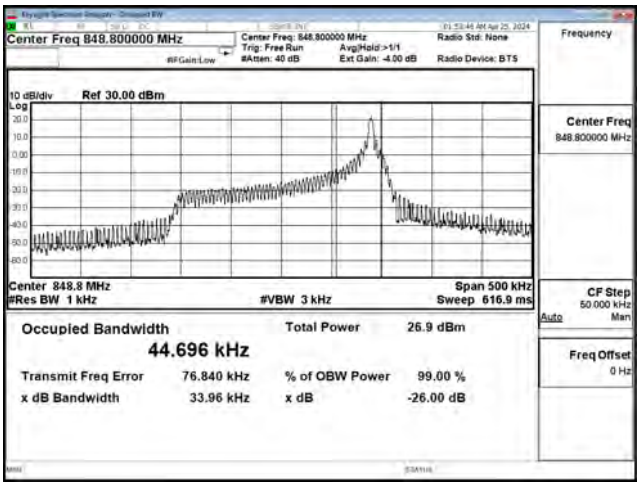
BPSK_CH131974_15k_1RB0	BPSK_CH132322_15k _1RB0
	
BPSK_CH132670_15k _1RB11	QPSK_CH131974_15k _1RB0
	
QPSK_CH132322_ 15k _1RB0	QPSK_CH132670_15k _1RB11
	

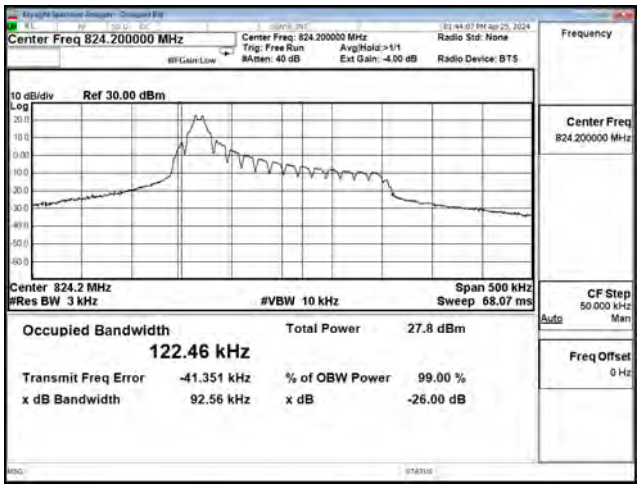
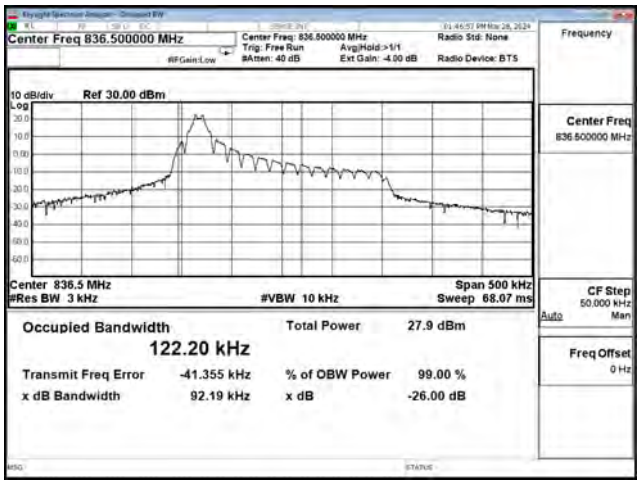
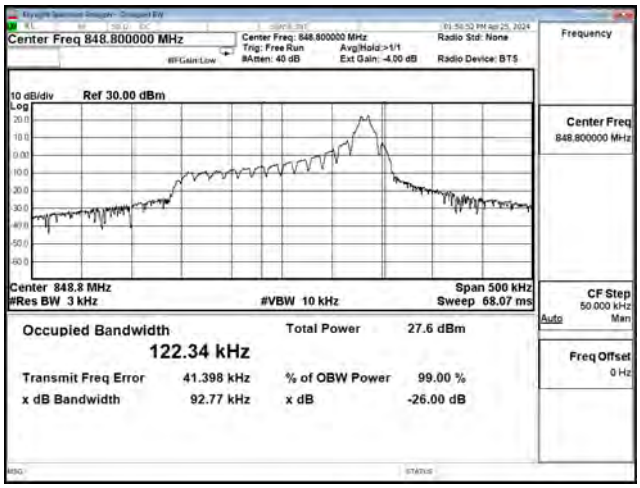
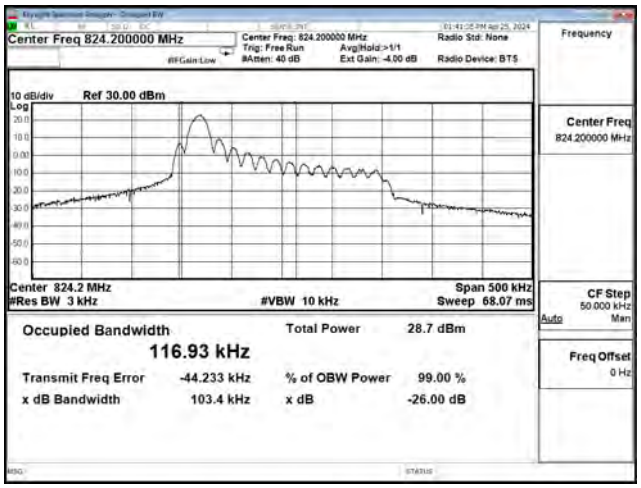
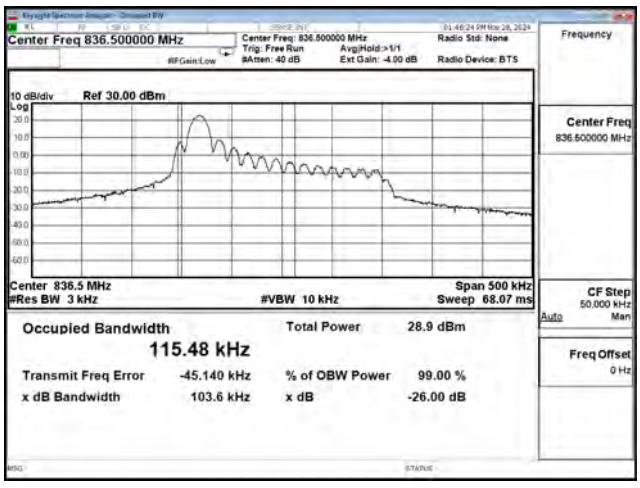
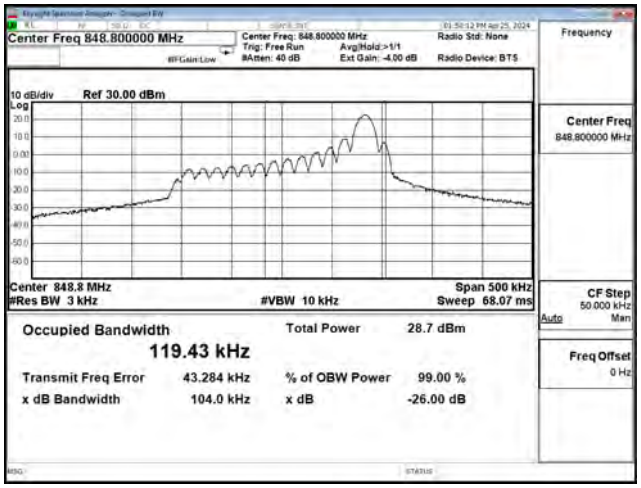
QPSK_CH131974_15k_12RB0	QPSK_CH132322_15k _12RB0
	
QPSK_CH132670_15k_12RB0	
	

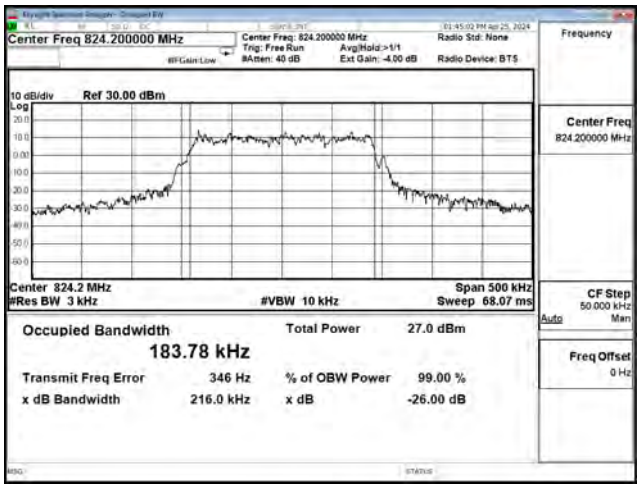
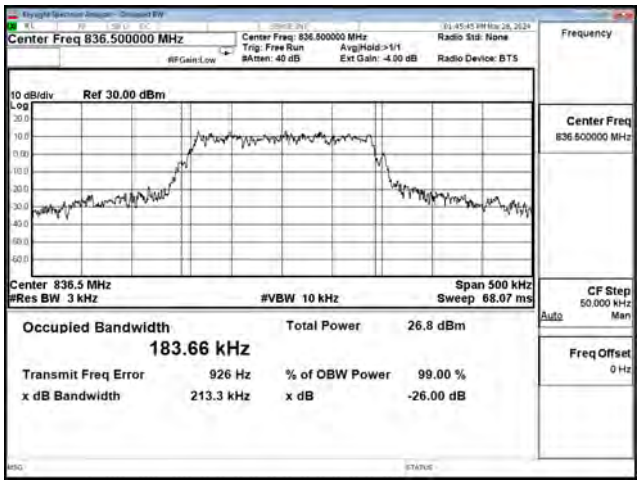
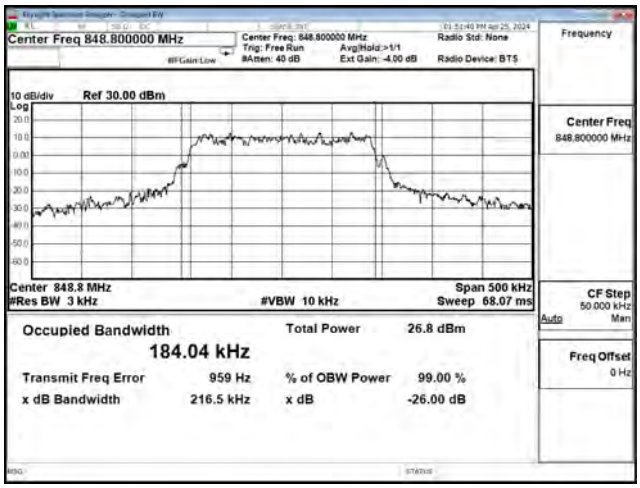
Mode 10: LTE NB-IoT Band 5 / 26 (Part 22)

Channel	Freq. (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Measure Level (kHz)		Limit (MHz)
						26dB BW	99% BW	
26792	824.2	BPSK	3.75	1	0	30.860	44.944	NA
			15	1	0	92.560	122.460	NA
		QPSK	3.75	1	0	36.970	45.342	NA
			15	1	0	103.400	116.930	NA
				12	0	216.000	183.780	NA
26915	836.5	BPSK	3.75	1	0	31.210	43.685	NA
			15	1	0	92.190	122.200	NA
		QPSK	3.75	1	0	34.140	43.836	NA
			15	1	0	103.600	115.480	NA
				12	0	213.300	183.660	NA
27038	848.8	BPSK	3.75	1	47	30.600	43.102	NA
			15	1	11	92.770	122.340	NA
		QPSK	3.75	1	47	33.960	44.696	NA
			15	1	11	104.000	119.430	NA
				12	0	216.500	184.040	NA

Mode 9: LTE NB-IoT Band 5 / 26 (Part 22)

BPSK_CH26792_3.75k_1RB0	BPSK_CH26915_3.75k_1RB0
	
BPSK_CH27038_3.75k _1RB47	QPSK_CH26792_3.75k _1RB0
	
QPSK_CH26915_3.75k _1RB0	QPSK_CH27038_ 3.75k _1RB47
	

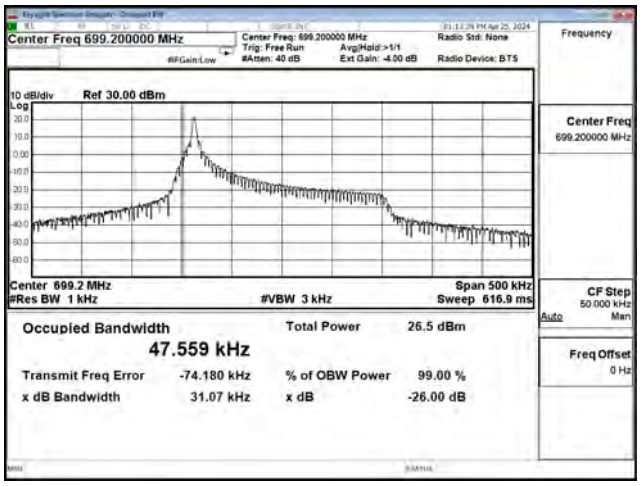
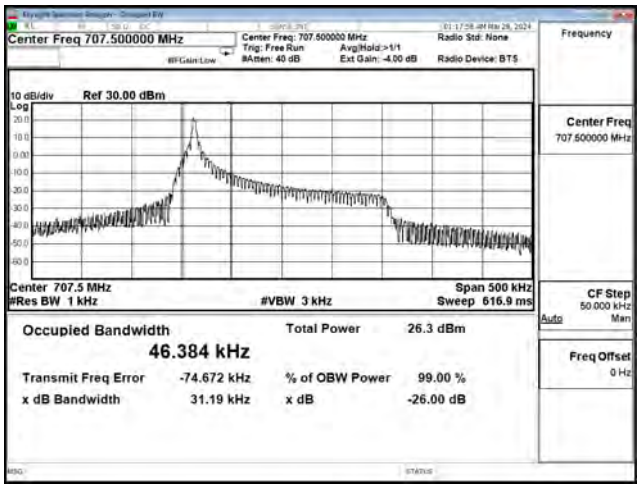
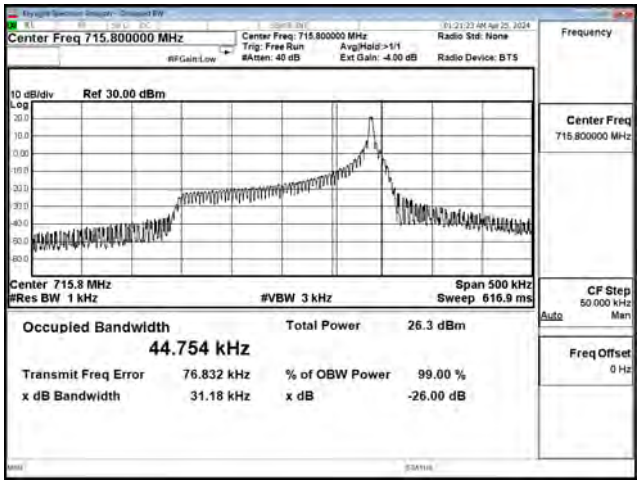
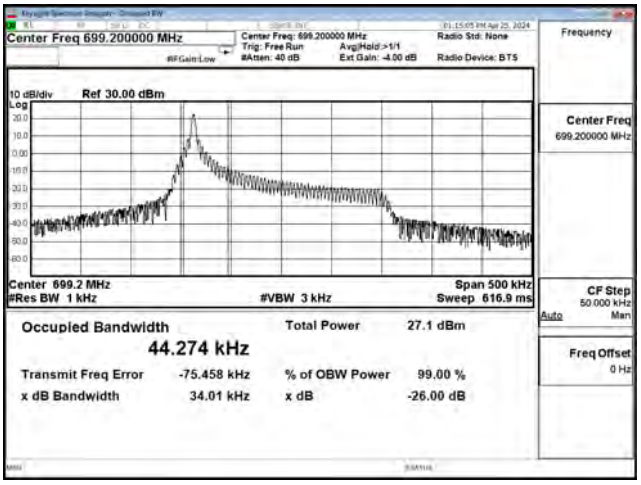
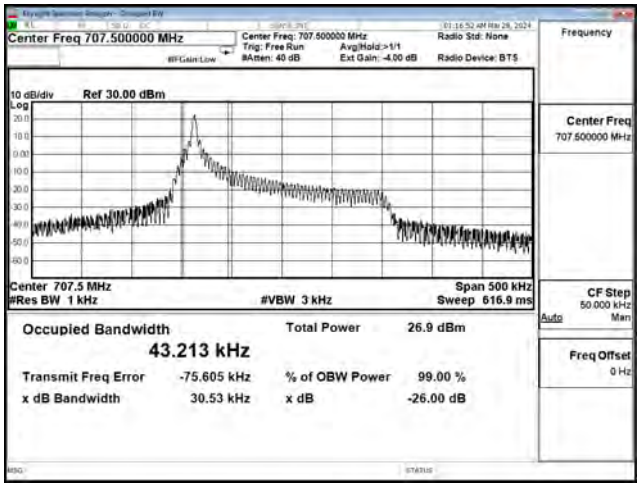
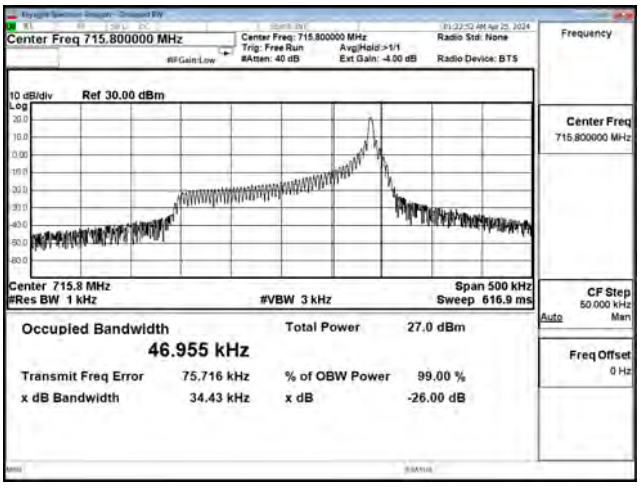
QPSK_CH26792_ 15k_1RB0	QPSK_CH26915_15k_1RB0
	
QPSK_CH27038_15k_1RB11	QPSK_CH26792_15k_1RB0
	
QPSK_CH26915_15k_1RB0	QPSK_CH27038_15k_1RB11
	

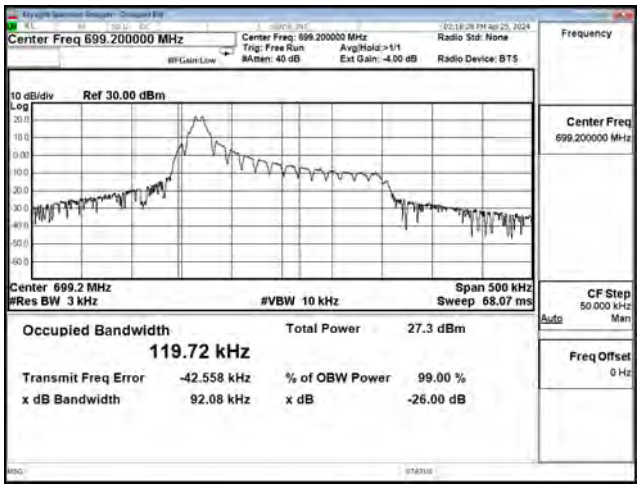
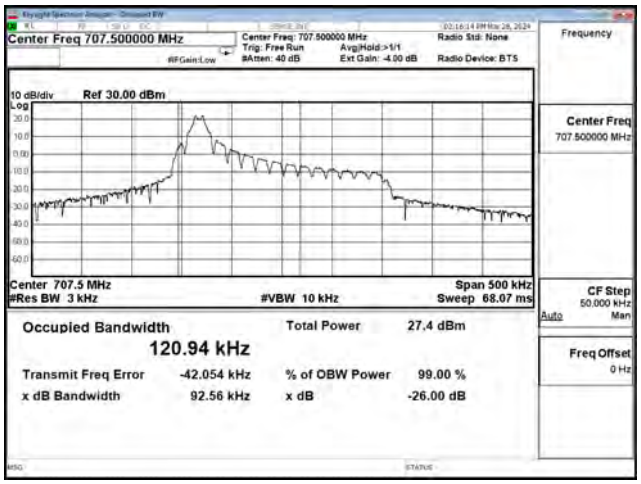
QPSK_CH26792_15k_12RB0	QPSK_CH26915_15k_12RB0
	
QPSK_CH27038_15k_12RB0	
	

Mode 10: LTE NB-IoT Band 12

Channel	Freq. (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Measure Level (kHz)		Limit (MHz)
						26dB BW	99% BW	
23012	699.2	BPSK	3.75	1	0	31.070	47.559	NA
			15	1	0	92.080	119.720	NA
		QPSK	3.75	1	0	34.010	44.274	NA
			15	1	0	101.500	114.200	NA
				12	0	214.800	182.600	NA
23095	707.5	BPSK	3.75	1	0	31.190	46.384	NA
			15	1	0	92.560	120.940	NA
		QPSK	3.75	1	0	30.530	43.213	NA
			15	1	0	104.500	117.720	NA
				12	0	216.000	183.950	NA
23178	715.8	BPSK	3.75	1	47	31.180	44.754	NA
			15	1	11	98.940	121.610	NA
		QPSK	3.75	1	47	34.430	46.955	NA
			15	1	11	103.500	120.290	NA
				12	0	215.200	183.090	NA

Mode 10: LTE NB-IoT Band 12

BPSK_CH23012_3.75k_1RB0	BPSK_CH23095_3.75k_1RB0
	
BPSK_CH23178_3.75k _1RB47	QPSK _CH23012_3.75k_1RB0
	
QPSK_CH23095_3.75k_1RB0	QPSK_CH23178_3.75k_1RB47
	

BPSK_CH23012_15k_1RB0	BPSK_CH23095_15k_1RB0
	
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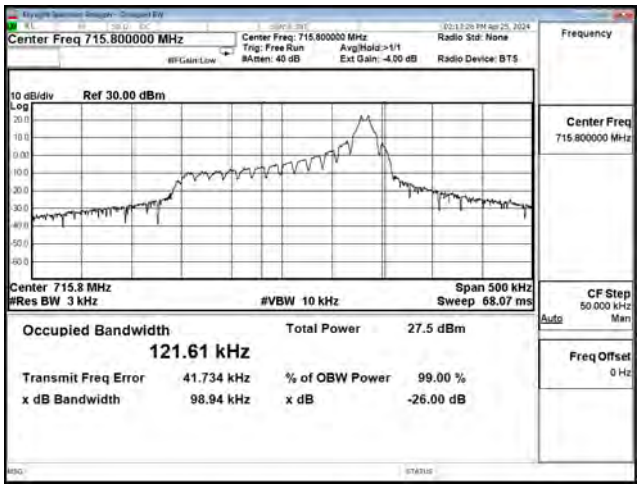	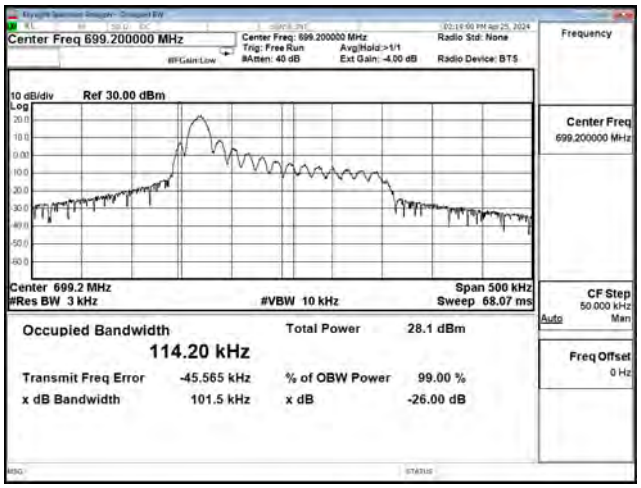
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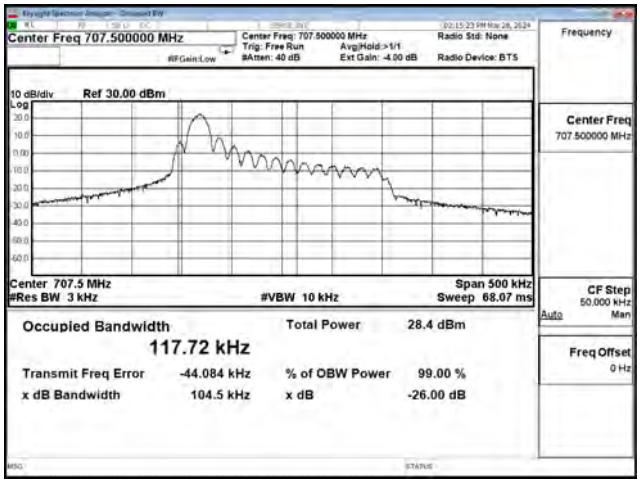	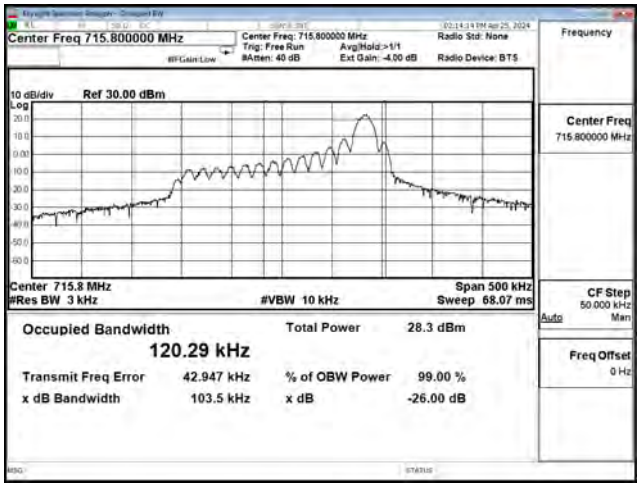

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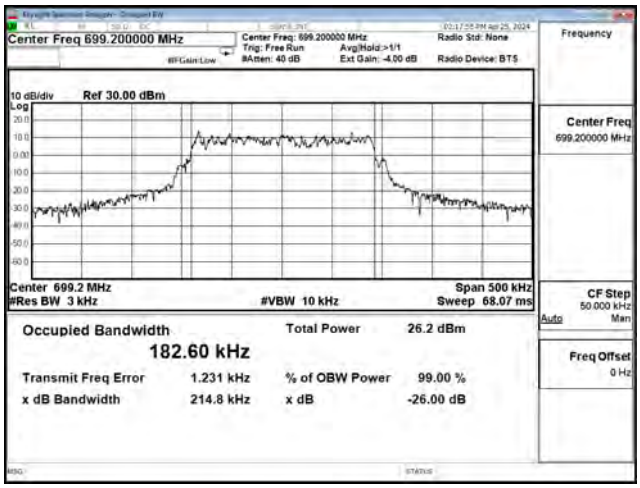	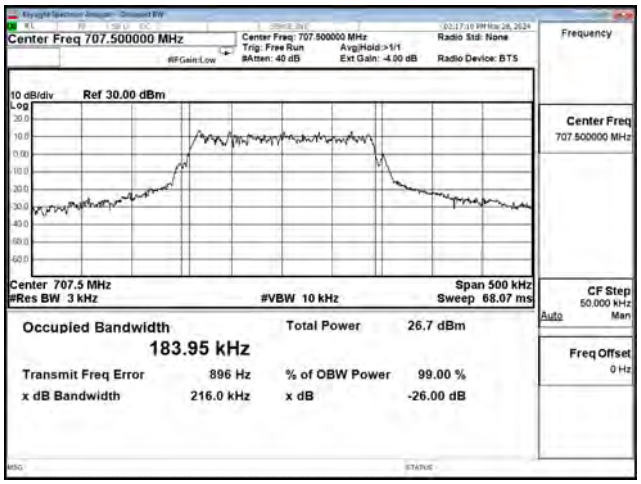
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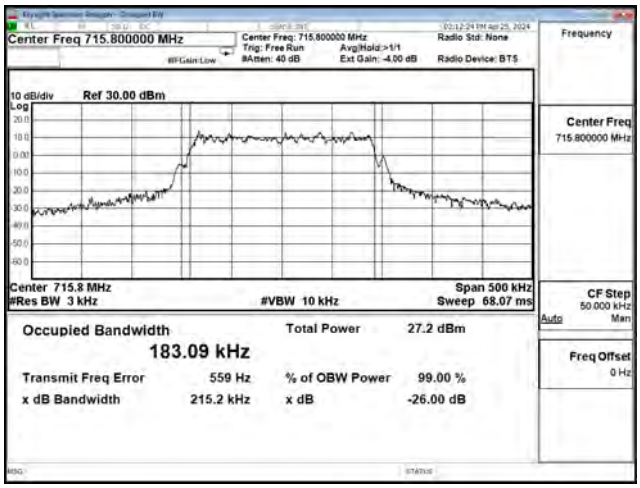	

Mode 11: LTE NB-IoT Band 13

Channel	Freq. (MHz)	Modulation	SCS (kHz)	RB No.	RB offset	Measure Level (kHz)		Limit (MHz)
						26dB BW	99% BW	
23182	777.2	BPSK	3.75	1	0	31.240	47.749	NA
			15	1	0	92.160	119.430	NA
		QPSK	3.75	1	0	34.060	45.178	NA
			15	1	0	103.100	114.810	NA
				12	0	215.300	183.820	NA
23230	782	BPSK	3.75	1	0	31.240	47.323	NA
			15	1	0	92.510	122.110	NA
		QPSK	3.75	1	0	34.070	47.468	NA
			15	1	0	103.100	115.720	NA
				12	0	215.600	183.440	NA
23278	786.8	BPSK	3.75	1	47	31.140	44.193	NA
			15	1	11	92.450	123.070	NA
		QPSK	3.75	1	47	33.560	44.052	NA
			15	1	11	103.700	119.110	NA
				12	0	215.800	183.510	NA

Mode 11: LTE NB-IoT Band 13

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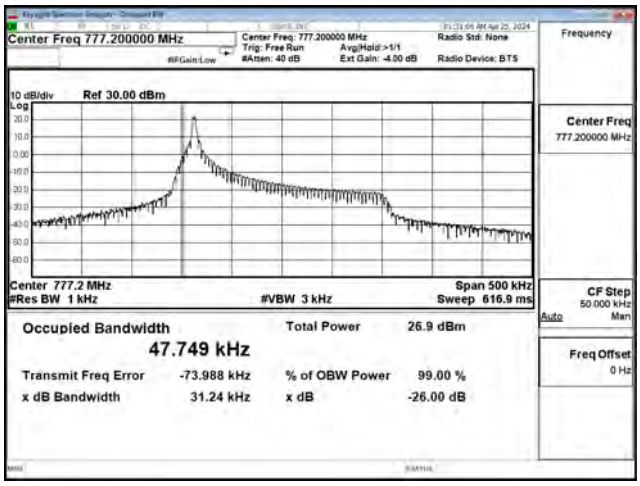	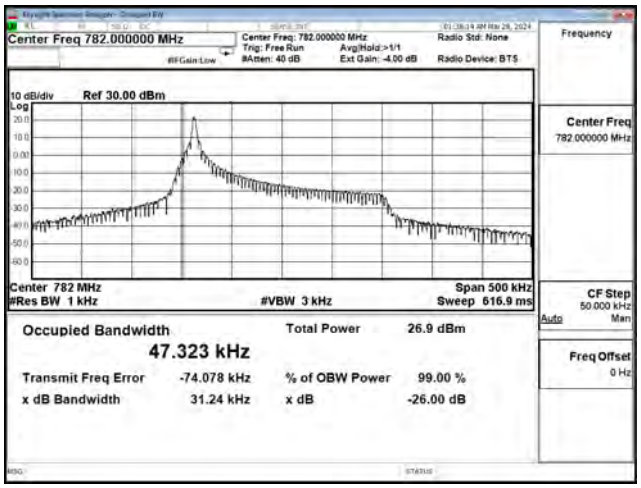
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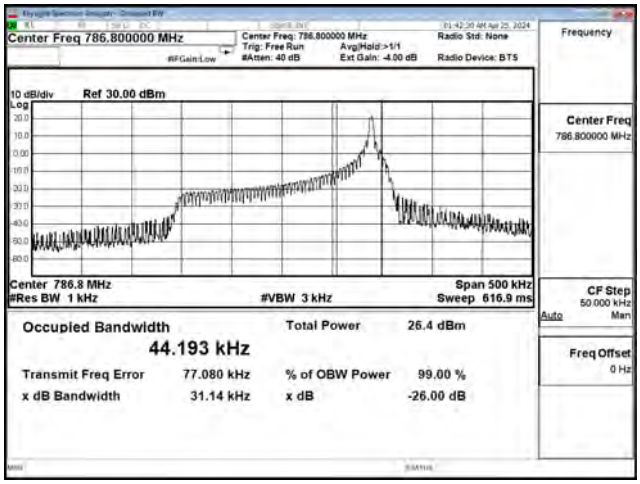	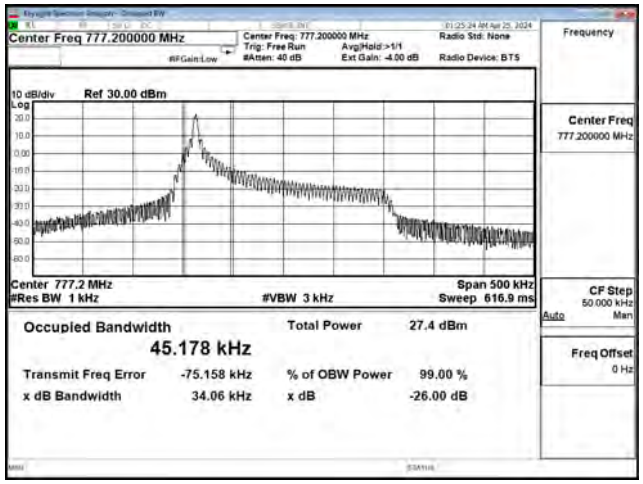
QPSK_CH23230_3.75k_1RB0	QPSK_CH23278_3.75k_1RB47