



TEST REPORT

APPLICANT : Horizon Powered USA Inc.
PRODUCT NAME : 5G/LTE CBRS USB-C Dongle
MODEL NAME : DG505G
BRAND NAME : Horizon
FCC ID : 2BE94DG505G
STANDARD(S) : 47 CFR Part 2
: 47 CFR Part 27, Subpart M
RECEIPT DATE : 2024-04-07
TEST DATE : 2024-04-12 to 2024-04-27
ISSUE DATE : 2024-06-21



Edited by:

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Change History		
Version	Date	Reason for change
1.0	2024-06-21	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Horizon Powered USA Inc.
Applicant Address:	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States
Manufacturer:	Horizon Powered USA Inc.
Manufacturer Address:	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States

1.2. Equipment Under Test (EUT) Description

Product Name:	5G/LTE CBRS USB-C Dongle	
Sample No.:	1#	
Hardware Version:	E	
Software Version:	DG505G.V2.00_420406D	
Modulation Type:	QPSK, 16QAM, 64QAM, 256QAM	
Operation Band:	Band 41	
Frequency Range:	LTE Band 41	Tx: 2496MHz–2690MHz
		Rx: 2496MHz–2690MHz
Channel Bandwidth:	LTE Band 41	5 MHz, 10MHz, 15MHz, 20MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	LTE Band 41	3.13dBi

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

LTE Band 41	Maximum E.R.P./E.I.R.P. (W)				Emission Designator (99%OBW)			
	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
20	0.470	0.384	0.306	0.148	17M9G7D	17M9W7D	17M9W7D	17M9W7D
15	0.460	0.376	0.300	0.145	13M4G7D	13M4W7D	13M4W7D	13M4W7D
10	0.452	0.369	0.294	0.142	8M94G7D	8M94W7D	8M97W7D	8M95W7D
5	0.445	0.363	0.290	0.140	4M49G7D	4M48W7D	4M48W7D	4M39W7D



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and Part 27 for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Apr. 25, 2024	Yu Xiaoming Gan Jing	PASS	No deviation
2.1049	Occupied Bandwidth	Apr. 25, 2024	Gan Jing	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Apr. 25, 2024	Gan Jing	PASS	No deviation
2.1051 27.53(m)(4)	Conducted Spurious Emissions	Apr. 15, 2024	Gan Jing	PASS	No deviation
2.1051 27.53(m)(4)	Band Edge	Apr. 25, 2024	Gan Jing	PASS	No deviation
2.1053 27.53(m)(4)	Radiated Spurious Emissions	Apr. 12 to 27, 2024	Gao Jianrou	PASS	No deviation

Note 1: The tests were performed according to the method of measurements prescribed in KDB 971168 D01 v03 and ANSI/TIA-603-E-2016.

Note 2: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 3: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.



1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106

2.47 CFR Part 2, Part 27M Requirements

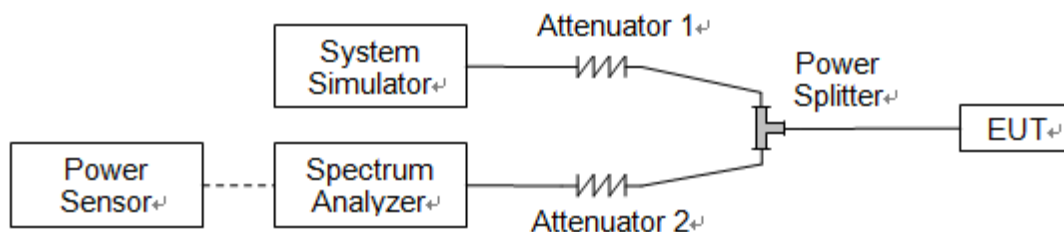
2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 27.50 (h)(2) for LTE Band 41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test Procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

E.I.R.P. (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15



2.1.4. Result

Conducted Output Power

LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	23.55	23.59	23.50
20	QPSK	1	49	23.40	23.52	23.50
20	QPSK	1	99	23.43	23.56	23.40
20	QPSK	50	0	22.62	22.63	22.57
20	QPSK	50	24	22.43	22.63	22.48
20	QPSK	50	50	22.56	22.59	22.55
20	QPSK	100	0	22.48	22.56	22.37
20	16QAM	1	0	22.54	22.71	22.67
20	16QAM	1	49	22.65	22.56	22.53
20	16QAM	1	99	22.50	22.61	22.69
20	16QAM	50	0	21.55	21.69	21.65
20	16QAM	50	24	21.40	21.57	21.60
20	16QAM	50	50	21.54	21.61	21.52
20	16QAM	100	0	21.60	21.43	21.45
20	64QAM	1	0	21.65	21.73	21.65
20	64QAM	1	49	21.59	21.58	21.60
20	64QAM	1	99	21.44	21.41	21.51
20	64QAM	50	0	20.44	20.70	20.58
20	64QAM	50	24	20.36	20.56	20.58
20	64QAM	50	50	20.57	20.47	20.53
20	64QAM	100	0	20.36	20.46	20.35
20	256QAM	1	0	18.34	18.56	18.39
20	256QAM	1	49	18.30	18.46	18.35
20	256QAM	1	99	18.38	18.34	18.28
20	256QAM	50	0	17.28	17.63	17.38
20	256QAM	50	24	17.39	17.41	17.46
20	256QAM	50	50	17.38	17.50	17.29
20	256QAM	100	0	17.37	17.50	17.28



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	23.46	23.50	23.41
15	QPSK	1	37	23.31	23.43	23.41
15	QPSK	1	74	23.34	23.47	23.31
15	QPSK	36	0	22.53	22.54	22.48
15	QPSK	36	20	22.34	22.54	22.39
15	QPSK	36	39	22.47	22.50	22.46
15	QPSK	75	0	22.39	22.47	22.28
15	16QAM	1	0	22.45	22.62	22.58
15	16QAM	1	37	22.56	22.47	22.44
15	16QAM	1	74	22.41	22.52	22.60
15	16QAM	36	0	21.46	21.60	21.56
15	16QAM	36	20	21.31	21.48	21.51
15	16QAM	36	39	21.45	21.52	21.43
15	16QAM	75	0	21.51	21.34	21.36
15	64QAM	1	0	21.56	21.64	21.56
15	64QAM	1	37	21.50	21.49	21.51
15	64QAM	1	74	21.35	21.32	21.42
15	64QAM	36	0	20.35	20.61	20.49
15	64QAM	36	20	20.27	20.47	20.49
15	64QAM	36	39	20.48	20.38	20.44
15	64QAM	75	0	20.27	20.37	20.26
15	256QAM	1	0	18.25	18.47	18.30
15	256QAM	1	37	18.21	18.37	18.26
15	256QAM	1	74	18.29	18.25	18.19
15	256QAM	36	0	17.19	17.54	17.29
15	256QAM	36	20	17.30	17.32	17.37
15	256QAM	36	39	17.29	17.41	17.20
15	256QAM	75	0	17.28	17.41	17.19



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	23.38	23.42	23.33
10	QPSK	1	25	23.23	23.35	23.33
10	QPSK	1	49	23.26	23.39	23.23
10	QPSK	25	0	22.45	22.46	22.40
10	QPSK	25	12	22.26	22.46	22.31
10	QPSK	25	25	22.39	22.42	22.38
10	QPSK	50	0	22.31	22.39	22.20
10	16QAM	1	0	22.37	22.54	22.50
10	16QAM	1	25	22.48	22.39	22.36
10	16QAM	1	49	22.33	22.44	22.52
10	16QAM	25	0	21.38	21.52	21.48
10	16QAM	25	12	21.23	21.40	21.43
10	16QAM	25	25	21.37	21.44	21.35
10	16QAM	50	0	21.43	21.26	21.28
10	64QAM	1	0	21.48	21.56	21.48
10	64QAM	1	25	21.42	21.41	21.43
10	64QAM	1	49	21.27	21.24	21.34
10	64QAM	25	0	20.27	20.53	20.41
10	64QAM	25	12	20.19	20.39	20.41
10	64QAM	25	25	20.40	20.30	20.36
10	64QAM	50	0	20.19	20.29	20.18
10	256QAM	1	0	18.17	18.39	18.22
10	256QAM	1	25	18.13	18.29	18.18
10	256QAM	1	49	18.21	18.17	18.11
10	256QAM	25	0	17.11	17.46	17.21
10	256QAM	25	12	17.22	17.24	17.29
10	256QAM	25	25	17.21	17.33	17.12
10	256QAM	50	0	17.20	17.33	17.11



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	23.31	23.35	23.26
5	QPSK	1	12	23.16	23.28	23.26
5	QPSK	1	24	23.19	23.32	23.16
5	QPSK	12	0	22.38	22.39	22.33
5	QPSK	12	7	22.19	22.39	22.24
5	QPSK	12	13	22.32	22.35	22.31
5	QPSK	25	0	22.24	22.32	22.13
5	16QAM	1	0	22.30	22.47	22.43
5	16QAM	1	12	22.41	22.32	22.29
5	16QAM	1	24	22.26	22.37	22.45
5	16QAM	12	0	21.31	21.45	21.41
5	16QAM	12	7	21.16	21.33	21.36
5	16QAM	12	13	21.30	21.37	21.28
5	16QAM	25	0	21.36	21.19	21.21
5	64QAM	1	0	21.41	21.49	21.41
5	64QAM	1	12	21.35	21.34	21.36
5	64QAM	1	24	21.20	21.17	21.27
5	64QAM	12	0	20.20	20.46	20.34
5	64QAM	12	7	20.12	20.32	20.34
5	64QAM	12	13	20.33	20.23	20.29
5	64QAM	25	0	20.12	20.22	20.11
5	256QAM	1	0	18.10	18.32	18.15
5	256QAM	1	12	18.06	18.22	18.11
5	256QAM	1	24	18.14	18.10	18.04
5	256QAM	12	0	17.04	17.39	17.14
5	256QAM	12	7	17.15	17.17	17.22
5	256QAM	12	13	17.14	17.26	17.05
5	256QAM	25	0	17.13	17.26	17.04



Effective Radiated Power and Effective Isotropic Radiated Power

LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39750		40620		41490	
Frequency (MHz)				2506		2593		2680	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	26.68	0.466	26.72	0.470	26.63	0.460
20	QPSK	1	49	26.53	0.450	26.65	0.462	26.63	0.460
20	QPSK	1	99	26.56	0.453	26.69	0.467	26.53	0.450
20	QPSK	50	0	25.75	0.376	25.76	0.377	25.70	0.372
20	QPSK	50	24	25.56	0.360	25.76	0.377	25.61	0.364
20	QPSK	50	50	25.69	0.371	25.72	0.373	25.68	0.370
20	QPSK	100	0	25.61	0.364	25.69	0.371	25.50	0.355
20	16QAM	1	0	25.67	0.369	25.84	0.384	25.80	0.380
20	16QAM	1	49	25.78	0.378	25.69	0.371	25.66	0.368
20	16QAM	1	99	25.63	0.366	25.74	0.375	25.82	0.382
20	16QAM	50	0	24.68	0.294	24.82	0.303	24.78	0.301
20	16QAM	50	24	24.53	0.284	24.70	0.295	24.73	0.297
20	16QAM	50	50	24.67	0.293	24.74	0.298	24.65	0.292
20	16QAM	100	0	24.73	0.297	24.56	0.286	24.58	0.287
20	64QAM	1	0	24.78	0.301	24.86	0.306	24.78	0.301
20	64QAM	1	49	24.72	0.296	24.71	0.296	24.73	0.297
20	64QAM	1	99	24.57	0.286	24.54	0.284	24.64	0.291
20	64QAM	50	0	23.57	0.228	23.83	0.242	23.71	0.235
20	64QAM	50	24	23.49	0.223	23.69	0.234	23.71	0.235
20	64QAM	50	50	23.70	0.234	23.60	0.229	23.66	0.232
20	64QAM	100	0	23.49	0.223	23.59	0.229	23.48	0.223
20	256QAM	1	0	21.47	0.140	21.69	0.148	21.52	0.142
20	256QAM	1	49	21.43	0.139	21.59	0.144	21.48	0.141
20	256QAM	1	99	21.51	0.142	21.47	0.140	21.41	0.138
20	256QAM	50	0	20.41	0.110	20.76	0.119	20.51	0.112
20	256QAM	50	24	20.52	0.113	20.54	0.113	20.59	0.115
20	256QAM	50	50	20.51	0.112	20.63	0.116	20.42	0.110
20	256QAM	100	0	20.50	0.112	20.63	0.116	20.41	0.110



LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39725		40620		41515	
Frequency (MHz)				2503.5		2593		2682.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	26.59	0.456	26.63	0.460	26.54	0.451
15	QPSK	1	37	26.44	0.441	26.56	0.453	26.54	0.451
15	QPSK	1	74	26.47	0.444	26.60	0.457	26.44	0.441
15	QPSK	36	0	25.66	0.368	25.67	0.369	25.61	0.364
15	QPSK	36	20	25.47	0.352	25.67	0.369	25.52	0.356
15	QPSK	36	39	25.60	0.363	25.63	0.366	25.59	0.362
15	QPSK	75	0	25.52	0.356	25.60	0.363	25.41	0.348
15	16QAM	1	0	25.58	0.361	25.75	0.376	25.71	0.372
15	16QAM	1	37	25.69	0.371	25.60	0.363	25.57	0.361
15	16QAM	1	74	25.54	0.358	25.65	0.367	25.73	0.374
15	16QAM	36	0	24.59	0.288	24.73	0.297	24.69	0.294
15	16QAM	36	20	24.44	0.278	24.61	0.289	24.64	0.291
15	16QAM	36	39	24.58	0.287	24.65	0.292	24.56	0.286
15	16QAM	75	0	24.64	0.291	24.47	0.280	24.49	0.281
15	64QAM	1	0	24.69	0.294	24.77	0.300	24.69	0.294
15	64QAM	1	37	24.63	0.290	24.62	0.290	24.64	0.291
15	64QAM	1	74	24.48	0.281	24.45	0.279	24.55	0.285
15	64QAM	36	0	23.48	0.223	23.74	0.237	23.62	0.230
15	64QAM	36	20	23.40	0.219	23.60	0.229	23.62	0.230
15	64QAM	36	39	23.61	0.230	23.51	0.224	23.57	0.228
15	64QAM	75	0	23.40	0.219	23.50	0.224	23.39	0.218
15	256QAM	1	0	21.38	0.137	21.60	0.145	21.43	0.139
15	256QAM	1	37	21.34	0.136	21.50	0.141	21.39	0.138
15	256QAM	1	74	21.42	0.139	21.38	0.137	21.32	0.136
15	256QAM	36	0	20.32	0.108	20.67	0.117	20.42	0.110
15	256QAM	36	20	20.43	0.110	20.45	0.111	20.50	0.112
15	256QAM	36	39	20.42	0.110	20.54	0.113	20.33	0.108
15	256QAM	75	0	20.41	0.110	20.54	0.113	20.32	0.108



LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39700		40620		41540	
Frequency (MHz)				2501		2593		2685	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	26.51	0.448	26.55	0.452	26.46	0.443
10	QPSK	1	25	26.36	0.433	26.48	0.445	26.46	0.443
10	QPSK	1	49	26.39	0.436	26.52	0.449	26.36	0.433
10	QPSK	25	0	25.58	0.361	25.59	0.362	25.53	0.357
10	QPSK	25	12	25.39	0.346	25.59	0.362	25.44	0.350
10	QPSK	25	25	25.52	0.356	25.55	0.359	25.51	0.356
10	QPSK	50	0	25.44	0.350	25.52	0.356	25.33	0.341
10	16QAM	1	0	25.50	0.355	25.67	0.369	25.63	0.366
10	16QAM	1	25	25.61	0.364	25.52	0.356	25.49	0.354
10	16QAM	1	49	25.46	0.352	25.57	0.361	25.65	0.367
10	16QAM	25	0	24.51	0.282	24.65	0.292	24.61	0.289
10	16QAM	25	12	24.36	0.273	24.53	0.284	24.56	0.286
10	16QAM	25	25	24.50	0.282	24.57	0.286	24.48	0.281
10	16QAM	50	0	24.56	0.286	24.39	0.275	24.41	0.276
10	64QAM	1	0	24.61	0.289	24.69	0.294	24.61	0.289
10	64QAM	1	25	24.55	0.285	24.54	0.284	24.56	0.286
10	64QAM	1	49	24.40	0.275	24.37	0.274	24.47	0.280
10	64QAM	25	0	23.40	0.219	23.66	0.232	23.54	0.226
10	64QAM	25	12	23.32	0.215	23.52	0.225	23.54	0.226
10	64QAM	25	25	23.53	0.225	23.43	0.220	23.49	0.223
10	64QAM	50	0	23.32	0.215	23.42	0.220	23.31	0.214
10	256QAM	1	0	21.30	0.135	21.52	0.142	21.35	0.136
10	256QAM	1	25	21.26	0.134	21.42	0.139	21.31	0.135
10	256QAM	1	49	21.34	0.136	21.30	0.135	21.24	0.133
10	256QAM	25	0	20.24	0.106	20.59	0.115	20.34	0.108
10	256QAM	25	12	20.35	0.108	20.37	0.109	20.42	0.110
10	256QAM	25	25	20.34	0.108	20.46	0.111	20.25	0.106
10	256QAM	50	0	20.33	0.108	20.46	0.111	20.24	0.106



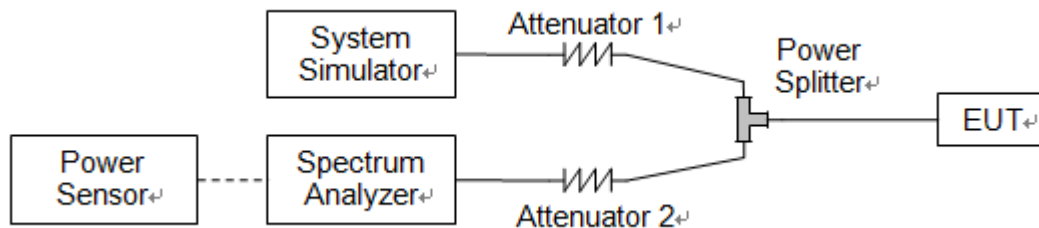
LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39675		40620		41565	
Frequency (MHz)				2498.5		2593		2687.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	26.44	0.441	26.48	0.445	26.39	0.436
5	QPSK	1	12	26.29	0.426	26.41	0.438	26.39	0.436
5	QPSK	1	24	26.32	0.429	26.45	0.442	26.29	0.426
5	QPSK	12	0	25.51	0.356	25.52	0.356	25.46	0.352
5	QPSK	12	7	25.32	0.340	25.52	0.356	25.37	0.344
5	QPSK	12	13	25.45	0.351	25.48	0.353	25.44	0.350
5	QPSK	25	0	25.37	0.344	25.45	0.351	25.26	0.336
5	16QAM	1	0	25.43	0.349	25.60	0.363	25.56	0.360
5	16QAM	1	12	25.54	0.358	25.45	0.351	25.42	0.348
5	16QAM	1	24	25.39	0.346	25.50	0.355	25.58	0.361
5	16QAM	12	0	24.44	0.278	24.58	0.287	24.54	0.284
5	16QAM	12	7	24.29	0.269	24.46	0.279	24.49	0.281
5	16QAM	12	13	24.43	0.277	24.50	0.282	24.41	0.276
5	16QAM	25	0	24.49	0.281	24.32	0.270	24.34	0.272
5	64QAM	1	0	24.54	0.284	24.62	0.290	24.54	0.284
5	64QAM	1	12	24.48	0.281	24.47	0.280	24.49	0.281
5	64QAM	1	24	24.33	0.271	24.30	0.269	24.40	0.275
5	64QAM	12	0	23.33	0.215	23.59	0.229	23.47	0.222
5	64QAM	12	7	23.25	0.211	23.45	0.221	23.47	0.222
5	64QAM	12	13	23.46	0.222	23.36	0.217	23.42	0.220
5	64QAM	25	0	23.25	0.211	23.35	0.216	23.24	0.211
5	256QAM	1	0	21.23	0.133	21.45	0.140	21.28	0.134
5	256QAM	1	12	21.19	0.132	21.35	0.136	21.24	0.133
5	256QAM	1	24	21.27	0.134	21.23	0.133	21.17	0.131
5	256QAM	12	0	20.17	0.104	20.52	0.113	20.27	0.106
5	256QAM	12	7	20.28	0.107	20.30	0.107	20.35	0.108
5	256QAM	12	13	20.27	0.106	20.39	0.109	20.18	0.104
5	256QAM	25	0	20.26	0.106	20.39	0.109	20.17	0.104

2.2. Occupied Bandwidth

2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.2.3. Test Procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.



2.2.4. Test Result

LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B41	5	Low	39675	2498.5	QPSK	4.4704	4.8461	PASS
B41	5	Low	39675	2498.5	16QAM	4.4718	4.8081	PASS
B41	5	Low	39675	2498.5	64QAM	4.4781	4.7868	PASS
B41	5	Low	39675	2498.5	256QAM	4.3884	4.6465	PASS
B41	5	Mid	40620	2593	QPSK	4.4676	4.8479	PASS
B41	5	Mid	40620	2593	16QAM	4.4789	4.7909	PASS
B41	5	Mid	40620	2593	64QAM	4.4711	4.8373	PASS
B41	5	Mid	40620	2593	256QAM	4.3828	4.6254	PASS
B41	5	High	41565	2687.5	QPSK	4.4901	4.8707	PASS
B41	5	High	41565	2687.5	16QAM	4.4788	4.7826	PASS
B41	5	High	41565	2687.5	64QAM	4.4727	4.8292	PASS
B41	5	High	41565	2687.5	256QAM	4.3427	4.5576	PASS
B41	10	Low	39700	2501	QPSK	8.9392	9.4456	PASS
B41	10	Low	39700	2501	16QAM	8.9078	9.6288	PASS
B41	10	Low	39700	2501	64QAM	8.9697	9.7386	PASS
B41	10	Low	39700	2501	256QAM	8.9444	9.5433	PASS
B41	10	Mid	40620	2593	QPSK	8.9380	9.5408	PASS
B41	10	Mid	40620	2593	16QAM	8.9387	9.6521	PASS
B41	10	Mid	40620	2593	64QAM	8.9371	9.6329	PASS
B41	10	Mid	40620	2593	256QAM	8.9345	9.5314	PASS
B41	10	High	41540	2685	QPSK	8.9416	9.5621	PASS
B41	10	High	41540	2685	16QAM	8.9307	9.8159	PASS
B41	10	High	41540	2685	64QAM	8.9352	9.5916	PASS
B41	10	High	41540	2685	256QAM	8.9451	9.4736	PASS
B41	15	Low	39725	2503.5	QPSK	13.387	14.433	PASS
B41	15	Low	39725	2503.5	16QAM	13.424	14.878	PASS
B41	15	Low	39725	2503.5	64QAM	13.423	14.328	PASS
B41	15	Low	39725	2503.5	256QAM	13.384	14.316	PASS
B41	15	Mid	40620	2593	QPSK	13.446	14.385	PASS
B41	15	Mid	40620	2593	16QAM	13.425	14.954	PASS
B41	15	Mid	40620	2593	64QAM	13.446	14.476	PASS
B41	15	Mid	40620	2593	256QAM	13.398	14.306	PASS
B41	15	High	41515	2682.5	QPSK	13.413	14.595	PASS

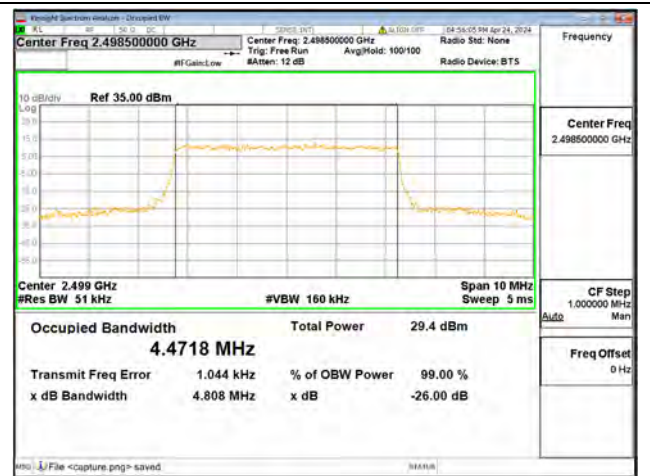


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B41	15	High	41515	2682.5	16QAM	13.399	14.938	PASS
B41	15	High	41515	2682.5	64QAM	13.412	15.051	PASS
B41	15	High	41515	2682.5	256QAM	13.439	14.269	PASS
B41	20	Low	39750	2506	QPSK	17.863	19.306	PASS
B41	20	Low	39750	2506	16QAM	17.833	18.958	PASS
B41	20	Low	39750	2506	64QAM	17.872	18.947	PASS
B41	20	Low	39750	2506	256QAM	17.861	19.424	PASS
B41	20	Mid	40620	2593	QPSK	17.840	19.041	PASS
B41	20	Mid	40620	2593	16QAM	17.847	19.239	PASS
B41	20	Mid	40620	2593	64QAM	17.867	19.233	PASS
B41	20	Mid	40620	2593	256QAM	17.873	19.134	PASS
B41	20	High	41490	2680	QPSK	17.887	19.044	PASS
B41	20	High	41490	2680	16QAM	17.880	19.014	PASS
B41	20	High	41490	2680	64QAM	17.856	19.243	PASS
B41	20	High	41490	2680	256QAM	17.885	18.927	PASS



B41 / 5MHz / QPSK/ Low CH



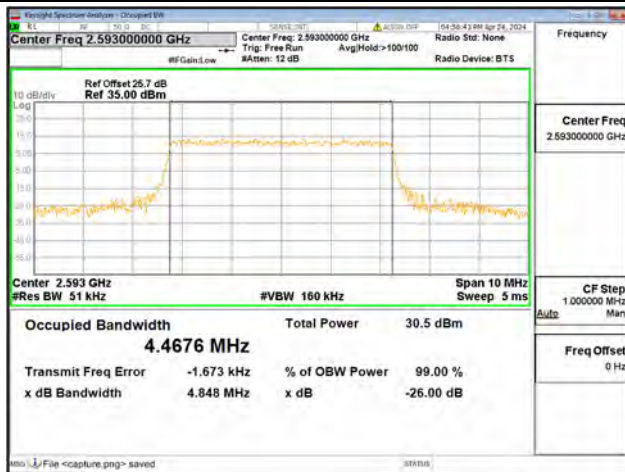
B41 / 5MHz / 16QAM/ Low CH



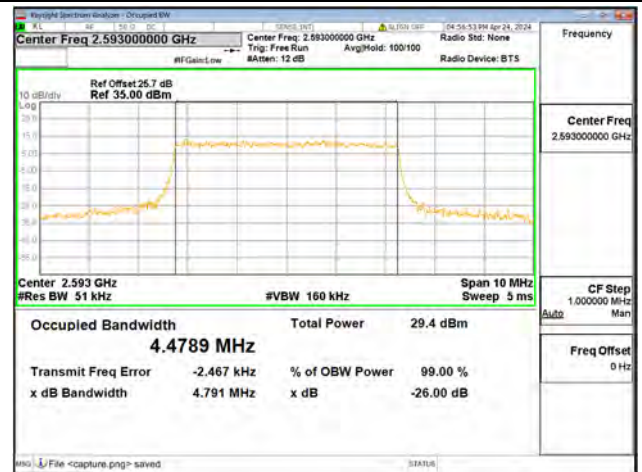
B41 / 5MHz / 64QAM/ Low CH



B41 / 5MHz / 256QAM/ Low CH



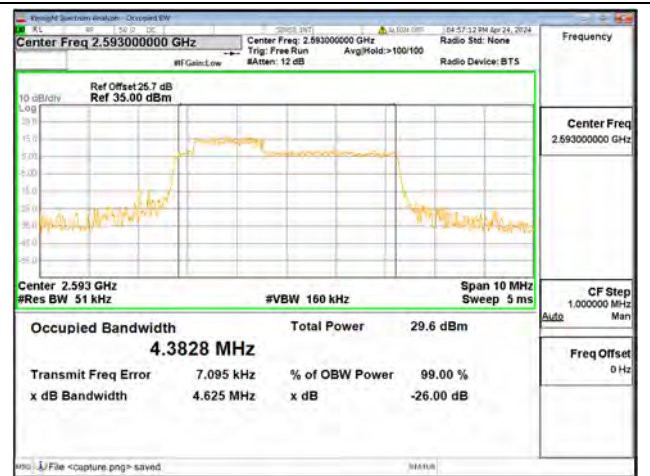
B41 / 5MHz / QPSK/ Mid CH



B41 / 5MHz / 16QAM/ Mid CH



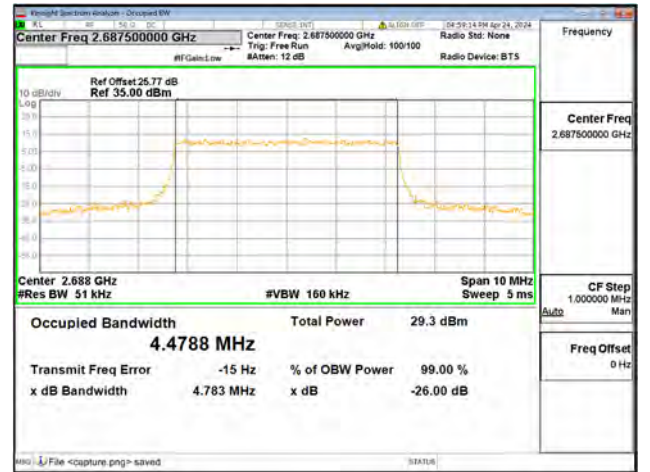
B41 / 5MHz / 64QAM/ Mid CH



B41 / 5MHz / 256QAM/ Mid CH



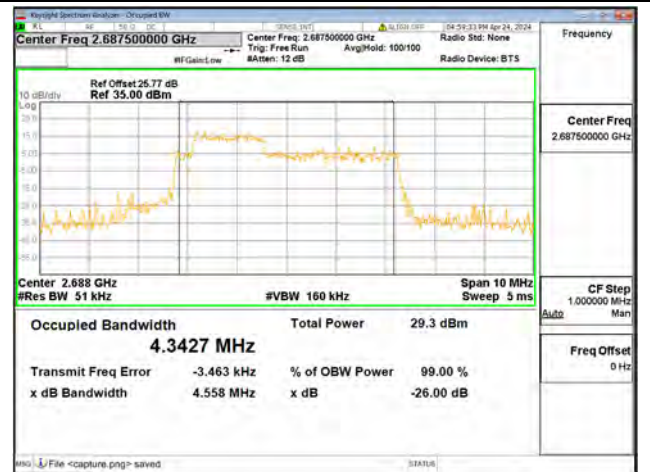
B41 / 5MHz / QPSK/ High CH



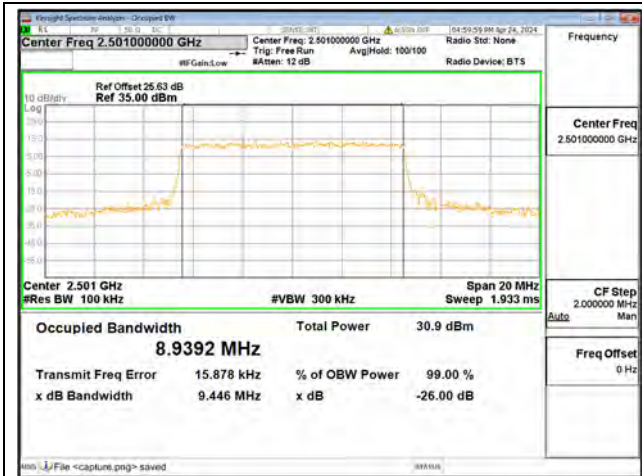
B41 / 5MHz / 16QAM/ High CH



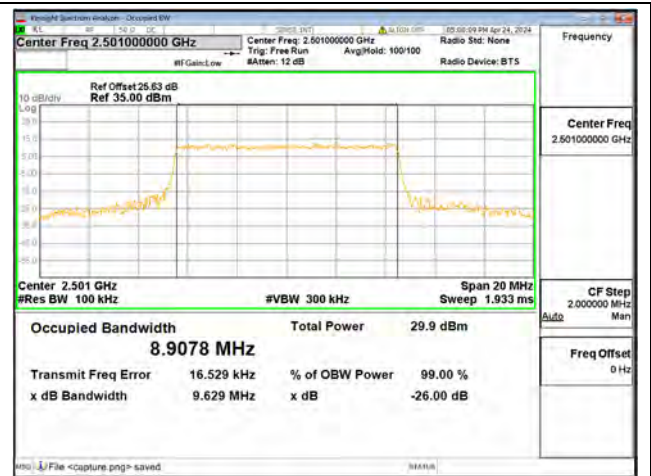
B41 / 5MHz / 64QAM/ High CH



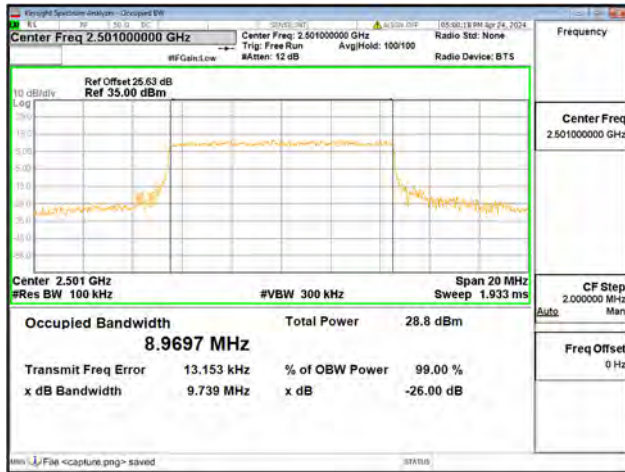
B41 / 5MHz / 256QAM/ High CH



B41 / 10MHz / QPSK/ Low CH



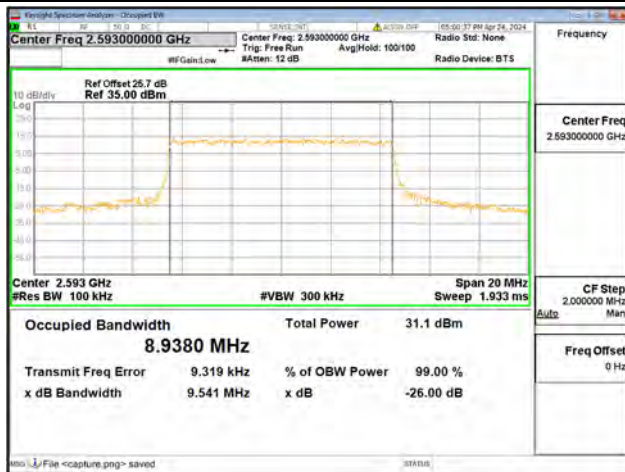
B41 / 10MHz / 16QAM/ Low CH



B41 / 10MHz / 64QAM/ Low CH



B41 / 10MHz / 256QAM/ Low CH



B41 / 10MHz / QPSK/ Mid CH



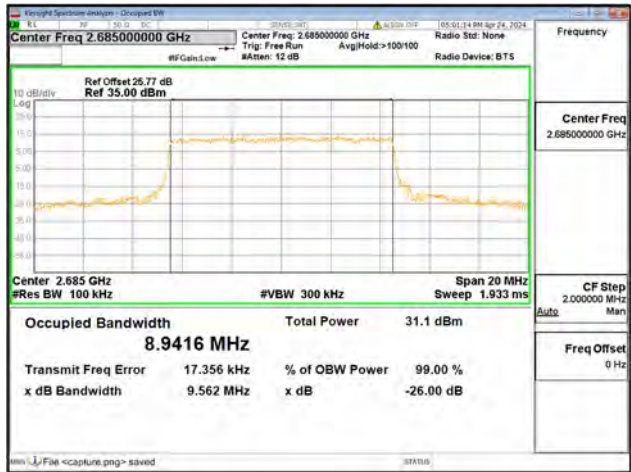
B41 / 10MHz / 16QAM/ Mid CH



B41 / 10MHz / 64QAM/ Mid CH



B41 / 10MHz / 256QAM/ Mid CH



B41 / 10MHz / QPSK/ High CH



B41 / 10MHz / 16QAM/ High CH



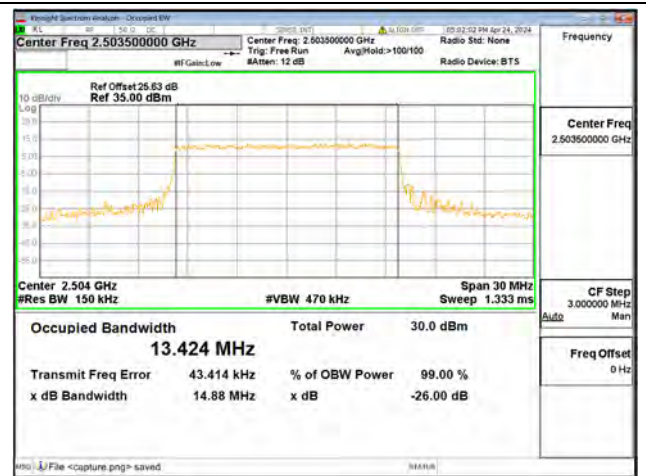
B41 / 10MHz / 64QAM/ High CH



B41 / 10MHz / 256QAM/ High CH



B41 / 15MHz / QPSK/ Low CH



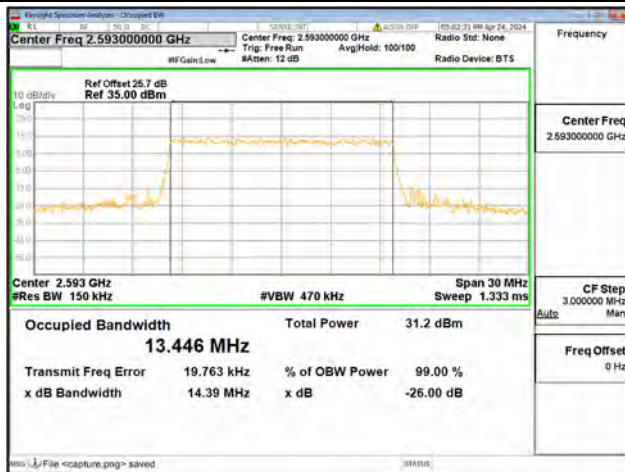
B41 / 15MHz / 16QAM/ Low CH



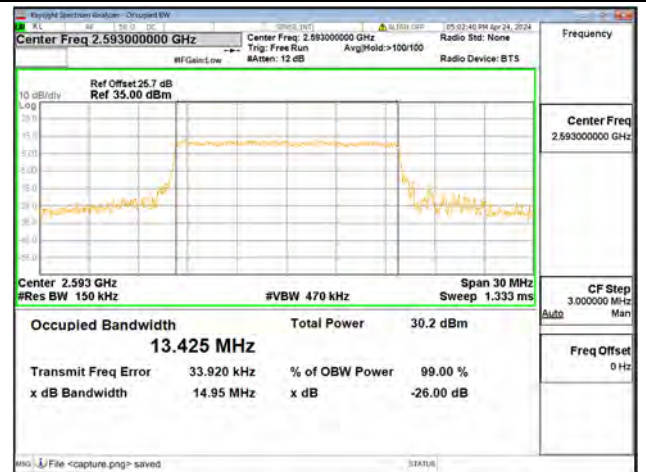
B41 / 15MHz / 64QAM/ Low CH



B41 / 15MHz / 256QAM/ Low CH



B41 / 15MHz / QPSK/ Mid CH



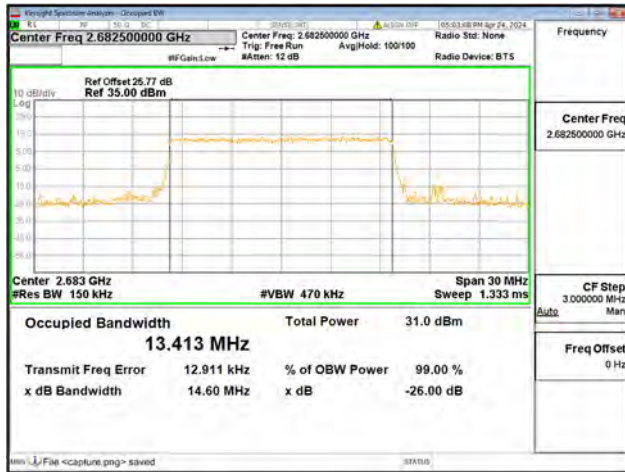
B41 / 15MHz / 16QAM/ Mid CH



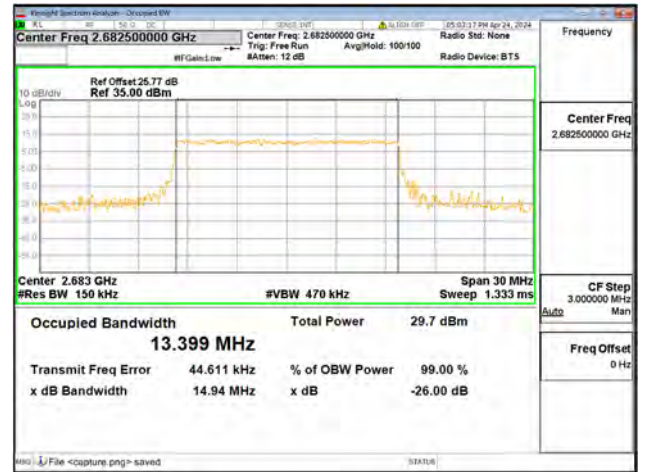
B41 / 15MHz / 64QAM/ Mid CH



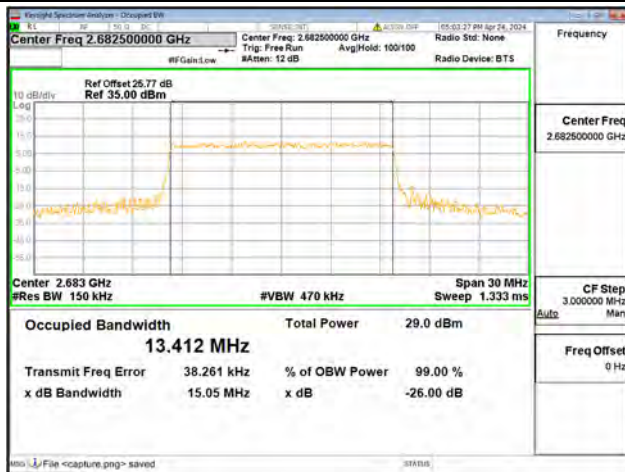
B41 / 15MHz / 256QAM/ Mid CH



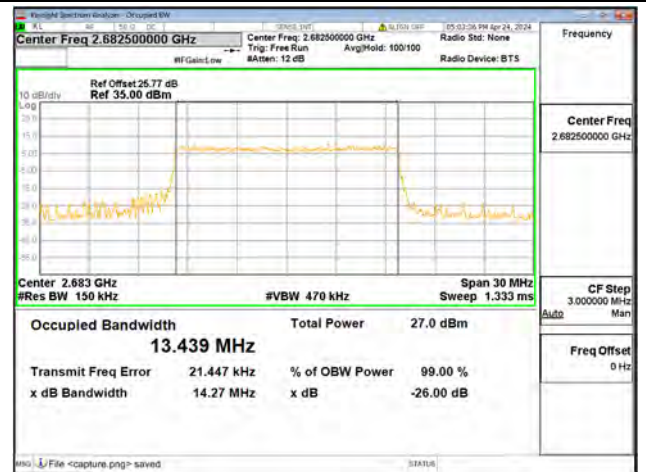
B41 / 15MHz / QPSK/ High CH



B41 / 15MHz / 16QAM/ High CH



B41 / 15MHz / 64QAM/ High CH



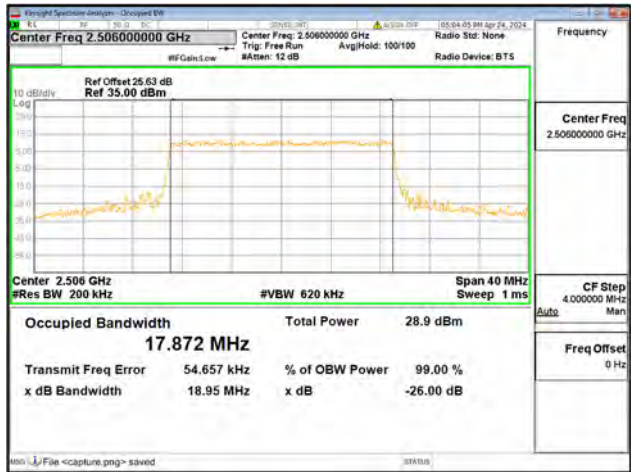
B41 / 15MHz / 256QAM/ High CH



B41 / 20MHz / QPSK/ Low CH



B41 / 20MHz / 16QAM/ Low CH



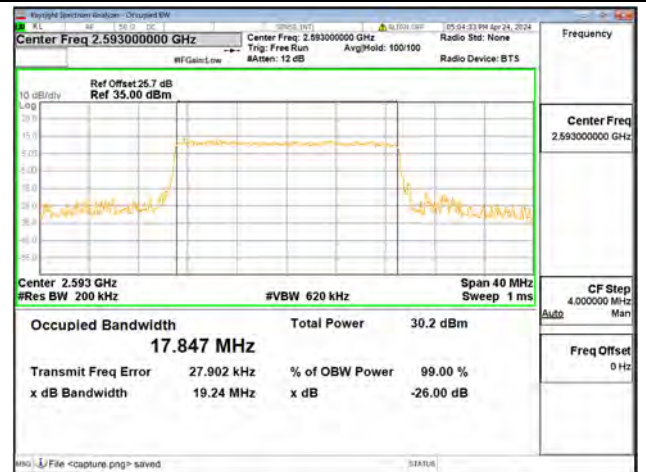
B41 / 20MHz / 64QAM/ Low CH



B41 / 20MHz / 256QAM/ Low CH



B41 / 20MHz / QPSK/ Mid CH



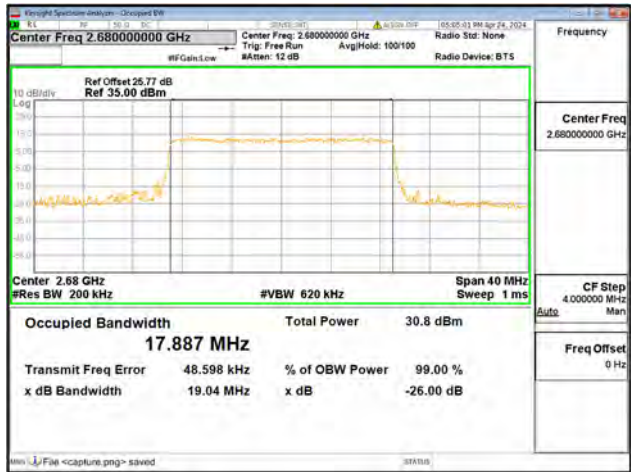
B41 / 20MHz / 16QAM/ Mid CH



B41 / 20MHz / 64QAM/ Mid CH



B41 / 20MHz / 256QAM/ Mid CH



B41 / 20MHz / QPSK/ High CH



B41 / 20MHz / 16QAM/ High CH



B41 / 20MHz / 64QAM/ High CH



B41 / 20MHz / 256QAM/ High CH

2.3. Frequency Stability

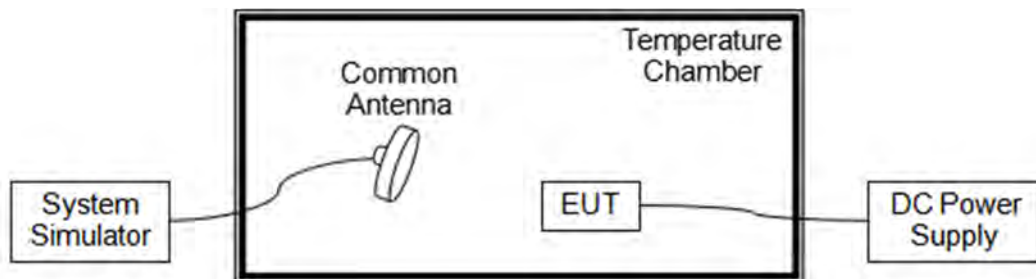
2.3.1. Requirement

According to FCC section 2.1055, 24.235, 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to $+50^{\circ}\text{C}$ at intervals of not more than 10°C .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

Note: The operating temperature of EUT is from -15°C to 55°C , which are specified by the applicant.

2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

2.3.3. Test Procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.



2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 5.00V, 5.50V and 4.50V, which are specified by the applicant; the normal temperature here used is 20°C.

LTE Band 41, 256QAM, Channel 40620, Frequency 2593.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	5.00	+20(Ref)	-3	-0.001	PASS
Normal		-15	16	0.006	
Normal		-10	15	0.006	
Normal		0	17	0.007	
Normal		+10	-16	-0.006	
Normal		+20	20	0.008	
Normal		+30	-3	-0.001	
Normal		+40	13	0.005	
Normal		+50	18	0.007	
Normal		+55	16	0.006	
High		5.50	+20	18	
BATT.ENDPOINT	4.50	+20	14	0.005	

2.4. Conducted Spurious Emissions

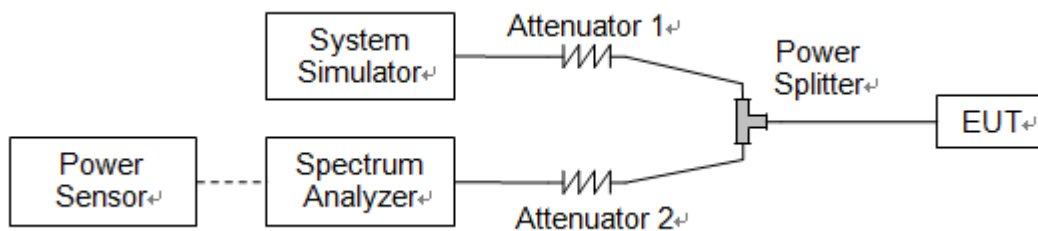
2.4.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43+10*\log(P)$ dB. This calculated to be -13dBm.

Additional requirement for LTE Band 7:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. This calculated to be -25dBm.

2.4.2. Test Description



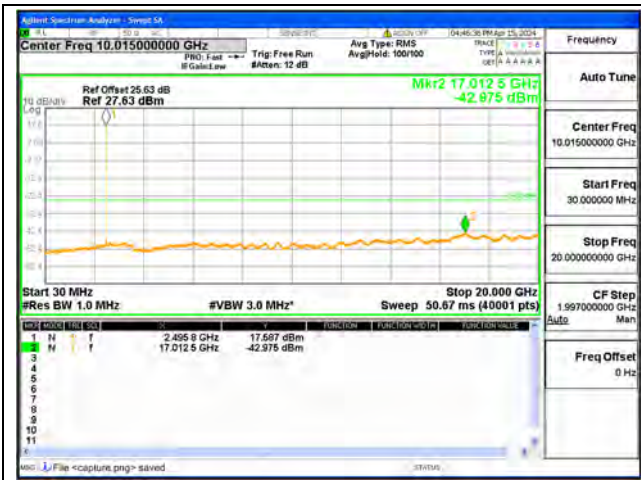
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.4.3. Test Procedure

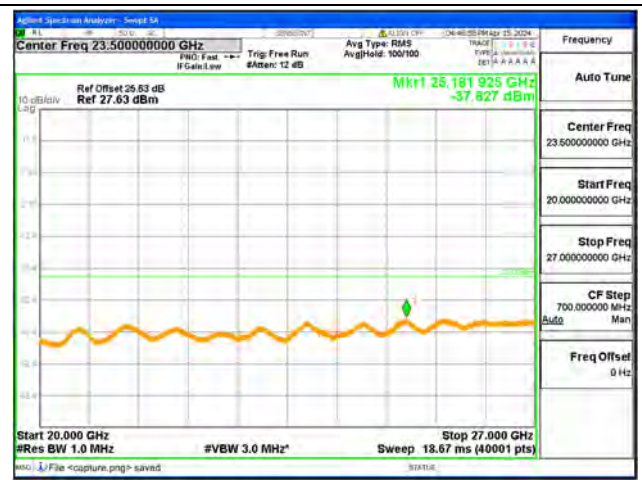
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



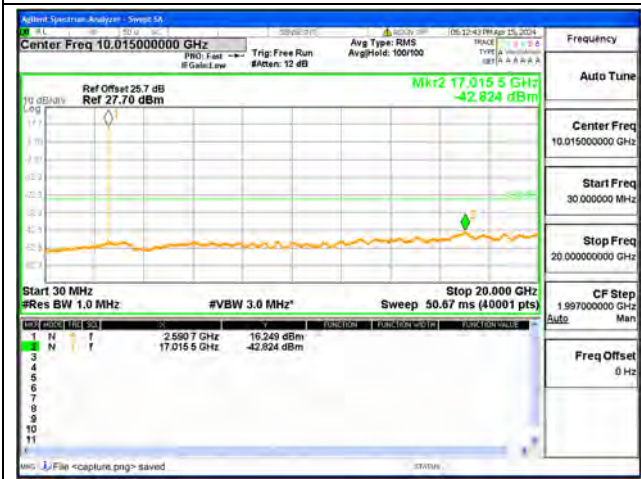
2.4.4. Test Result



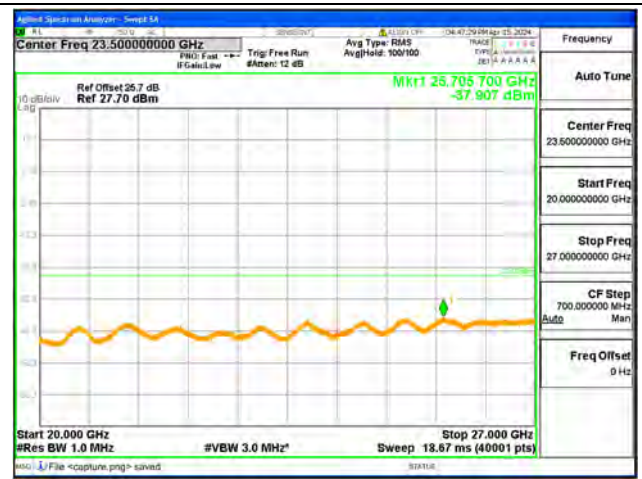
B41-30M-20G / 5MHz / Low CH / QPSK



B41-20G-27G / 5MHz / Low CH / QPSK



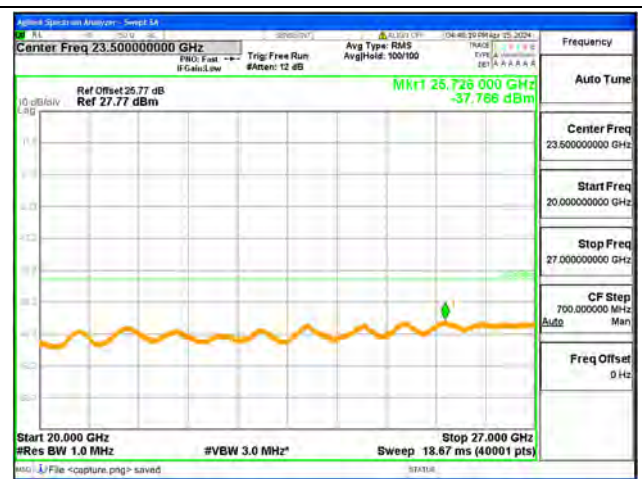
B41-30M-20G / 5MHz / Mid CH / QPSK



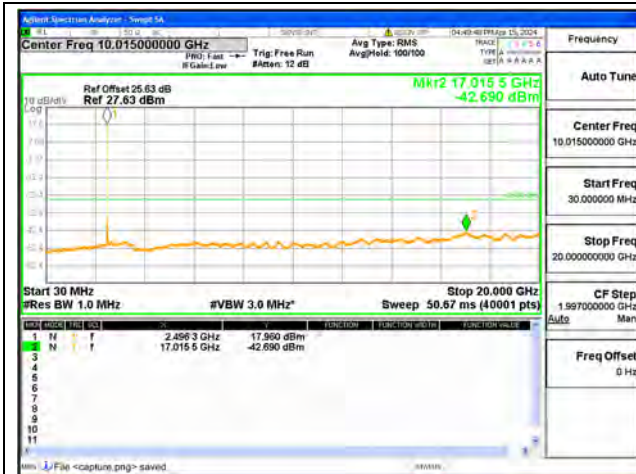
B41-20G-27G / 5MHz / Mid CH / QPSK



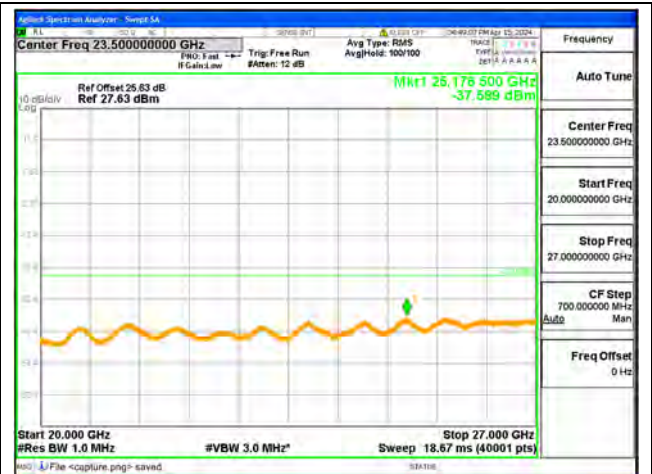
B41-30M-20G / 5MHz / High CH / QPSK



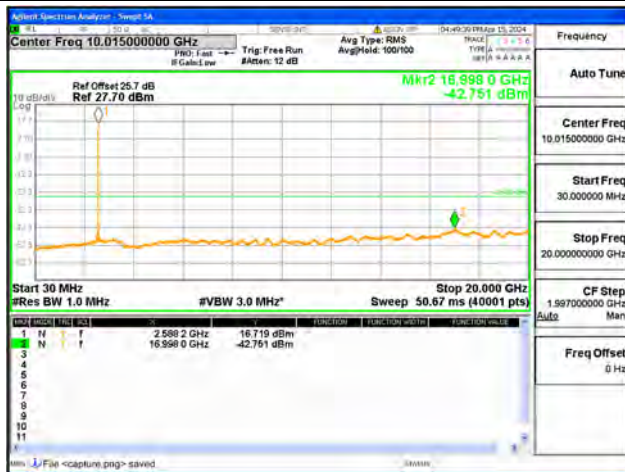
B41-20G-27G / 5MHz / High CH / QPSK



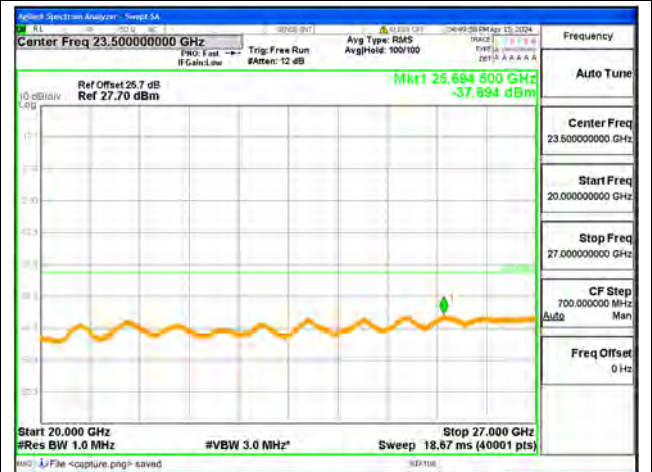
B41-30M-20G / 10MHz / Low CH / QPSK



B41-20G-27G / 10MHz / Low CH / QPSK



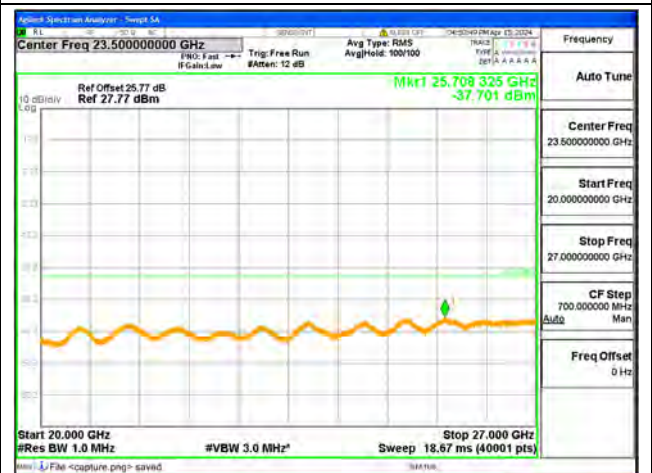
B41-30M-20G / 10MHz / Mid CH / QPSK



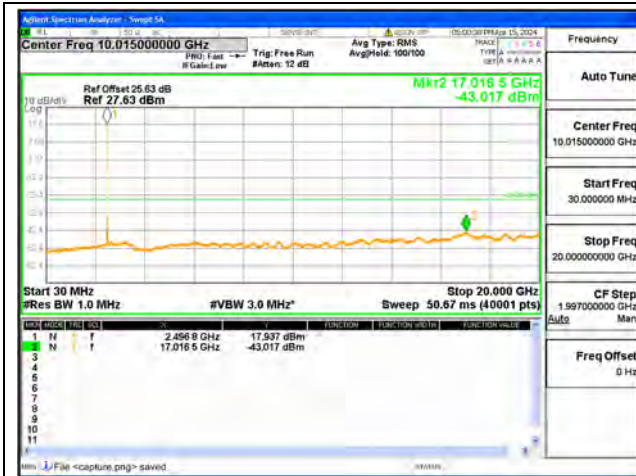
B41-20G-27G / 10MHz / Mid CH / QPSK



B41-30M-20G / 10MHz / High CH / QPSK



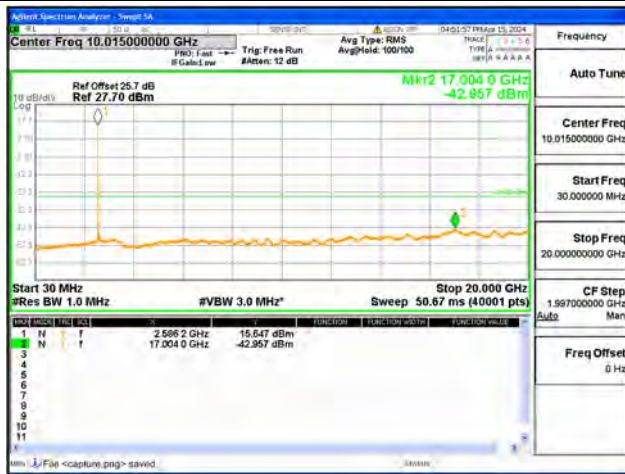
B41-20G-27G / 10MHz / High CH / QPSK



B41-30M-20G / 15MHz / Low CH / QPSK



B41-20G-27G / 15MHz / Low CH / QPSK



B41-30M-20G / 15MHz / Mid CH / QPSK



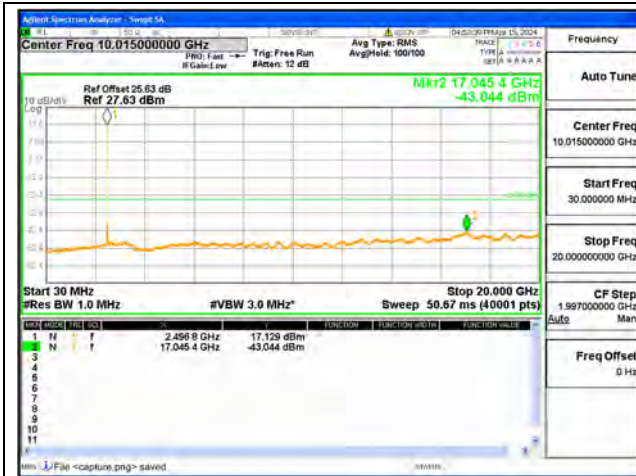
B41-20G-27G / 15MHz / Mid CH / QPSK



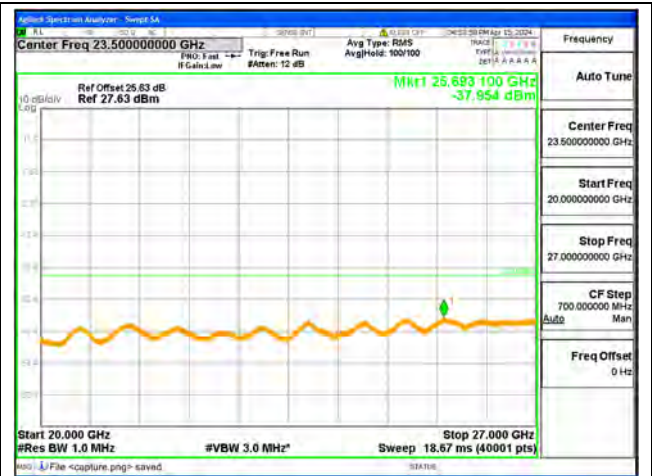
B41-30M-20G / 15MHz / High CH / QPSK



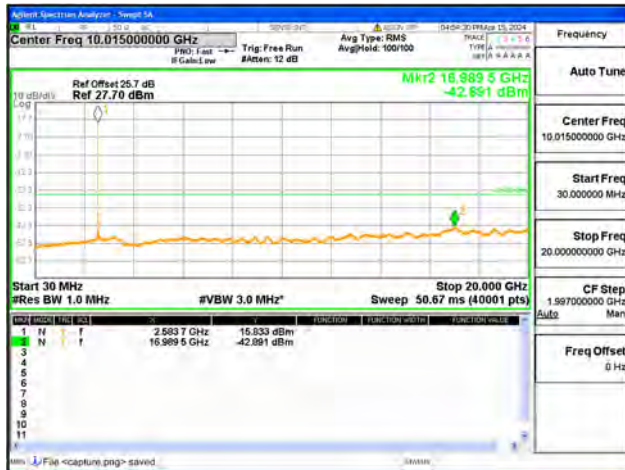
B41-20G-27G / 15MHz / High CH / QPSK



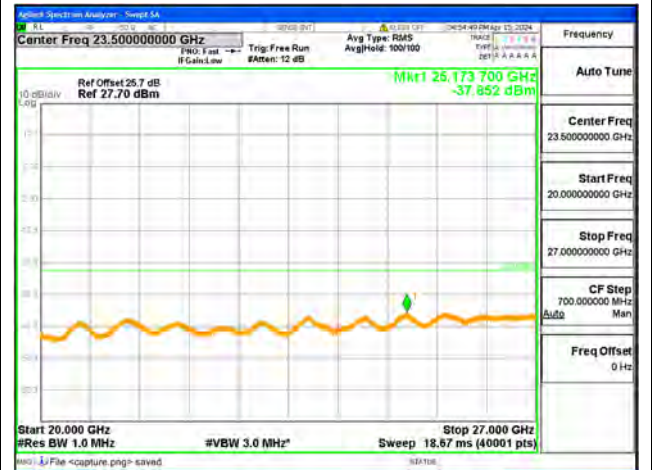
B41-30M-20G / 20MHz / Low CH / QPSK



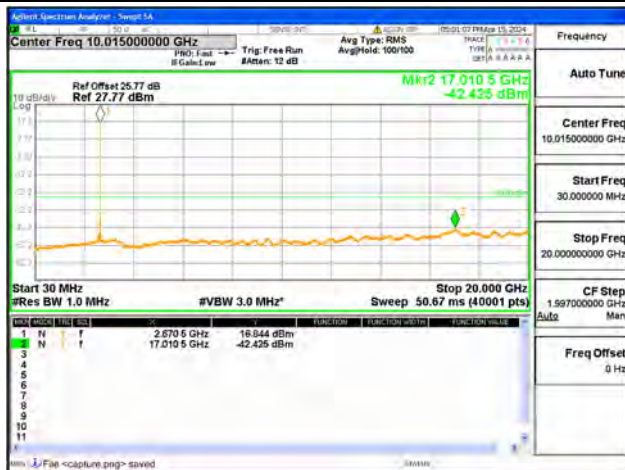
B41-20G-27G / 20MHz / Low CH / QPSK



B41-30M-20G / 20MHz / Mid CH / QPSK



B41-20G-27G / 20MHz / Mid CH / QPSK



B41-30M-20G / 20MHz / High CH / QPSK



B41-20G-27G / 20MHz / High CH / QPSK

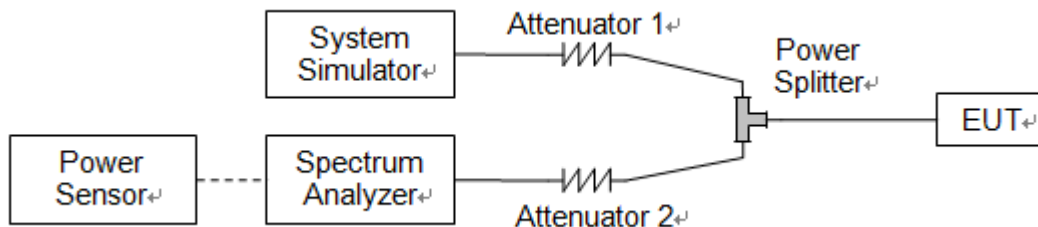
2.5. Band Edge

2.5.1. Requirement

Band 41

According to FCC section 27.53(m) (4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

2.5.2. Test Description



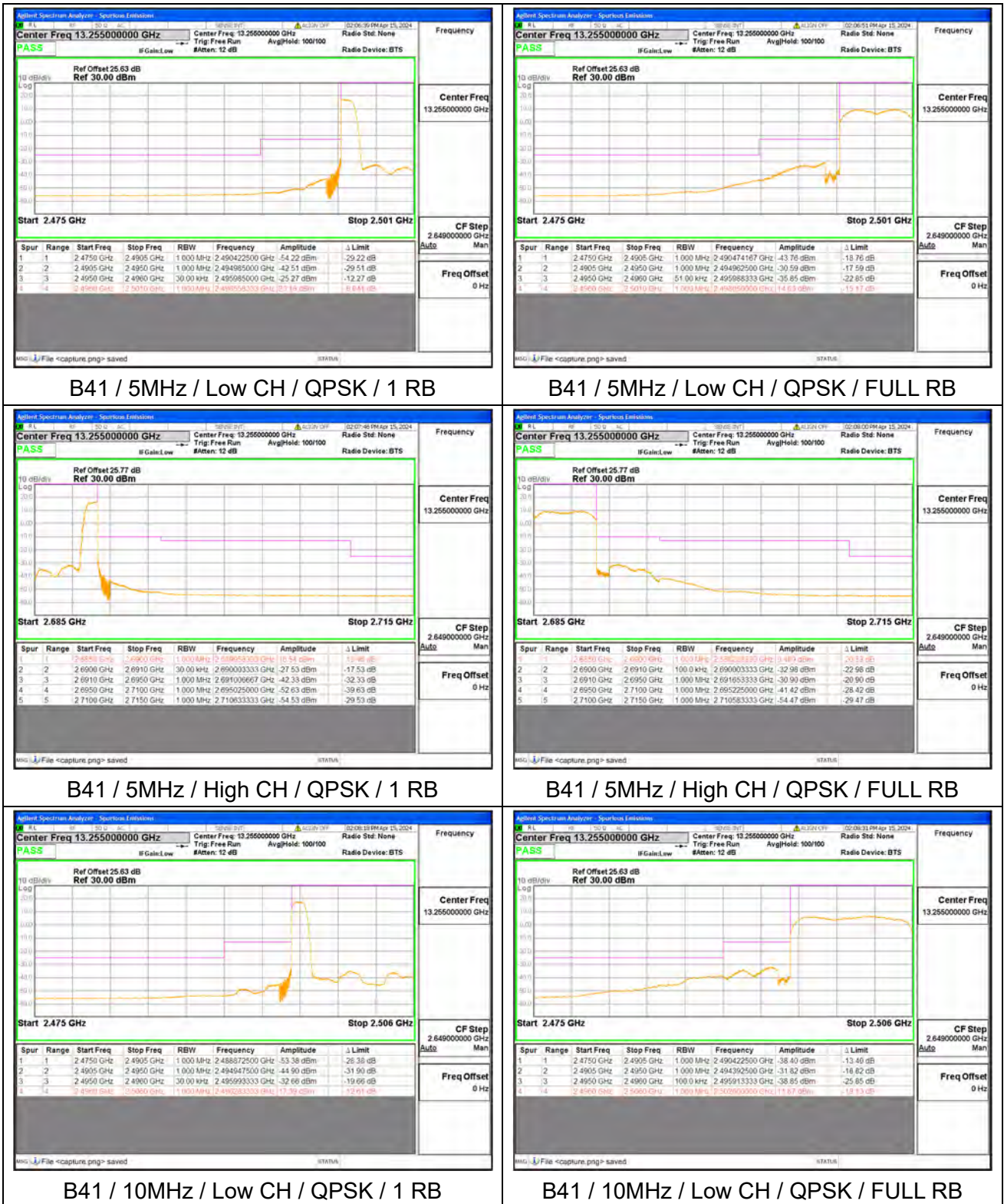
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

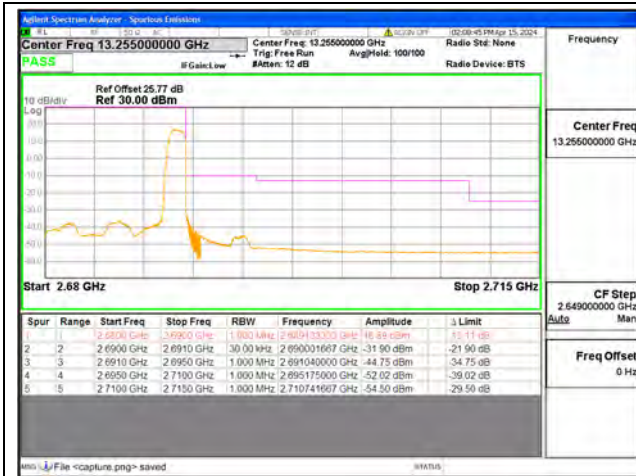
2.5.3. Test Procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



2.5.4. Test Result

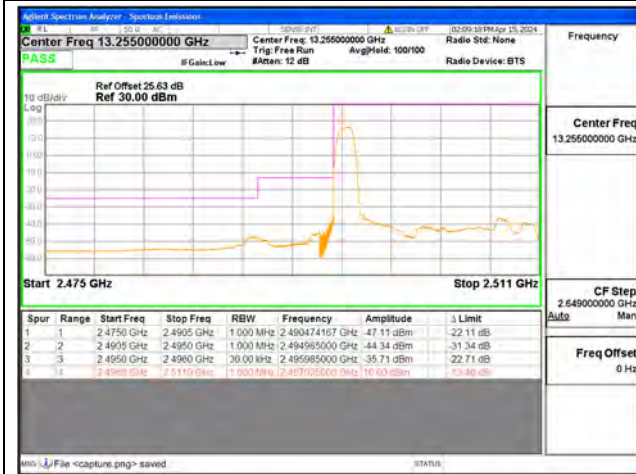




B41 / 10MHz / High CH / QPSK / 1 RB



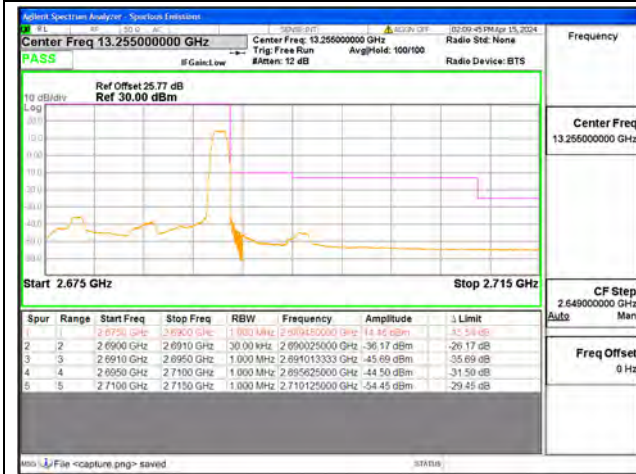
B41 / 10MHz / High CH / QPSK / FULL RB



B41 / 15MHz / Low CH / QPSK / 1 RB



B41 / 15MHz / Low CH / QPSK / FULL RB



B41 / 15MHz / High CH / QPSK / 1 RB



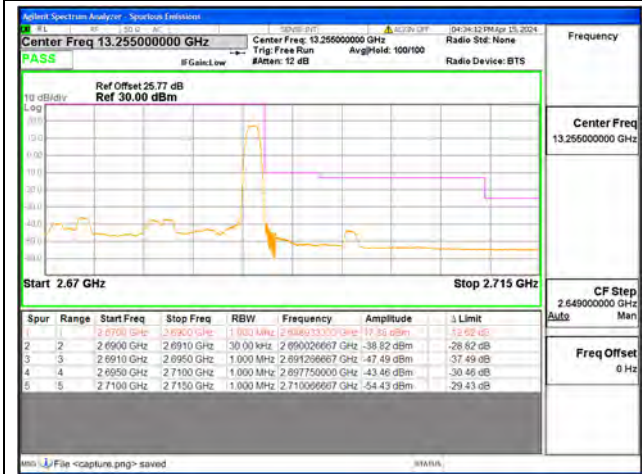
B41 / 15MHz / High CH / QPSK / FULL RB



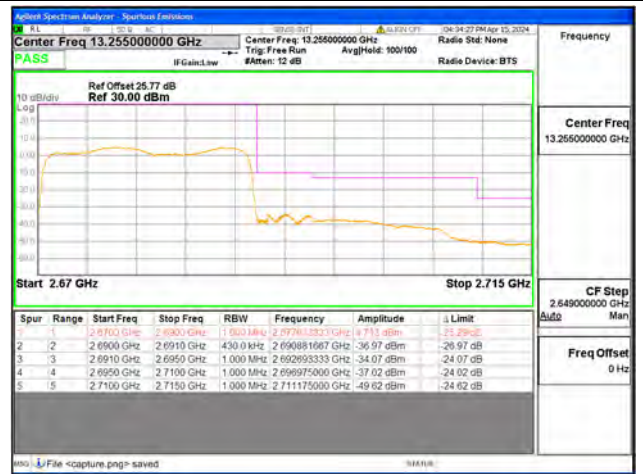
B41 / 20MHz / Low CH / QPSK / 1 RB



B41 / 20MHz / Low CH / QPSK / FULL RB



B41 / 20MHz / High CH / QPSK / 1 RB



B41 / 20MHz / High CH / QPSK / FULL RB

2.6. Radiated Spurious Emissions

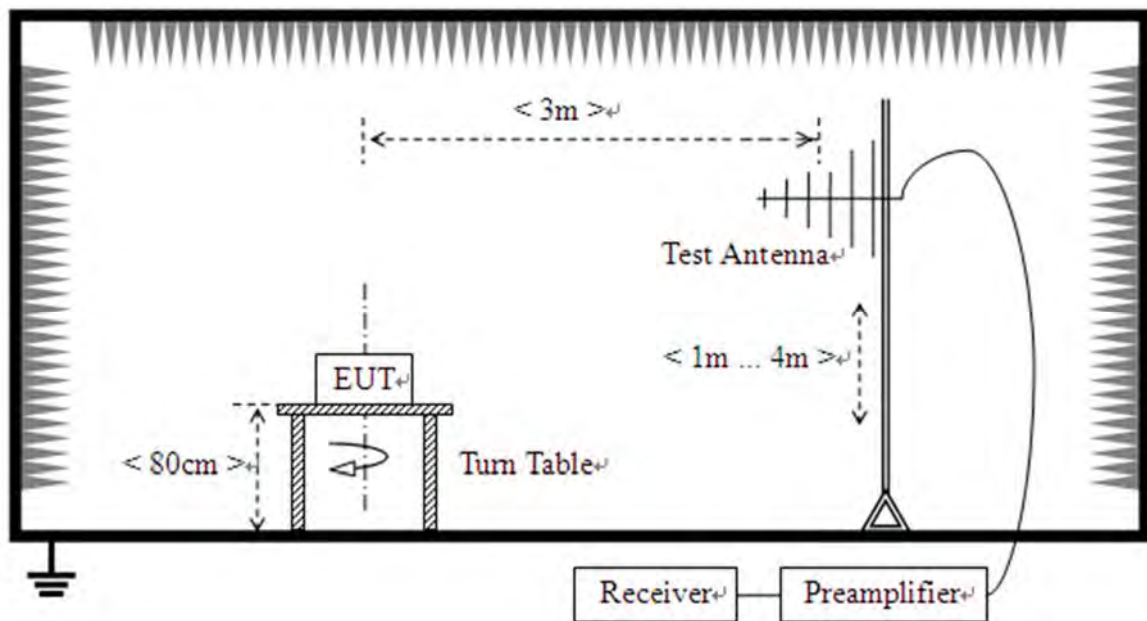
2.6.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43+10*\log(P)$ dB. This calculated to be -13dBm.

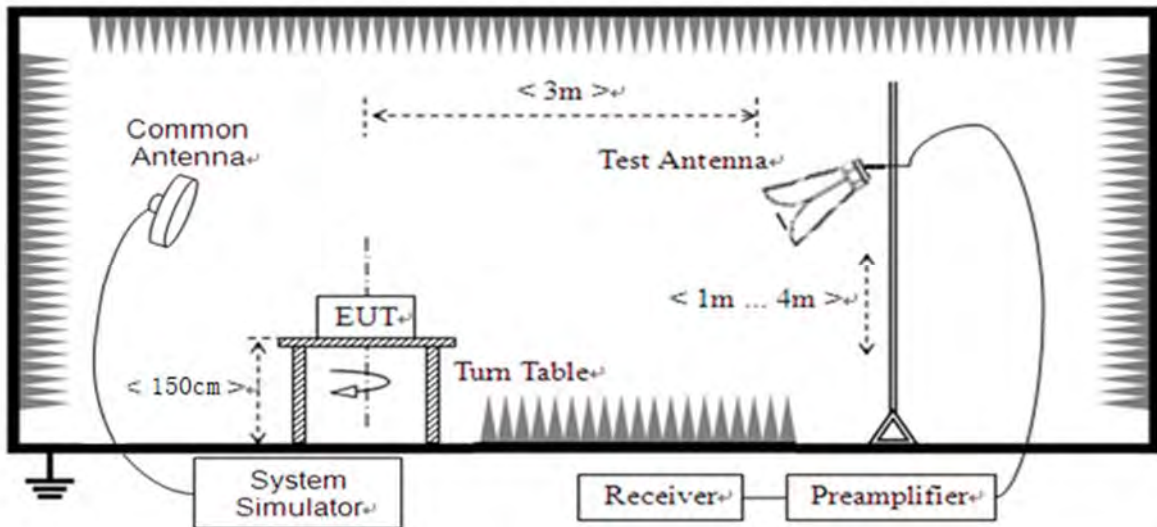
Additional requirement for LTE Band 41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. This calculated to be -25dBm.

2.6.2. Test Description



(For the test frequency from 30MHz to1GHz)



(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

Note: When doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.6.3. Test Procedure

KDB 971168 D01v03 Section 5.8 and ANSI/TIA-603-E-2016.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements.

For measurements above 1GHz (exclude 1559-1610 MHz) the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements.



2.6.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST_TX}} - P_{\text{SUBST_RX}} - L_{\text{SUBST_CABLES}} + G_{\text{SUBST_TX_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

During the test, the data of A_{TOT} was added in the test spectrum analyze, so spectrum analyze reading is the final values which contain the data of A_{TOT} .

Note1: The power of the EUT transmitting frequency should be ignored.

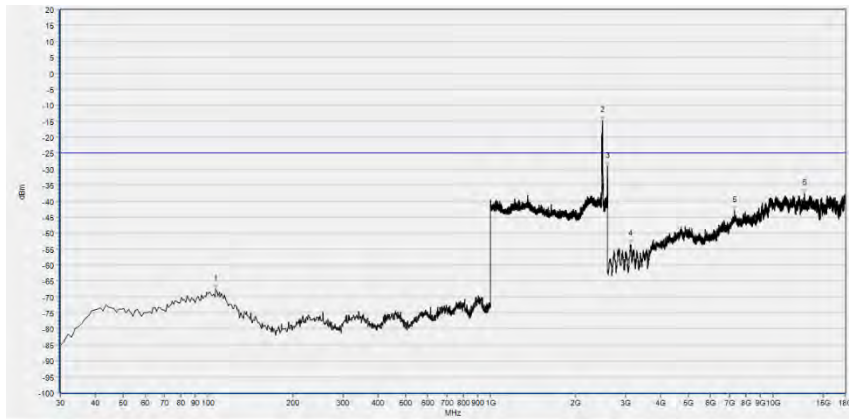
Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band, only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

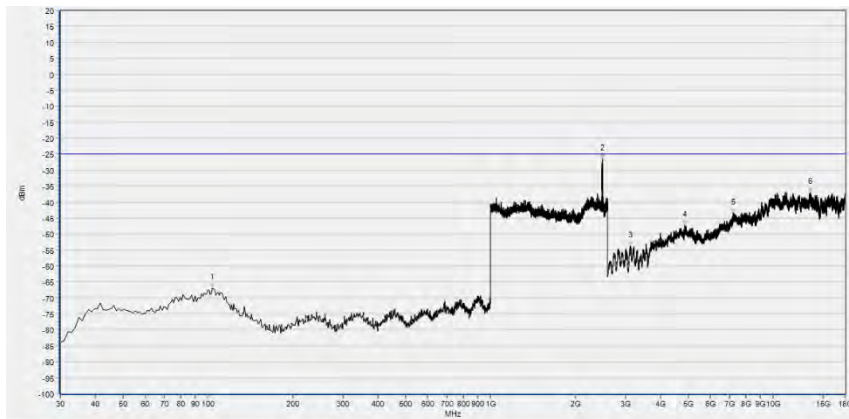
Note 4: N/A means the frequency is the basic frequency or the base station frequency, they are no need to verdict.



LTE Band 41, 20MHz BW, Low Channel, QPSK

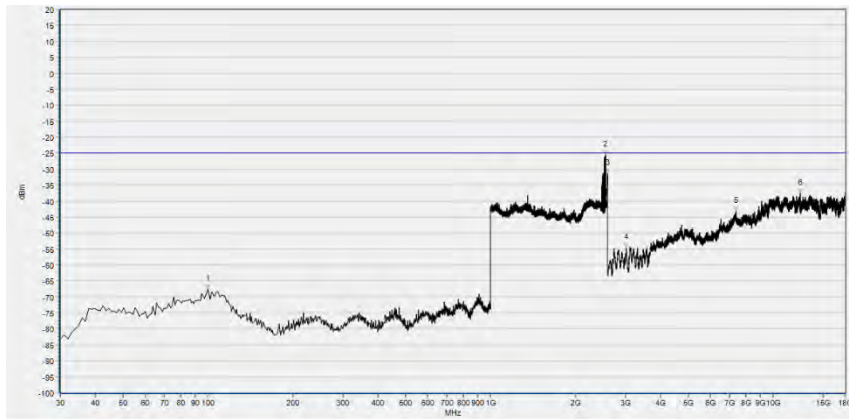


No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	106.707	-67.58	-25.00	Horizontal	PASS
2	2489.030	-14.77	-25.00	Horizontal	N/A
3	2591.464	-29.16	-25.00	Horizontal	PASS
4	3129.866	-53.60	-25.00	Horizontal	PASS
5	7310.262	-43.07	-25.00	Horizontal	PASS
6	12901.580	-37.55	-25.00	Horizontal	PASS

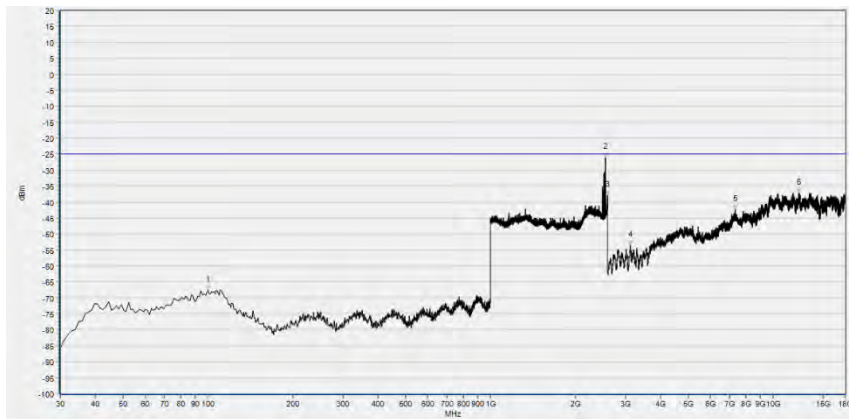


No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	103.794	-67.04	-25.00	Vertical	PASS
2	2489.030	-26.55	-25.00	Vertical	N/A
3	3120.624	-53.80	-25.00	Vertical	PASS
4	4876.575	-47.32	-25.00	Vertical	PASS
5	7220.924	-43.47	-25.00	Vertical	PASS
6	13554.671	-36.91	-25.00	Vertical	PASS

LTE Band 41, 20MHz BW, Mid Channel, QPSK

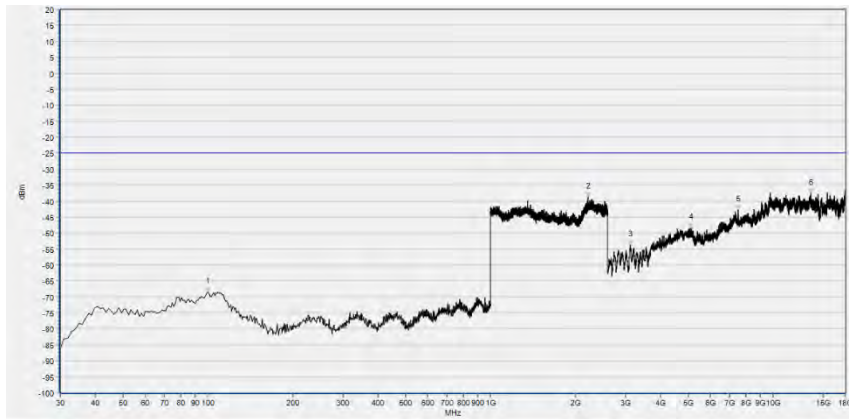


No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	99.910	-67.69	-25.00	Horizontal	PASS
2	2551.450	-25.60	-25.00	Horizontal	N/A
3	2593.064	-31.33	-25.00	Horizontal	N/A
4	3025.125	-54.73	-25.00	Horizontal	PASS
5	7393.439	-43.30	-25.00	Horizontal	PASS
6	12442.569	-37.71	-25.00	Horizontal	PASS



No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	99.910	-67.67	-25.00	Vertical	PASS
2	2551.450	-26.12	-25.00	Vertical	N/A
3	2595.198	-37.92	-25.00	Vertical	N/A
4	3123.705	-53.47	-25.00	Vertical	PASS
5	7350.310	-42.24	-25.00	Vertical	PASS
6	12343.989	-37.27	-25.00	Vertical	PASS

LTE Band 41, 20MHz BW, High Channel, QPSK



No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	99.910	-68.54	-25.00	Horizontal	PASS
2	2212.137	-38.75	-25.00	Horizontal	PASS
3	3126.785	-53.83	-25.00	Horizontal	PASS
4	5119.944	-48.36	-25.00	Horizontal	PASS
5	7507.421	-42.82	-25.00	Horizontal	PASS
6	13588.558	-37.76	-25.00	Horizontal	PASS



No.	Fre.(MHz)	PK (dBm)	Limit (dBm)	Antenna	Verdict
1	111.562	-66.78	-25.00	Vertical	PASS
2	2227.076	-41.51	-25.00	Vertical	PASS
3	3188.398	-53.28	-25.00	Vertical	PASS
4	4919.704	-47.33	-25.00	Vertical	PASS
5	7217.844	-42.69	-25.00	Vertical	PASS
6	12941.628	-37.28	-25.00	Vertical	PASS



Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Output Power	± 2.22 dB
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	± 2.77 dB
Band Edge	± 2.77 dB
Equivalent Isotropic Radiated Power	± 2.22 dB
Radiated Spurious Emissions	± 6 dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipment Utilized

4.1 Conducted Test Equipment

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2023.06.21	2024.06.20
Communication Test Station	6200995016	MT8820C	Anritsu	2023.09.19	2024.09.18
Temperature Chamber	S022177101 00089002	KMT-36LF 1A0	KOMEG	2023.09.19	2024.09.18

4.2 List of Software Used

Description	Manufacturer	Software Version
MOR-2023E Test System	MORLAB	V7.99
MORLAB EMCR	MORLAB	V1.2

**4.3 Radiated Test Equipment**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
System Simulator	152038	CMW500	R&S	2023.10.17	2024.10.16
Receiver	MY54130016	N9038A	Agilent	2023.06.21	2024.06.20
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2023.07.01	2024.06.30
Test Antenna - Horn	9120D-963	BBHA 9120D	Schwarzbeck	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2023.07.04	2024.07.03
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KK F-2	Qualwave	2023.07.04	2024.07.03
Preamplifier (10MHz-6GHz)	46732	S10M100L380 2	LUCIX CORP.	2023.07.04	2024.07.03
Preamplifier (2GHz-18GHz)	61171/61172	S020180L320 3	LUCIX CORP.	2023.06.27	2024.06.26
Notch Filter	N/A	WRCGV -LTE B41	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.05.10	2025.05.09

END OF REPORT