FCC Test Report

(Part 22&24&27)

Product Name : Mobile Computer

Model No : RS35

FCC ID : Q3N-RS35

Applicant : Cipherlab Co, Ltd.

Address : 12F, NO.333, SEC.2, DUNHUA S. RD., TAIPEI, TAIWAN, R.O.C.

Date of Receipt : 2020/06/08

Issued Date : 2020/08/08

Report No. : 2060284R-E3042110012

Report Version : V1.0

Testing Laboratory

3023

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
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The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issued Date : 2020/08/08
Report No.: 2060284R-E3042110012

Product Name	: Mobile Computer
Applicant	: Cipherlab Co, Ltd.
Address	: 12F, NO.333, SEC.2, DUNHUA S. RD., TAIPEI, TAIWAN, R.O.C.
Manufacturer	: Cipherlab Co, Ltd.
Trade Name	: CIPHERLAB
Model No.	: RS35
EUT Rated Voltage	: DC 3.6V~4.4V
EUT Test Voltage	: DC 3.8V
Measurement Standard	: FCC CFR Title 47 Part 22 ; Part 24 ; Part 27
Measurement Reference	: FCC CFR Title 47 Part 2 TIA/EIA 603-E 2016 KDB 971168 D01V03R01 ANSI C63.26 2015
Test Result	: Complied

Documented By : Anny Chou

(Senior Adm. Specialist / Anny Chou)

Tested By : Vorana Chen

(Senior Engineer / Vorana Chen)

Approved By :

(Director /Vincent Lin)

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Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs

Revision History

Report No.	Version	Description	Issued Date
2060284R-E3042110012	V1.0	Initial issue of report.	2020-08-08

1. GENERAL INFORMATION

1.1 EUT Description

Product Name	Mobile Computer
Model No.	RS35
Trade Name	CIPHERLAB
IMEI No.	35457611
FCC ID	Q3N-RS35
TX Frequency	LTE Band 2: 1850MHz ~1910MHz
	LTE Band 4: 1710MHz~1755MHz
	LTE Band 5: 824MHz~849MHz
	LTE Band 7: 2500MHz ~2570MHz
	LTE Band 12: 699MHz~716MHz
	LTE Band 13: 777MHz ~787MHz
	LTE Band 17: 704MHz~716MHz
	LTE Band 25: 1850MHz ~1915MHz
	LTE Band 26 : 814MHz~849MHz
	LTE Band 38: 2570MHz ~2620MHz
	LTE Band 41: 2496MHz ~2690MHz
Rx Frequency	LTE Band 2: 1930MHz ~1990MHz
	LTE Band 4: 2110MHz ~2155MHz
	LTE Band 5: 869MHz ~894MHz
	LTE Band 7: 2620MHz ~2690MHz
	LTE Band 12: 729MHz ~746MHz
	LTE Band 13: 746MHz ~756MHz
	LTE Band 17: 734MHz ~746MHz
	LTE Band 25: 1930MHz ~1995MHz
	LTE Band 26: 859MHz ~894MHz
	LTE Band 38: 2570MHz ~2620MHz
	LTE Band 41: 2496MHz ~2690MHz
Bandwidth	LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 5: 1.4MHz/3MHz/5MHz/10MHz
	LTE Band 7: 5MHz/10MHz/15MHz/20MHz
	LTE Band 12: 1.4MHz/3MHz/5MHz/10MHz
	LTE Band 13: 5MHz/10MHz
	LTE Band 17: 5MHz/10MHz
	LTE Band 25: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz
	LTE Band 26: 1.4MHz/3MHz/5MHz/10MHz/15MHz
	LTE Band 38: 5MHz/10MHz/15MHz/20MHz
	LTE Band 41: 5MHz/10MHz/15MHz/20MHz
Modulation	QPSK/16-QAM/64QAM
HW Version	RS35.GSM.NB.200200515
SW Version	Android version: 10
Antenna Type	PIFA Antenna

1.2 Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	Auden	RS35 (WWAN Main)	0.8 dBi for 698-716 MHz 0.6 dBi for 777-787 MHz 0.1 dBi for 806-849 MHz 4.6 dBi for 1710-1755 MHz 4.4 dBi for 1850-1920 MHz 2.6 dBi for 2494-2690 MHz
2	Auden	RS35 (WWAN Aux)	-3.7 dBi for 728-756 MHz -2.5 dBi for 821-894 MHz -0.5 dBi for 1930-1990 MHz -3.4 dBi for 2110-2155 MHz -2.3 dBi for 2200-2690 MHz

1.3 Operational Description

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator.
DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined

as:

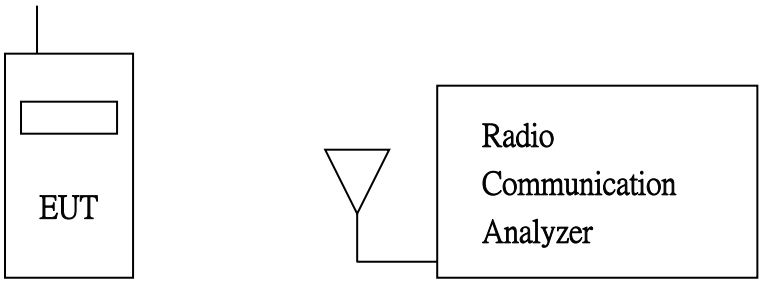
Test Mode:	LTE Band 2/25
	LTE Band 4
	LTE Band 5/26
	LTE Band 7
	LTE Band 12/17
	LTE Band 13
	LTE Band 38/41

Note:

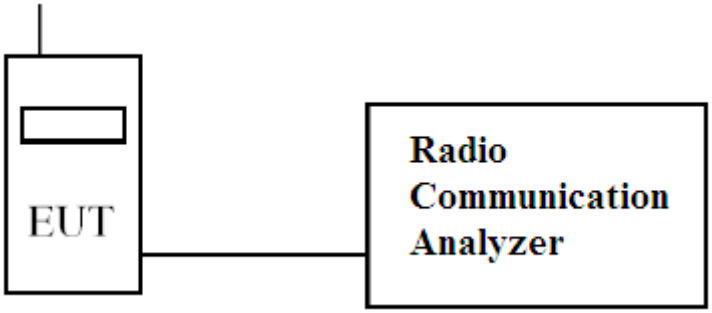
1. LTE Band 2 is covered by Band 25.
2. LTE Band 5 is covered by Band 26.
3. LTE Band 17 is covered by Band 12.
4. LTE Band 38 is covered by Band 41.
5. All operation modes has been verified and the report shows the worst case mode.

1.4 Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



1.5 EUT Setup Procedures

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

1.6 Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	17 ~ 27
Humidity (%RH)	25-75	45 ~ 60

USA : FCC Registration Number: TW3023

Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF
Accredited Number: 3023

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

2. Technical Test

2.1. Summary of test result

Test Item	FCC Reference section	FCC Limit	Result	Result
RF Output Power	§2.1046 §22.913(a) §24.232(c) §27.50 (b, c, d, h)	<7 Watts for §22.913(a) <2 Watts for §24.232(c) <3 Watts for §27.50(b, c) <1 Watts for §27.50(d) <2 Watts for §27.50(h)	Pass	Pass
Occupied Bandwidth	§2.1049 §22.863 §24.238(b) §27.53 (c, g, h, m)	Within the frequency range	Pass	Pass
Spurious Emission at Antenna Terminals	§2.1051 §22.917(a) §24.238(a) §27.53 (c, g, h, m)	<-13dBm <-13dBm / <-35dBm for §27.50(c) <-10dBm / <-13dBm / <-25dBm for §27.50(m)	Pass	Pass
Conducted Emission	§2.1051 §22.917(a) §24.238(a) §27.53 (c, g, h, m)	<-13dBm <-25dBm for §27.50(m)	Pass	Pass
Field Strength of Spurious Radiation	§2.1053 §22.917(a) §24.238(a) §27.53 (c, f, g, h, m)	<-13dBm <-40dBm for §27.53(f) <-25dBm for §27.50(m)	Pass	Pass
Frequency Stability for Temperature & Voltage	§2.1055 §22.355 §24.235 §27.54	<±2.5 ppm for §22.355 Within the frequency range for §24.235, §27.54	Pass	Pass
Peak to Average Ratio	§22.913 (d) §24.232 (d) §27.50	<13dB	Pass	Pass

2.2. List of test Equipment

Conducted /CTR

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY54510357	2020/05/14
Directional coupler	Agilent	87300C	MY44300353	2019/12/05
Directional coupler	Agilent	778D-012	50550	2019/12/05
Standard Temperature & Humidity Chamber	WIT	TH-1S-B	EQ-201-00146	2020/04/06
DC power supply	Agilent	E3610A	MY40009845	2020/06/30
Communication Tester	R&S	CMW500	157304	2019/11/13

Radiated / Site3

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2707	2020/01/20
Horn Antenna	R&S	9120D	867	2020/04/21
Pre-Amplifier	Agilent	87405C	MY55380068	2019/08/09
Spectrum Analyzer	Agilent	N9010A	MY54510357	2020/05/14
DC power supply	Agilent	E3646A	MY53020023	2019/10/14
Communication Tester	R&S	CMW500	157304	2019/11/13

2.3. Measurement Uncertainty

Conducted Emission

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

Radiated Emission (Below 1GHz)

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

Radiated Emission (Above 1GHz)

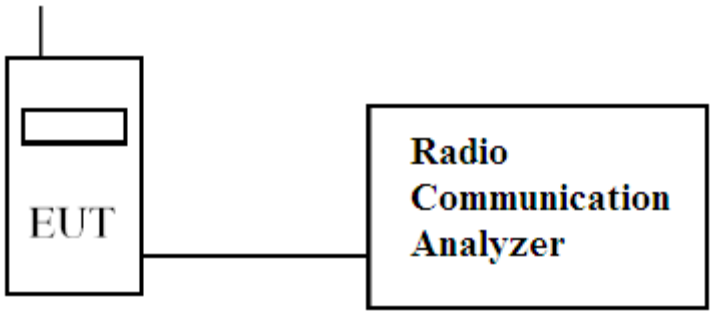
The measurement uncertainty of confidence of 95% is evaluated as ± 4.08 dB

3. Conducted Output Power Measurment

3.1. Test Specification

According to FCC Part 2.1046, 22.913, 24.232, 27.50

3.2. Test Setup



3.3. Limits

Band	Limit
LTE Band 2/1900	EIRP <2W
LTE Band 4/1700	EIRP <1W
LTE Band 5/850	ERP <7W
LTE Band 7/2500	EIRP <2W
LTE Band 12/700	ERP <3W
LTE Band 13/700	ERP <3W
LTE Band 17/700	ERP <3W
LTE Band 25/1900	EIRP <2W
LTE Band 26/850	ERP <7W
LTE Band 38/2600	EIRP <2W
LTE Band 41/2600	EIRP <2W

3.4. Test Procedure

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

3.5. Test Result of Maximum Power Output

Channel	Modulation	LTE Band 2/25 (1900MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	19.84	19.33	19.36	19.50	19.68	19.47
		1	#Mid	19.77	19.63	19.93	**19.78**	19.69	19.81
		1	#Max	19.73	19.48	19.72	19.69	19.65	19.49
		50%	#0	19.78	18.77	18.79	18.77	18.73	18.70
		50%	#Mid	19.80	18.65	18.69	18.76	18.62	18.62
		50%	#Max	19.80	18.63	18.70	18.56	18.58	18.60
		100%	--	18.65	18.71	18.65	18.69	18.63	18.57
	16QAM	1	#0	18.46	**18.74**	18.50	18.49	18.36	18.41
		1	#Mid	**18.82**	18.61	**18.81**	18.65	18.40	18.57
		1	#Max	18.61	18.70	18.47	18.39	18.28	18.19
		50%	#0	18.68	17.50	17.90	17.89	17.85	17.74
		50%	#Mid	18.77	17.73	17.93	17.80	17.65	17.71
		50%	#Max	18.66	17.81	17.82	17.64	17.58	17.66
		100%	--	17.65	17.81	17.75	17.85	17.75	17.71
	64QAM	1	#0	17.24	17.91	17.59	17.52	17.47	18.02
		1	#Mid	17.43	18.05	17.56	17.79	18.01	17.84
		1	#Max	17.12	17.74	17.54	17.70	17.74	17.82
		50%	#0	17.42	16.67	16.80	16.53	16.74	16.88
		50%	#Mid	17.50	17.01	16.82	17.06	16.97	16.74
		50%	#Max	17.58	16.77	16.90	16.67	16.82	16.61
		100%	--	17.16	16.72	16.82	16.93	16.68	16.85
Mid	QPSK	1	#0	19.31	19.30	19.13	19.18	19.49	19.28
		1	#Mid	19.44	19.52	19.55	19.54	19.53	19.65
		1	#Max	19.29	19.41	19.14	19.34	19.29	19.33
		50%	#0	19.54	18.43	18.39	18.44	18.45	18.52
		50%	#Mid	19.46	18.51	18.42	18.43	18.44	18.43
		50%	#Max	19.52	18.44	18.44	18.55	18.51	18.49
		100%	--	18.39	18.44	18.44	18.45	18.46	18.41
	16QAM	1	#0	17.91	18.55	18.23	18.30	18.29	18.31
		1	#Mid	17.90	18.57	18.38	18.32	18.22	18.47
		1	#Max	17.81	18.55	18.34	18.18	18.25	18.22
		50%	#0	18.44	17.50	17.37	17.80	17.47	17.51
		50%	#Mid	18.49	17.43	17.57	17.49	17.47	17.58

		50%	#Max	18.51	17.46	17.48	17.85	17.63	17.65
		100%	--	17.18	17.51	17.44	17.37	17.52	17.52
	64QAM	1	#0	17.65	17.11	17.81	17.03	17.15	17.82
		1	#Mid	17.63	17.15	17.98	17.36	17.17	18.25
		1	#Max	17.67	17.14	17.58	17.41	16.99	17.88
		50%	#0	17.49	16.83	16.49	16.58	16.60	16.41
		50%	#Mid	17.85	16.74	16.84	16.62	16.83	16.59
		50%	#Max	17.56	16.71	16.57	16.61	16.79	16.77
		100%	--	16.83	16.86	16.64	16.76	16.77	16.56
High	QPSK	1	#0	**19.98**	**19.82**	19.41	19.66	19.80	19.32
		1	#Mid	19.87	19.80	**20.08**	19.75	**19.86**	**20.03**
		1	#Max	19.84	19.75	19.55	19.74	19.84	19.51
		50%	#0	19.96	18.94	18.84	18.86	18.73	18.78
		50%	#Mid	19.91	18.92	18.96	18.81	18.80	18.84
		50%	#Max	19.92	18.91	18.88	18.94	18.79	18.78
		100%	--	18.83	18.92	18.96	18.84	18.85	18.82
	16QAM	1	#0	18.75	18.70	18.64	**19.07**	18.55	18.48
		1	#Mid	18.64	18.57	18.80	18.72	**18.68**	**18.86**
		1	#Max	18.46	18.68	18.71	18.61	18.62	18.62
		50%	#0	18.70	18.04	17.91	18.08	17.78	17.93
		50%	#Mid	18.55	17.90	17.98	18.04	17.85	17.96
		50%	#Max	18.62	18.00	17.95	17.96	17.75	17.91
		100%	--	17.69	17.85	17.81	17.74	17.90	17.86
	64QAM	1	#0	17.62	17.52	17.59	17.28	17.50	17.25
		1	#Mid	18.02	17.71	17.80	17.62	17.82	18.00
		1	#Max	17.55	17.04	17.52	17.19	17.31	17.45
		50%	#0	17.73	16.76	16.77	16.88	16.85	16.79
		50%	#Mid	17.74	16.85	16.82	16.90	16.69	16.99
		50%	#Max	17.43	16.54	16.76	16.88	16.81	16.95
		100%	--	16.49	16.52	16.74	16.67	16.90	16.75

Channel	Modulation	LTE Band 4 (1700MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	19.49	19.48	18.99	19.06	19.04	18.99
		1	#Mid	19.62	19.43	19.56	19.49	19.46	19.62
		1	#Max	19.49	19.50	19.50	19.20	19.33	19.04
		50%	#0	19.56	18.39	18.25	18.38	18.30	18.32
		50%	#Mid	19.71	18.41	18.35	18.34	18.36	18.32
		50%	#Max	19.55	18.40	18.32	18.41	18.32	18.25
		100%	--	18.50	18.35	18.31	18.26	18.37	18.39
	16QAM	1	#0	18.18	18.42	17.81	18.08	18.19	18.02
		1	#Mid	18.51	18.45	18.23	18.26	18.15	18.29
		1	#Max	18.16	18.43	17.93	18.19	18.05	18.03
		50%	#0	18.49	17.49	17.26	17.39	17.27	17.32
		50%	#Mid	18.50	17.43	17.48	17.36	17.40	17.35
		50%	#Max	18.48	17.51	17.36	17.43	17.35	17.26
		100%	--	17.43	17.37	17.34	17.39	17.38	17.39
	64QAM	1	#0	17.07	16.87	17.15	17.27	17.43	17.67
		1	#Mid	17.64	17.38	17.47	17.57	17.94	18.09
		1	#Max	17.31	17.09	17.08	17.41	17.51	17.89
		50%	#0	17.56	16.56	16.37	16.64	16.63	16.58
		50%	#Mid	17.62	16.39	16.59	16.62	16.72	16.68
		50%	#Max	17.58	16.59	16.41	16.72	16.62	16.63
		100%	--	16.79	16.64	16.44	16.35	16.60	16.59
Mid	QPSK	1	#0	19.61	19.19	19.25	19.24	19.12	19.06
		1	#Mid	19.59	19.42	**19.66**	19.50	19.49	19.57
		1	#Max	19.52	19.22	19.19	19.23	19.48	19.60
		50%	#0	19.77	18.56	18.40	18.35	18.37	18.33
		50%	#Mid	19.78	18.48	18.51	18.39	18.32	18.28
		50%	#Max	19.67	18.52	18.33	18.30	18.34	18.26
		100%	--	18.55	18.40	18.41	18.34	18.34	18.29
	16QAM	1	#0	18.43	18.18	18.11	18.16	18.05	18.07
		1	#Mid	18.47	18.04	18.07	18.34	17.98	18.14
		1	#Max	18.50	18.15	18.02	17.93	18.09	18.24
		50%	#0	18.60	17.63	17.41	17.40	17.38	17.44
		50%	#Mid	18.76	17.61	17.61	17.32	17.33	17.40
		50%	#Max	18.58	17.63	17.36	17.43	17.35	17.39
		100%	--	17.63	17.51	17.28	17.47	17.43	17.29

	64QAM	1	#0	17.57	17.51	17.76	16.99	16.68	17.70
		1	#Mid	17.42	17.42	18.00	17.84	17.21	17.95
		1	#Max	17.63	17.58	17.73	17.32	16.89	18.12
		50%	#0	17.44	16.83	16.22	16.62	16.70	16.53
		50%	#Mid	17.73	16.62	16.39	16.46	16.70	16.57
		50%	#Max	17.77	16.57	16.43	16.60	16.57	16.54
		100%	--	16.68	16.81	16.63	16.41	16.60	16.55
High	QPSK	1	#0	19.72	**19.94**	19.52	19.54	19.64	19.24
		1	#Mid	19.75	19.88	19.64	**19.73**	**19.78**	**19.79**
		1	#Max	19.59	19.44	19.44	19.50	19.46	19.55
		50%	#0	**19.93**	18.77	18.76	18.60	18.59	18.57
		50%	#Mid	19.90	18.63	18.75	18.62	18.57	18.50
		50%	#Max	19.91	18.66	18.65	18.63	18.61	18.60
		100%	--	18.68	18.65	18.65	18.60	18.59	18.51
	16QAM	1	#0	**18.96**	**18.62**	18.62	18.48	18.28	18.24
		1	#Mid	18.73	18.39	**19.20**	**18.77**	**18.36**	**18.42**
		1	#Max	18.94	18.23	18.58	18.42	18.34	18.38
		50%	#0	18.62	17.76	17.94	17.85	17.61	17.63
		50%	#Mid	18.64	17.63	17.93	17.69	17.64	17.64
		50%	#Max	18.55	17.72	17.76	17.76	17.69	17.77
		100%	--	17.67	17.68	17.83	17.76	17.63	17.63
	64QAM	1	#0	17.83	17.80	17.98	17.77	17.61	17.24
		1	#Mid	17.85	17.93	18.15	17.92	18.54	18.31
		1	#Max	17.84	18.02	17.74	17.90	17.87	17.48
		50%	#0	18.39	16.62	17.08	16.78	16.95	16.79
		50%	#Mid	18.41	16.56	17.06	17.03	16.93	16.72
		50%	#Max	18.32	16.58	16.95	16.88	16.81	16.80
		100%	--	16.66	16.63	16.80	16.92	16.80	16.73

Channel	Modulation	LTE Band 5/26 (850MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	23.67	23.43	23.21	23.47	23.62	--
		1	#Mid	23.70	23.53	23.63	**23.71**	**23.73**	--
		1	#Max	23.68	23.39	23.24	23.57	23.12	--
		50%	#0	23.62	22.84	22.67	22.72	22.64	--
		50%	#Mid	23.69	22.70	22.57	22.75	22.64	--
		50%	#Max	**23.75**	22.75	22.61	22.73	22.64	--
		100%	--	22.66	22.60	22.62	22.76	22.59	--
	16QAM	1	#0	22.76	22.28	22.36	**22.66**	22.27	--
		1	#Mid	**22.89**	**22.77**	**22.48**	22.50	22.54	--
		1	#Max	22.83	22.66	22.30	22.41	22.23	--
		50%	#0	22.60	21.68	21.46	21.59	21.58	--
		50%	#Mid	22.76	21.65	21.62	21.84	21.52	--
		50%	#Max	22.73	21.40	21.57	21.62	21.55	--
		100%	--	21.48	21.44	21.71	21.59	21.57	--
	64QAM	1	#0	21.56	21.78	21.18	21.72	21.74	--
		1	#Mid	21.93	22.26	21.84	21.75	22.14	--
		1	#Max	22.04	21.88	21.19	21.97	21.72	--
		50%	#0	21.97	21.08	21.04	21.04	20.85	--
		50%	#Mid	22.21	21.03	21.14	20.91	21.10	--
		50%	#Max	22.15	21.08	21.00	20.73	20.72	--
		100%	--	20.98	20.93	21.16	20.97	20.96	--
Mid	QPSK	1	#0	23.41	23.53	23.32	23.38	23.48	--
		1	#Mid	23.58	**23.72**	**23.65**	23.45	23.52	--
		1	#Max	23.53	23.67	23.31	23.23	23.40	--
		50%	#0	23.53	22.58	22.58	22.64	22.68	--
		50%	#Mid	23.56	22.53	22.55	22.57	22.56	--
		50%	#Max	23.57	22.52	22.56	22.53	22.53	--
		100%	--	22.60	22.56	22.58	22.55	22.55	--
	16QAM	1	#0	22.53	22.48	22.39	22.48	**22.55**	--
		1	#Mid	22.42	22.40	22.32	22.46	22.35	--
		1	#Max	22.45	22.36	22.23	22.33	22.30	--
		50%	#0	22.59	21.62	21.49	21.83	21.51	--
		50%	#Mid	22.69	21.60	21.64	21.79	21.54	--
		50%	#Max	22.57	21.76	21.59	21.64	21.56	--

		100%	--	21.58	21.41	21.63	21.55	21.64	--
	64QAM	1	#0	21.82	22.00	21.31	21.39	21.26	--
		1	#Mid	22.08	21.26	22.03	21.54	21.65	--
		1	#Max	22.00	21.38	21.34	21.69	21.24	--
		50%	#0	21.70	20.91	20.79	20.85	20.82	--
		50%	#Mid	21.72	21.04	20.81	21.07	20.92	--
		50%	#Max	21.74	20.92	20.89	20.78	20.74	--
		100%	--	20.64	20.86	20.84	20.59	20.79	--
High	QPSK	1	#0	23.54	23.41	23.38	23.36	23.47	--
		1	#Mid	23.53	23.67	23.27	23.68	23.53	--
		1	#Max	23.31	22.99	23.08	23.52	23.25	--
		50%	#0	23.46	22.51	22.40	22.54	22.60	--
		50%	#Mid	23.30	22.39	22.51	22.54	22.55	--
		50%	#Max	23.34	22.46	22.45	22.47	22.58	--
		100%	--	22.33	22.43	22.49	22.53	22.54	--
	16QAM	1	#0	22.22	22.18	22.33	22.33	22.51	--
		1	#Mid	22.19	22.13	22.24	22.62	22.40	--
		1	#Max	22.20	22.20	21.98	22.30	22.18	--
		50%	#0	22.23	21.41	21.52	21.54	21.60	--
		50%	#Mid	22.43	21.36	21.53	21.54	21.57	--
		50%	#Max	22.37	21.42	21.37	21.47	21.45	--
		100%	--	21.42	21.45	21.51	21.54	21.56	--
	64QAM	1	#0	21.88	21.81	21.85	21.88	21.58	--
		1	#Mid	22.16	21.79	22.05	21.57	22.08	--
		1	#Max	21.89	21.74	21.82	21.99	21.39	--
		50%	#0	21.80	20.74	20.95	20.79	20.76	--
		50%	#Mid	21.87	20.67	20.96	20.76	20.71	--
		50%	#Max	21.91	21.04	20.69	20.72	20.66	--
		100%	--	20.75	20.58	20.76	20.91	20.78	--

Channel	Modulation	LTE Band 7 (2500MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	19.13	19.35	19.62	19.39
		1	#Mid	--	--	19.74	19.74	19.80	19.81
		1	#Max	--	--	19.19	19.58	19.64	19.67
		50%	#0	--	--	18.70	18.60	18.67	18.67
		50%	#Mid	--	--	18.71	18.64	18.72	18.72
		50%	#Max	--	--	18.54	18.69	18.76	18.66
		100%	--	--	--	18.61	18.61	18.63	18.66
	16QAM	1	#0	--	--	18.51	18.50	18.54	18.49
		1	#Mid	--	--	18.57	18.77	18.52	18.83
		1	#Max	--	--	18.54	18.49	18.59	18.42
		50%	#0	--	--	17.75	17.84	17.70	17.73
		50%	#Mid	--	--	17.64	17.76	17.68	17.64
		50%	#Max	--	--	17.49	17.66	17.65	17.71
		100%	--	--	--	17.58	17.73	17.67	17.71
	64QAM	1	#0	--	--	17.71	17.72	17.74	17.67
		1	#Mid	--	--	17.97	18.15	18.31	17.96
		1	#Max	--	--	17.62	17.94	18.06	17.65
		50%	#0	--	--	16.98	16.63	16.59	16.74
		50%	#Mid	--	--	17.01	16.80	16.90	16.73
		50%	#Max	--	--	16.93	16.98	16.85	16.80
		100%	--	--	--	17.10	16.78	16.77	16.75
Mid	QPSK	1	#0	--	--	19.42	19.38	19.51	19.39
		1	#Mid	--	--	19.93	19.81	19.68	19.87
		1	#Max	--	--	19.27	19.40	19.53	19.71
		50%	#0	--	--	18.67	18.63	18.71	18.72
		50%	#Mid	--	--	18.64	18.68	18.71	18.70
		50%	#Max	--	--	18.60	18.71	18.69	18.71
		100%	--	--	--	18.68	18.67	18.67	18.70
	16QAM	1	#0	--	--	18.54	18.45	18.53	18.44
		1	#Mid	--	--	18.73	18.66	18.50	18.79
		1	#Max	--	--	18.68	18.51	18.55	18.57
		50%	#0	--	--	17.45	17.84	17.66	17.76
		50%	#Mid	--	--	17.54	17.66	17.75	17.74
		50%	#Max	--	--	17.64	17.66	17.63	17.75

		100%	--	--	--	17.68	17.65	17.69	17.67
	64QAM	1	#0	--	--	17.57	17.28	17.01	17.81
		1	#Mid	--	--	18.21	18.11	17.32	18.21
		1	#Max	--	--	17.83	17.23	16.98	17.79
		50%	#0	--	--	16.84	16.82	16.59	16.75
		50%	#Mid	--	--	17.04	17.03	16.89	16.76
		50%	#Max	--	--	17.05	16.95	16.70	16.71
		100%	--	--	--	16.82	16.84	16.83	16.70
High	QPSK	1	#0	--	--	19.50	19.54	19.76	19.46
		1	#Mid	--	--	**20.17**	**19.86**	**19.92**	**20.00**
		1	#Max	--	--	19.58	19.59	19.87	19.50
		50%	#0	--	--	18.77	18.87	18.79	18.85
		50%	#Mid	--	--	18.85	18.87	18.83	18.88
		50%	#Max	--	--	18.82	18.84	18.91	18.88
		100%	--	--	--	18.75	18.85	18.82	18.86
	16QAM	1	#0	--	--	18.73	18.59	18.70	18.64
		1	#Mid	--	--	**18.76**	**18.90**	**18.73**	**18.87**
		1	#Max	--	--	18.75	18.70	18.68	18.54
		50%	#0	--	--	17.59	17.82	17.83	17.94
		50%	#Mid	--	--	17.87	17.84	17.91	17.85
		50%	#Max	--	--	17.75	17.88	17.87	17.80
		100%	--	--	--	17.92	17.83	17.86	17.82
	64QAM	1	#0	--	--	17.08	17.54	17.81	17.73
		1	#Mid	--	--	17.92	17.67	18.32	18.30
		1	#Max	--	--	17.52	17.60	17.87	17.65
		50%	#0	--	--	16.70	16.87	16.89	16.80
		50%	#Mid	--	--	16.78	16.86	16.75	16.72
		50%	#Max	--	--	16.74	16.81	16.78	16.89
		100%	--	--	--	16.94	16.90	16.82	16.58

Channel	Modulation	LTE Band 12/17 (700MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	23.74	23.79	23.76	23.78	--	--
		1	#Mid	23.74	23.94	24.02	**23.99**	--	--
		1	#Max	23.68	23.57	23.40	23.59	--	--
		50%	#0	23.98	22.92	22.95	22.99	--	--
		50%	#Mid	23.93	22.95	22.98	22.91	--	--
		50%	#Max	24.05	22.94	22.99	22.94	--	--
		100%	--	22.93	23.06	22.97	22.95	--	--
	16QAM	1	#0	22.76	23.10	22.87	22.60	--	--
		1	#Mid	23.05	23.15	**22.99**	22.71	--	--
		1	#Max	22.98	22.86	22.82	22.49	--	--
		50%	#0	22.79	21.95	22.00	22.11	--	--
		50%	#Mid	23.04	21.95	22.02	21.83	--	--
		50%	#Max	23.07	21.93	21.77	21.94	--	--
		100%	--	21.87	21.85	21.95	21.90	--	--
	64QAM	1	#0	21.89	22.25	21.75	22.18	--	--
		1	#Mid	22.01	22.38	22.15	22.34	--	--
		1	#Max	21.71	22.05	21.67	21.97	--	--
		50%	#0	22.13	21.37	21.48	21.16	--	--
		50%	#Mid	22.22	21.44	21.63	21.42	--	--
		50%	#Max	22.44	21.39	21.31	21.08	--	--
		100%	--	21.53	21.33	21.62	21.29	--	--
Mid	QPSK	1	#0	23.73	23.53	23.50	23.58	--	--
		1	#Mid	23.79	**24.03**	**24.17**	23.97	--	--
		1	#Max	23.75	23.84	23.88	23.98	--	--
		50%	#0	23.92	23.00	22.78	22.95	--	--
		50%	#Mid	23.89	22.83	22.87	22.78	--	--
		50%	#Max	23.94	22.89	22.89	22.94	--	--
		100%	--	22.79	22.87	22.83	22.81	--	--
	16QAM	1	#0	22.53	22.84	22.76	22.54	--	--
		1	#Mid	22.53	22.68	22.73	22.80	--	--
		1	#Max	22.36	22.85	22.74	22.63	--	--
		50%	#0	23.07	21.92	21.59	21.71	--	--
		50%	#Mid	22.85	22.07	21.94	21.97	--	--
		50%	#Max	23.05	21.88	21.79	21.73	--	--

		100%	--	21.82	21.79	21.91	21.76	--	--
	64QAM	1	#0	22.55	21.73	22.32	22.05	--	--
		1	#Mid	22.49	22.07	22.80	22.21	--	--
		1	#Max	22.44	21.69	22.55	21.96	--	--
		50%	#0	22.32	21.37	21.17	21.29	--	--
		50%	#Mid	22.43	21.25	21.24	21.51	--	--
		50%	#Max	22.30	21.34	21.15	21.25	--	--
		100%	--	21.27	21.47	21.38	21.29	--	--
High	QPSK	1	#0	23.83	23.78	23.47	23.51	--	--
		1	#Mid	23.92	24.02	23.96	**23.99**	--	--
		1	#Max	23.90	23.86	23.61	23.76	--	--
		50%	#0	24.03	22.88	22.91	22.83	--	--
		50%	#Mid	**24.12**	22.92	22.92	22.90	--	--
		50%	#Max	24.03	22.92	22.87	22.87	--	--
		100%	--	22.84	22.98	22.85	22.89	--	--
	16QAM	1	#0	22.70	**23.25**	22.55	22.46	--	--
		1	#Mid	22.73	22.79	22.54	**22.89**	--	--
		1	#Max	22.69	23.06	22.50	22.65	--	--
		50%	#0	**23.19**	21.92	21.79	22.03	--	--
		50%	#Mid	23.15	21.89	21.75	21.83	--	--
		50%	#Max	22.96	21.97	21.68	22.01	--	--
		100%	--	21.71	21.80	21.85	21.83	--	--
	64QAM	1	#0	22.36	22.39	22.01	22.35	--	--
		1	#Mid	22.58	22.30	22.22	22.46	--	--
		1	#Max	22.28	22.30	21.80	22.30	--	--
		50%	#0	22.48	21.31	21.22	21.25	--	--
		50%	#Mid	22.47	20.30	21.36	21.41	--	--
		50%	#Max	22.37	21.40	21.32	21.41	--	--
		100%	--	21.32	21.20	21.27	21.31	--	--

Channel	Modulation	LTE Band 13 (700MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	23.48	--	--	--
		1	#Mid	--	--	23.61	--	--	--
		1	#Max	--	--	23.73	--	--	--
		50%	#0	--	--	22.53	--	--	--
		50%	#Mid	--	--	22.83	--	--	--
		50%	#Max	--	--	22.68	--	--	--
		100%	--	--	--	22.72	--	--	--
	16QAM	1	#0	--	--	22.12	--	--	--
		1	#Mid	--	--	22.53	--	--	--
		1	#Max	--	--	22.07	--	--	--
		50%	#0	--	--	21.69	--	--	--
		50%	#Mid	--	--	21.66	--	--	--
		50%	#Max	--	--	21.69	--	--	--
		100%	--	--	--	21.61	--	--	--
	64QAM	1	#0	--	--	22.52	--	--	--
		1	#Mid	--	--	22.62	--	--	--
		1	#Max	--	--	22.18	--	--	--
		50%	#0	--	--	20.96	--	--	--
		50%	#Mid	--	--	20.95	--	--	--
		50%	#Max	--	--	21.06	--	--	--
		100%	--	--	--	21.18	--	--	--
Mid	QPSK	1	#0	--	--	23.71	23.60	--	--
		1	#Mid	--	--	23.59	**23.88**	--	--
		1	#Max	--	--	23.40	23.55	--	--
		50%	#0	--	--	22.61	22.71	--	--
		50%	#Mid	--	--	22.67	22.70	--	--
		50%	#Max	--	--	22.64	22.63	--	--
		100%	--	--	--	22.70	22.65	--	--
	16QAM	1	#0	--	--	22.36	22.48	--	--
		1	#Mid	--	--	**22.71**	**22.90**	--	--
		1	#Max	--	--	22.40	22.73	--	--
		50%	#0	--	--	21.49	21.63	--	--
		50%	#Mid	--	--	21.61	21.81	--	--
		50%	#Max	--	--	21.64	21.56	--	--

		100%	--	--	--	21.46	21.53	--	--
	64QAM	1	#0	--	--	21.73	22.30	--	--
		1	#Mid	--	--	22.16	22.29	--	--
		1	#Max	--	--	21.82	22.62	--	--
		50%	#0	--	--	21.02	21.00	--	--
		50%	#Mid	--	--	21.03	20.97	--	--
		50%	#Max	--	--	21.02	21.12	--	--
		100%	--	--	--	21.11	21.03	--	--
High	QPSK	1	#0	--	--	23.26	--	--	--
		1	#Mid	--	--	**23.95**	--	--	--
		1	#Max	--	--	23.71	--	--	--
		50%	#0	--	--	22.46	--	--	--
		50%	#Mid	--	--	22.67	--	--	--
		50%	#Max	--	--	22.80	--	--	--
		100%	--	--	--	22.64	--	--	--
	16QAM	1	#0	--	--	22.43	--	--	--
		1	#Mid	--	--	22.42	--	--	--
		1	#Max	--	--	22.39	--	--	--
		50%	#0	--	--	21.52	--	--	--
		50%	#Mid	--	--	21.64	--	--	--
		50%	#Max	--	--	21.45	--	--	--
		100%	--	--	--	21.58	--	--	--
	64QAM	1	#0	--	--	21.35	--	--	--
		1	#Mid	--	--	21.52	--	--	--
		1	#Max	--	--	21.43	--	--	--
		50%	#0	--	--	20.97	--	--	--
		50%	#Mid	--	--	20.97	--	--	--
		50%	#Max	--	--	21.23	--	--	--
		100%	--	--	--	21.13	--	--	--

Channel	Modulation	LTE Band 38/41 (2600MHz)							
		RB	RB	Maximum Conducted Output Power					
		No.	Offset	1.4M	3M	5M	10M	15M	20M
Low	QPSK	1	#0	--	--	23.53	23.66	23.53	23.63
		1	#Mid	--	--	23.69	23.74	23.35	23.53
		1	#Max	--	--	23.48	23.50	23.46	23.42
		50%	#0	--	--	22.75	22.84	22.65	22.61
		50%	#Mid	--	--	22.74	22.84	22.65	22.57
		50%	#Max	--	--	22.77	22.84	22.73	22.63
		100%	--	--	--	22.69	22.93	22.65	22.59
	16QAM	1	#0	--	--	22.40	22.67	22.29	22.30
		1	#Mid	--	--	22.46	22.68	22.19	22.44
		1	#Max	--	--	22.34	22.40	22.17	22.14
		50%	#0	--	--	21.67	21.88	21.67	21.45
		50%	#Mid	--	--	21.62	22.02	21.62	21.63
		50%	#Max	--	--	21.63	21.81	21.64	21.48
		100%	--	--	--	21.80	21.79	21.63	21.56
	64QAM	1	#0	--	--	20.72	19.86	19.56	20.27
		1	#Mid	--	--	21.40	20.63	20.48	21.68
		1	#Max	--	--	20.52	19.47	19.09	20.46
		50%	#0	--	--	19.60	19.45	19.39	19.31
		50%	#Mid	--	--	19.80	20.31	19.62	19.39
		50%	#Max	--	--	19.52	19.27	19.14	19.01
		100%	--	--	--	19.41	19.41	19.13	19.09
Mid	QPSK	1	#0	--	--	23.70	23.82	23.93	23.95
		1	#Mid	--	--	23.78	23.94	23.86	23.84
		1	#Max	--	--	23.66	**23.95**	23.88	23.70
		50%	#0	--	--	22.93	22.91	22.99	23.03
		50%	#Mid	--	--	22.92	23.03	22.93	23.00
		50%	#Max	--	--	22.95	23.06	23.00	22.98
		100%	--	--	--	22.97	23.07	22.91	23.02
	16QAM	1	#0	--	--	22.41	22.66	**22.57**	22.49
		1	#Mid	--	--	**22.64**	22.61	22.56	**22.84**
		1	#Max	--	--	22.50	22.59	22.53	22.57
		50%	#0	--	--	21.75	22.06	21.76	21.93
		50%	#Mid	--	--	21.91	22.23	21.96	21.77
		50%	#Max	--	--	21.81	21.85	21.83	21.82

		100%	--	--	--	21.78	21.99	21.98	21.88
	64QAM	1	#0	--	--	21.05	21.25	21.04	20.61
		1	#Mid	--	--	21.61	21.90	21.91	22.10
		1	#Max	--	--	20.82	20.94	20.68	20.89
		50%	#0	--	--	20.16	20.23	20.30	20.24
		50%	#Mid	--	--	20.24	20.31	20.45	20.35
		50%	#Max	--	--	19.97	20.01	20.02	19.95
		100%	--	--	--	19.96	20.09	20.07	20.03
High	QPSK	1	#0	--	--	**23.82**	23.74	23.35	23.17
		1	#Mid	--	--	23.72	23.88	**24.24**	**24.06**
		1	#Max	--	--	23.75	23.88	23.84	23.61
		50%	#0	--	--	22.84	22.96	22.93	22.94
		50%	#Mid	--	--	22.92	22.92	22.88	22.95
		50%	#Max	--	--	22.92	22.86	22.90	22.91
		100%	--	--	--	22.87	22.96	22.94	22.86
	16QAM	1	#0	--	--	22.55	22.62	22.55	22.43
		1	#Mid	--	--	22.59	22.67	22.49	22.77
		1	#Max	--	--	22.41	**22.71**	22.47	22.52
		50%	#0	--	--	21.72	21.78	21.75	21.72
		50%	#Mid	--	--	21.71	22.03	21.92	21.85
		50%	#Max	--	--	21.76	22.13	21.78	21.72
		100%	--	--	--	22.15	21.92	21.82	21.85
	64QAM	1	#0	--	--	21.81	21.25	20.83	20.78
		1	#Mid	--	--	22.66	22.40	22.52	22.92
		1	#Max	--	--	22.08	21.76	21.85	22.63
		50%	#0	--	--	21.16	20.95	20.64	20.54
		50%	#Mid	--	--	21.42	21.40	21.15	21.04
		50%	#Max	--	--	21.27	21.25	21.06	21.09
		100%	--	--	--	21.20	21.12	20.91	20.73

3.6. Maximum Conducted Power and ERP/EIRP Power

According to KDB 412172 D01 Section 1.2 Power Approach

EIRP = $P_T + G_T - L_C$ = ERP + 2.15 dB, ERP = EIRP - 2.15 dB

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
2/25	1.4M	QPSK	19.98	0.100	4.4	0.274	2
		16QAM	18.82	0.076	4.4	0.210	2
		64QAM	18.02	0.063	4.4	0.175	2
	3M	QPSK	19.82	0.096	4.4	0.264	2
		16QAM	18.74	0.075	4.4	0.206	2
		64QAM	18.05	0.064	4.4	0.176	2
	5M	QPSK	20.08	0.102	4.4	0.281	2
		16QAM	18.81	0.076	4.4	0.209	2
		64QAM	17.98	0.063	4.4	0.173	2
	10M	QPSK	19.78	0.095	4.4	0.262	2
		16QAM	19.07	0.081	4.4	0.222	2
		64QAM	17.79	0.060	4.4	0.166	2
	15M	QPSK	19.86	0.097	4.4	0.267	2
		16QAM	18.68	0.074	4.4	0.203	2
		64QAM	18.01	0.063	4.4	0.174	2
	20M	QPSK	20.03	0.101	4.4	0.277	2
		16QAM	18.86	0.077	4.4	0.212	2
		64QAM	18.25	0.067	4.4	0.184	2

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
5/26	1.4M	QPSK	23.75	0.237	0.1	0.148	7
		16QAM	22.89	0.195	0.1	0.121	7
		64QAM	22.21	0.166	0.1	0.104	7
	3M	QPSK	23.72	0.236	0.1	0.147	7
		16QAM	22.77	0.189	0.1	0.118	7
		64QAM	22.26	0.168	0.1	0.105	7
	5M	QPSK	23.65	0.232	0.1	0.145	7
		16QAM	22.48	0.177	0.1	0.110	7
		64QAM	22.05	0.160	0.1	0.100	7
	10M	QPSK	23.71	0.235	0.1	0.147	7
		16QAM	22.66	0.185	0.1	0.115	7
		64QAM	21.99	0.158	0.1	0.099	7
	15M	QPSK	23.73	0.236	0.1	0.147	7
		16QAM	22.55	0.180	0.1	0.112	7
		64QAM	22.14	0.164	0.1	0.102	7

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
4	1.4M	QPSK	19.93	0.098	4.6	0.284	1
		16QAM	18.96	0.079	4.6	0.227	1
		64QAM	18.41	0.069	4.6	0.200	1
	3M	QPSK	19.94	0.099	4.6	0.284	1
		16QAM	18.62	0.073	4.6	0.210	1
		64QAM	18.02	0.063	4.6	0.183	1
	5M	QPSK	19.66	0.092	4.6	0.267	1
		16QAM	19.20	0.083	4.6	0.240	1
		64QAM	18.15	0.065	4.6	0.188	1
	10M	QPSK	19.73	0.094	4.6	0.271	1
		16QAM	18.77	0.075	4.6	0.217	1
		64QAM	17.92	0.062	4.6	0.179	1
	15M	QPSK	19.78	0.095	4.6	0.274	1
		16QAM	18.36	0.069	4.6	0.198	1
		64QAM	18.54	0.071	4.6	0.206	1
	20M	QPSK	19.79	0.095	4.6	0.275	1
		16QAM	18.42	0.070	4.6	0.200	1
		64QAM	18.31	0.068	4.6	0.195	1

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
7	5M	QPSK	20.17	0.104	2.6	0.189	2
		16QAM	18.76	0.075	2.6	0.137	2
		64QAM	18.21	0.066	2.6	0.121	2
	10M	QPSK	19.86	0.097	2.6	0.176	2
		16QAM	18.90	0.078	2.6	0.141	2
		64QAM	18.15	0.065	2.6	0.119	2
	15M	QPSK	19.92	0.098	2.6	0.179	2
		16QAM	18.73	0.075	2.6	0.136	2
		64QAM	18.32	0.068	2.6	0.124	2
	20M	QPSK	20.00	0.100	2.6	0.182	2
		16QAM	18.87	0.077	2.6	0.140	2
		64QAM	18.30	0.068	2.6	0.123	2

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
12/17	1.4M	QPSK	24.12	0.258	0.8	0.189	3
		16QAM	23.19	0.208	0.8	0.153	3
		64QAM	22.58	0.181	0.8	0.133	3
	3M	QPSK	24.03	0.253	0.8	0.185	3
		16QAM	23.25	0.211	0.8	0.155	3
		64QAM	22.39	0.173	0.8	0.127	3
	5M	QPSK	24.17	0.261	0.8	0.191	3
		16QAM	22.99	0.199	0.8	0.146	3
		64QAM	22.80	0.191	0.8	0.140	3
	10M	QPSK	23.99	0.251	0.8	0.184	3
		16QAM	22.89	0.195	0.8	0.143	3
		64QAM	22.46	0.176	0.8	0.129	3

LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum ERP (W)	Maximum ERP Limit (W)
13	5M	QPSK	23.95	0.248	0.6	0.174	3
		16QAM	22.71	0.187	0.6	0.131	3
		64QAM	22.62	0.183	0.6	0.128	3
	10M	QPSK	23.88	0.244	0.6	0.171	3
		16QAM	22.90	0.195	0.6	0.136	3
		64QAM	22.62	0.183	0.6	0.128	3

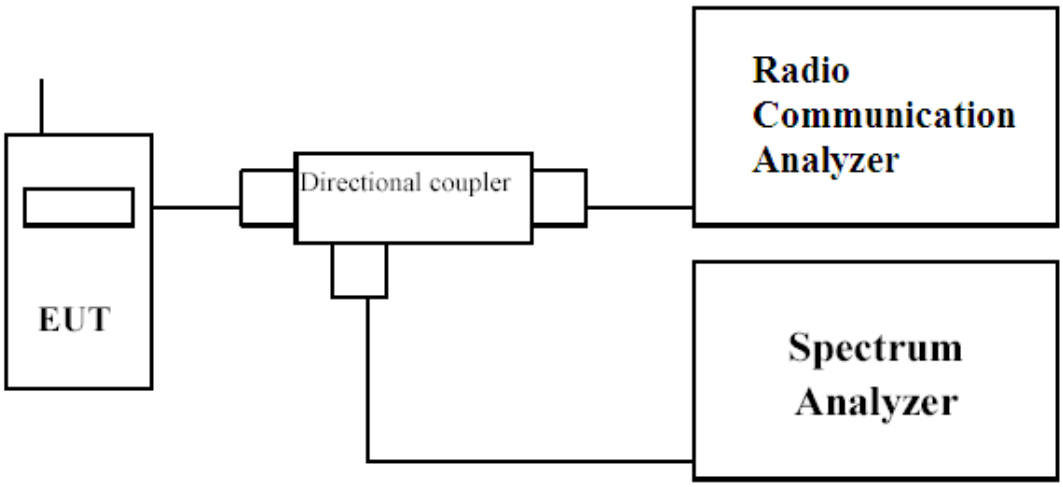
LTE Band	BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Antenna Gain (dBi)	Maximum EIRP (W)	Maximum EIRP Limit (W)
38/41	5M	QPSK	23.82	0.241	2.6	0.439	2
		16QAM	22.64	0.184	2.6	0.334	2
		64QAM	22.66	0.185	2.6	0.336	2
	10M	QPSK	23.95	0.248	2.6	0.452	2
		16QAM	22.71	0.187	2.6	0.340	2
		64QAM	22.40	0.174	2.6	0.316	2
	15M	QPSK	24.24	0.265	2.6	0.483	2
		16QAM	22.57	0.181	2.6	0.329	2
		64QAM	22.52	0.179	2.6	0.325	2
	20M	QPSK	24.06	0.255	2.6	0.463	2
		16QAM	22.84	0.192	2.6	0.350	2
		64QAM	22.92	0.196	2.6	0.356	2

4. Occupied Bandwidth

4.1. Test Secification

According to FCC Part 2.1049, 22.917, 24.238, 27.53

4.2. Test Setup



4.3. Test Procedure

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

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

4.4. Test Result of Occupied Bandwidth

Product	Mobile Computer
Test Mode	Occupied Bandwidth
Test Site	CTR

LTE Band 4

BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	19957	1710.7	1.0952	1.0983	1.1041	1.324	1.290	1.339
1.4M	20175	1732.5	1.0949	1.1026	1.0929	1.302	1.312	1.298
1.4M	20393	1754.3	1.1066	1.0979	1.0948	1.305	1.301	1.283
3M	19965	1711.5	2.7341	2.7280	2.7298	3.051	3.056	3.064
3M	20175	1732.5	2.7358	2.7310	2.7319	3.054	3.056	3.032
3M	20385	1753.5	2.7393	2.7493	2.7423	3.065	3.046	3.053
5M	19975	1712.5	4.5168	4.4960	4.4941	4.974	4.966	4.995
5M	20175	1732.5	4.4957	4.5226	4.5004	4.998	5.043	5.021
5M	20375	1752.5	4.5002	4.5214	4.5106	5.008	5.032	4.985
10M	20000	1715	9.0401	9.0291	9.0145	10.020	9.979	9.984
10M	20175	1732.5	9.0381	9.0349	9.0417	10.030	9.989	9.965
10M	20350	1750	9.0053	9.0030	9.0043	10.030	10.010	9.978
15M	20025	1717.5	13.3730	13.4200	13.4090	14.620	14.630	14.570
15M	20175	1732.5	13.4500	13.4480	13.4050	14.710	14.640	14.640
15M	20325	1747.5	13.4010	13.4040	13.4380	14.660	14.710	14.580
20M	20050	1720	18.4420	18.5210	18.3660	20.270	20.430	20.350
20M	20175	1732.5	18.4620	18.4650	18.4510	20.550	20.300	20.300
20M	20300	1745	18.3970	18.3530	18.4470	20.300	20.250	20.380

LTE Band 7

BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5M	20775	2502.5	4.4968	4.4768	4.5106	5.008	4.948	5.025
5M	21100	2535	4.4964	4.4791	4.4954	4.986	4.930	5.010
5M	21425	2567.5	4.4986	4.4793	4.4995	4.979	4.944	5.012
10M	20800	2505	9.0513	9.0462	9.0202	10.130	9.976	10.010
10M	21100	2535	9.0473	9.0344	9.0429	10.040	10.050	10.020
10M	21400	2565	9.0191	9.0190	9.0073	10.100	10.100	9.995
15M	20825	2507.5	13.4440	13.4160	13.4020	14.660	14.620	14.620
15M	21100	2535	13.4510	13.4570	13.4790	14.740	14.700	14.670
15M	21375	2562.5	13.4070	13.4540	13.4320	14.690	14.620	14.680
20M	20850	2510	18.4310	18.4880	18.3780	20.310	20.430	20.440
20M	21100	2535	18.4740	18.5160	18.5040	20.400	20.370	20.370
20M	21350	2560	18.4780	18.3930	18.4720	20.380	20.320	20.460

LTE Band 12/17								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	23017	699.7	1.0993	1.0972	1.1053	1.311	1.299	1.317
1.4M	23095	707.5	1.1061	1.0961	1.0934	1.290	1.294	1.279
1.4M	23173	715.3	1.0972	1.1006	1.0912	1.312	1.308	1.288
3M	23025	700.5	2.7380	2.7566	2.7397	3.064	3.073	3.052
3M	23095	707.5	2.7439	2.7268	2.7265	3.054	3.053	3.051
3M	23165	714.5	2.7381	2.7324	2.7299	3.066	3.072	3.055
5M	23035	701.5	4.5078	4.4943	4.4969	4.996	4.978	5.005
5M	23095	707.5	4.5005	4.5184	4.5089	5.016	5.021	5.000
5M	23155	713.5	4.4944	4.5124	4.4967	4.961	5.018	4.988
10M	23060	704	9.0305	9.0384	9.0271	10.090	9.976	10.040
10M	23095	707.5	9.0163	9.0215	9.0108	10.070	10.040	9.993
10M	23130	711	9.0315	9.0280	9.0335	10.010	10.050	9.956

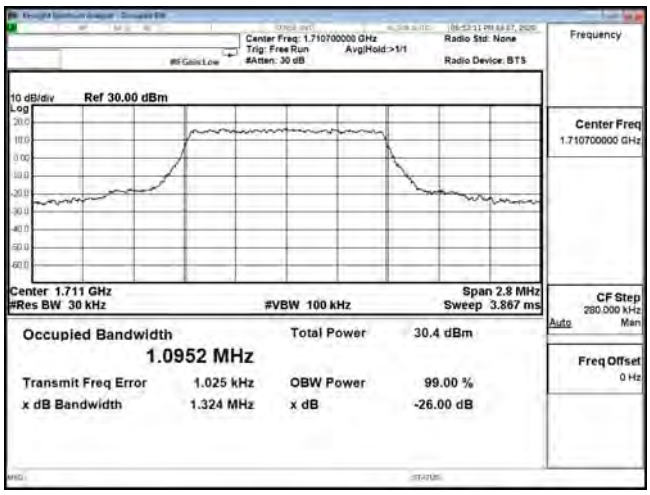
LTE Band 13								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5M	23205	779.5	4.4987	4.5172	4.5093	4.996	5.016	4.990
5M	23230	782	4.4888	4.5165	4.4945	4.970	5.035	4.993
5M	23255	784.5	4.5094	4.4890	4.4922	4.992	4.996	4.994
10M	--	--	--	--	--	--	--	--
10M	23230	782	9.0242	9.0286	9.0051	10.110	9.982	10.010
10M	--	--	--	--	--	--	--	--

LTE Band 2/25								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	26047	1850.7	1.1033	1.0978	1.0934	1.285	1.308	1.308
1.4M	26365	1882.5	1.1000	1.0980	1.1046	1.322	1.297	1.337
1.4M	26683	1914.3	1.0969	1.1018	1.0931	1.351	1.316	1.307
3M	26055	1851.5	2.7363	2.7499	2.7415	3.070	3.041	3.049
3M	26365	1882.5	2.7351	2.7308	2.7333	3.062	3.067	3.063
3M	26675	1913.5	2.7492	2.7307	2.7278	3.087	3.049	3.059
5M	26065	2852.5	4.5229	4.4991	4.5006	5.023	4.999	5.027
5M	26365	1882.5	4.4928	4.5097	4.4991	4.975	5.047	4.997
5M	26665	1912.5	4.4933	4.5204	4.5078	5.017	5.022	5.010
10M	26090	1855	9.0020	9.0264	9.0243	10.060	9.973	10.010
10M	26365	1882.5	9.0487	9.0425	9.0232	10.090	10.010	10.010
10M	26640	1910	9.0063	9.0137	9.0362	10.010	9.963	10.010
15M	26115	1857.5	13.3820	13.4230	13.4140	14.600	14.610	14.630
15M	26365	1882.5	13.4320	13.4370	13.4670	14.750	14.710	14.590
15M	26615	1905	13.3890	13.4390	13.4370	14.660	14.650	14.690
20M	26140	1860	18.3480	18.3240	18.4070	20.280	20.330	20.280
20M	26365	1882.5	18.4390	18.5220	18.4040	20.390	20.310	20.380
20M	26590	1905	18.4520	18.4620	18.4980	20.520	20.350	20.380

LTE Band 5/26								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4M	26797	824.7	1.0986	1.0982	1.1072	1.307	1.293	1.322
1.4M	26915	836.5	1.1053	1.0966	1.0941	1.299	1.302	1.280
1.4M	27033	848.3	1.0978	1.1023	1.0922	1.320	1.311	1.288
3M	26805	825.5	2.7388	2.7578	2.7409	3.073	3.071	3.049
3M	26915	836.5	2.7428	2.7289	2.7271	3.052	3.054	3.048
3M	27025	847.5	2.7382	2.7348	2.7333	3.062	3.067	3.054
5M	26815	826.5	4.4973	4.5127	4.5072	4.992	5.000	4.997
5M	26915	836.5	4.4955	4.5207	4.5009	4.981	5.035	5.008
5M	27015	846.5	4.5151	4.4990	4.5021	5.012	5.027	5.009
10M	26840	829	9.0061	9.0133	9.0074	10.040	10.070	9.979
10M	26915	836.5	9.0591	9.0506	9.0602	10.100	10.070	10.020
10M	27015	844	9.0263	9.0343	9.0169	10.060	9.971	9.958
15M	26865	831.5	13.4460	13.4480	13.3970	14.670	14.590	14.650
15M	26915	836.5	13.4220	13.4600	13.4410	14.730	14.660	14.720
15M	26965	841.5	13.4020	13.4110	13.4350	14.700	14.630	14.570

LTE Band 38/41								
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26 dB bandwidth (MHz)		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5M	39675	2498.5	4.4924	4.4996	4.5091	4.998	5.002	5.176
5M	40620	2593	4.4871	4.4935	4.4893	4.978	5.002	5.003
5M	41565	2687.5	4.4995	4.4921	4.5093	4.937	4.979	5.112
10M	39700	2501	9.0599	9.0242	9.0071	10.590	10.150	10.450
10M	40620	40620	9.0539	9.0370	9.0294	10.000	9.983	10.360
10M	41540	41540	9.0275	9.0056	9.0189	9.953	9.850	9.894
15M	39725	2503.5	13.4590	13.4570	13.4180	15.200	15.200	14.690
15M	40620	2593	13.4530	13.4150	13.4450	15.640	14.620	15.590
15M	41515	2682.5	13.4060	13.4440	13.4480	15.130	14.720	15.180
20M	39750	2506	18.4630	18.4140	18.5010	22.050	21.290	24.490
20M	40620	2593	18.4730	18.4000	18.3550	20.720	20.820	20.790
20M	41490	2680	18.4450	18.4420	18.4560	22.900	25.160	20.730

Product	Mobile Computer		
Test Mode	Occupied Bandwidth		
Date of Test	2020/07/07	Test Site	CTR
Test Condition	Band 4 QPSK/16QAM/64QAM		



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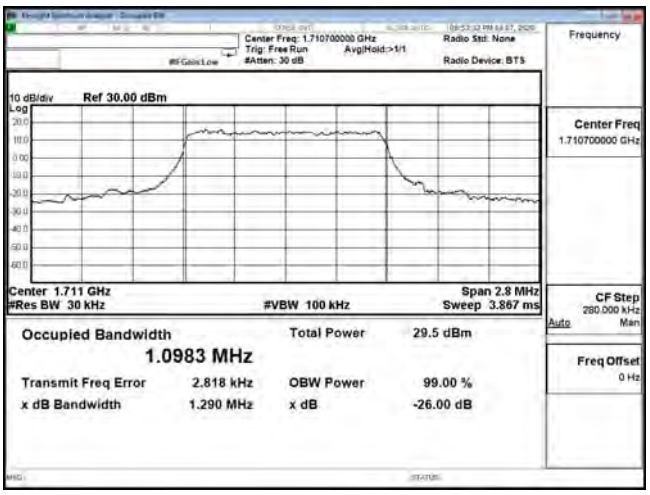

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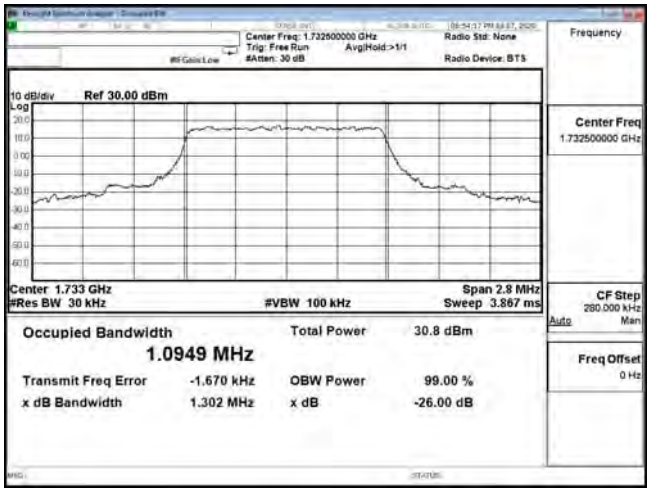

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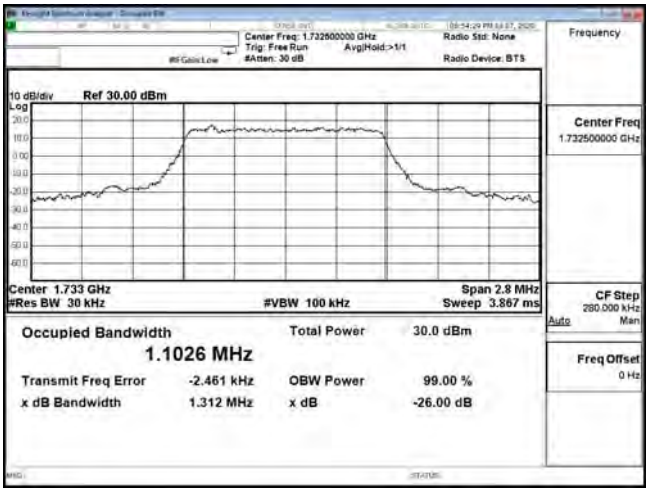

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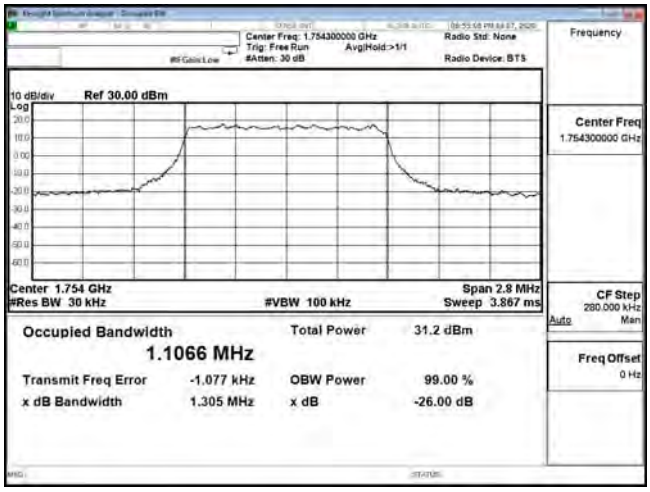

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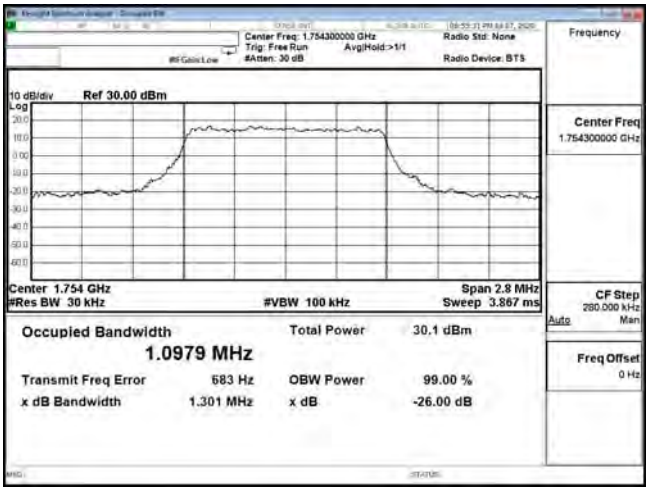

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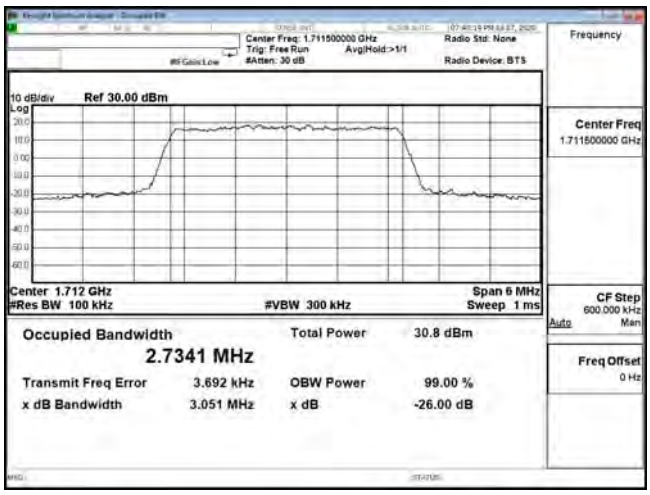

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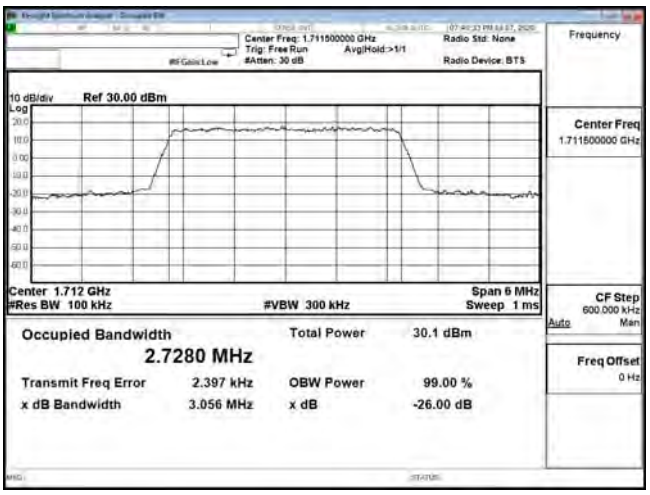

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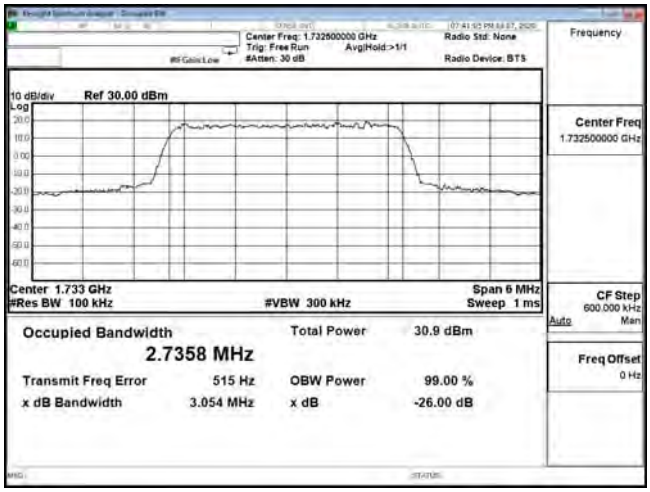

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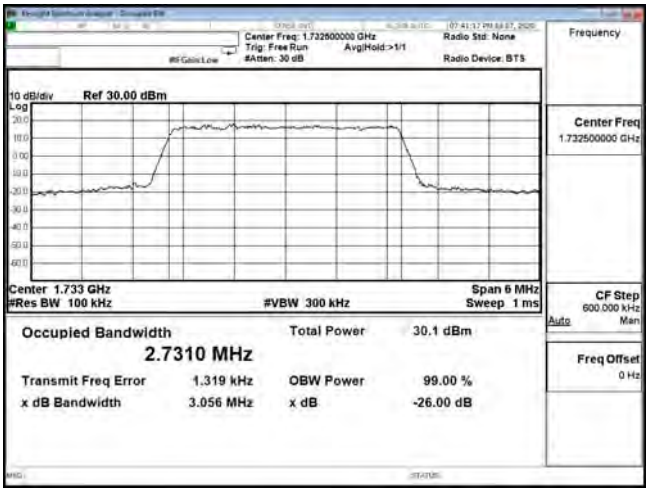

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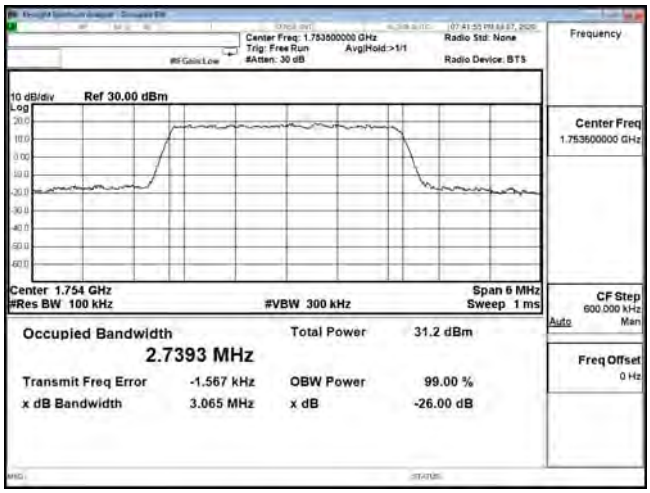

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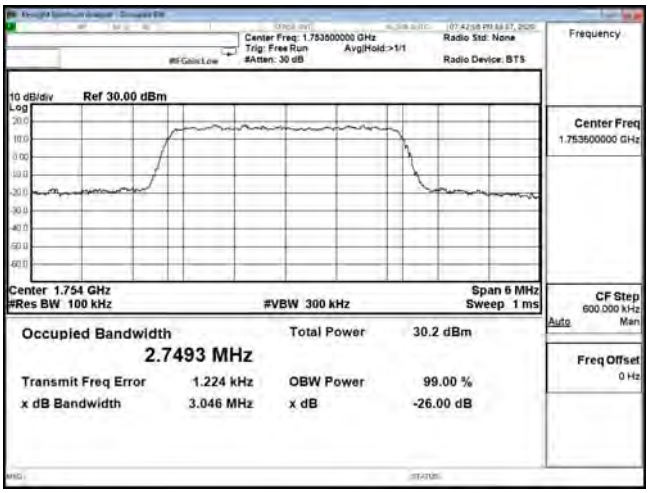

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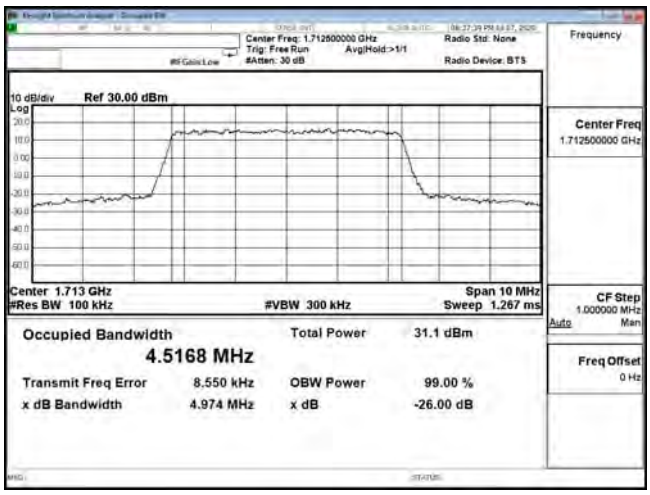

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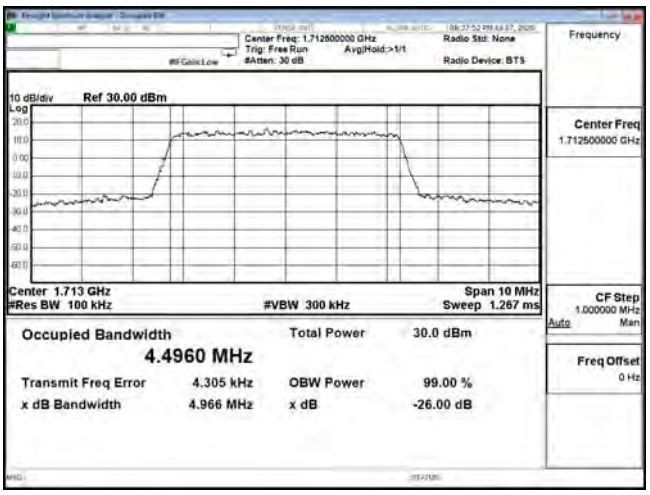

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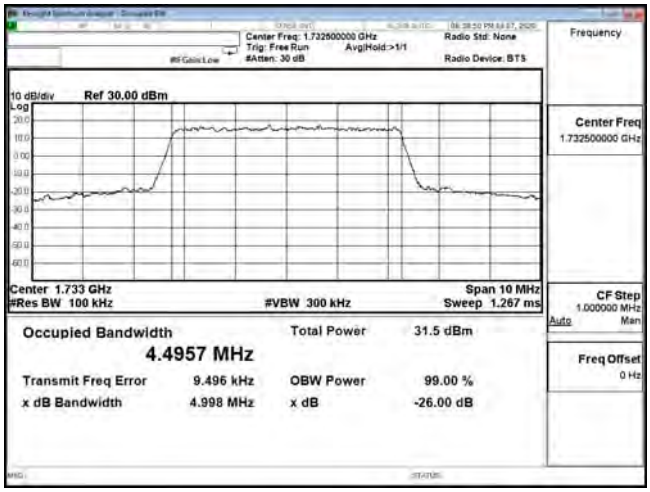

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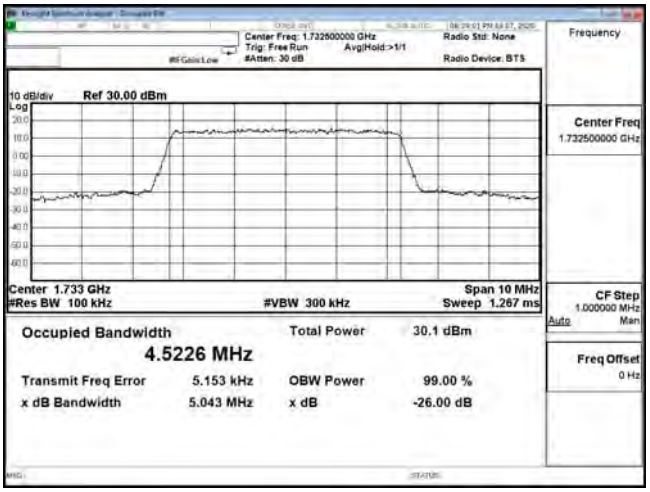

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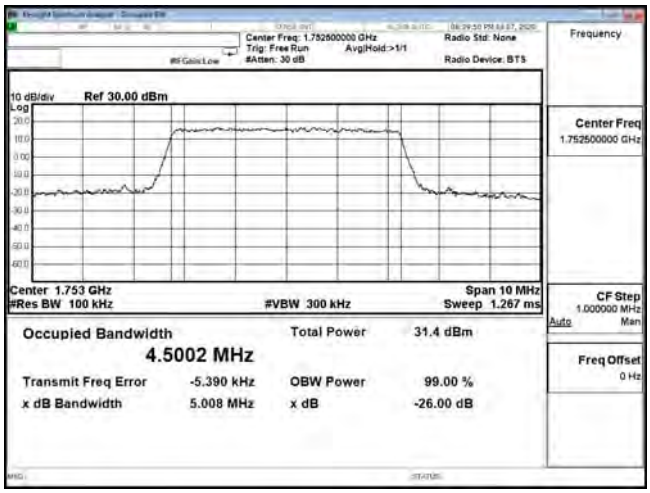

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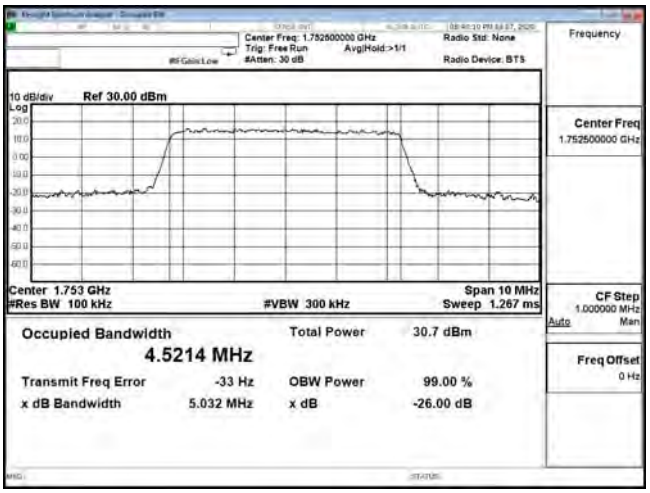

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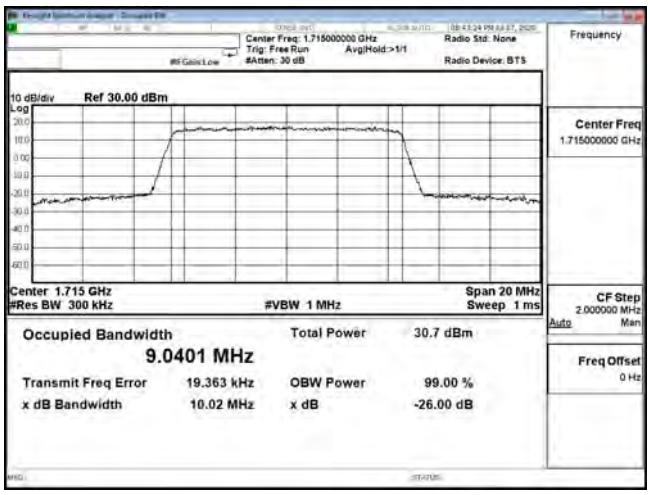

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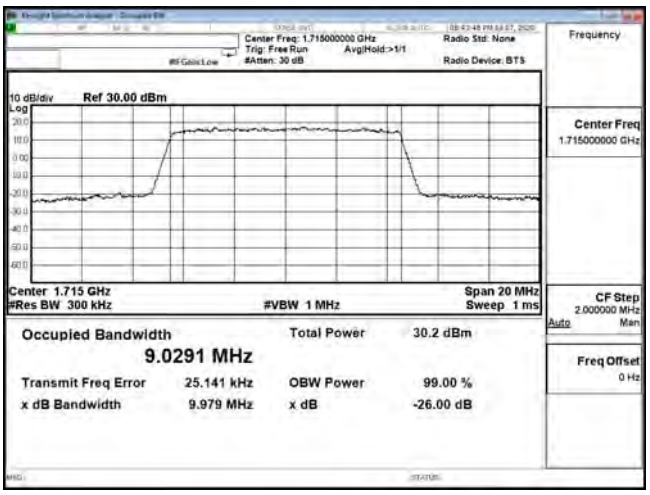

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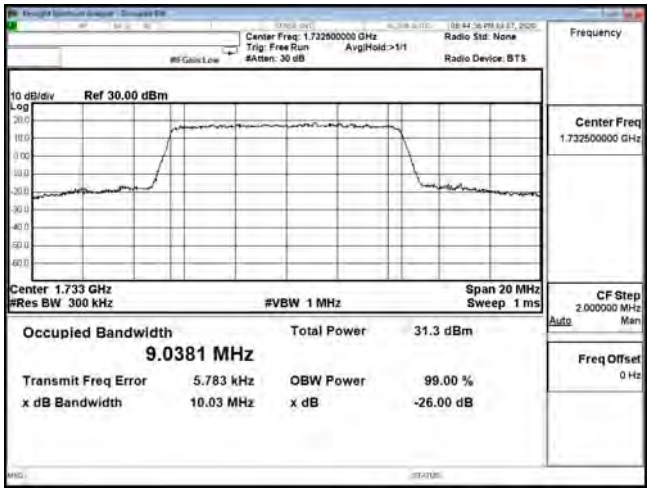

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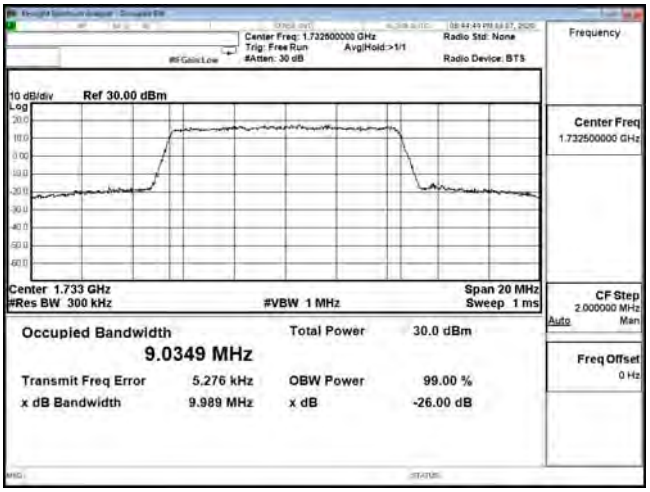

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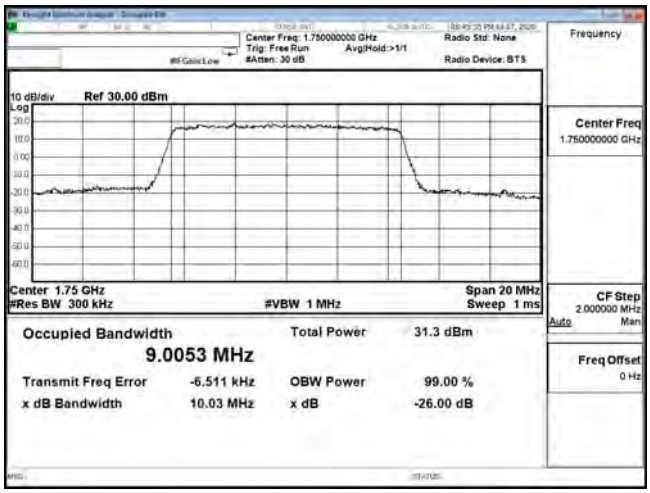

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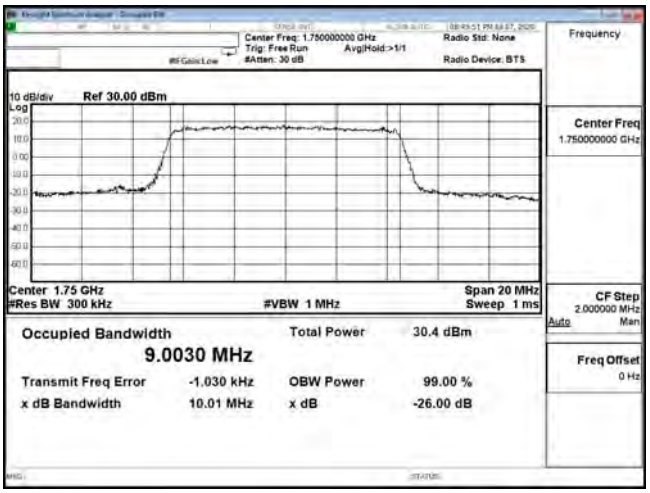

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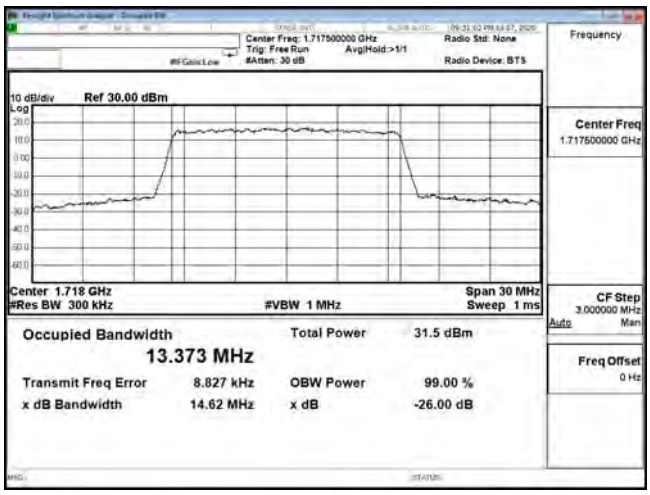

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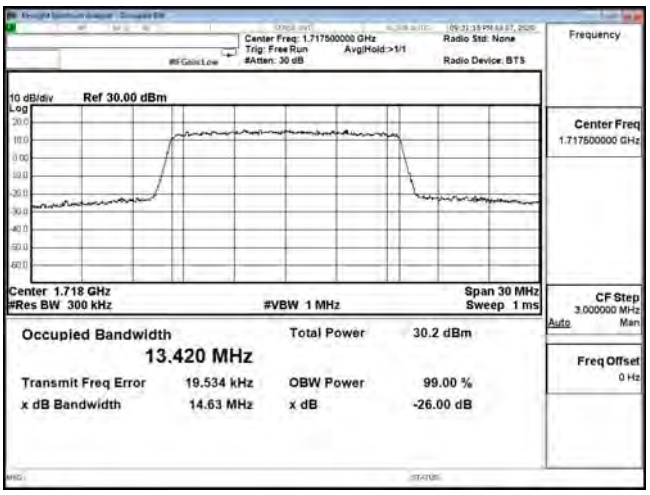

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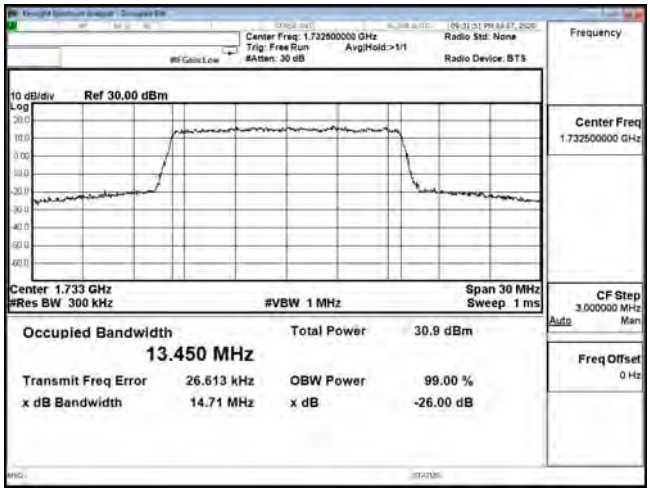

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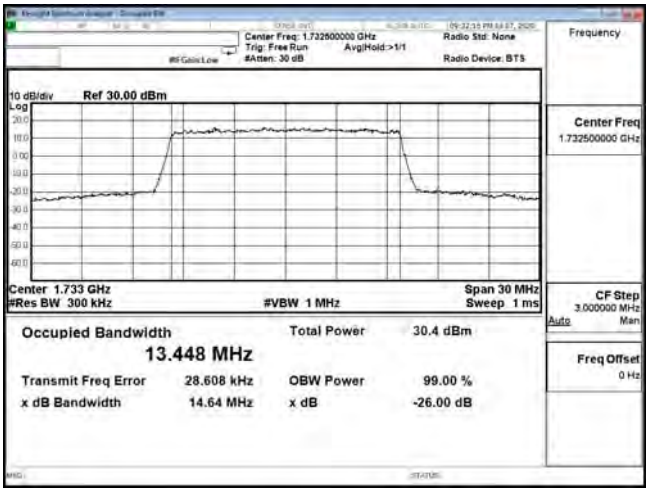

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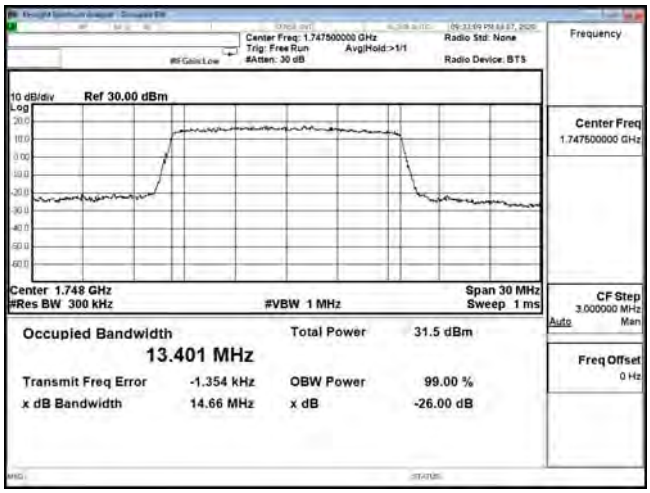

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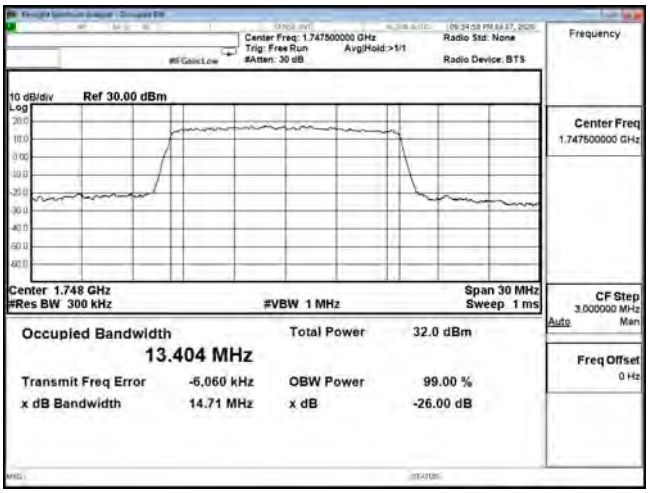

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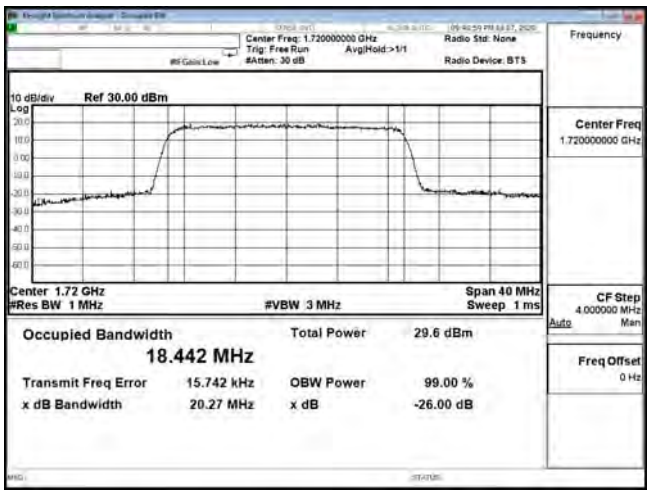

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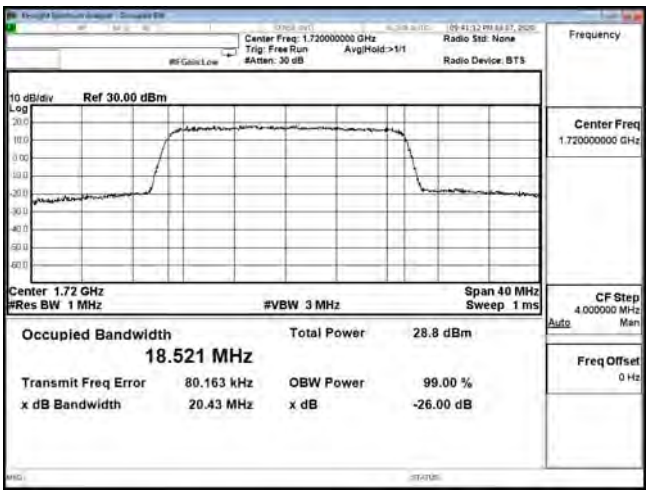

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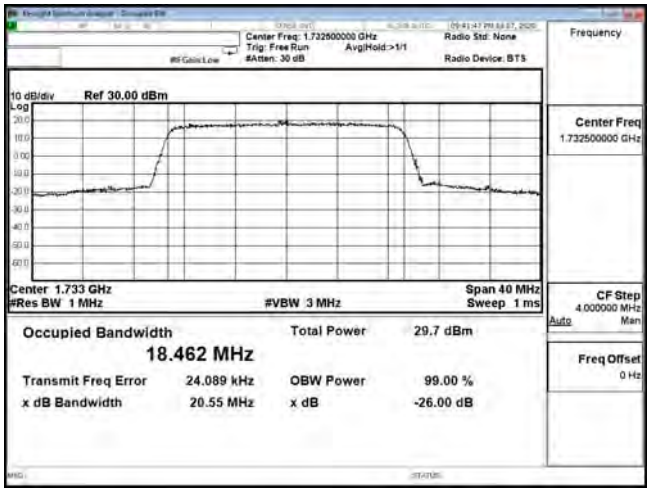

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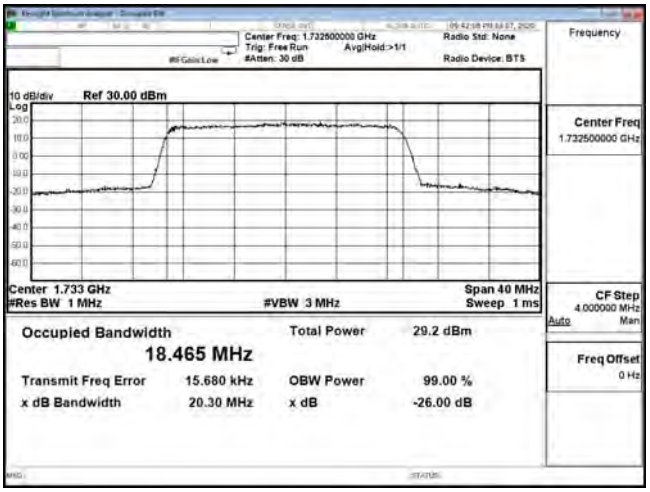

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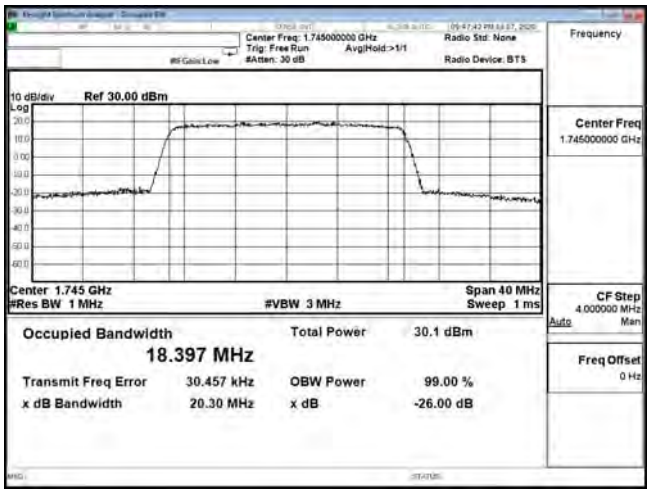

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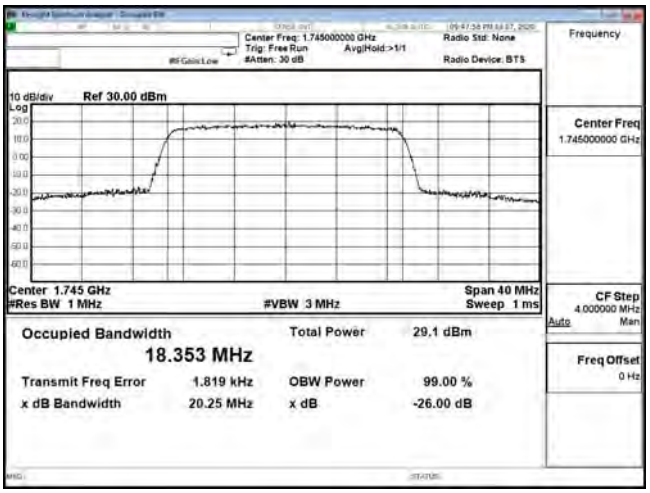

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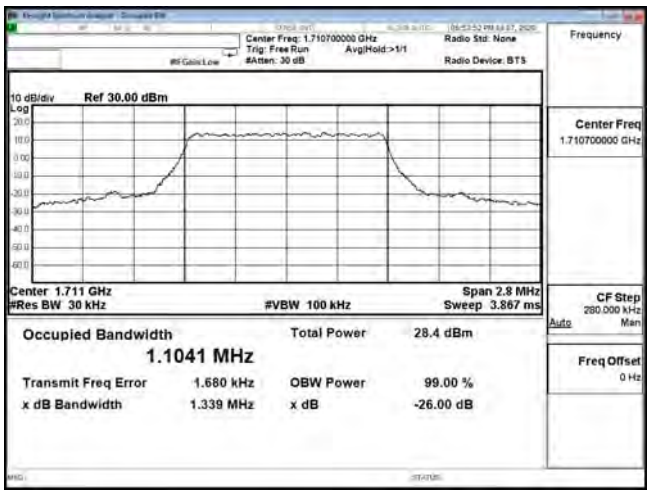

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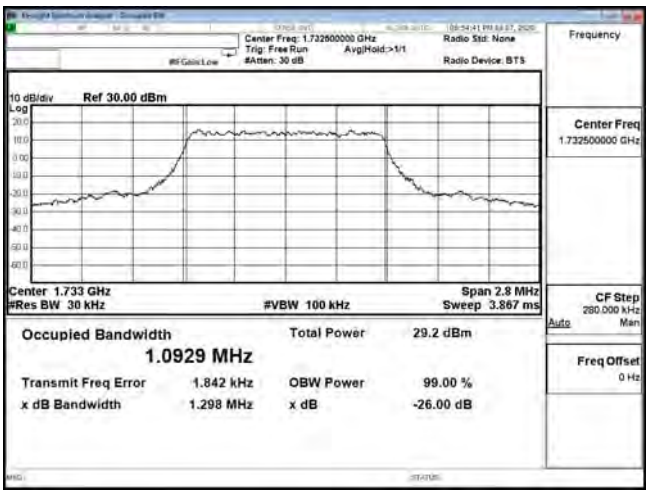

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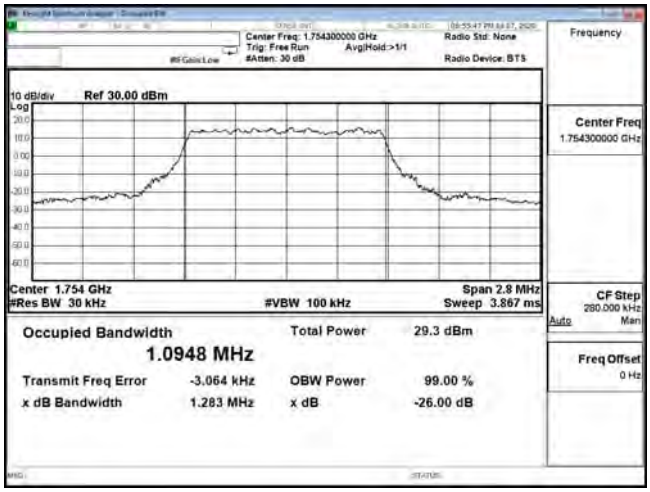

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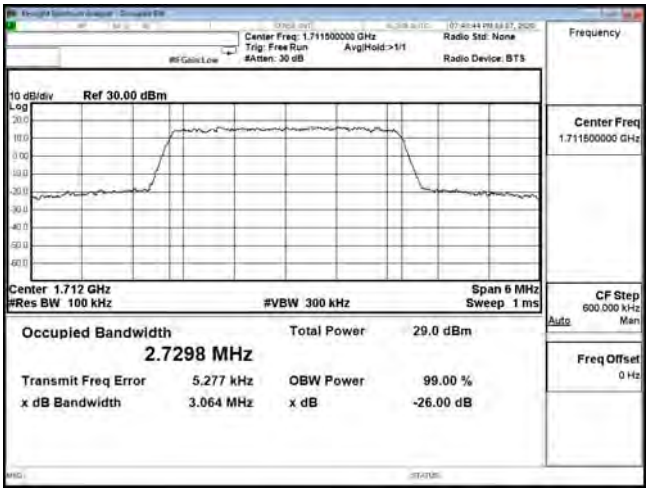

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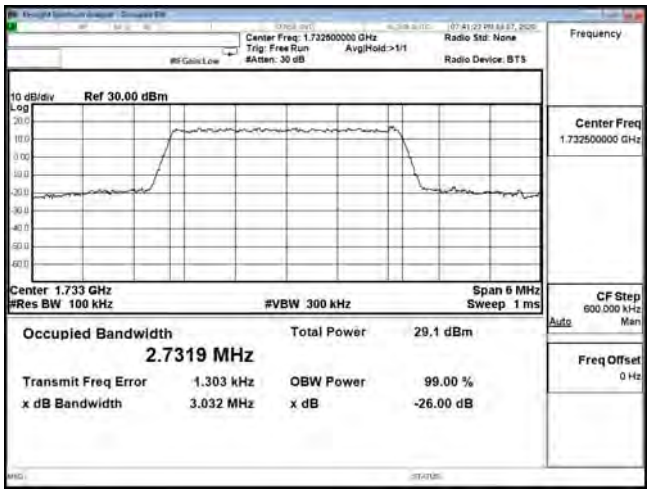

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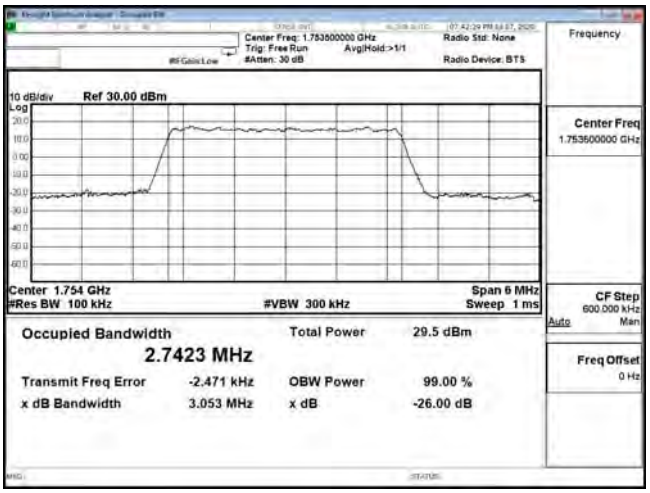

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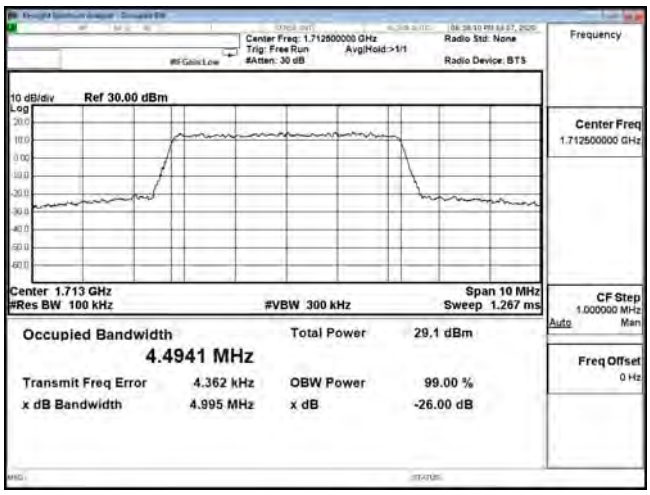

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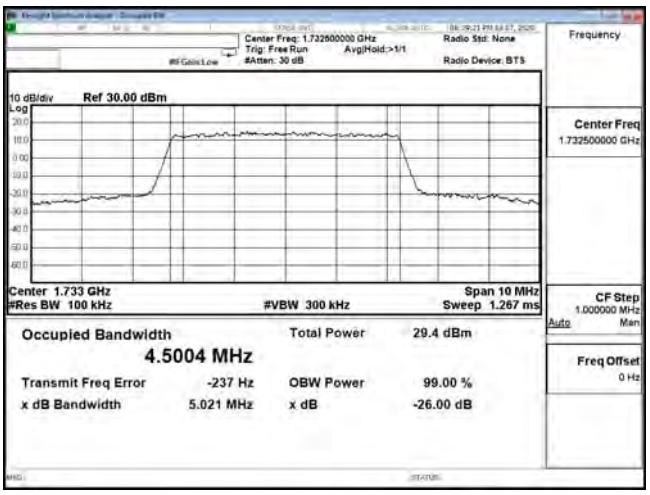

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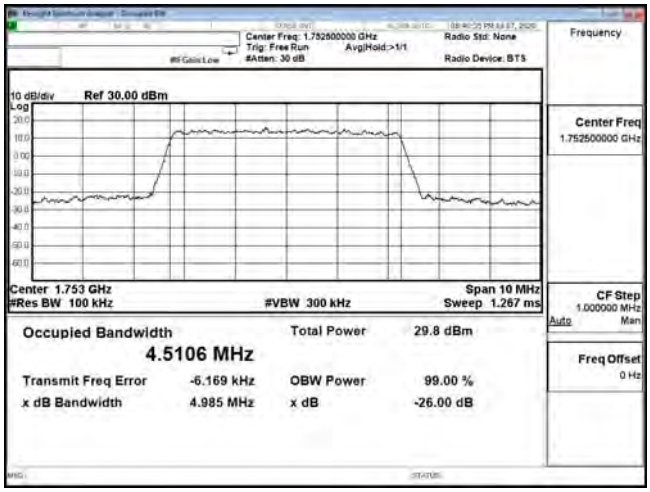

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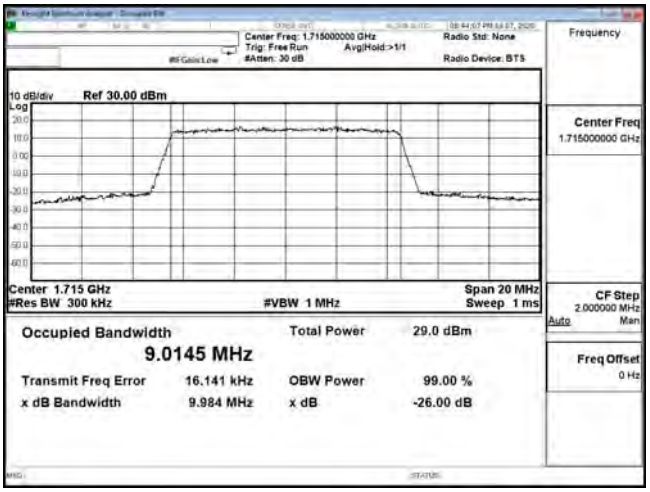

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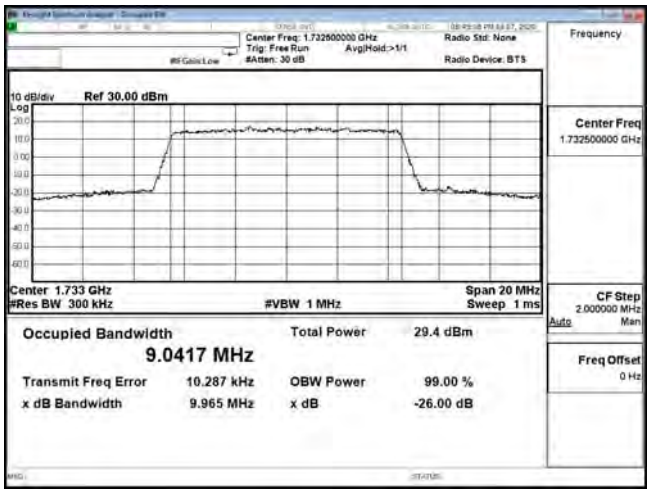

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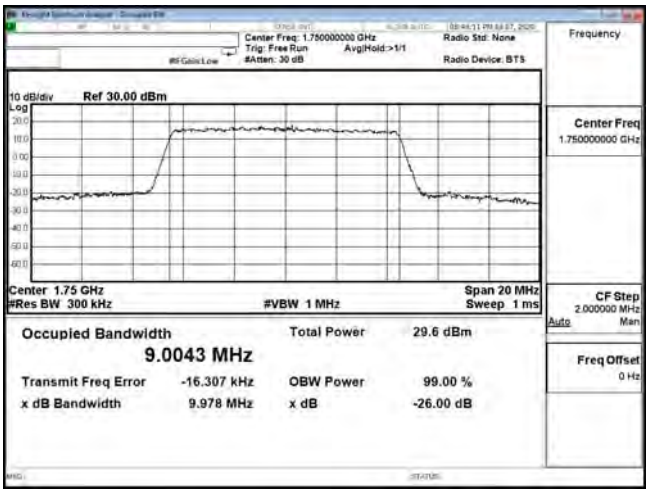

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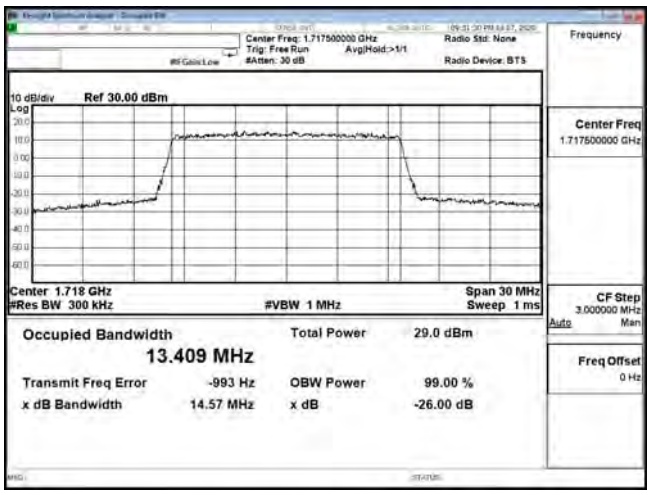

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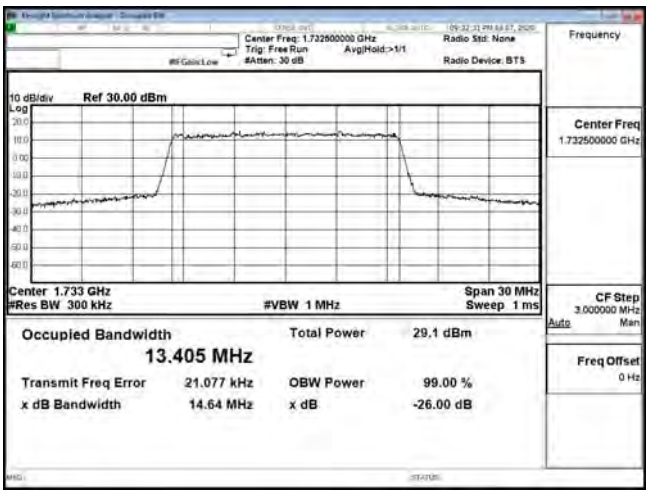

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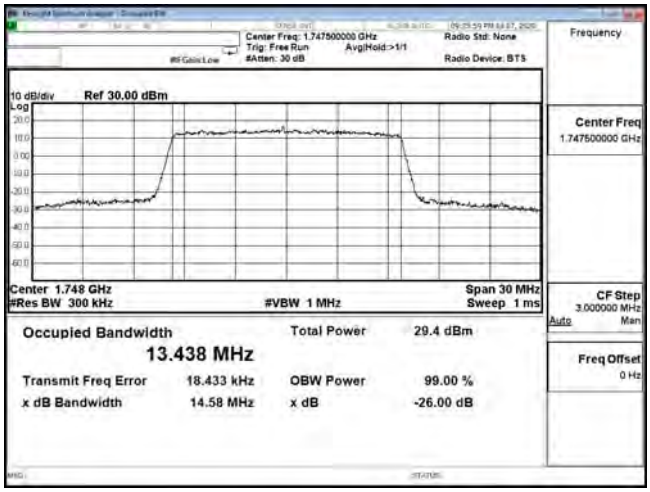

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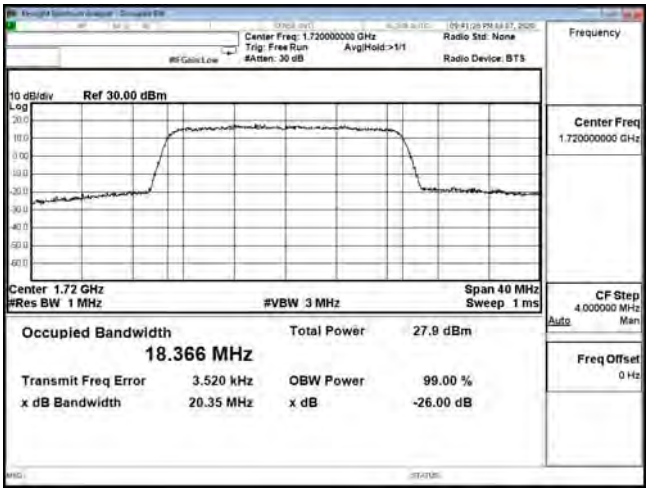

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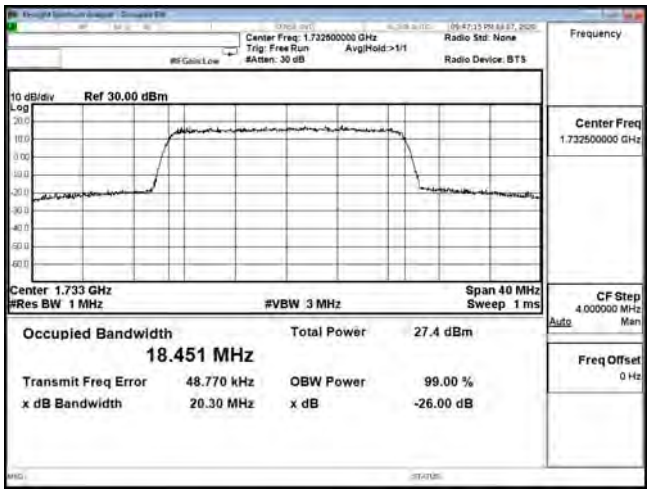

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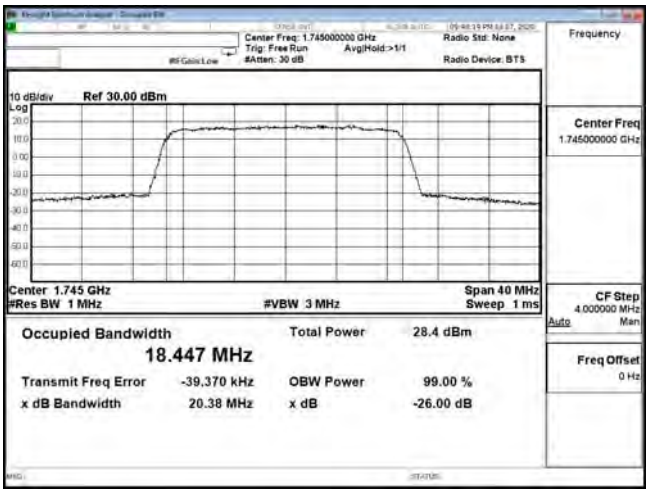

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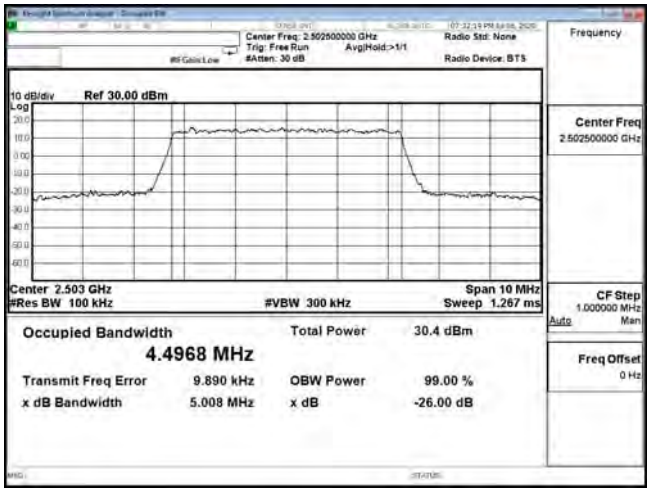
Test Mode	Occupied Bandwidth		
Date of Test	2020/07/07	Test Site	CTR
Test Condition	Band 7 QPSK/16QAM/64QAM		



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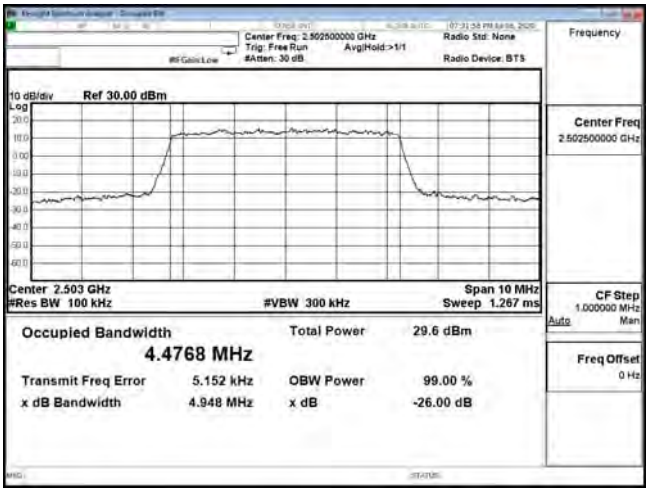

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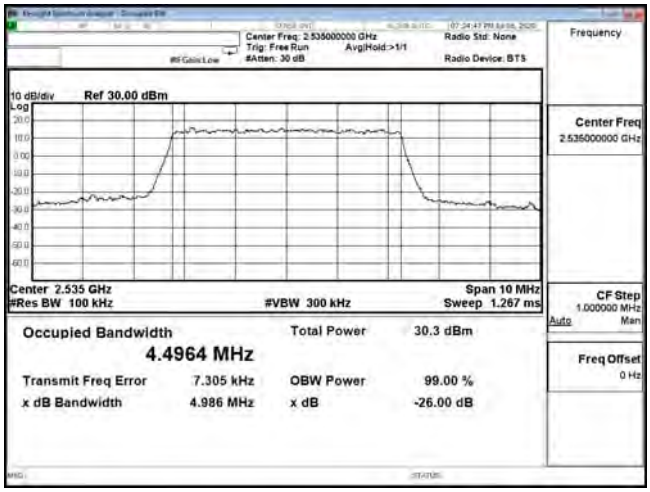

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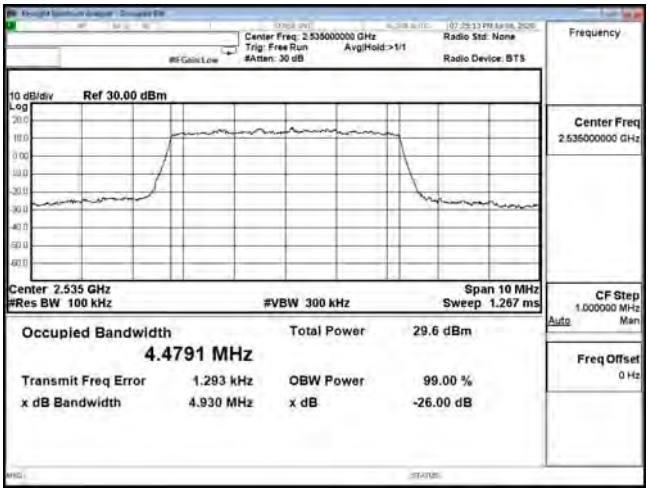

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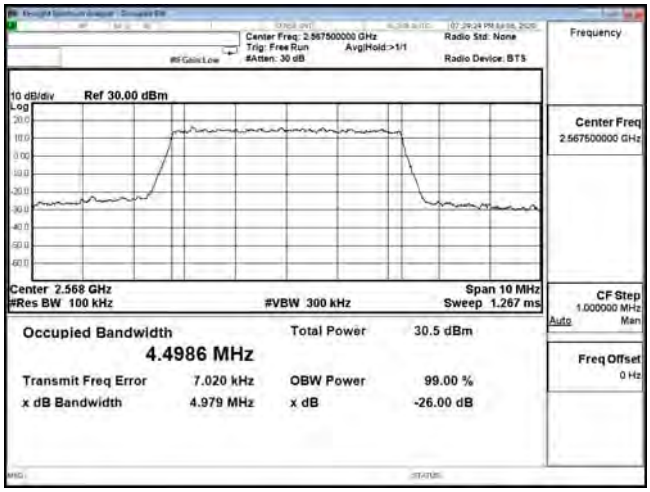

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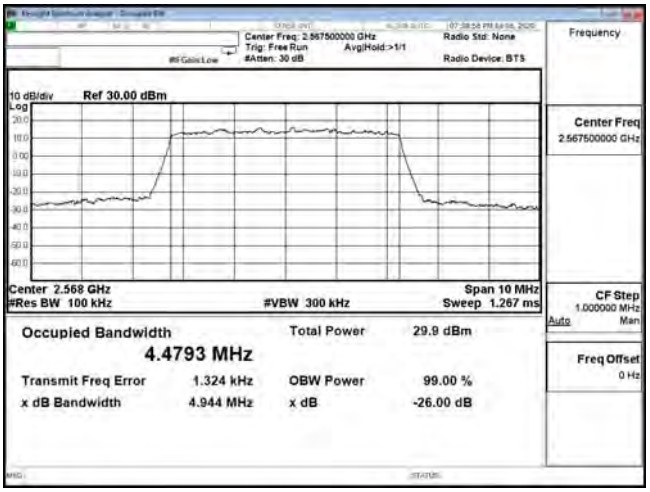

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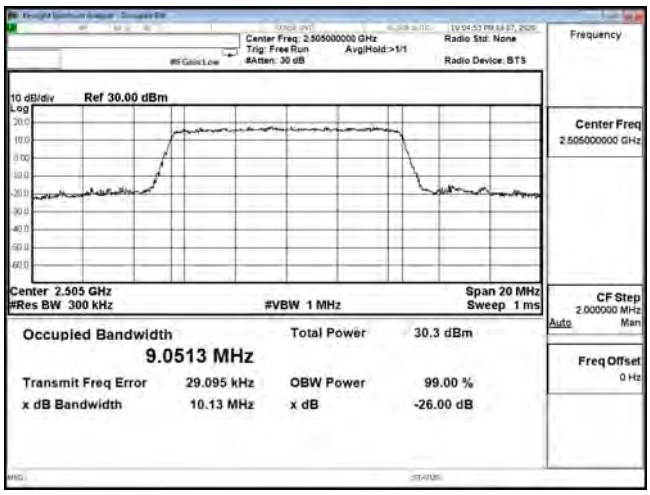

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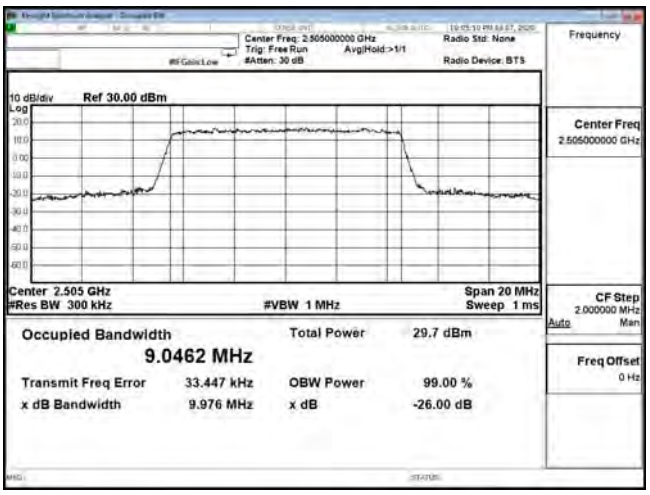

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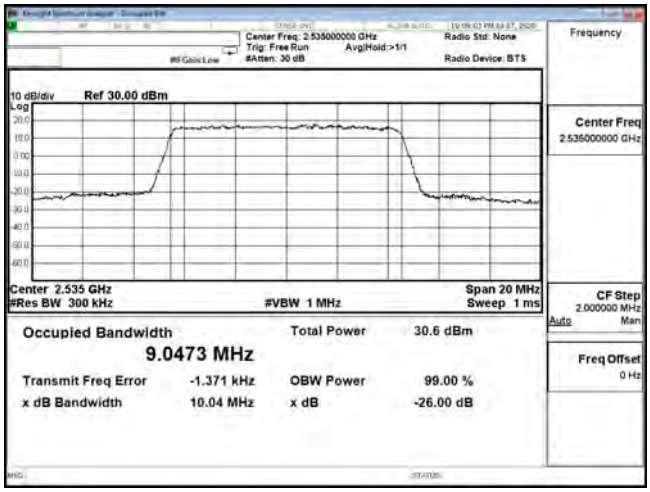

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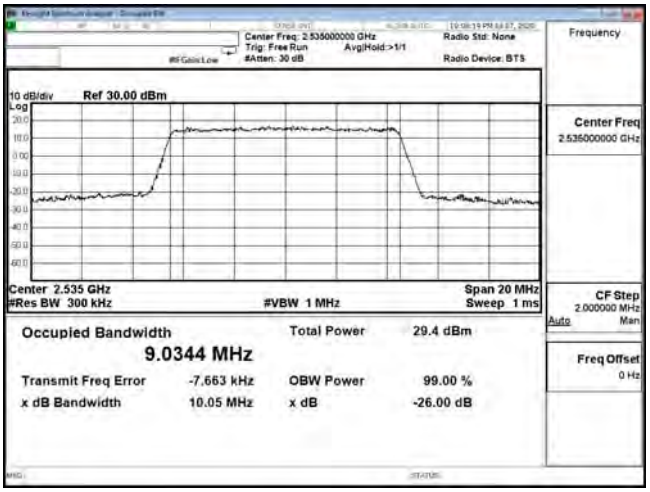

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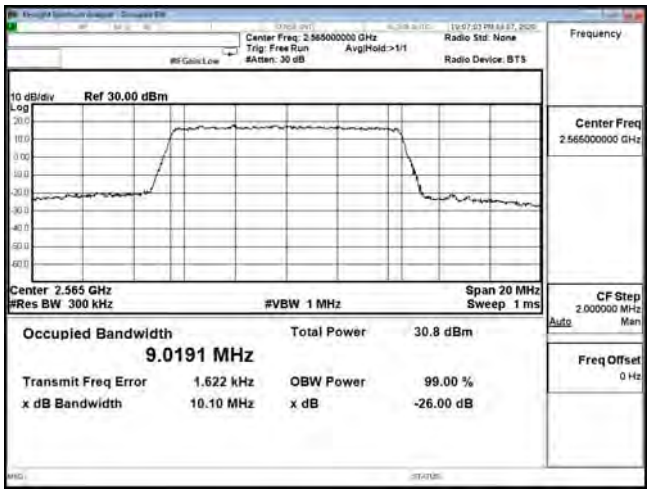

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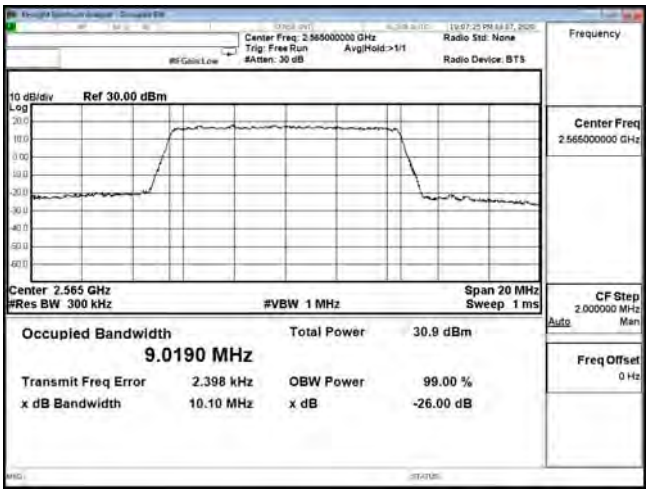

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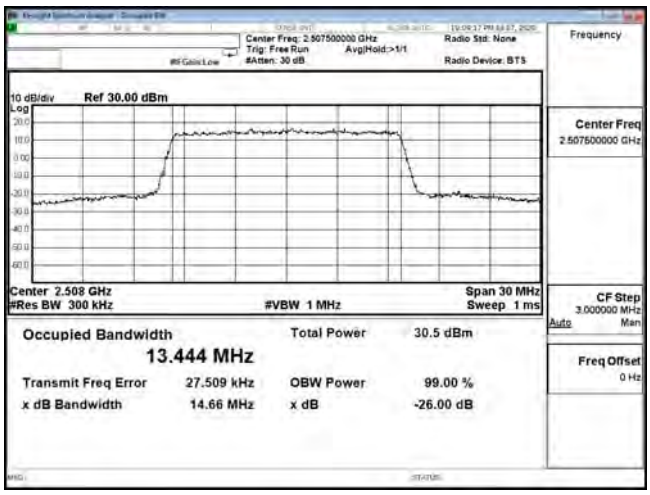

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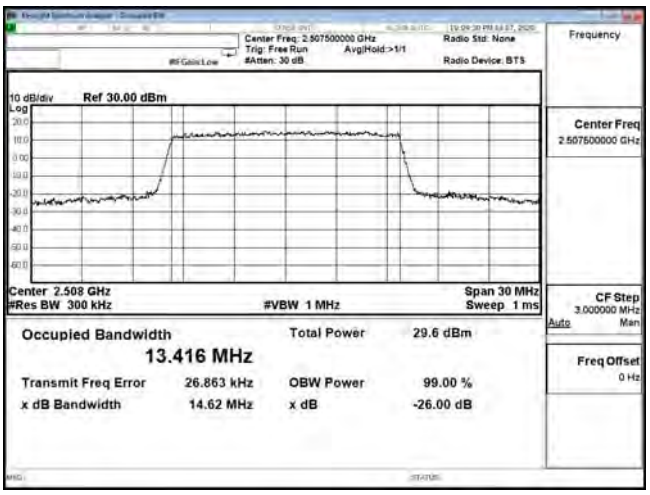

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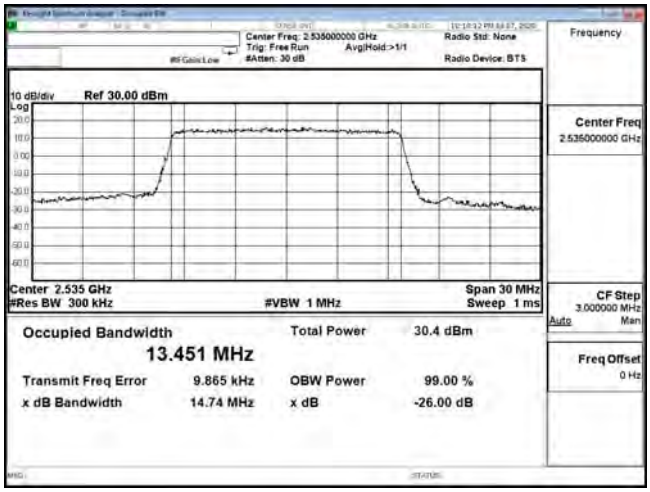

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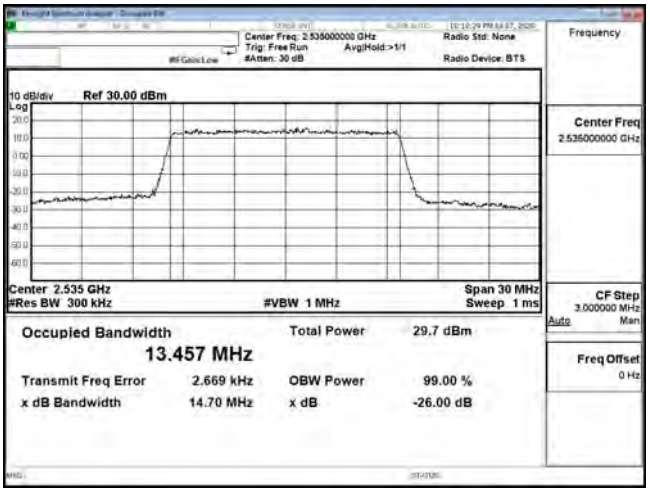

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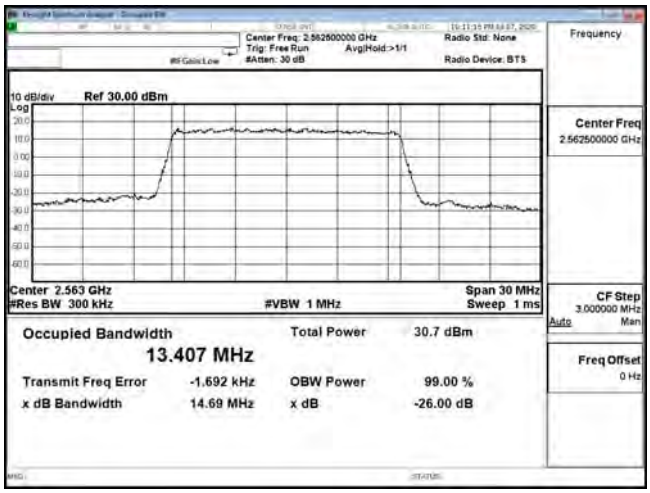

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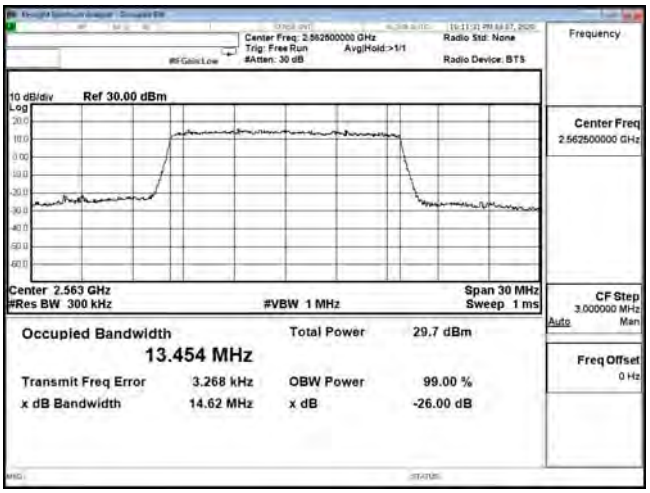

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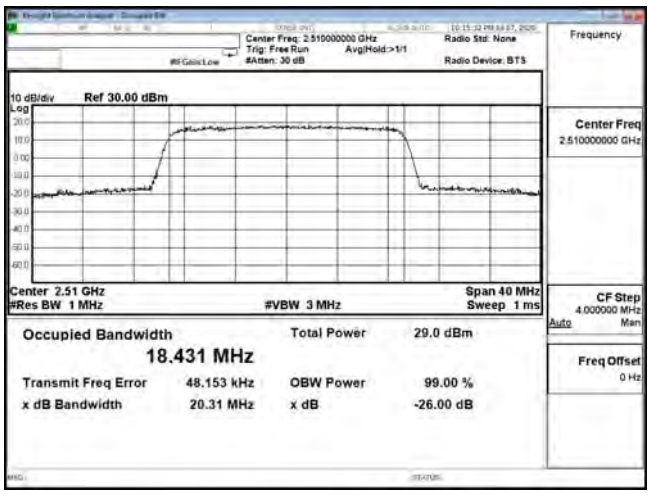

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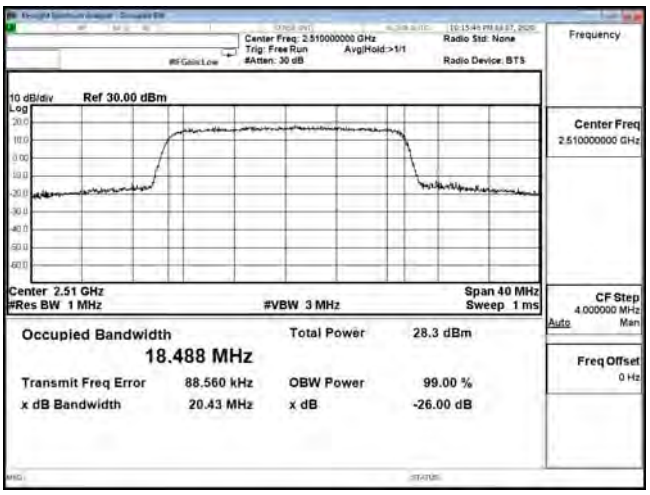

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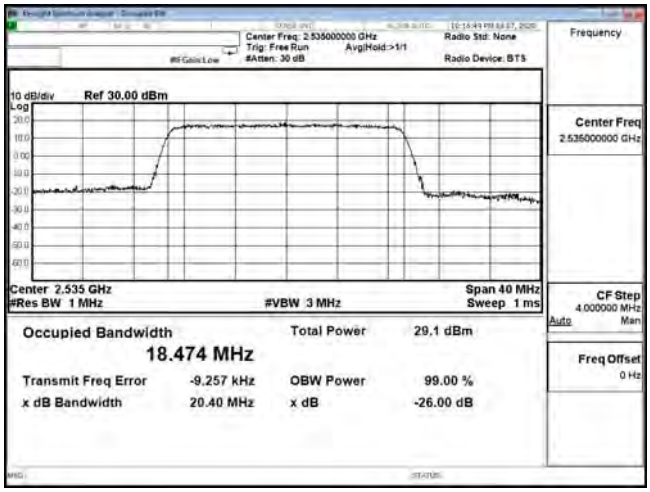

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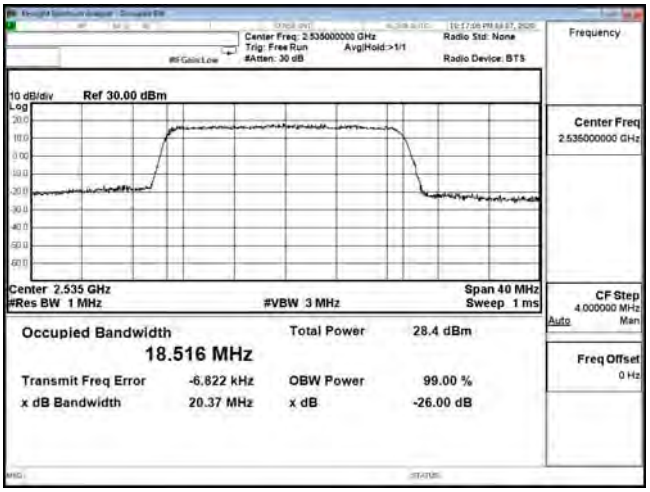

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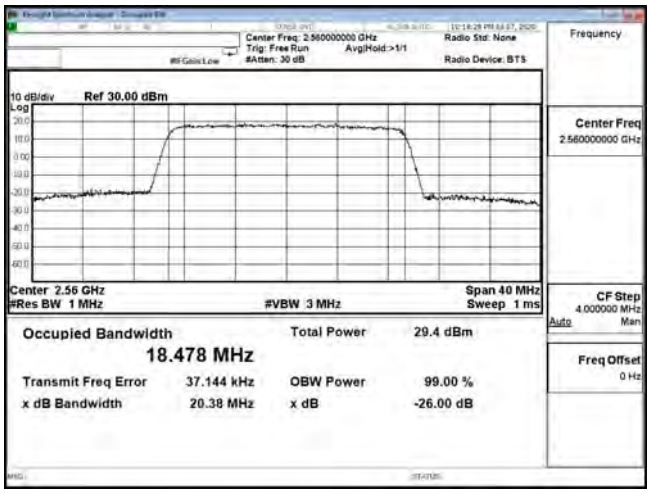

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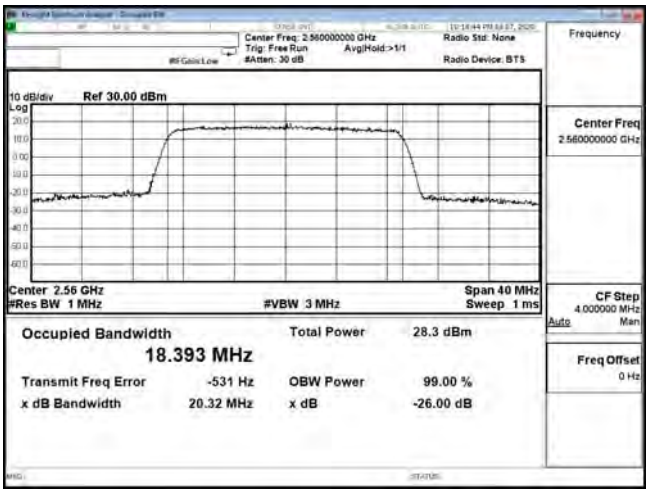

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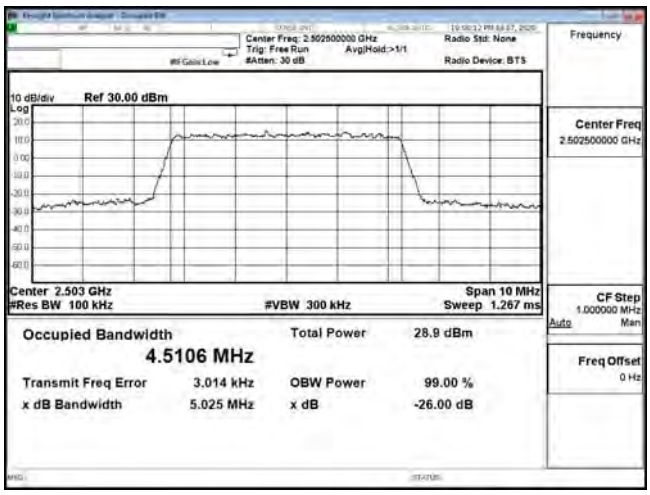

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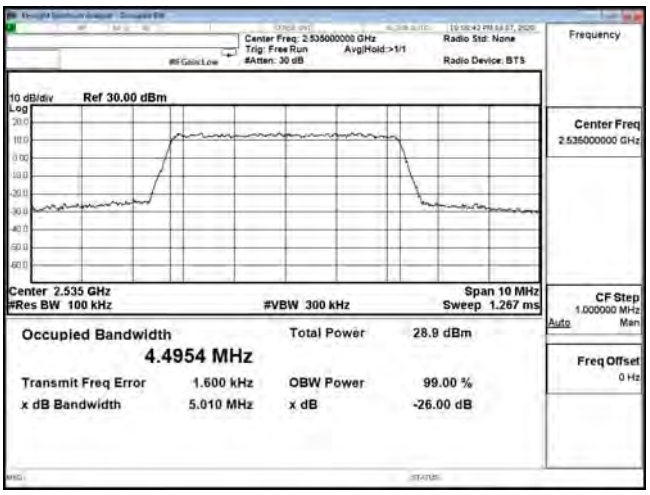

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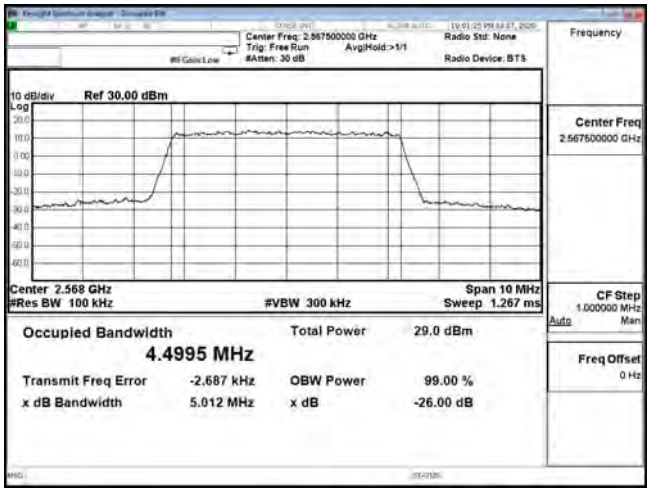

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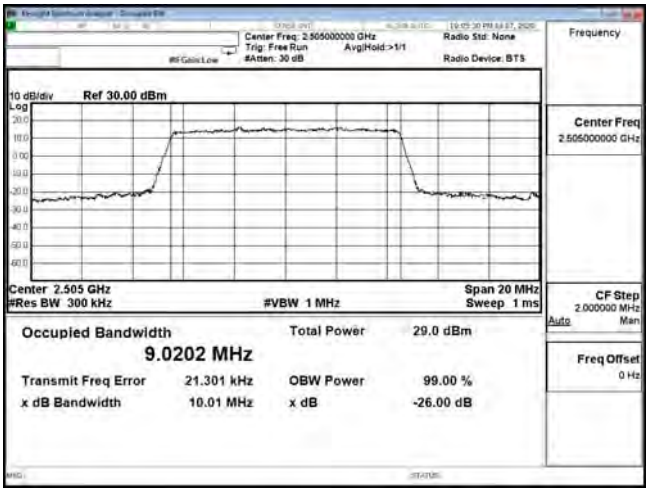

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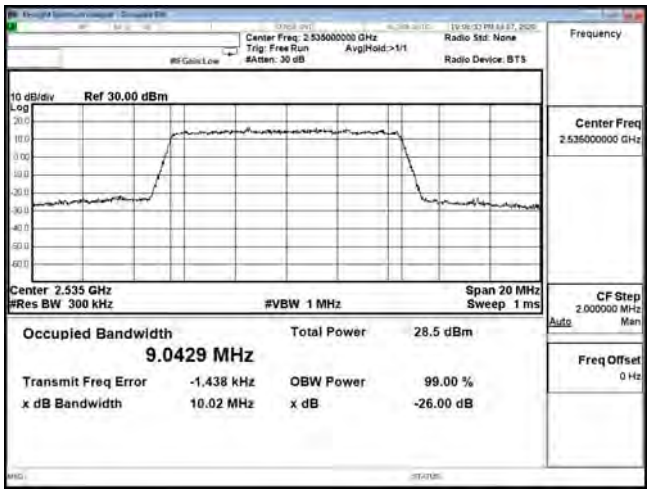

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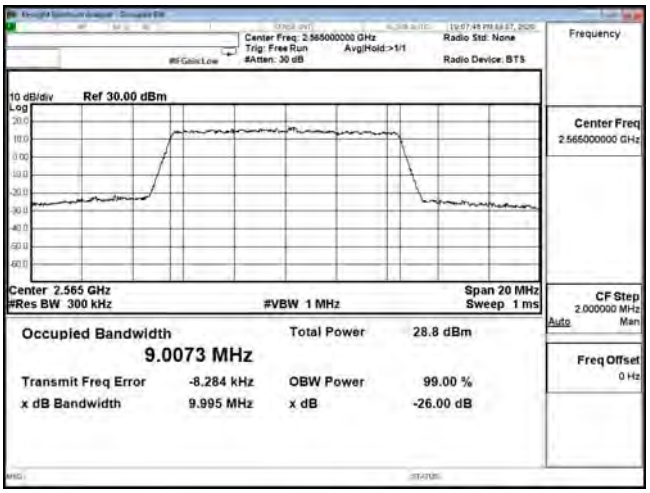

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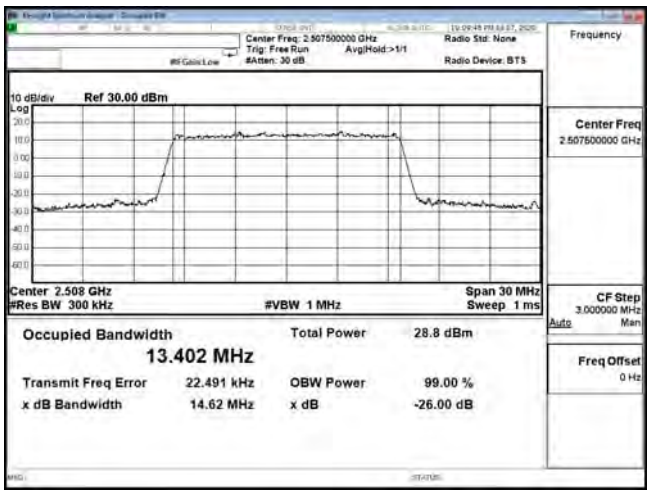

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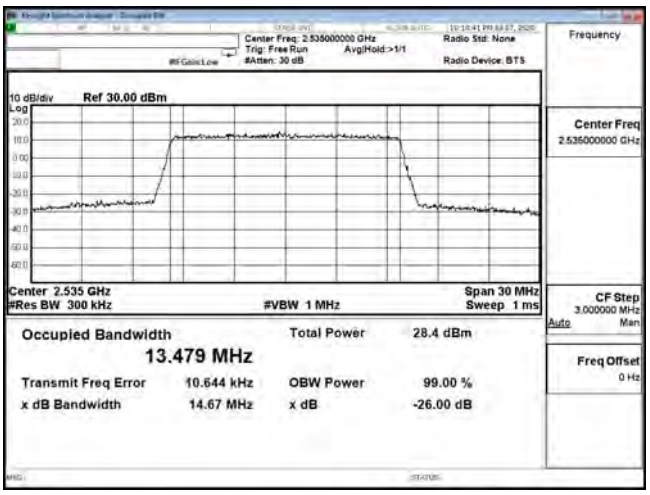

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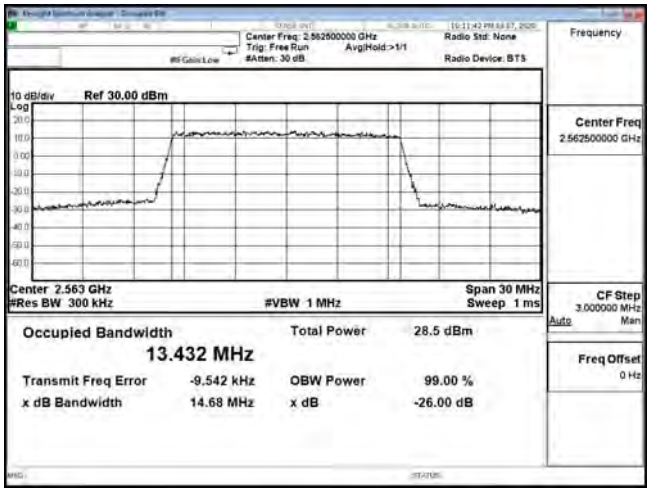

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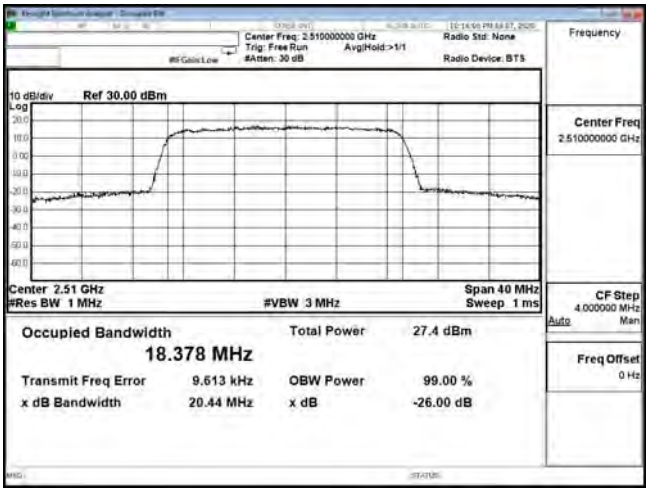

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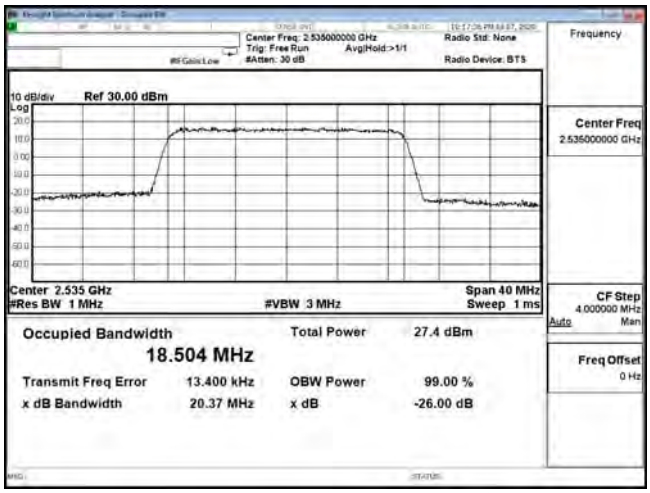

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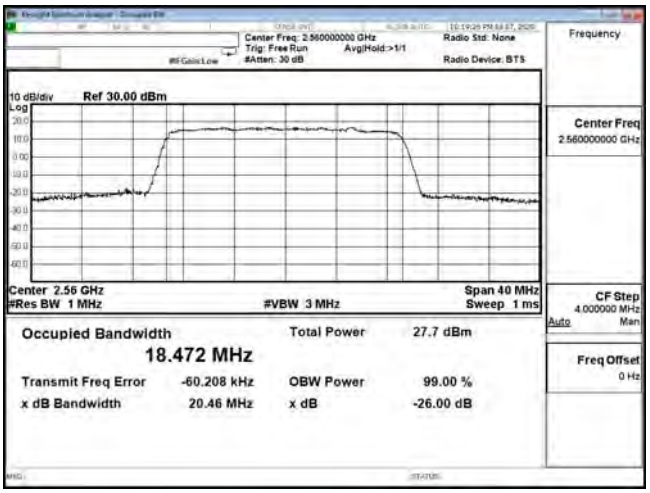

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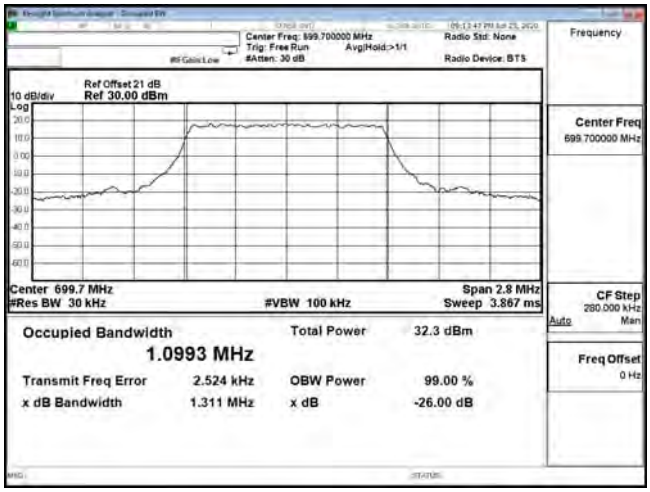
Product	Mobile Computer		
Test Mode	Occupied Bandwidth		
Date of Test	2020/07/07	Test Site	CTR
Test Condition	Band 12 QPSK/16QAM/64QAM		



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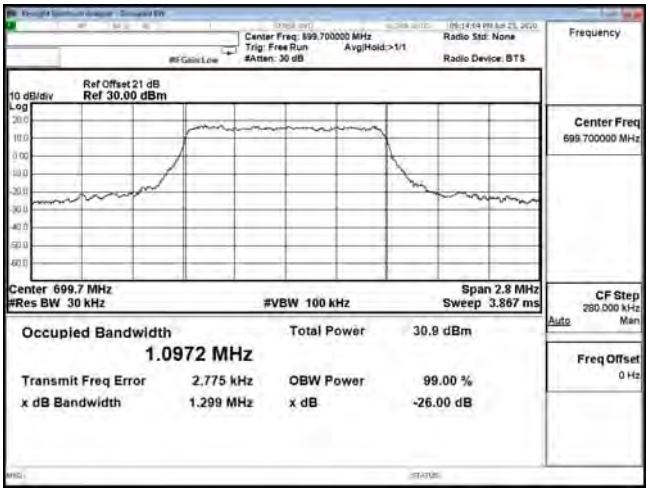

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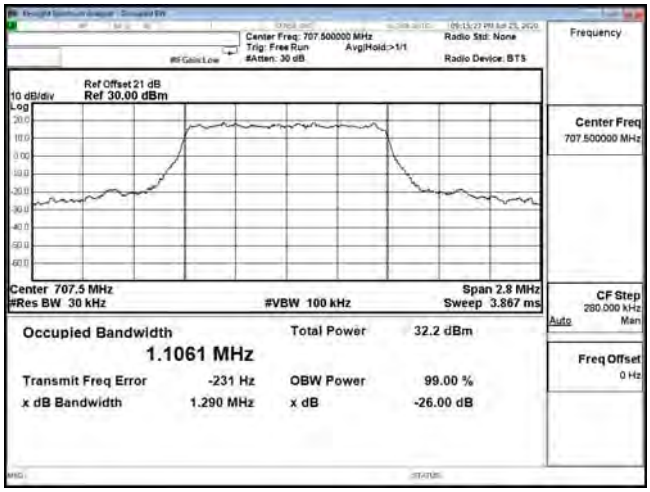

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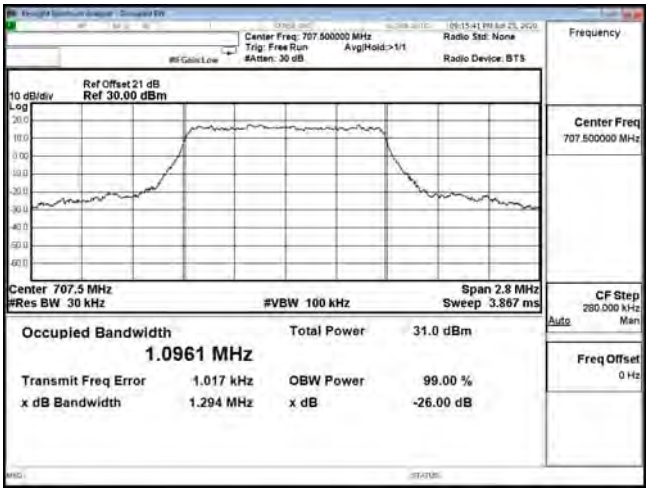

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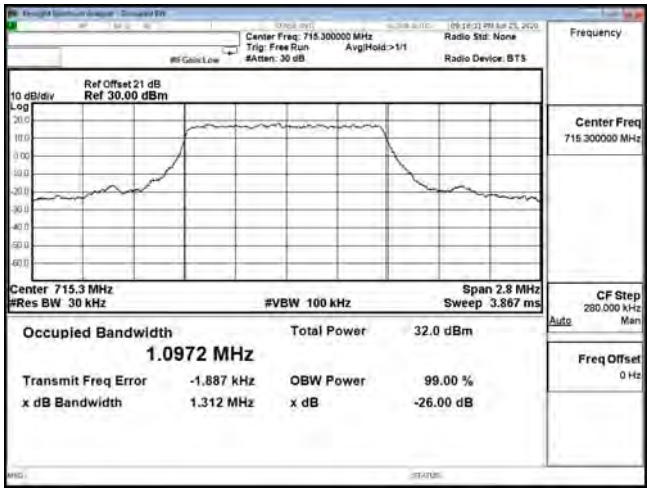

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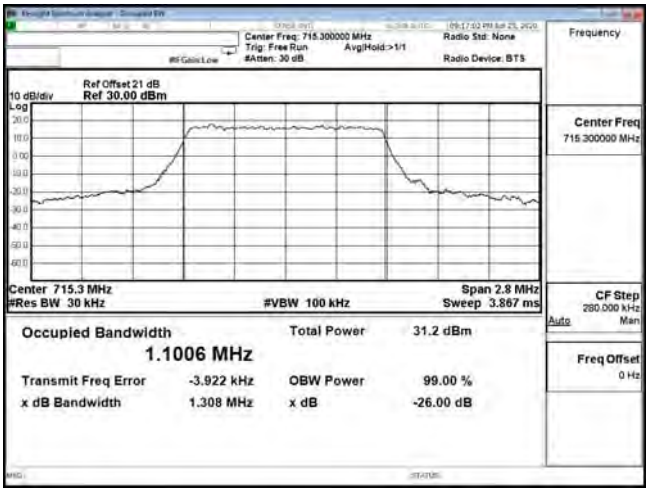

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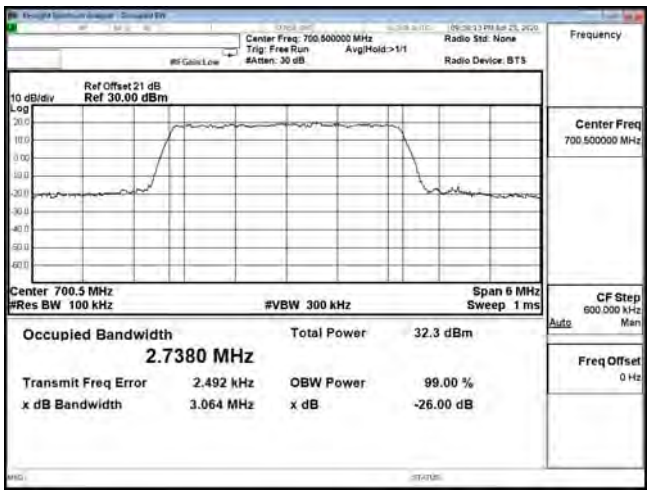

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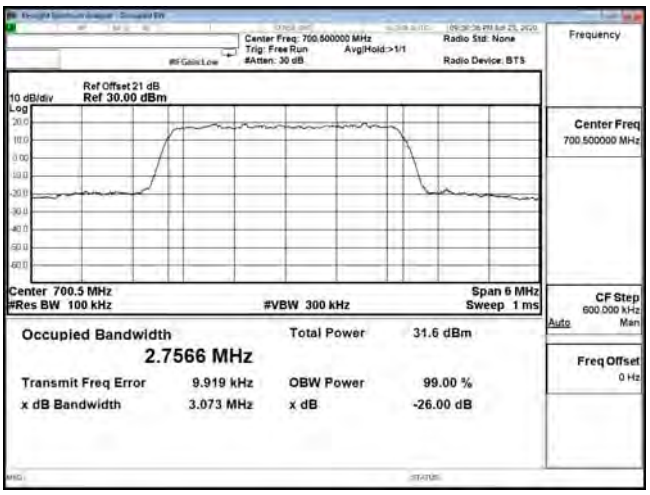

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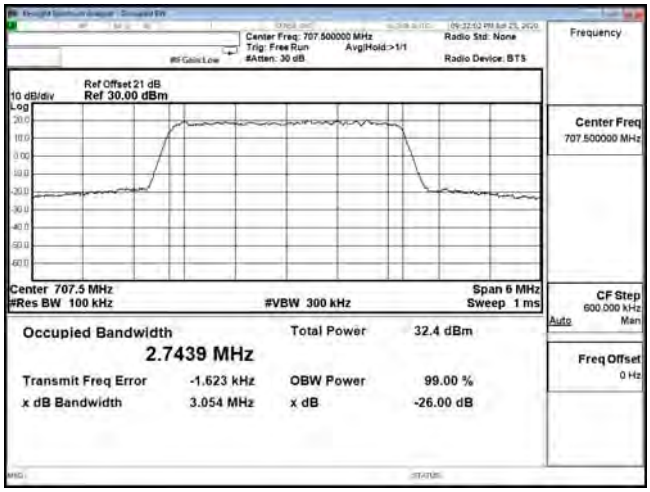

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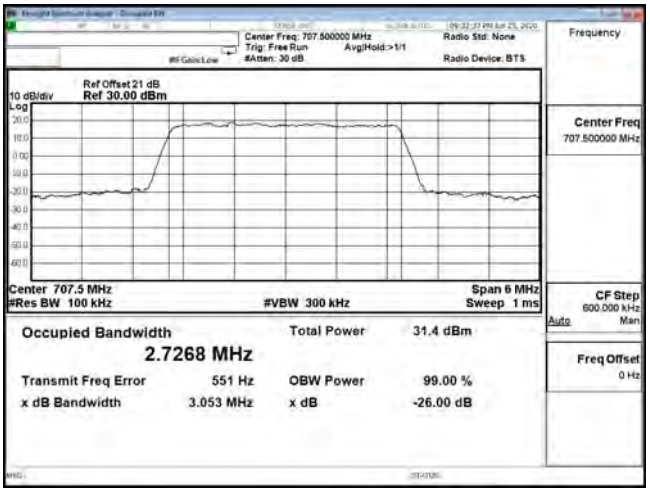

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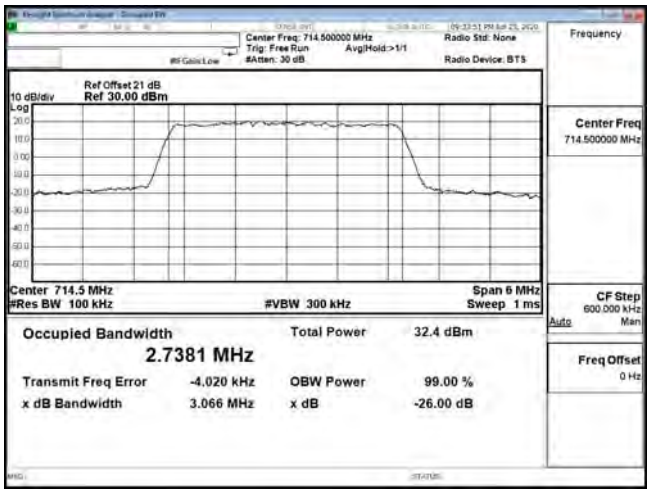

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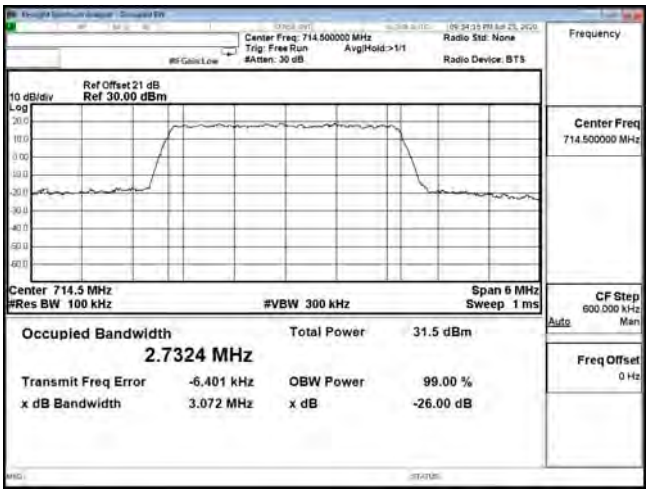

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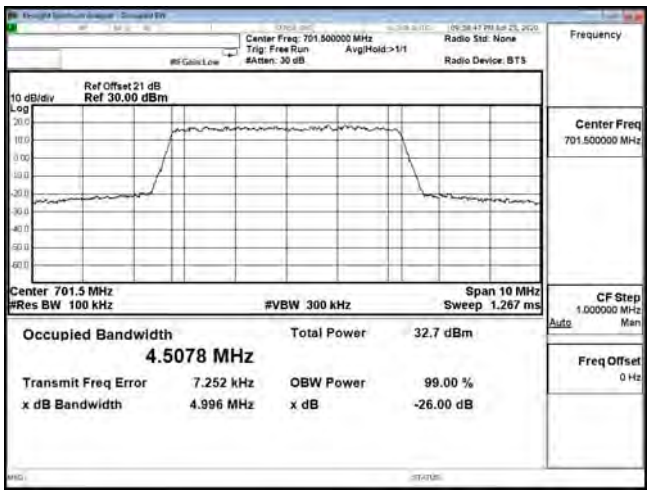

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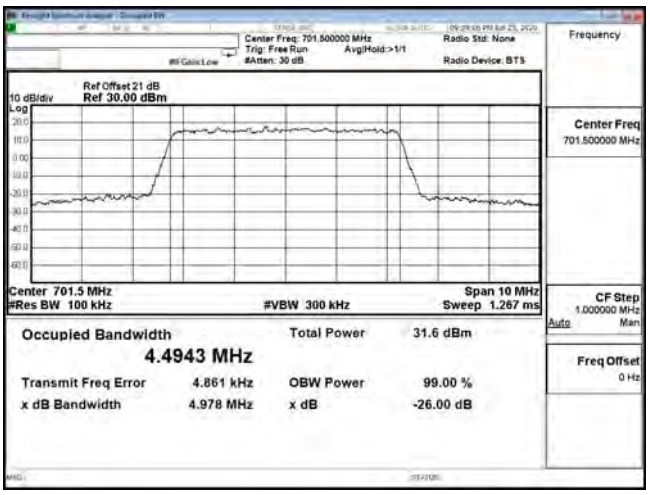

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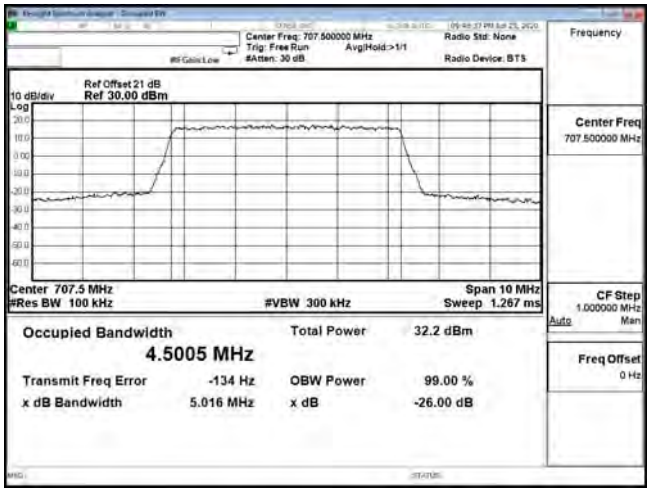

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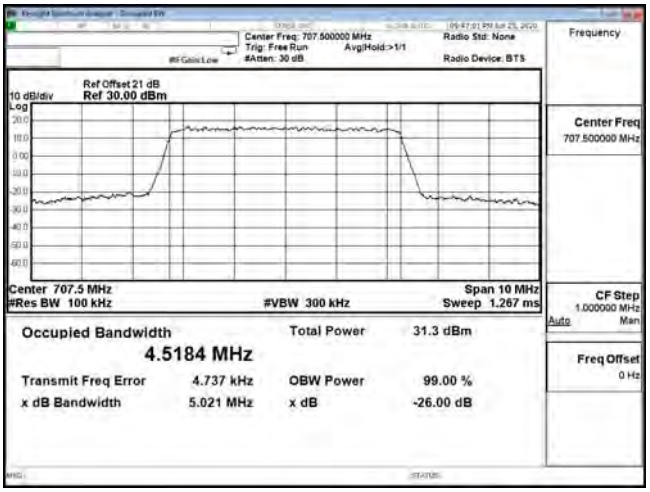

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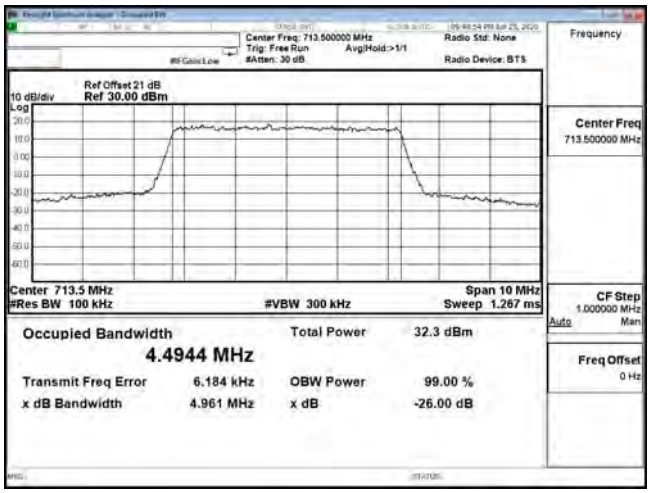

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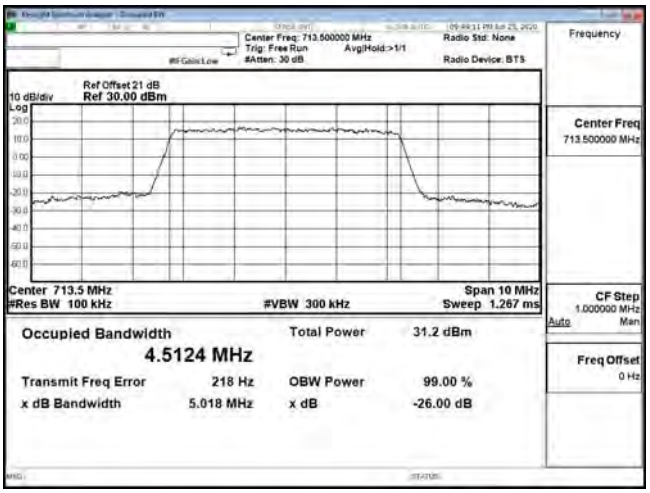

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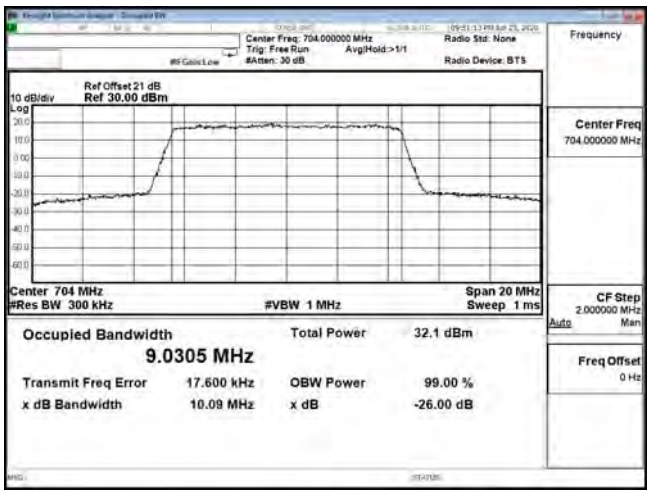

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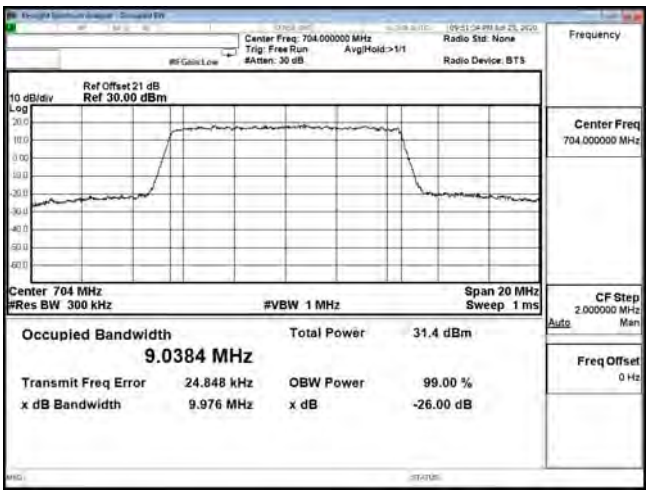

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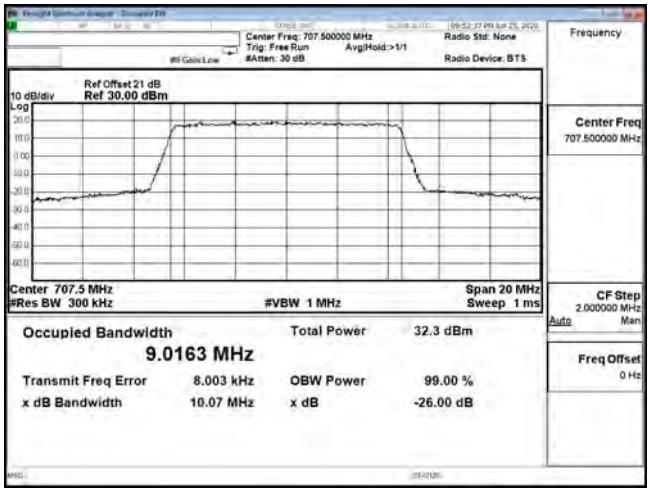

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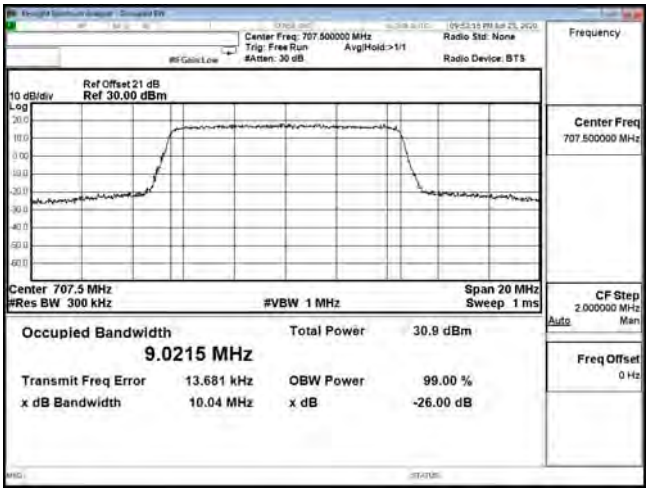

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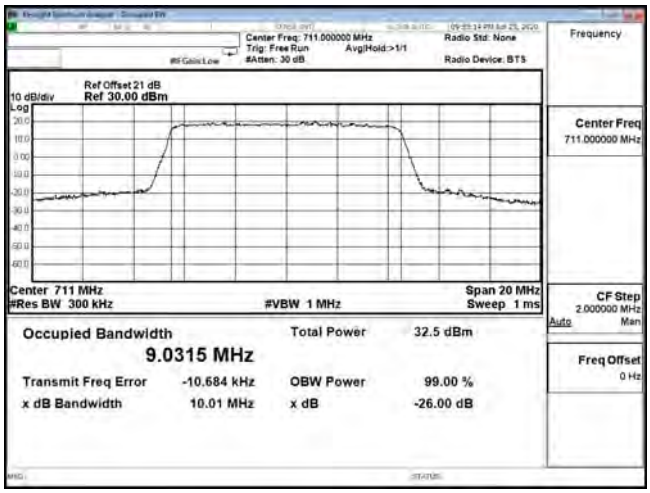

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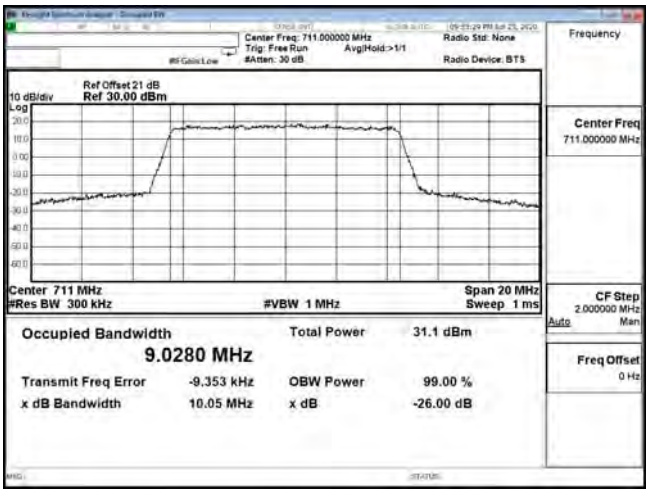

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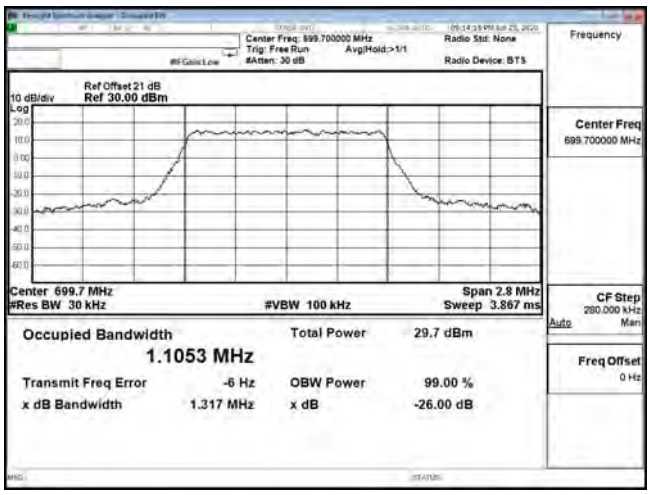

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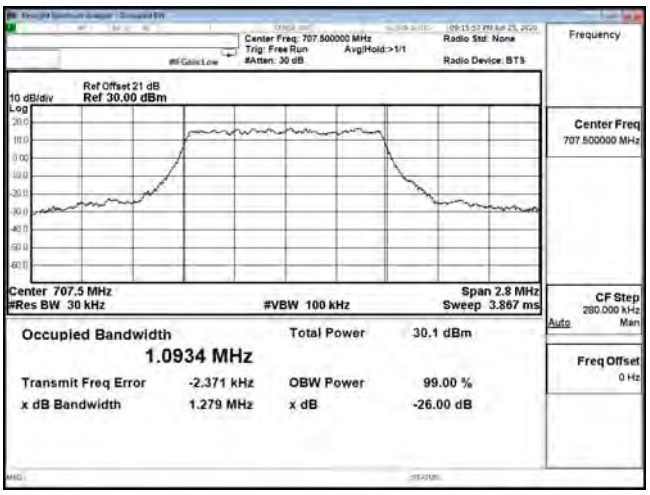

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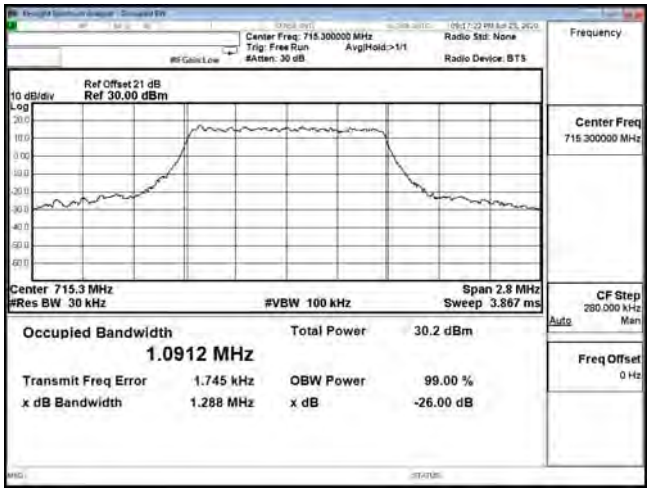

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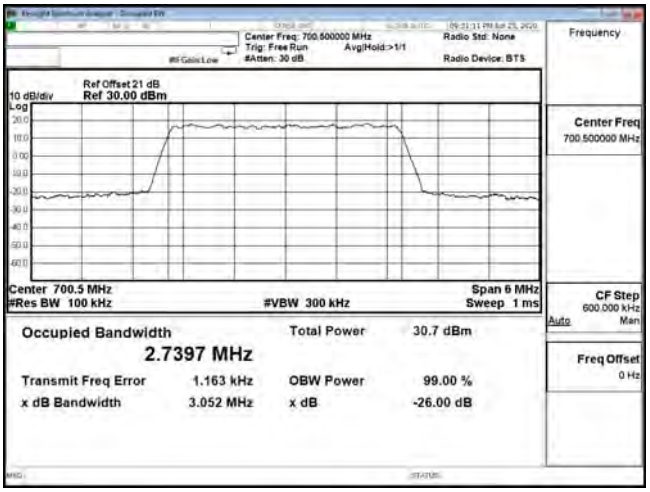

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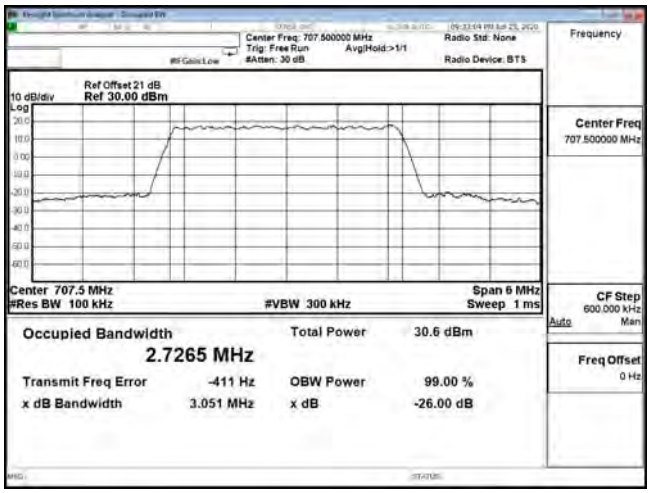

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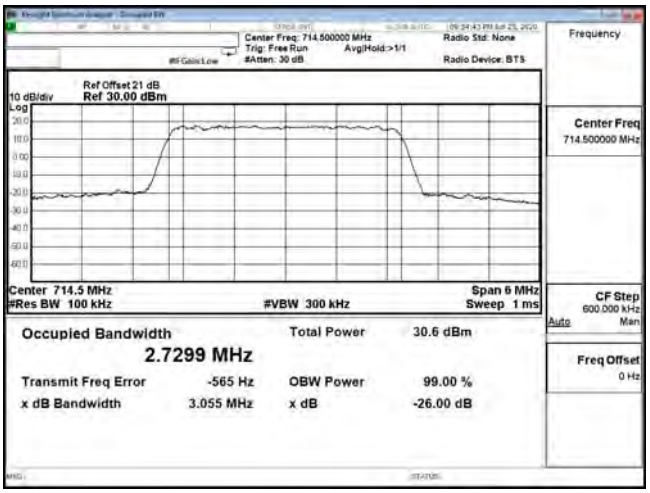

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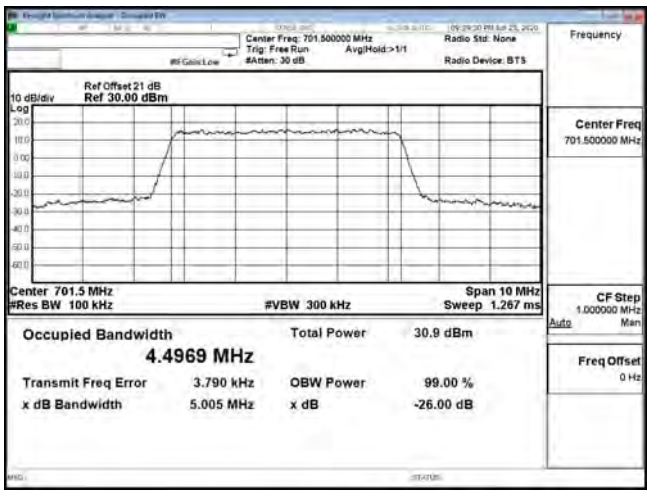

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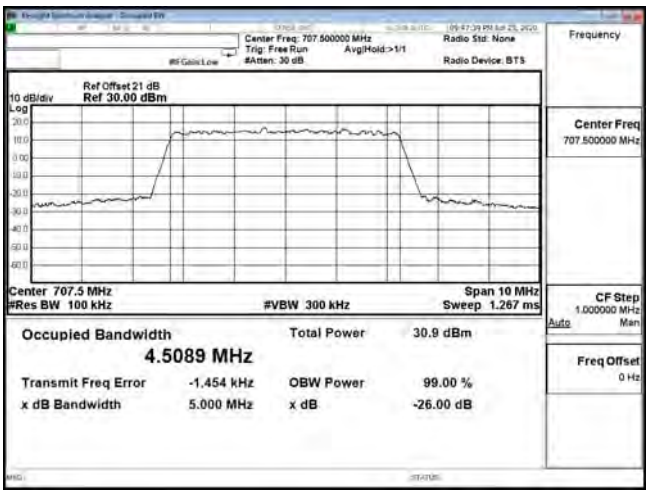

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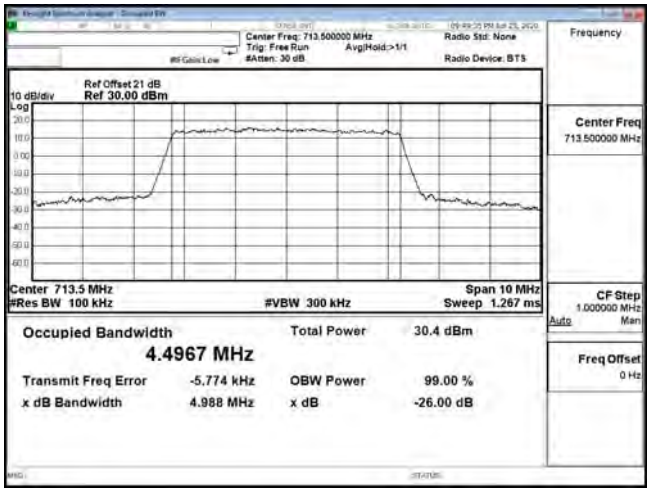

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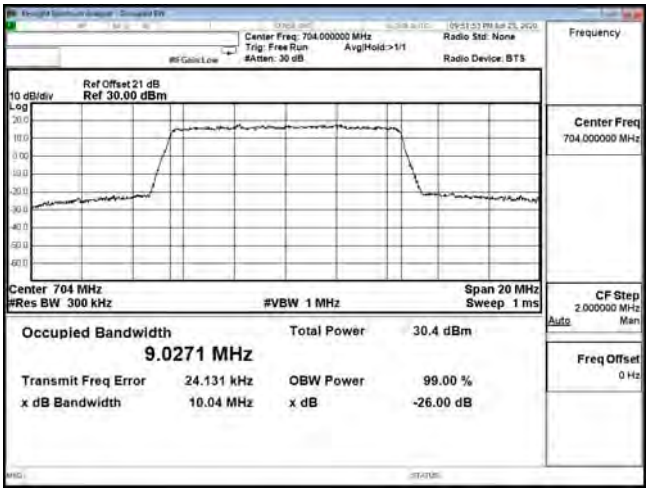

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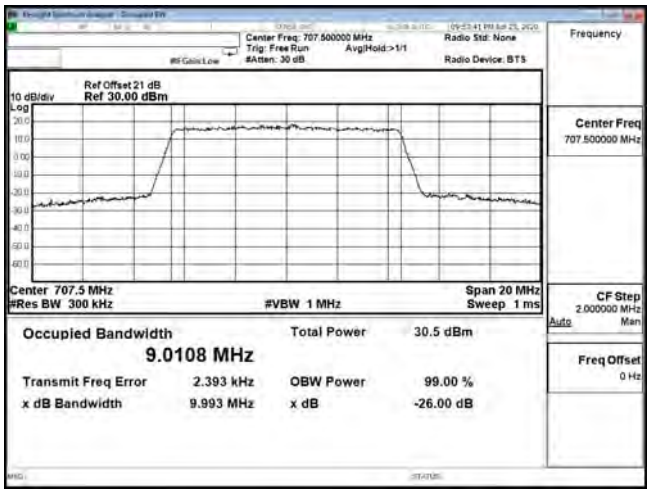

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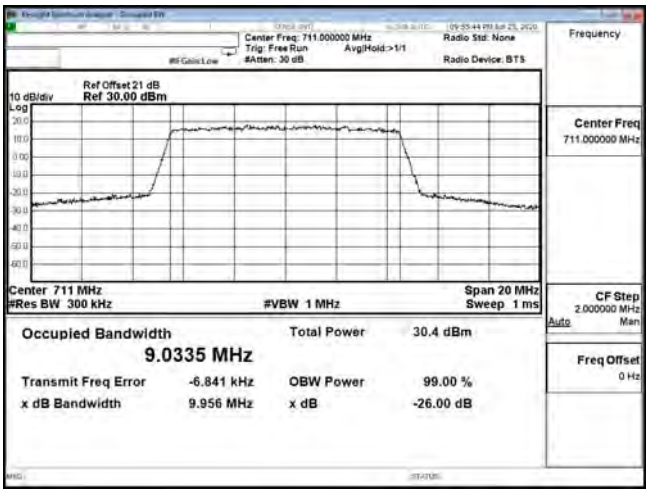

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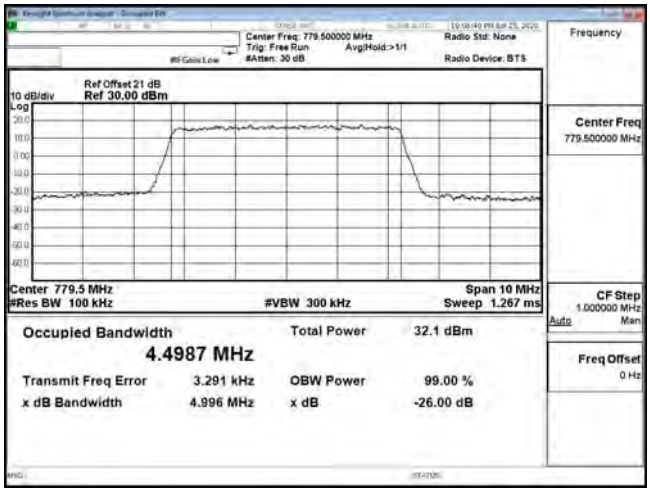
Product	Mobile Computer		
Test Mode	Occupied Bandwidth		
Date of Test	2020/07/07	Test Site	CTR
Test Condition	Band 13 QPSK/16QAM/64QAM		



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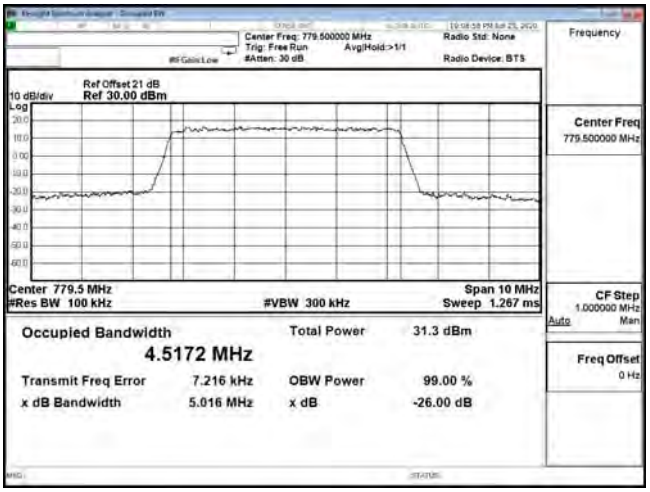

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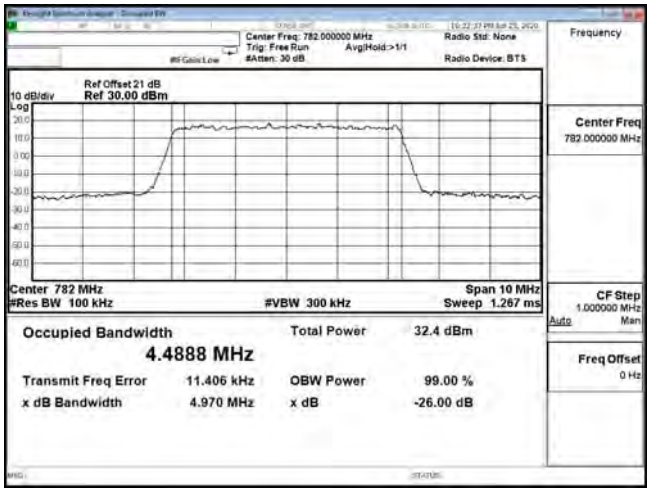

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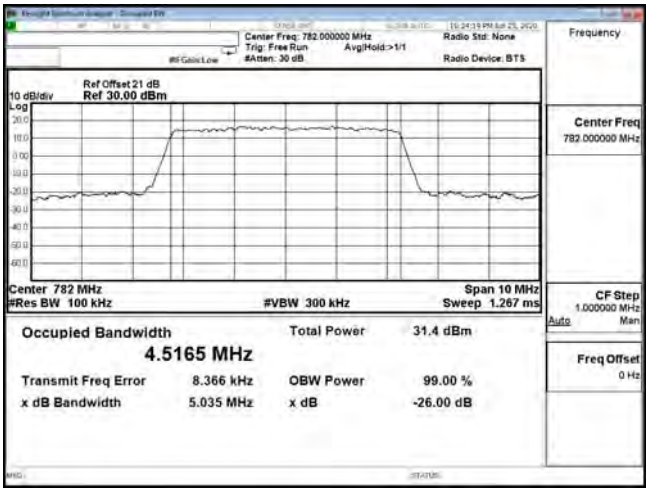

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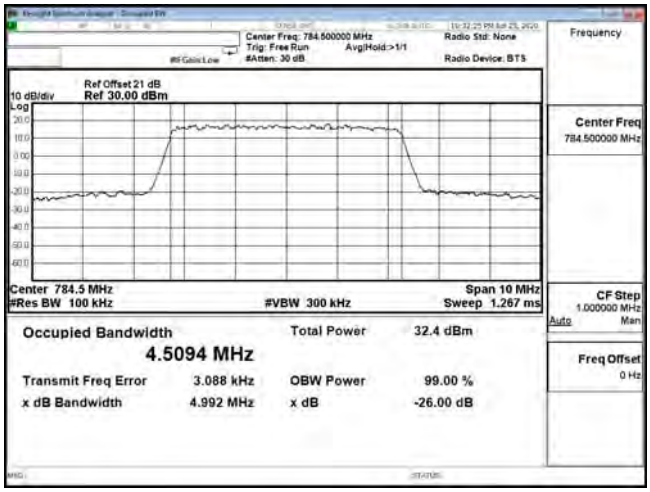

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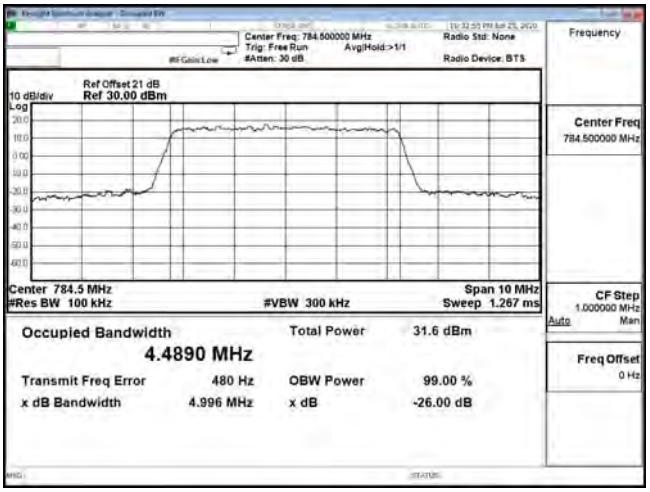

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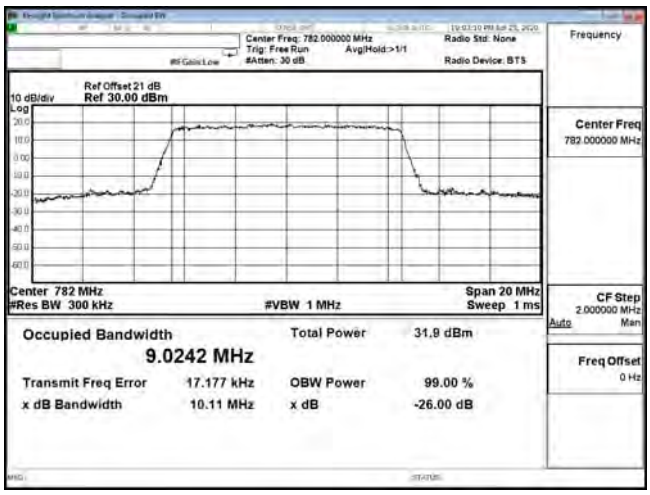

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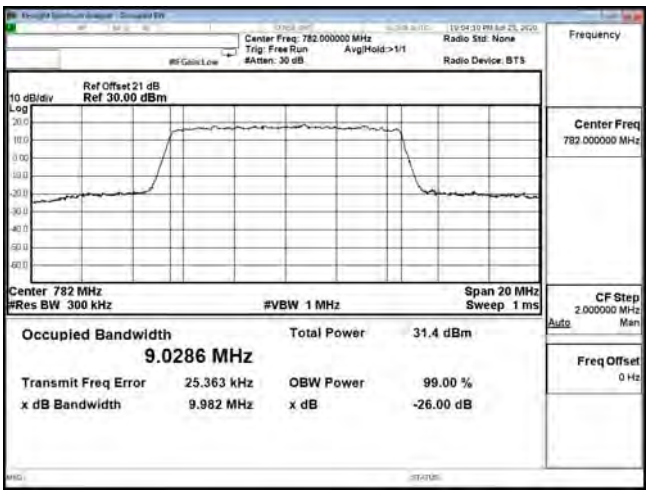

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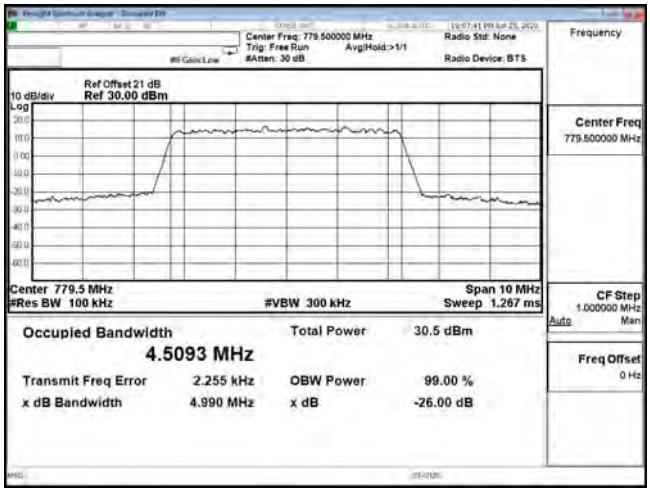

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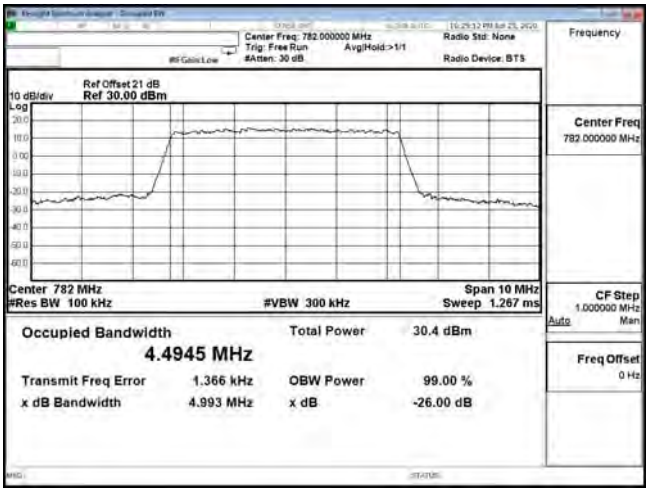

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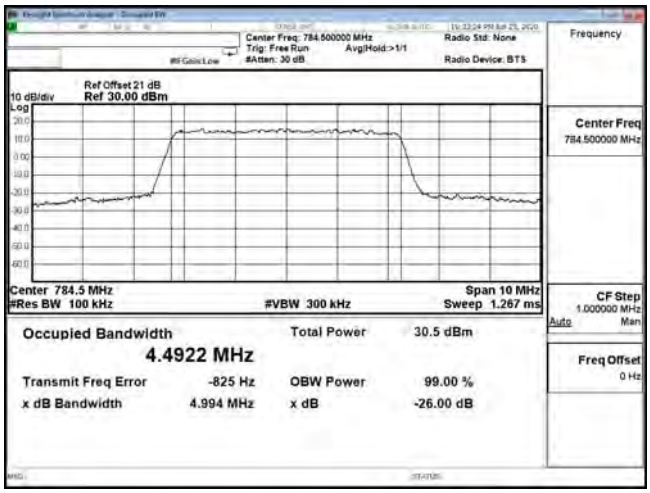

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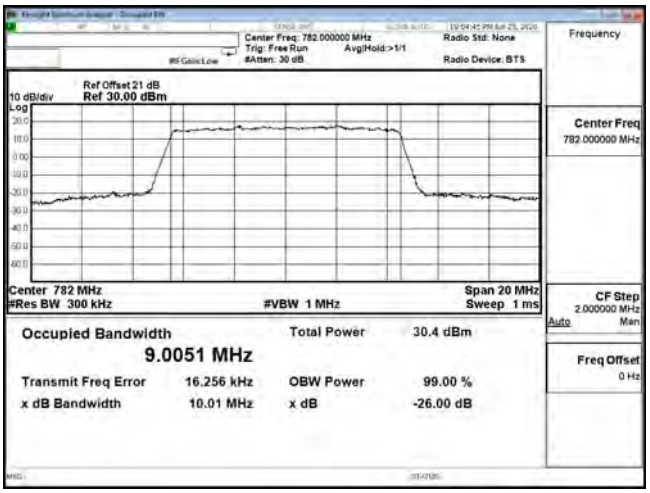

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