TEST REPORT

APPLICANT	:	BLU Products, Inc.
PRODUCT NAME	:	Smart Phone
MODEL NAME	:	X5+
BRAND NAME	:	BLU
FCC ID	:	YHLBLUX5PUL
STANDARD(S)	:	47 CFR Part 2 47 CFR Part 90, Subpart S
RECEIPT DATE	:	2025-05-14
TEST DATE	:	2025-05-16 to 2025-06-12
ISSUE DATE	:	2025-06-13

Edited by: Zeng Xiaoying (Rapporteur)

Approved by: Shen Junsheng (Supervisor)

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Change History		
Version	Date	Reason for change
1.0	2025-06-13	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	BLU Products, Inc.
Applicant Address:	8600 NW 36th Street, Suite #300 Miami, FL 33166, USA
Manufacturer:	BLU Products, Inc.
Manufacturer Address:	8600 NW 36th Street, Suite #300 Miami, FL 33166, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	Smart Phone	
Sample No.:	2#, 4#	
Hardware Version:	A507-MB-V3.6F	
Software Version:	sp9832e_1h10_go2g_k515-user-gms_0513_1058.pac	
Modulation Type:	QPSK, 16QAM, 64QAM	
Operation Band:	Band 26	
Frequency Range:	LTE Band 26	Tx: 814MHz–824MHz
		Rx: 859MHz–869MHz
Channel Bandwidth	LTE Band 26	1.4MHz, 3MHz, 5MHz, 10MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	LTE Band 26	0.16Bi
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	C775448200L
	Serial No.:	N/A
	Capacity:	2000mAh
	Rated Voltage:	3.8V
	Charge Limit:	4.35V
	Manufacturer:	PHENIX NEW ENERGY(HUIZHOU)CO., LTD
Accessory Information:	AC Adapter	
	Brand Name:	N/A
	Model No.:	US-DC-0750
	Serial No.:	N/A

	Rated Output:	5.0V⎓0.75A
	Rated Input:	100-240V～50/60Hz, 0.2A
	Manufacturer:	SHENZHEN EAST SUN ELECTRONIC CO., LTD

Note 1: SIM 1 and SIM 2 is a chipset unit and tested as a single chipset. The SIM 1 is chosen for test.

Note 2: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. 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 26	**Maximum E.R.P./E.I.R.P. (W)**			**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.141	0.116	0.118	8M98G7D	8M96W7D	8M97W7D
5	0.136	0.123	0.122	4M49G7D	4M49W7D	4M49W7D
3	0.153	0.122	0.123	2M71G7D	2M72W7D	2M73W7D
1.4	0.148	0.136	0.126	1M10G7D	1M10W7D	1M10W7D

1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and Part 90 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
2	47 CFR Part 90	Miscellaneous Wireless Communications Services

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

Section	Description	Test Date	Test Engineer	Result	Remark
2.1046, 90.635(b)	Transmitter Conducted Output Power and ERP/EIRP	Jun. 12, 2025	Zheng Jianhua Liu Huiyan	PASS$_{Note3}$	/
2.1049, 90.209	Occupied Bandwidth	Jun. 12, 2025	Liu Huiyan	PASS	/
2.1055, 90.213	Frequency Stability	Jun. 12, 2025	Liu Huiyan	PASS	/
2.1051, 90.691	Conducted Spurious Emissions	Jun. 12, 2025	Liu Huiyan	PASS	/
2.1051, 90.691	Band Edge	Jun. 12, 2025	Liu Huiyan	PASS	/
2.1053, 90.691	Radiated Spurious Emissions	Jun. 12, 2025	Wang Deyong	PASS	/

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: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.
Note 3: The antenna gain presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information.

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 90S Requirements

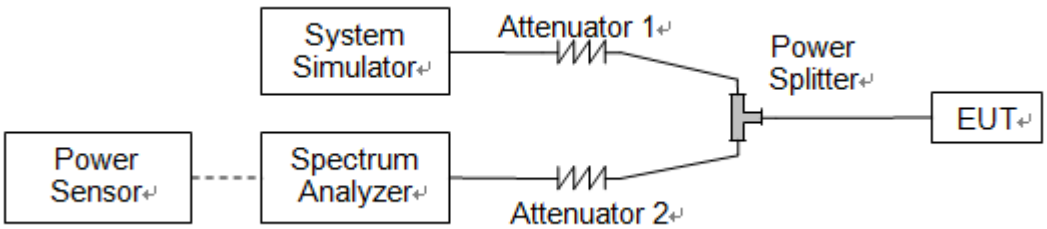
2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.

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 90.635(b) for LTE Band 26, the maximum output power of the transmitter for mobile stations is 100 watts.

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.

EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)
ERP (dBm) = EIPR (dBm) - 2.15

2.1.4. Result

Conducted Output Power

LTE Band 26						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	26740	/
Frequency (MHz)				/	819.0	/
10	QPSK	1	0	/	23.11	/
10	QPSK	1	25	/	23.25	/
10	QPSK	1	49	/	23.49	/
10	QPSK	25	0	/	22.70	/
10	QPSK	25	12	/	22.65	/
10	QPSK	25	25	/	22.73	/
10	QPSK	50	0	/	22.71	/
10	16QAM	1	0	/	22.59	/
10	16QAM	1	25	/	22.52	/
10	16QAM	1	49	/	22.65	/
10	16QAM	25	0	/	21.60	/
10	16QAM	25	12	/	22.02	/
10	16QAM	25	25	/	22.00	/
10	16QAM	50	0	/	21.96	/
10	64QAM	1	0	/	22.47	/
10	64QAM	1	25	/	22.72	/
10	64QAM	1	49	/	22.58	/
10	64QAM	25	0	/	21.84	/
10	64QAM	25	12	/	22.05	/
10	64QAM	25	25	/	22.00	/
10	64QAM	50	0	/	22.06	/

LTE Band 26						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26715	26740	26765
Frequency (MHz)				816.5	819.0	821.5
5	QPSK	1	0	23.03	23.34	23.10
5	QPSK	1	12	23.22	23.31	22.94
5	QPSK	1	24	23.15	23.00	23.02
5	QPSK	12	0	22.26	22.57	22.85
5	QPSK	12	7	22.45	21.86	22.32
5	QPSK	12	13	22.61	22.49	22.89
5	QPSK	25	0	22.58	22.65	22.71
5	16QAM	1	0	22.67	22.89	22.76
5	16QAM	1	12	22.57	22.74	22.86
5	16QAM	1	24	22.09	22.79	22.32
5	16QAM	12	0	21.10	20.45	21.99
5	16QAM	12	7	20.93	21.92	22.02
5	16QAM	12	13	21.37	22.06	22.02
5	16QAM	25	0	22.12	21.93	22.08
5	64QAM	1	0	22.25	22.54	22.61
5	64QAM	1	12	22.42	22.12	22.84
5	64QAM	1	24	22.30	22.52	22.73
5	64QAM	12	0	21.25	20.53	21.95
5	64QAM	12	7	20.69	22.15	21.87
5	64QAM	12	13	20.69	21.92	21.69
5	64QAM	25	0	21.70	22.03	21.98

LTE Band 26						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26705	26740	26775
Frequency (MHz)				815.5	819.0	822.5
3	QPSK	1	0	23.12	23.11	22.83
3	QPSK	1	8	23.30	22.46	23.85
3	QPSK	1	14	23.43	23.18	23.00
3	QPSK	8	0	22.92	22.76	21.90
3	QPSK	8	4	22.56	22.80	22.59
3	QPSK	8	7	22.75	22.37	22.79
3	QPSK	15	0	22.65	22.73	22.45
3	16QAM	1	0	22.78	22.86	22.81
3	16QAM	1	8	22.55	22.11	22.44
3	16QAM	1	14	22.65	21.59	22.20
3	16QAM	8	0	21.61	21.93	22.00
3	16QAM	8	4	21.57	22.00	21.74
3	16QAM	8	7	21.42	21.89	22.03
3	16QAM	15	0	20.79	22.03	22.00
3	64QAM	1	0	22.01	22.61	22.11
3	64QAM	1	8	22.63	22.18	22.71
3	64QAM	1	14	22.55	22.89	22.60
3	64QAM	8	0	21.69	21.78	21.93
3	64QAM	8	4	21.57	21.87	21.85
3	64QAM	8	7	21.69	22.00	21.70
3	64QAM	15	0	20.88	21.94	22.08

LTE Band 26						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26697	26740	26783
Frequency (MHz)				814.7	819.0	823.3
1.4	QPSK	1	0	22.68	23.40	23.30
1.4	QPSK	1	3	23.14	23.68	23.64
1.4	QPSK	1	5	23.10	23.39	23.40
1.4	QPSK	3	0	23.10	23.36	23.20
1.4	QPSK	3	1	22.77	23.13	23.09
1.4	QPSK	3	3	22.92	23.13	23.25
1.4	QPSK	6	0	22.72	22.45	22.80
1.4	16QAM	1	0	22.82	22.37	22.68
1.4	16QAM	1	3	21.84	22.97	22.41
1.4	16QAM	1	5	22.38	22.32	22.81
1.4	16QAM	3	0	22.84	23.33	23.24
1.4	16QAM	3	1	22.96	22.96	23.02
1.4	16QAM	3	3	22.91	22.25	23.08
1.4	16QAM	6	0	20.27	21.93	21.66
1.4	64QAM	1	0	22.52	22.72	22.85
1.4	64QAM	1	3	22.75	21.86	22.60
1.4	64QAM	1	5	22.77	21.89	22.75
1.4	64QAM	3	0	22.44	22.92	22.94
1.4	64QAM	3	1	22.43	22.61	22.34
1.4	64QAM	3	3	22.60	22.67	23.00
1.4	64QAM	6	0	22.04	21.98	21.84

Effective Radiated Power and Effective Isotropic Radiated Power

LTE Band 26				Measured E.R.P.			
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.	Middle Ch. / Freq.		High Ch. / Freq.
Channel				/	26740		/
Frequency (MHz)				/	819		/
				/	dBm	W	/
10	QPSK	1	0	/	21.12	0.129	/
10	QPSK	1	25	/	21.26	0.134	/
10	QPSK	1	49	/	21.50	0.141	/
10	QPSK	25	0	/	20.71	0.118	/
10	QPSK	25	12	/	20.66	0.116	/
10	QPSK	25	25	/	20.74	0.119	/
10	QPSK	50	0	/	20.72	0.118	/
10	16QAM	1	0	/	20.60	0.115	/
10	16QAM	1	25	/	20.53	0.113	/
10	16QAM	1	49	/	20.66	0.116	/
10	16QAM	25	0	/	19.61	0.091	/
10	16QAM	25	12	/	20.03	0.101	/
10	16QAM	25	25	/	20.01	0.100	/
10	16QAM	50	0	/	19.97	0.099	/
10	64QAM	1	0	/	20.48	0.112	/
10	64QAM	1	25	/	20.73	0.118	/
10	64QAM	1	49	/	20.59	0.115	/
10	64QAM	25	0	/	19.85	0.097	/
10	64QAM	25	12	/	20.06	0.101	/
10	64QAM	25	25	/	20.01	0.100	/
10	64QAM	50	0	/	20.07	0.102	/

LTE Band 26				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26715		26740		26765	
Frequency (MHz)				816.5		819.0		821.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	21.04	0.127	21.35	0.136	21.11	0.129
5	QPSK	1	12	21.23	0.133	21.32	0.136	20.95	0.124
5	QPSK	1	24	21.16	0.131	21.01	0.126	21.03	0.127
5	QPSK	12	0	20.27	0.106	20.58	0.114	20.86	0.122
5	QPSK	12	7	20.46	0.111	19.87	0.097	20.33	0.108
5	QPSK	12	13	20.62	0.115	20.50	0.112	20.90	0.123
5	QPSK	25	0	20.59	0.115	20.66	0.116	20.72	0.118
5	16QAM	1	0	20.68	0.117	20.90	0.123	20.77	0.119
5	16QAM	1	12	20.58	0.114	20.75	0.119	20.87	0.122
5	16QAM	1	24	20.10	0.102	20.80	0.120	20.33	0.108
5	16QAM	12	0	19.11	0.081	18.46	0.070	20.00	0.100
5	16QAM	12	7	18.94	0.078	19.93	0.098	20.03	0.101
5	16QAM	12	13	19.38	0.087	20.07	0.102	20.03	0.101
5	16QAM	25	0	20.13	0.103	19.94	0.099	20.09	0.102
5	64QAM	1	0	20.26	0.106	20.55	0.114	20.62	0.115
5	64QAM	1	12	20.43	0.110	20.13	0.103	20.85	0.122
5	64QAM	1	24	20.31	0.107	20.53	0.113	20.74	0.119
5	64QAM	12	0	19.26	0.084	18.54	0.071	19.96	0.099
5	64QAM	12	7	18.70	0.074	20.16	0.104	19.88	0.097
5	64QAM	12	13	18.70	0.074	19.93	0.098	19.70	0.093
5	64QAM	25	0	19.71	0.094	20.04	0.101	19.99	0.100

LTE Band 26				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26705		26740		26775	
Frequency (MHz)				815.5		819.0		822.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	21.13	0.130	21.12	0.129	20.84	0.121
3	QPSK	1	8	21.31	0.135	20.47	0.111	21.86	0.153
3	QPSK	1	14	21.44	0.139	21.19	0.132	21.01	0.126
3	QPSK	8	0	20.93	0.124	20.77	0.119	19.91	0.098
3	QPSK	8	4	20.57	0.114	20.81	0.121	20.60	0.115
3	QPSK	8	7	20.76	0.119	20.38	0.109	20.80	0.120
3	QPSK	15	0	20.66	0.116	20.74	0.119	20.46	0.111
3	16QAM	1	0	20.79	0.120	20.87	0.122	20.82	0.121
3	16QAM	1	8	20.56	0.114	20.12	0.103	20.45	0.111
3	16QAM	1	14	20.66	0.116	19.60	0.091	20.21	0.105
3	16QAM	8	0	19.62	0.092	19.94	0.099	20.01	0.100
3	16QAM	8	4	19.58	0.091	20.01	0.100	19.75	0.094
3	16QAM	8	7	19.43	0.088	19.90	0.098	20.04	0.101
3	16QAM	15	0	18.80	0.076	20.04	0.101	20.01	0.100
3	64QAM	1	0	20.02	0.100	20.62	0.115	20.12	0.103
3	64QAM	1	8	20.64	0.116	20.19	0.104	20.72	0.118
3	64QAM	1	14	20.56	0.114	20.90	0.123	20.61	0.115
3	64QAM	8	0	19.70	0.093	19.79	0.095	19.94	0.099
3	64QAM	8	4	19.58	0.091	19.88	0.097	19.86	0.097
3	64QAM	8	7	19.70	0.093	20.01	0.100	19.71	0.094
3	64QAM	15	0	18.89	0.077	19.95	0.099	20.09	0.102

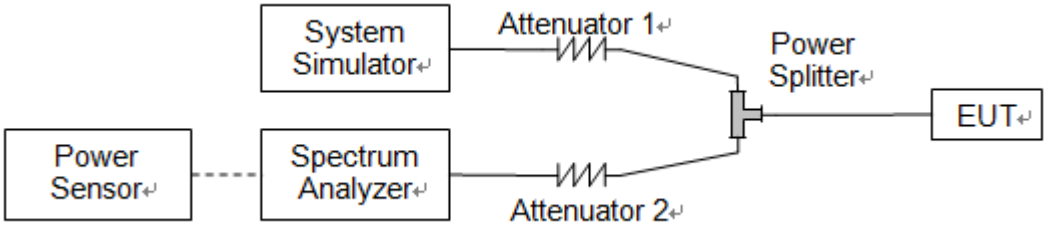
LTE Band 26				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26697		26740		26783	
Frequency (MHz)				814.7		819.0		823.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	20.69	0.117	21.41	0.138	21.31	0.135
1.4	QPSK	1	3	21.15	0.130	21.69	0.148	21.65	0.146
1.4	QPSK	1	5	21.11	0.129	21.40	0.138	21.41	0.138
1.4	QPSK	3	0	21.11	0.129	21.37	0.137	21.21	0.132
1.4	QPSK	3	1	20.78	0.120	21.14	0.130	21.10	0.129
1.4	QPSK	3	3	20.93	0.124	21.14	0.130	21.26	0.134
1.4	QPSK	6	0	20.73	0.118	20.46	0.111	20.81	0.121
1.4	16QAM	1	0	20.83	0.121	20.38	0.109	20.69	0.117
1.4	16QAM	1	3	19.85	0.097	20.98	0.125	20.42	0.110
1.4	16QAM	1	5	20.39	0.109	20.33	0.108	20.82	0.121
1.4	16QAM	3	0	20.85	0.122	21.34	0.136	21.25	0.133
1.4	16QAM	3	1	20.97	0.125	20.97	0.125	21.03	0.127
1.4	16QAM	3	3	20.92	0.124	20.26	0.106	21.09	0.129
1.4	16QAM	6	0	18.28	0.067	19.94	0.099	19.67	0.093
1.4	64QAM	1	0	20.53	0.113	20.73	0.118	20.86	0.122
1.4	64QAM	1	3	20.76	0.119	19.87	0.097	20.61	0.115
1.4	64QAM	1	5	20.78	0.120	19.90	0.098	20.76	0.119
1.4	64QAM	3	0	20.45	0.111	20.93	0.124	20.95	0.124
1.4	64QAM	3	1	20.44	0.111	20.62	0.115	20.35	0.108
1.4	64QAM	3	3	20.61	0.115	20.68	0.117	21.01	0.126
1.4	64QAM	6	0	20.05	0.101	19.99	0.100	19.85	0.097

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.

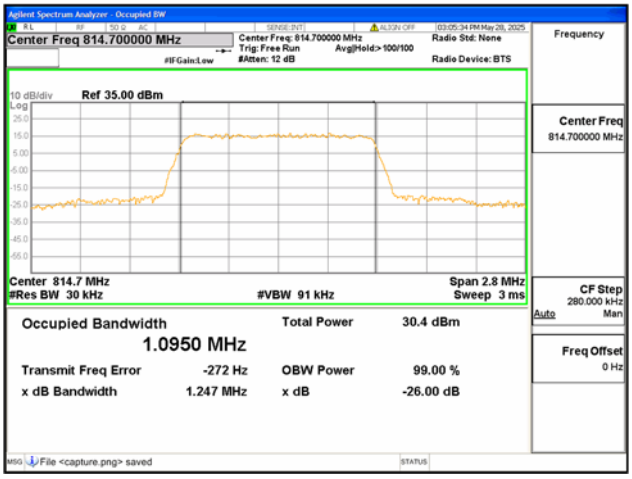
2.2.3. Test procedure

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

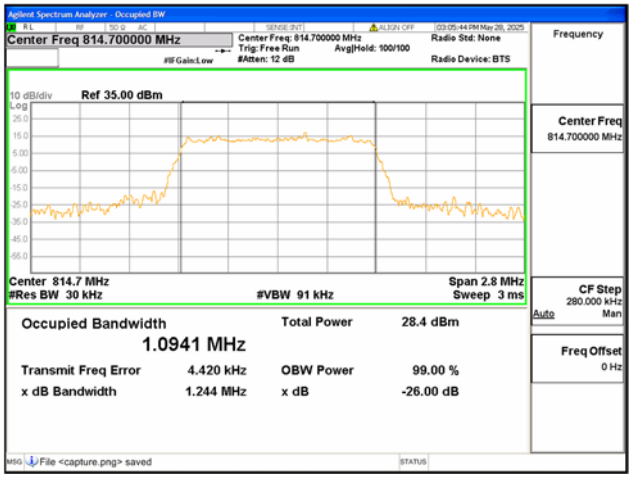
2.2.4. Test Result

LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B26	1.4	Low	26697	814.7	QPSK	1.0950	1.2473	PASS
B26	1.4	Low	26697	814.7	16QAM	1.0941	1.2438	PASS
B26	1.4	Low	26697	814.7	64QAM	1.0989	1.2452	PASS
B26	1.4	Mid	26740	819	QPSK	1.0978	1.2424	PASS
B26	1.4	Mid	26740	819	16QAM	1.0984	1.2465	PASS
B26	1.4	Mid	26740	819	64QAM	1.0978	1.2502	PASS
B26	1.4	High	26783	823.3	QPSK	1.0958	1.2489	PASS
B26	1.4	High	26783	823.3	16QAM	1.0974	1.2476	PASS
B26	1.4	High	26783	823.3	64QAM	1.0947	1.2514	PASS
B26	3	Low	26705	815.5	QPSK	2.7105	3.0541	PASS
B26	3	Low	26705	815.5	16QAM	2.7085	3.0375	PASS
B26	3	Low	26705	815.5	64QAM	2.7192	3.0617	PASS
B26	3	Mid	26740	819	QPSK	2.7137	3.0491	PASS
B26	3	Mid	26740	819	16QAM	2.7154	3.0685	PASS
B26	3	Mid	26740	819	64QAM	2.7231	3.0548	PASS
B26	3	High	26775	822.5	QPSK	2.7103	3.0377	PASS
B26	3	High	26775	822.5	16QAM	2.7156	3.0420	PASS
B26	3	High	26775	822.5	64QAM	2.7260	3.0608	PASS
B26	5	Low	26715	816.5	QPSK	4.4858	4.9352	PASS
B26	5	Low	26715	816.5	16QAM	4.4866	4.9202	PASS
B26	5	Low	26715	816.5	64QAM	4.4888	4.9004	PASS
B26	5	Mid	26740	819	QPSK	4.4815	4.9115	PASS
B26	5	Mid	26740	819	16QAM	4.4791	4.9172	PASS
B26	5	Mid	26740	819	64QAM	4.4788	4.8998	PASS
B26	5	High	26765	821.5	QPSK	4.4836	4.9175	PASS
B26	5	High	26765	821.5	16QAM	4.4871	4.9084	PASS
B26	5	High	26765	821.5	64QAM	4.4854	4.9040	PASS
B26	10	Low	26740	819	QPSK	8.9809	9.8614	PASS
B26	10	Low	26740	819	16QAM	8.9421	9.7539	PASS
B26	10	Low	26740	819	64QAM	8.9731	9.7878	PASS
B26	10	Mid	26740	819	QPSK	8.9684	9.7761	PASS
B26	10	Mid	26740	819	16QAM	8.9587	9.7832	PASS
B26	10	Mid	26740	819	64QAM	8.9719	9.7610	PASS

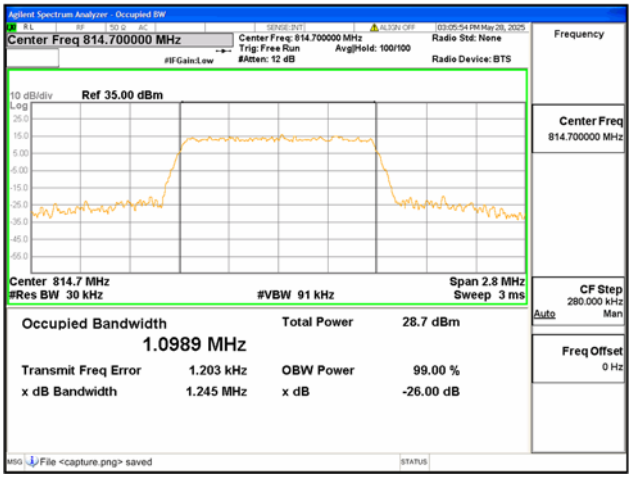
B26	10	High	26740	819	QPSK	8.9816	9.8097	PASS
B26	10	High	26740	819	16QAM	8.9516	9.7160	PASS
B26	10	High	26740	819	64QAM	8.9710	9.8379	PASS



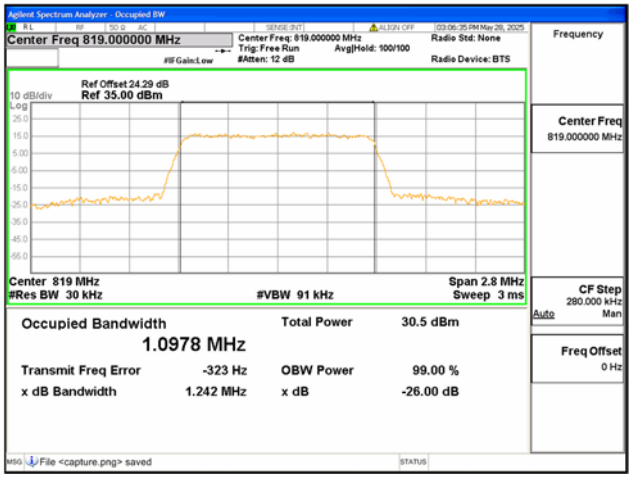
B26 / 1.4MHz / QPSK/ Low CH



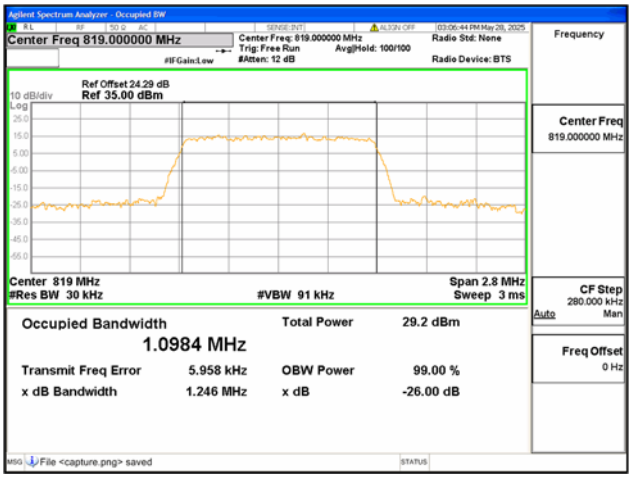
B26 / 1.4MHz / 16QAM/ Low CH



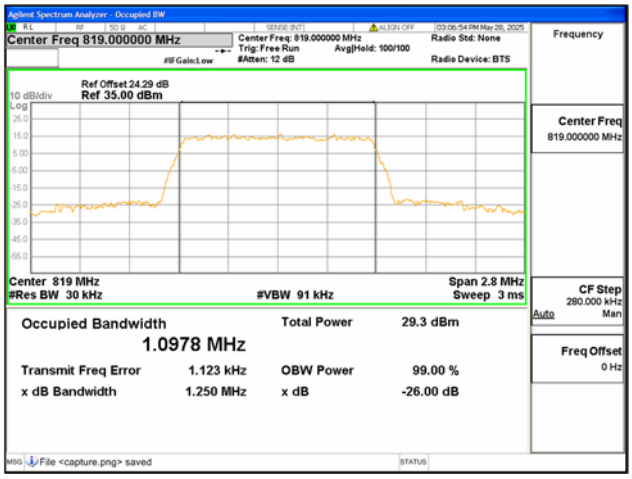
B26 / 1.4MHz / 64QAM/ Low CH



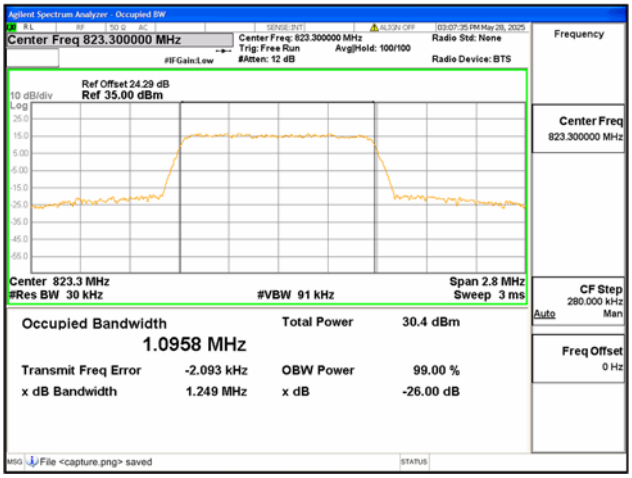
B26 / 1.4MHz / QPSK/ Mid CH



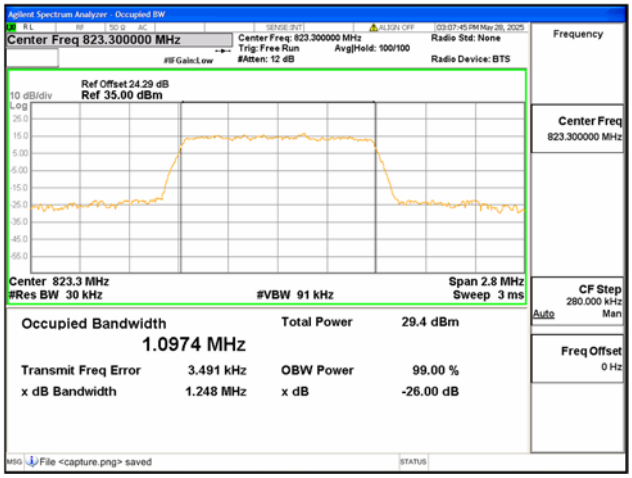
B26 / 1.4MHz / 16QAM/ Mid CH



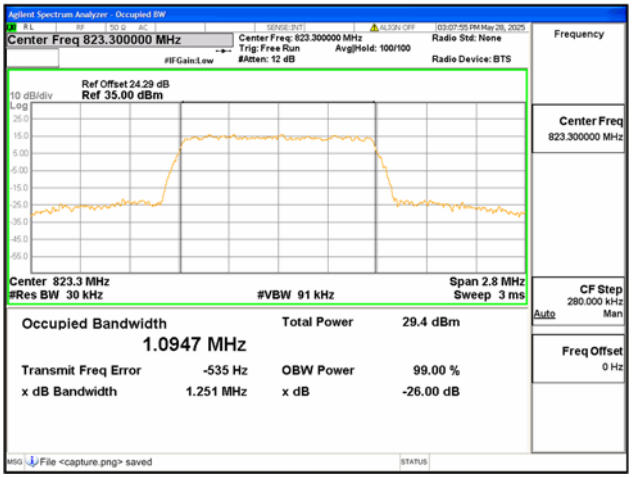
B26 / 1.4MHz / 64QAM/ Mid CH



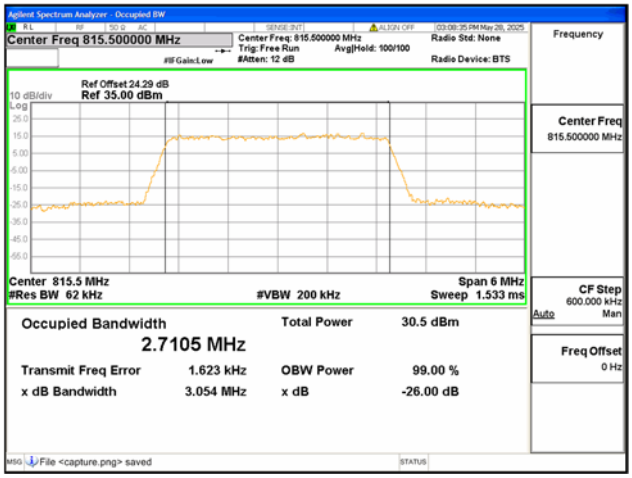
B26 / 1.4MHz / QPSK/ High CH



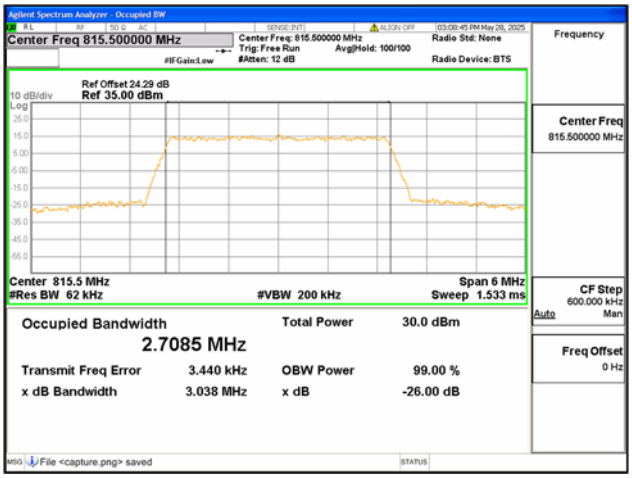
B26 / 1.4MHz / 16QAM/ High CH



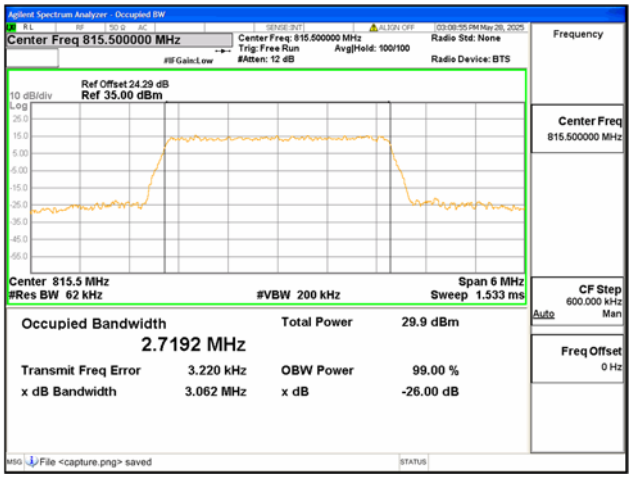
B26 / 1.4MHz / 64QAM/ High CH



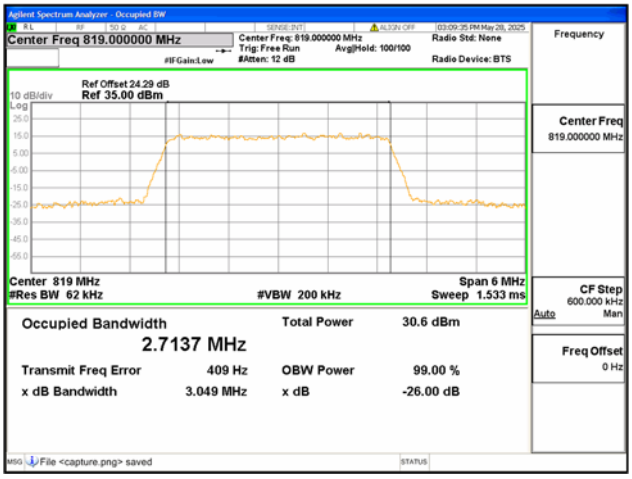
B26 / 3MHz / QPSK/ Low CH



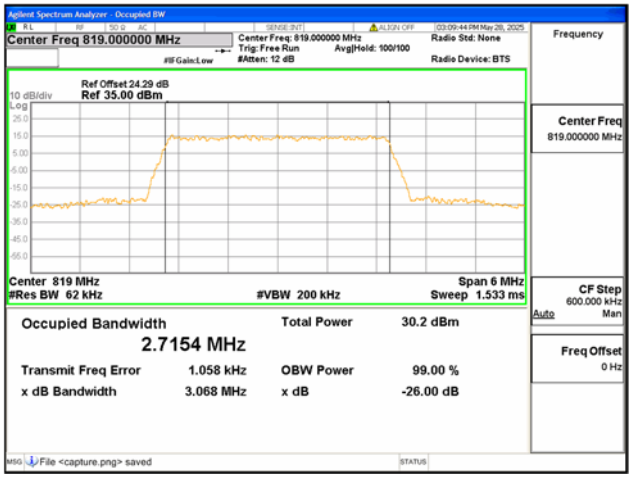
B26 / 3MHz / 16QAM/ Low CH



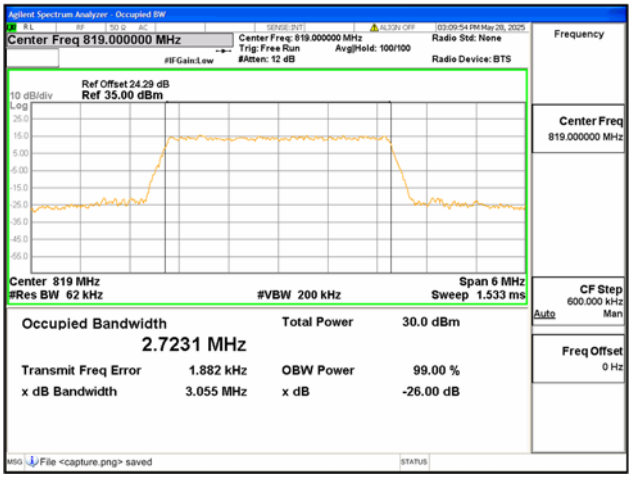
B26 / 3MHz / 64QAM/ Low CH



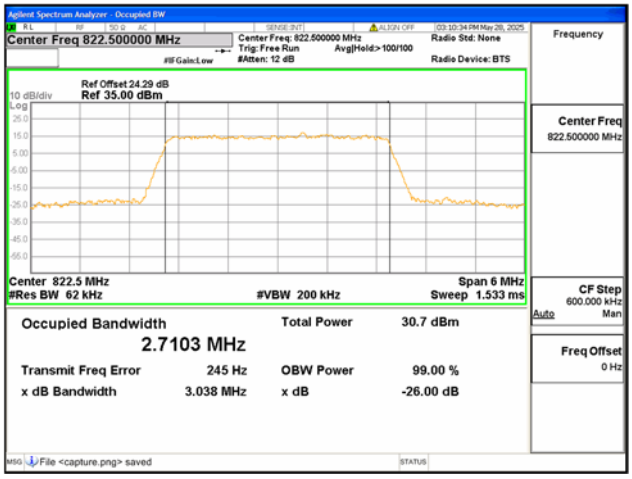
B26 / 3MHz / QPSK/ Mid CH



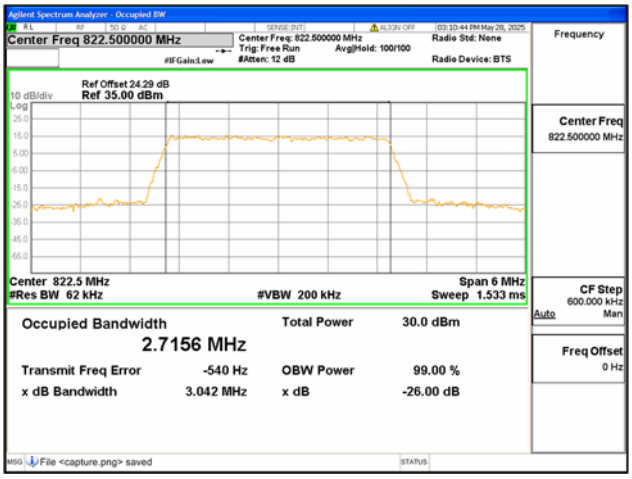
B26 / 3MHz / 16QAM/ Mid CH



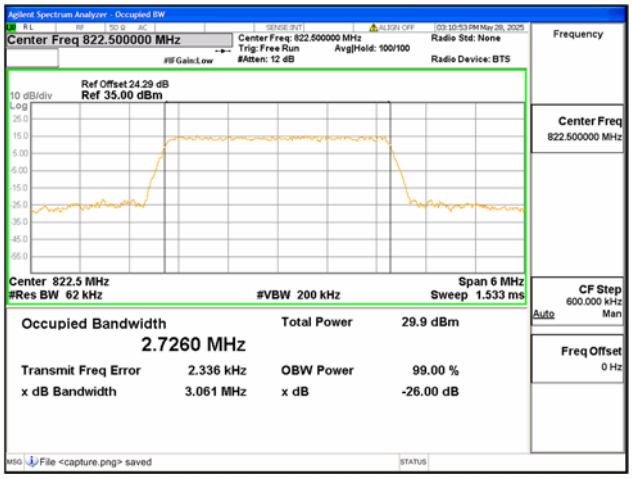
B26 / 3MHz / 64QAM/ Mid CH



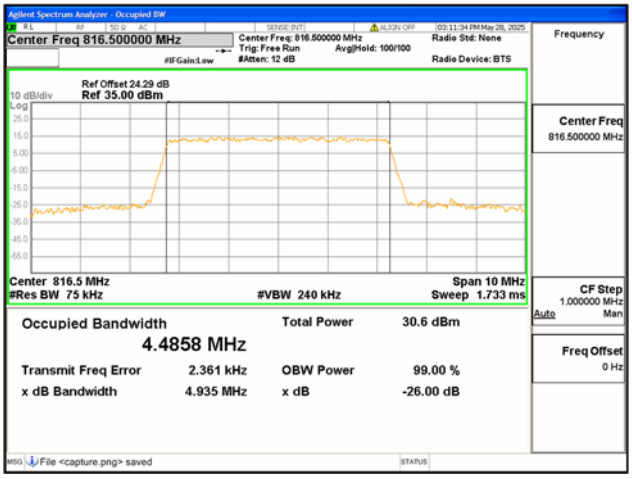
B26 / 3MHz / QPSK/ High CH



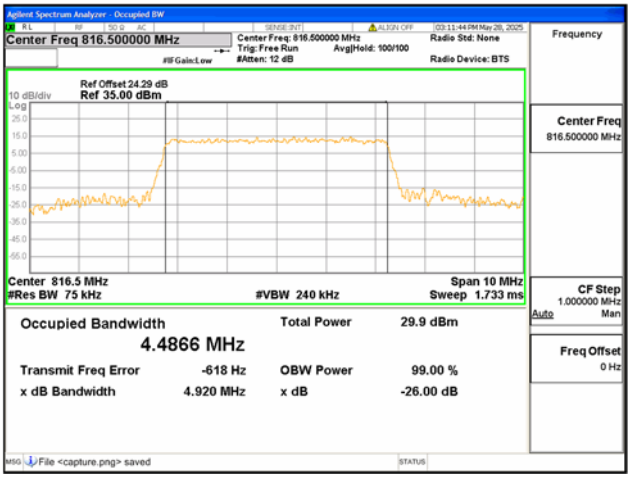
B26 / 3MHz / 16QAM/ High CH



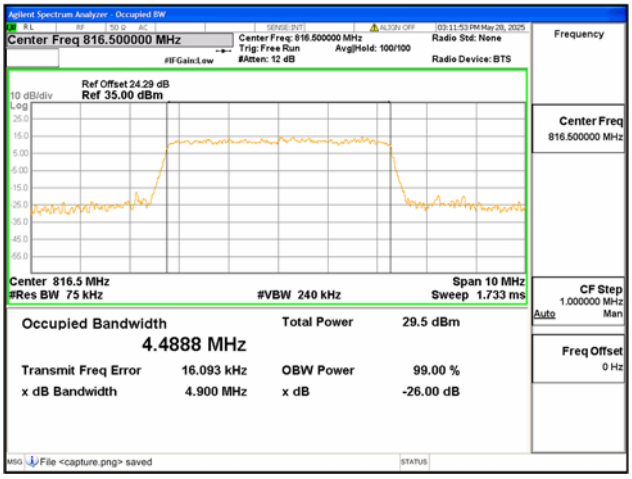
B26 / 3MHz / 64QAM/ High CH



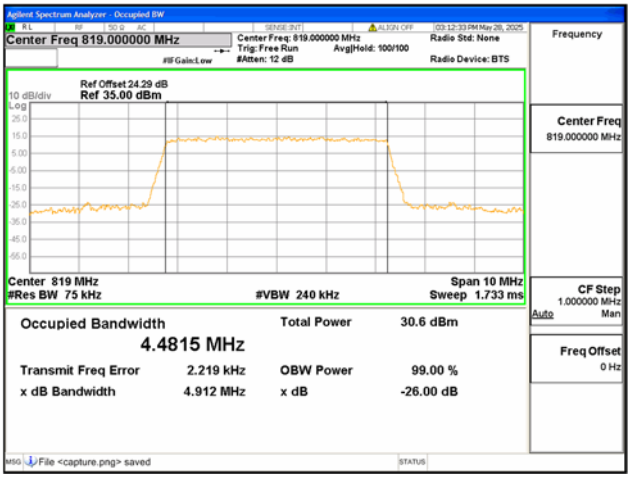
B26 / 5MHz / QPSK/ Low CH



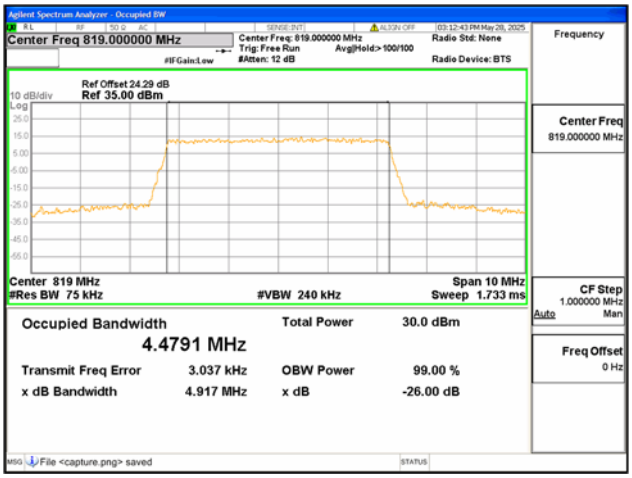
B26 / 5MHz / 16QAM/ Low CH



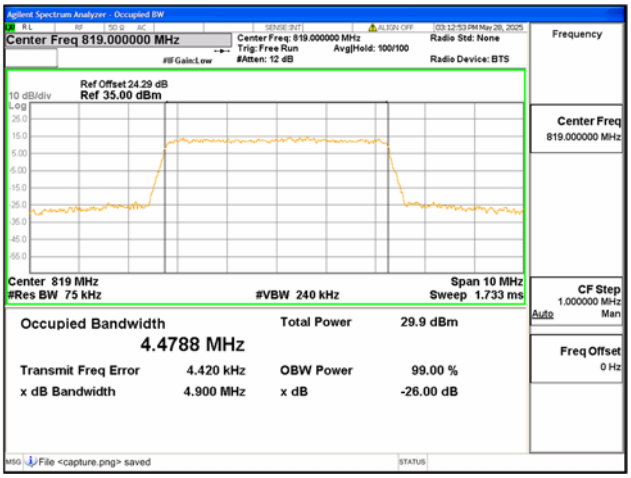
B26 / 5MHz / 64QAM/ Low CH



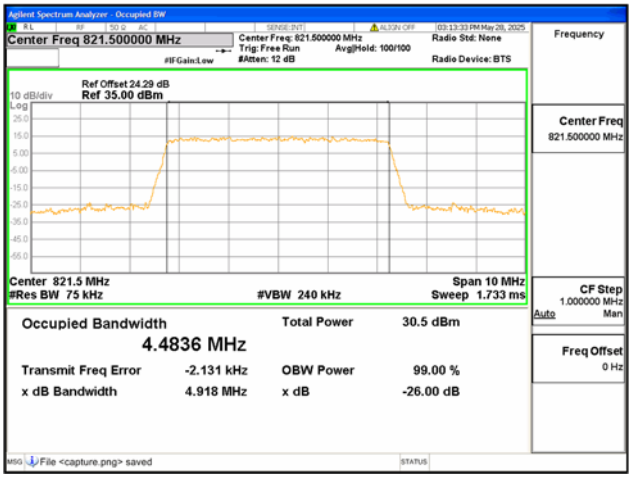
B26 / 5MHz / QPSK/ Mid CH



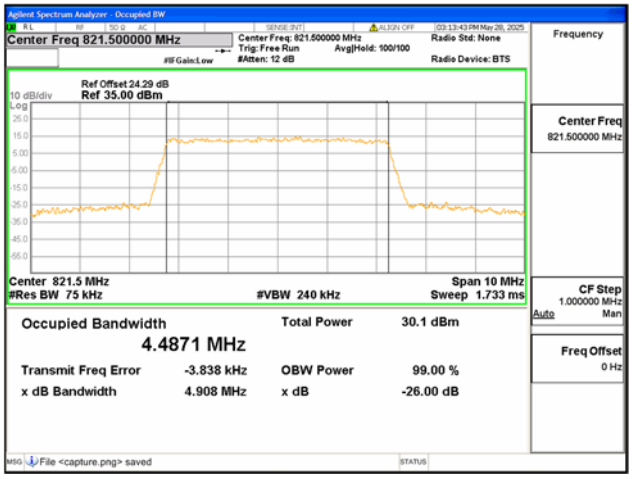
B26 / 5MHz / 16QAM/ Mid CH



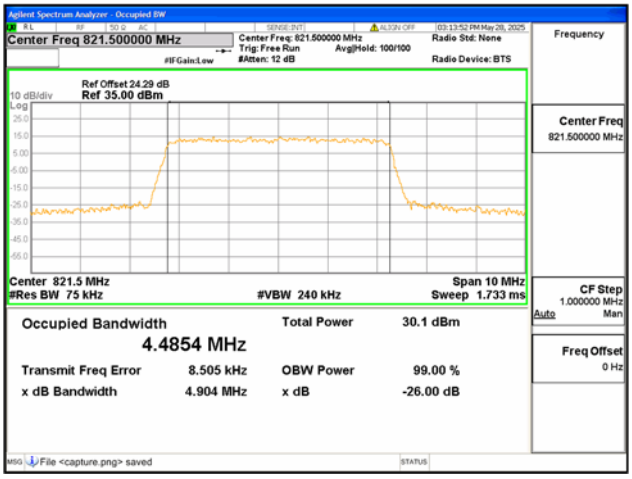
B26 / 5MHz / 64QAM/ Mid CH



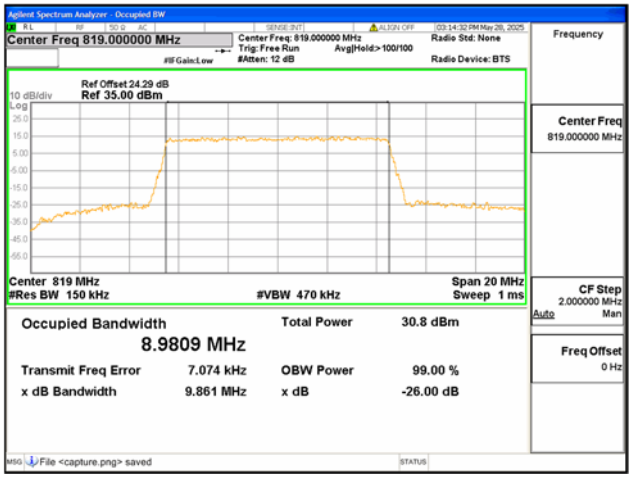
B26 / 5MHz / QPSK/ High CH



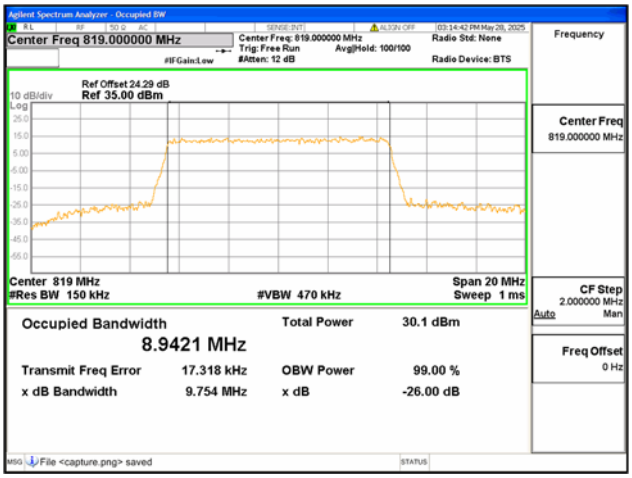
B26 / 5MHz / 16QAM/ High CH



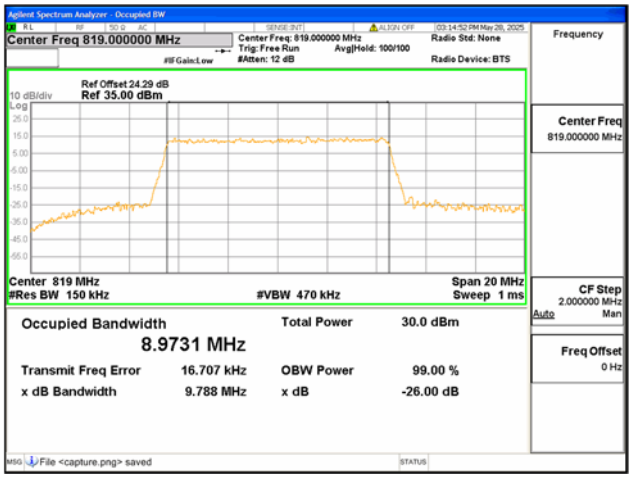
B26 / 5MHz / 64QAM/ High CH



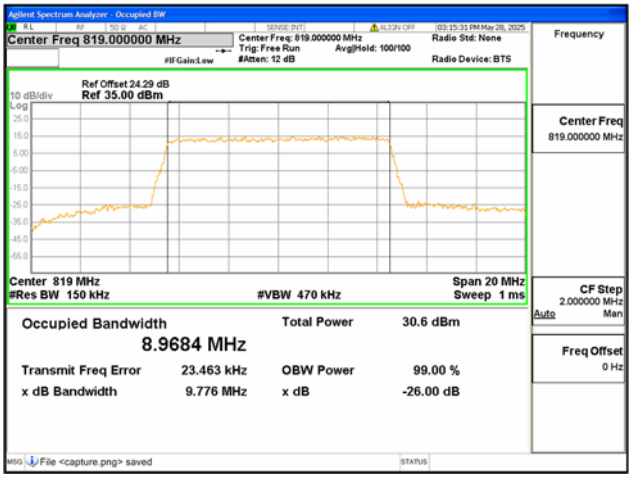
B26 / 10MHz / QPSK/ Low CH



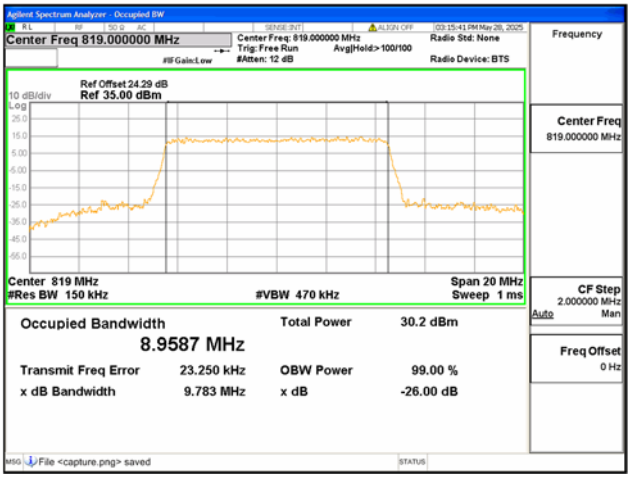
B26 / 10MHz / 16QAM/ Low CH



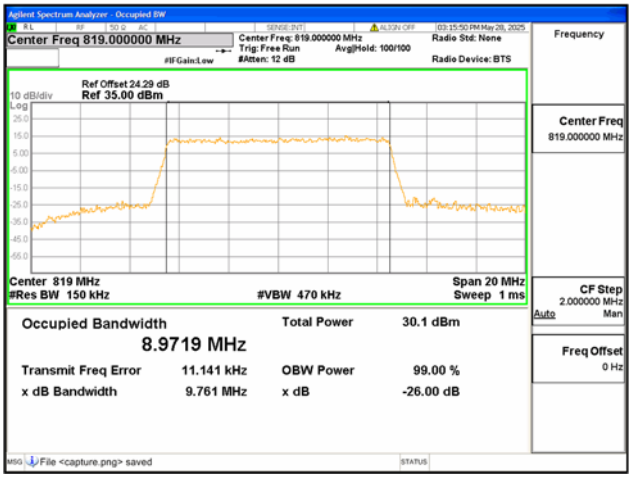
B26 / 10MHz / 64QAM/ Low CH



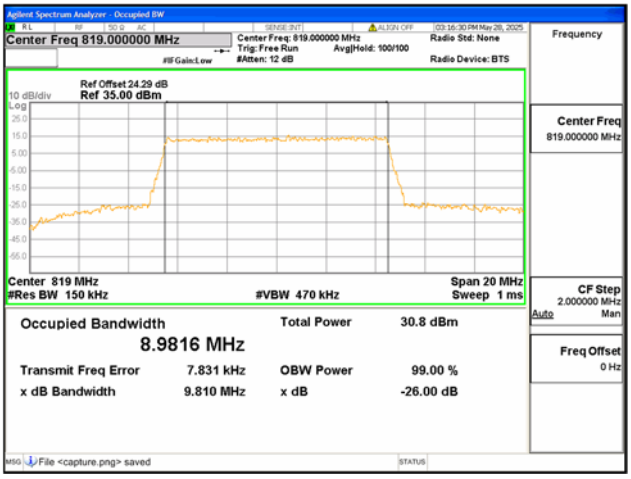
B26 / 10MHz / QPSK/ Mid CH



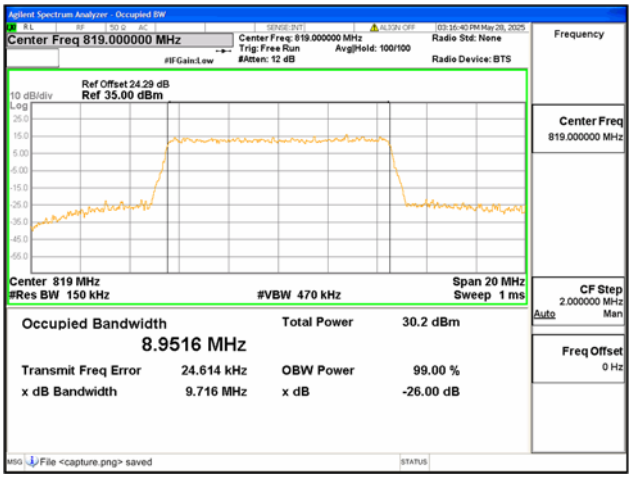
B26 / 10MHz / 16QAM/ Mid CH



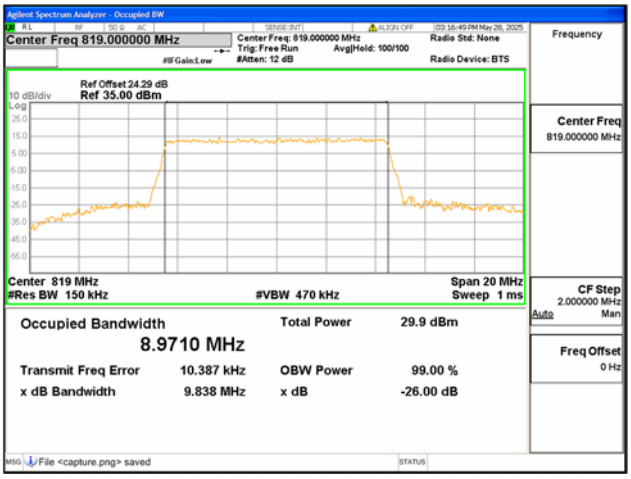
B26 / 10MHz / 64QAM/ Mid CH



B26 / 10MHz / QPSK/ High CH



B26 / 10MHz / 16QAM/ High CH



B26 / 10MHz / 64QAM/ High CH

2.3. Frequency Stability

2.3.1. Requirement

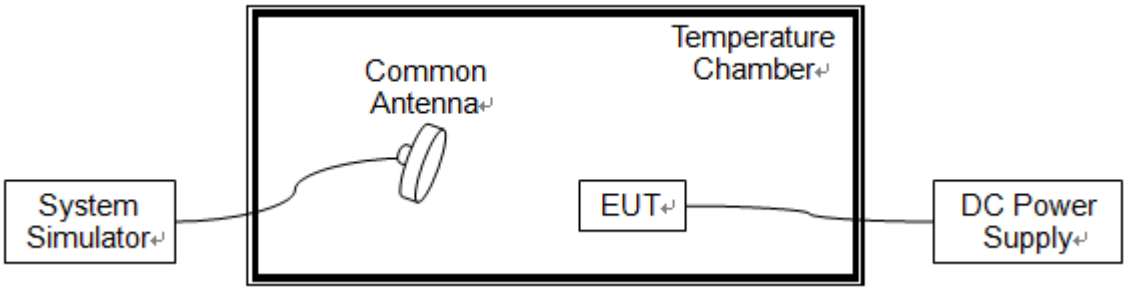
According to FCC section 2.1055 & 90.213, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(a) The temperature is varied from -30°C to +50°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 -20°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 3.80V, 4.35V and 3.55V, which are specified by the applicant; the normal temperature here used is 20°C.

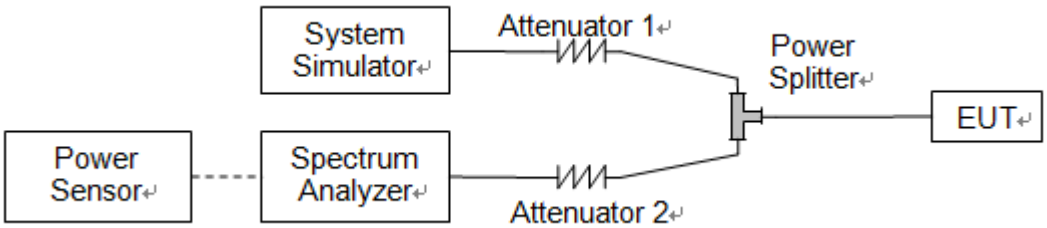
LTE Band 26, 64QAM, Channel 26740, Frequency 819MHz Limit =±2.5ppm					
Voltage (%)	**Power (VDC)**	**Temp(°C)**	**Fre. Dev.(Hz)**	**Deviation (ppm)**	**Result**
Normal	3.80	+20(Ref)	44	0.054	PASS
Normal		-20	-32	-0.039	
Normal		-10	29	0.035	
Normal		0	-36	-0.044	
Normal		+10	-42	-0.051	
Normal		+20	49	0.060	
Normal		+30	46	0.056	
Normal		+40	21	0.026	
Normal		+50	46	0.056	
Normal		+55	-51	-0.062	
High	4.35	+20	-31	-0.038	
BATT.ENDPOINT	3.55	+20	55	0.067	

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.

2.4.2. Test Description

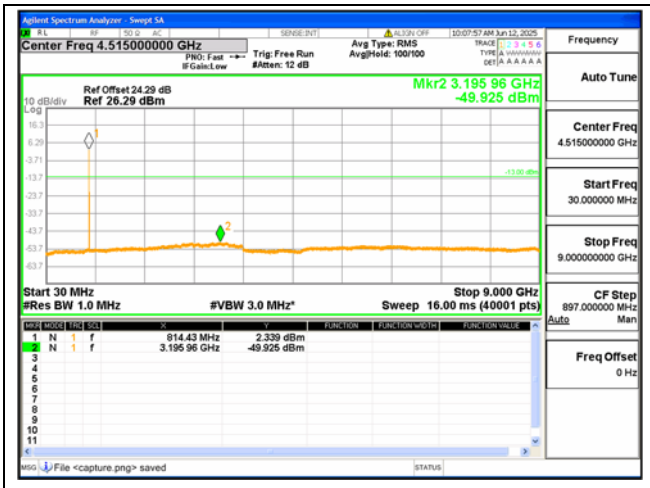


The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

2.4.3. Test procedure

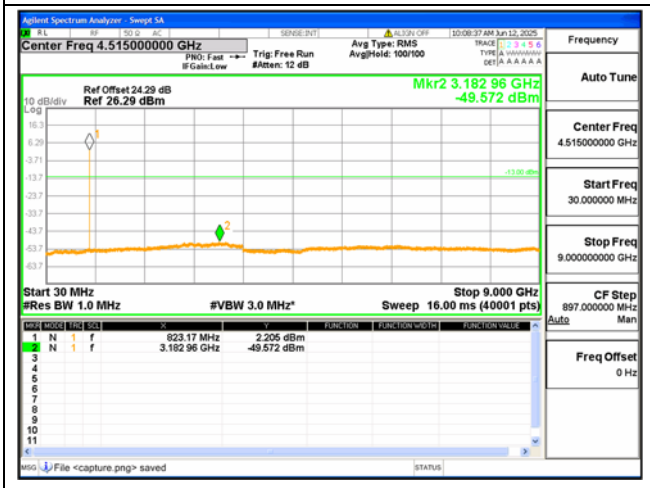
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

2.4.4. Test Result



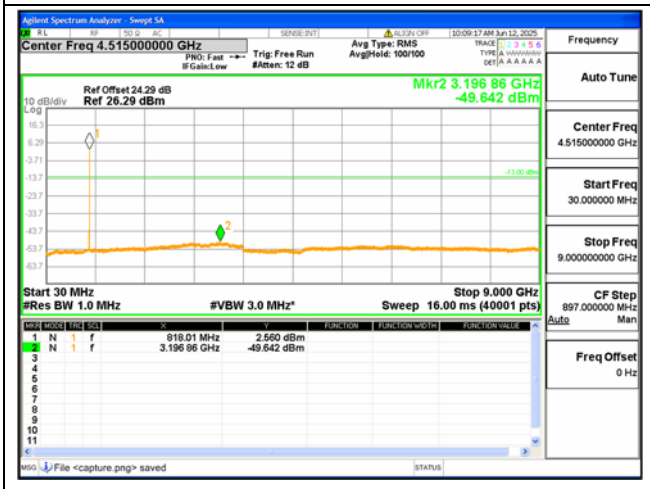
B26 / 1.4MHz / Low CH / QPSK

B26 / 1.4MHz / Mid CH / QPSK



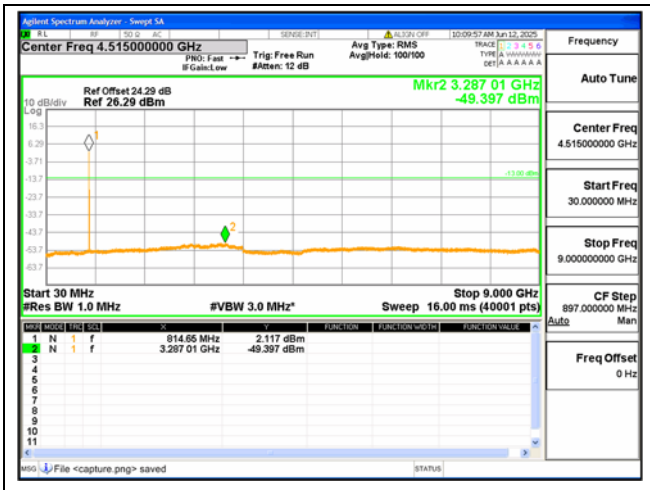
B26 / 1.4MHz / High CH / QPSK

B26 / 3MHz / Low CH / QPSK

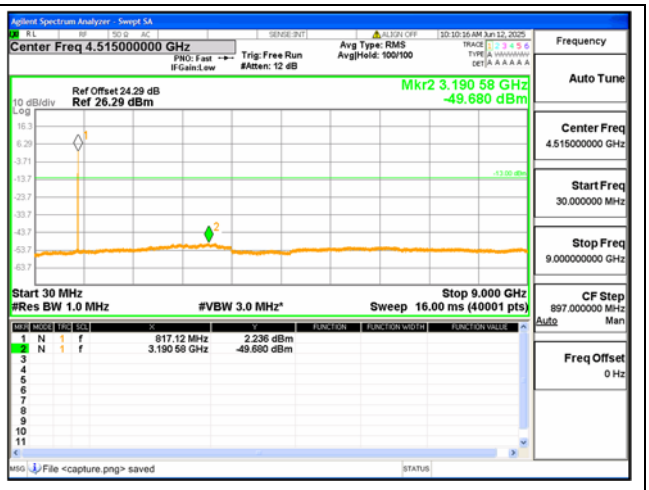


B26 / 3MHz / Mid CH / QPSK

B26 / 3MHz / High CH / QPSK



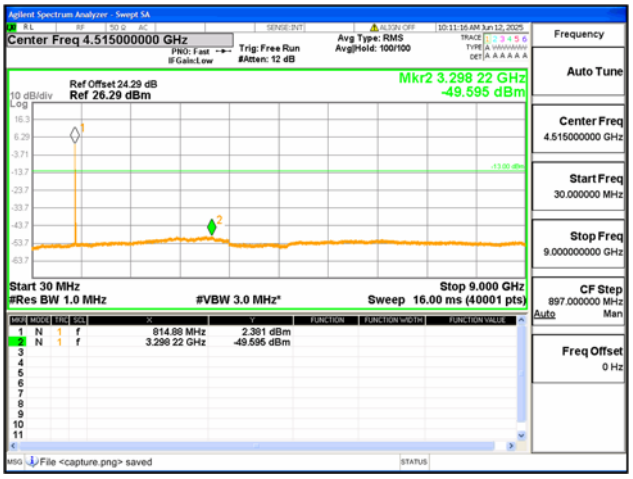
B26 / 5MHz / Low CH / QPSK



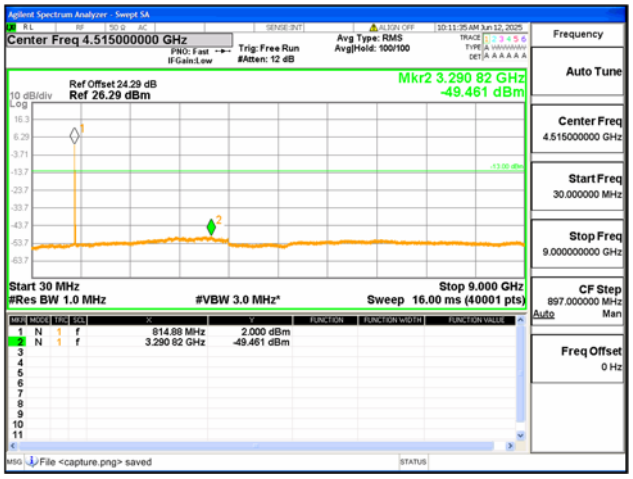
B26 / 5MHz / Mid CH / QPSK

B26 / 5MHz / High CH / QPSK

B26 / 10MHz / Low CH / QPSK



B26 / 10MHz / Mid CH / QPSK



B26 / 10MHz / High CH / QPSK

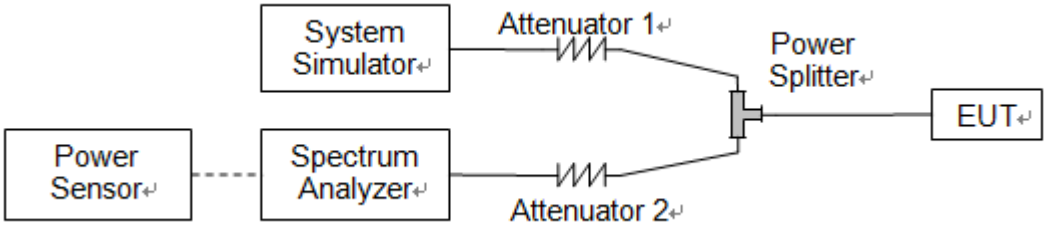
2.5. Band Edge

2.5.1. Requirement

Band26

According to FCC section 90.961(a), 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.

2.5.2. Test Description

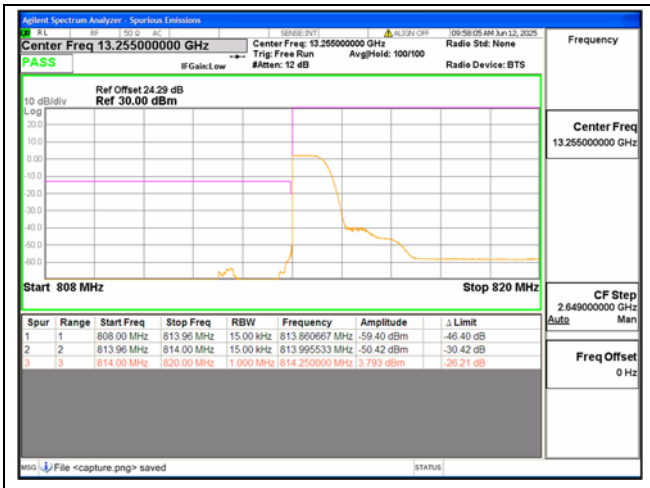


The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

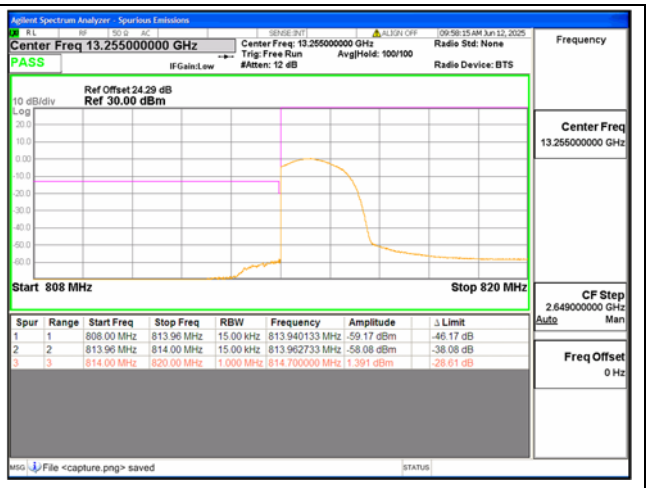
2.5.3. Test procedure

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

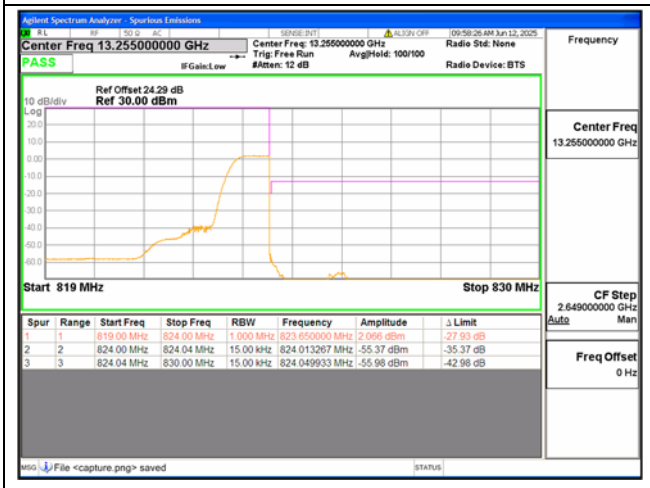
2.5.4. Test Result



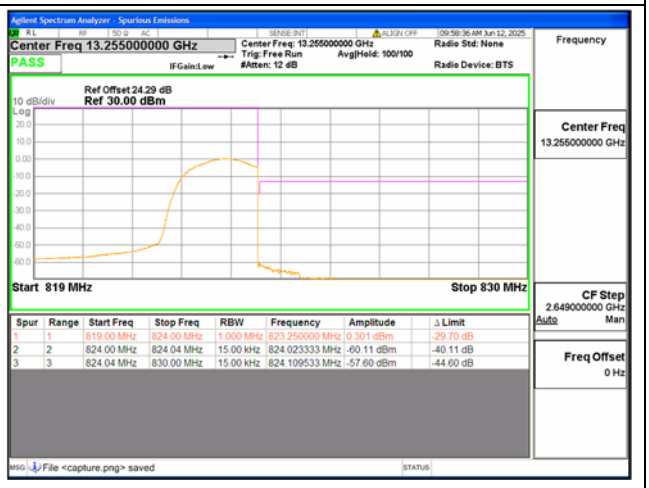
B26 / 1.4MHz / Low CH / QPSK / 1 RB



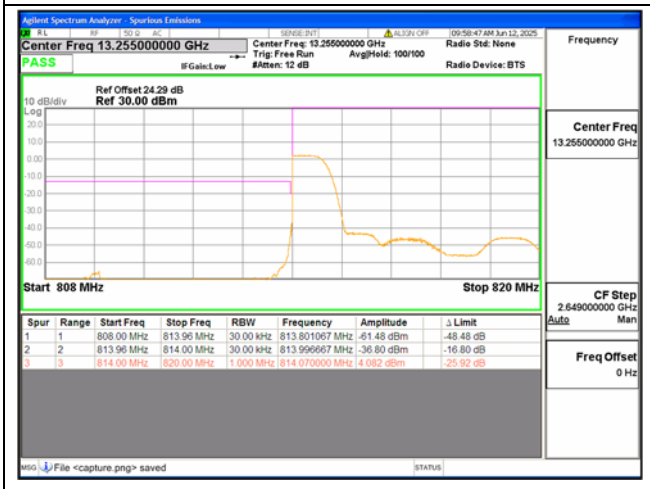
B26 / 1.4MHz / Low CH / QPSK / FULL RB



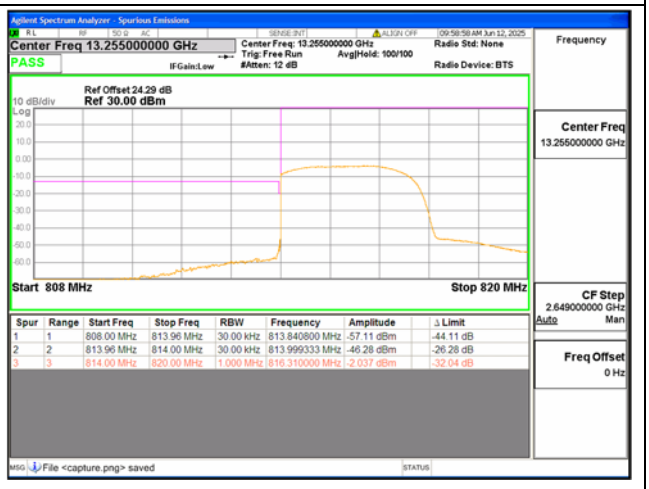
B26 / 1.4MHz / High CH / QPSK / 1 RB



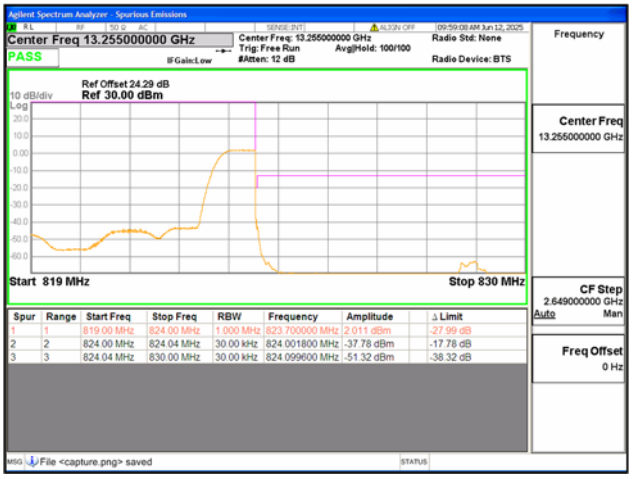
B26 / 1.4MHz / High CH / QPSK / FULL RB



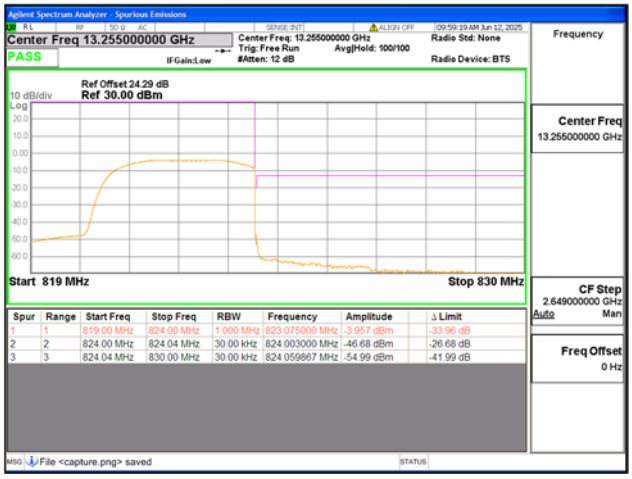
B26 / 3MHz / Low CH / QPSK / 1 RB



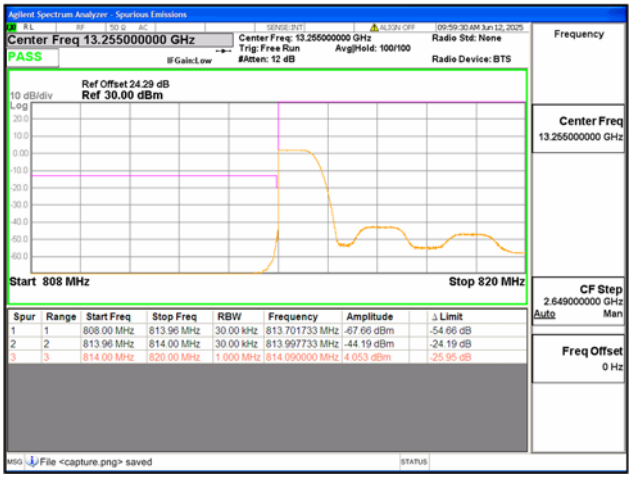
B26 / 3MHz / Low CH / QPSK / FULL RB



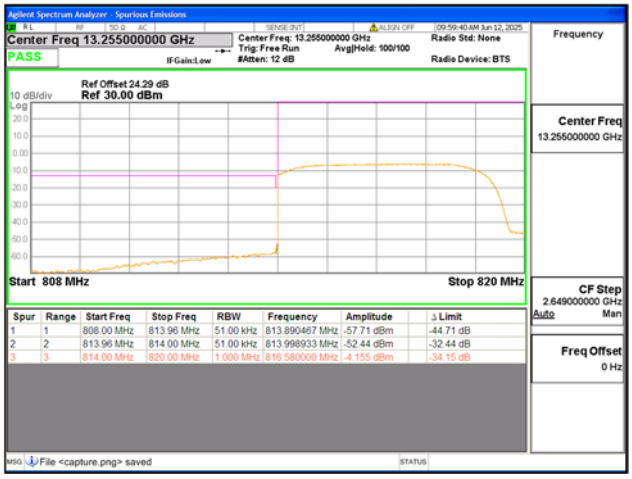
B26 / 3MHz / High CH / QPSK / 1 RB



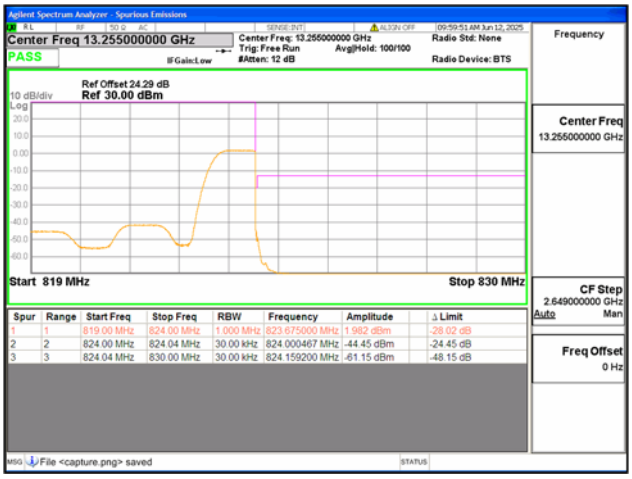
B26 / 3MHz / High CH / QPSK / FULL RB



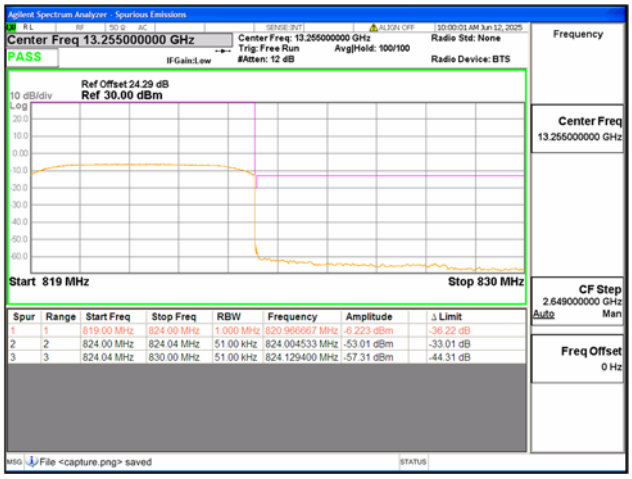
B26 / 5MHz / Low CH / QPSK / 1 RB



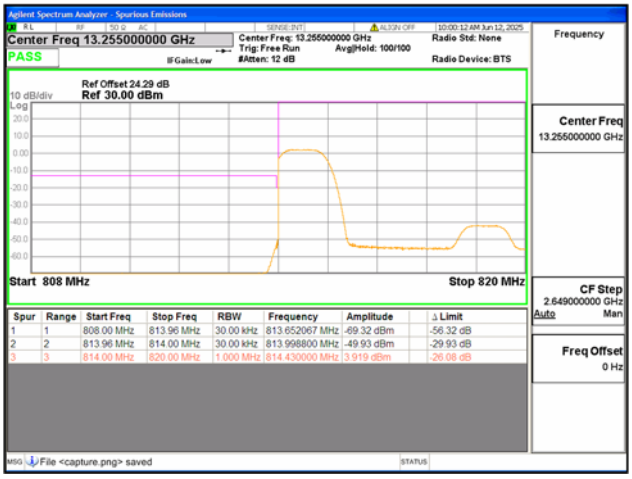
B26 / 5MHz / Low CH / QPSK / FULL RB



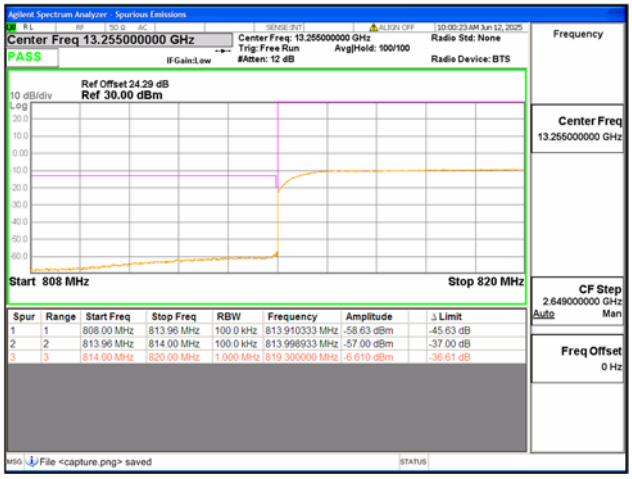
B26 / 5MHz / High CH / QPSK / 1 RB



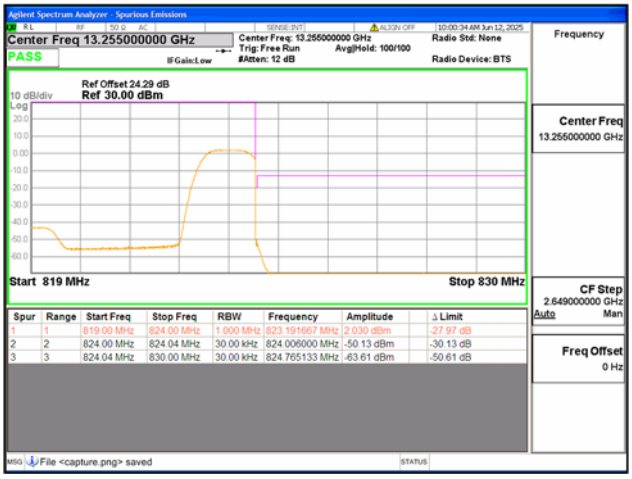
B26 / 5MHz / High CH / QPSK / FULL RB



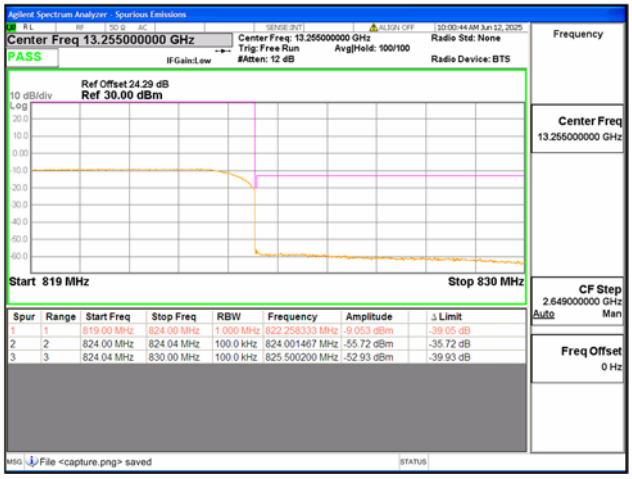
B26 / 10MHz / Low CH / QPSK / 1 RB



B26 / 10MHz / Low CH / QPSK / FULL RB



B26 / 10MHz / High CH / QPSK / 1 RB



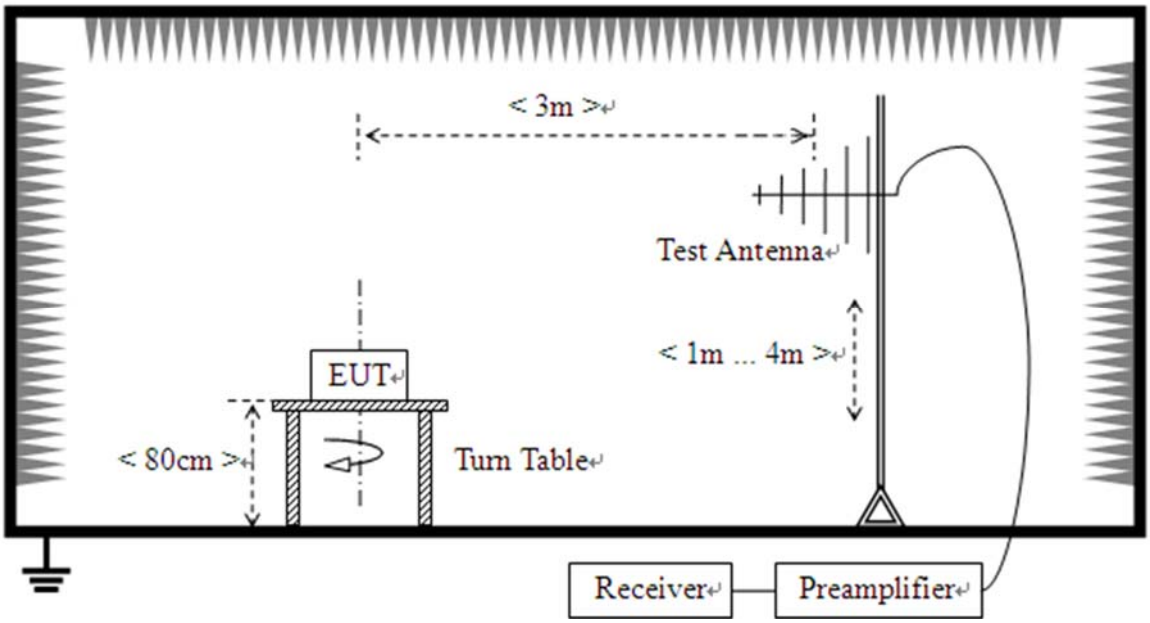
B26 / 10MHz / High CH / QPSK / FULL RB

2.6. Radiated Spurious Emissions

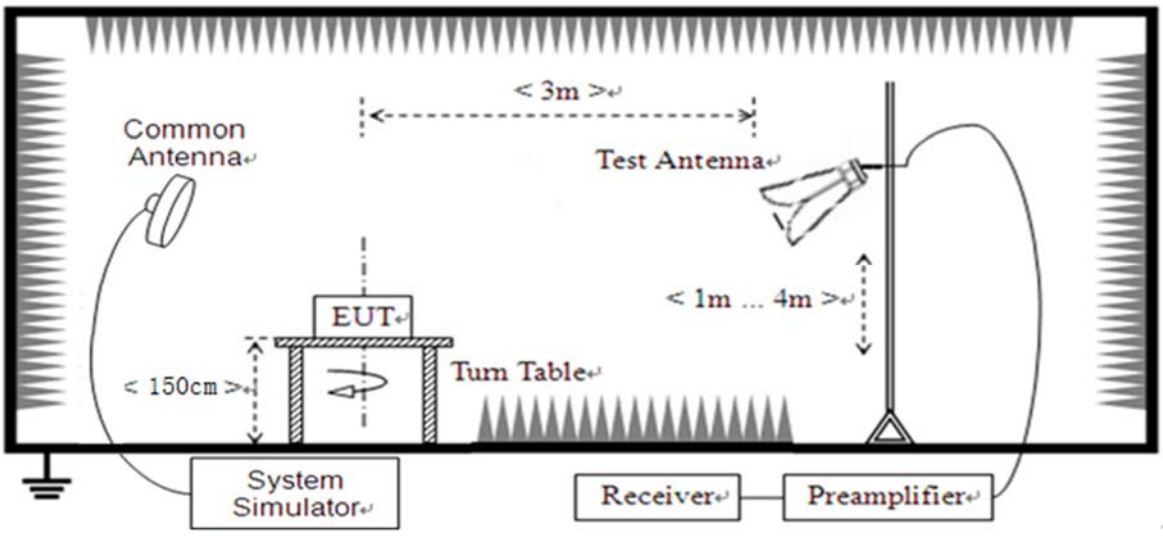
2.6.1. Requirement

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.

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

For measurements above 1GHz 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:

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

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

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

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST_TX_ANT}$ 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.

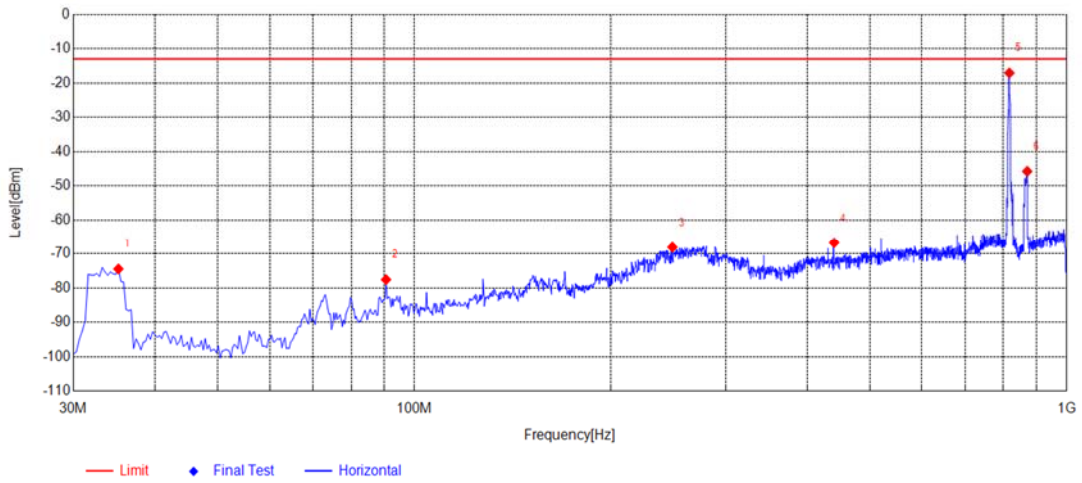
Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band, only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

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

Note 5: The amplitude of emissions (18GHz to 10th harmonics) which are attenuated more than 20 dB below the limit are not be reported.

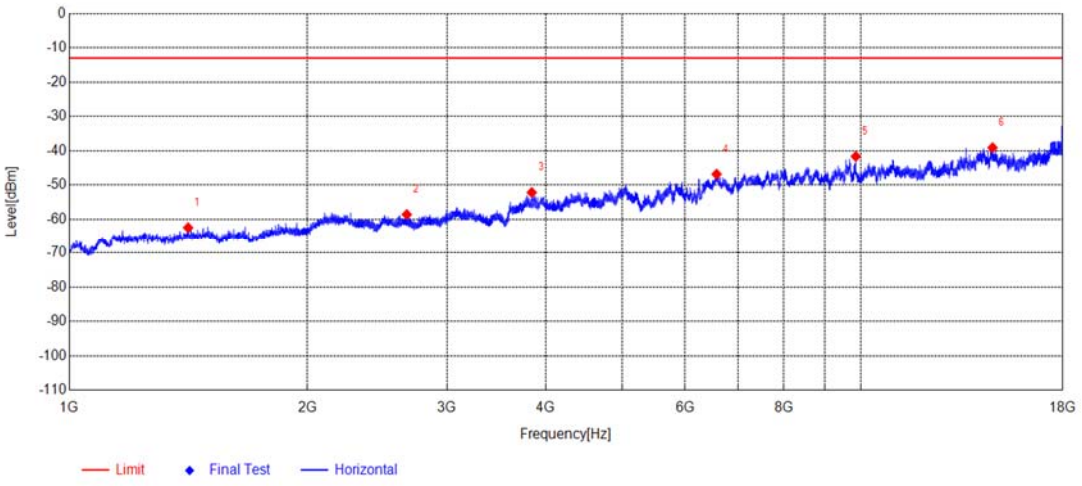
LTE Band 26

Plot for Low Channel



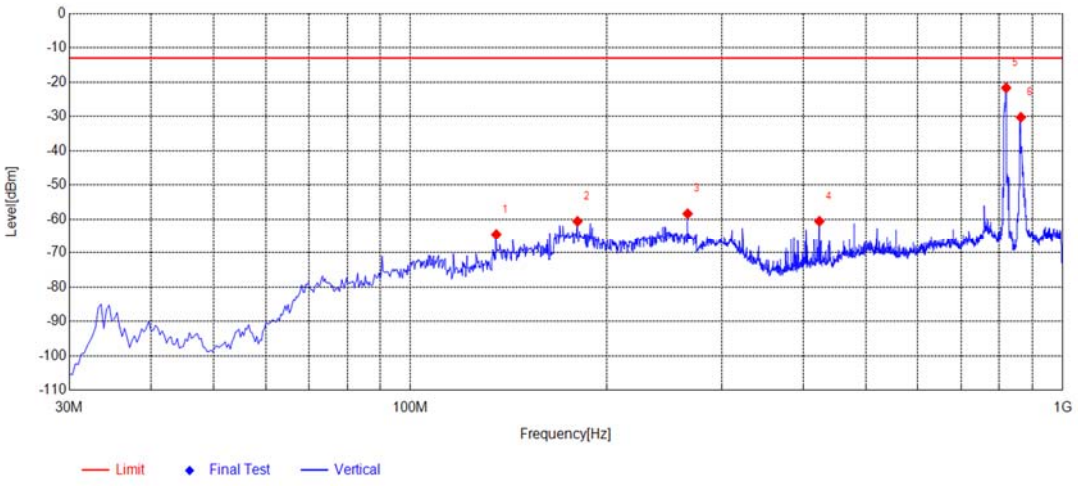
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
35.1751	-42.03	-74.45	-13.00	61.45	-32.42	Horizontal	PASS
90.4835	-54.24	-77.55	-13.00	64.55	-23.31	Horizontal	PASS
248.6462	-62.62	-68.10	-13.00	55.10	-5.48	Horizontal	PASS
440.1234	-64.67	-66.76	-13.00	53.76	-2.09	Horizontal	PASS
814.9323	-22.23	-17.07	-13.00	4.07	5.16	Horizontal	PASS
869.9767	-47.52	-45.74	-13.00	32.74	1.78	Horizontal	PASS



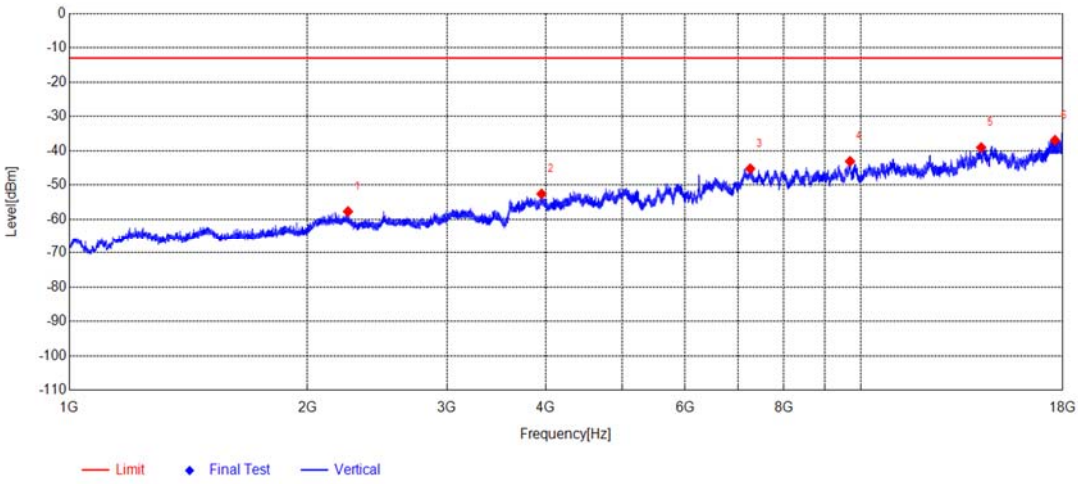
(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
1413.0413	-48.85	-62.45	-13.00	49.45	-13.60	Horizontal	PASS
2669.6670	-49.43	-58.59	-13.00	45.59	-9.16	Horizontal	PASS
3840.7841	-48.22	-52.17	-13.00	39.17	-3.95	Horizontal	PASS
6576.0576	-53.43	-46.83	-13.00	33.83	6.60	Horizontal	PASS
9860.7861	-56.75	-41.66	-13.00	28.66	15.09	Horizontal	PASS
14679.2679	-58.83	-39.12	-13.00	26.12	19.71	Horizontal	PASS



(Antenna Vertical, 30MHz to 1GHz)

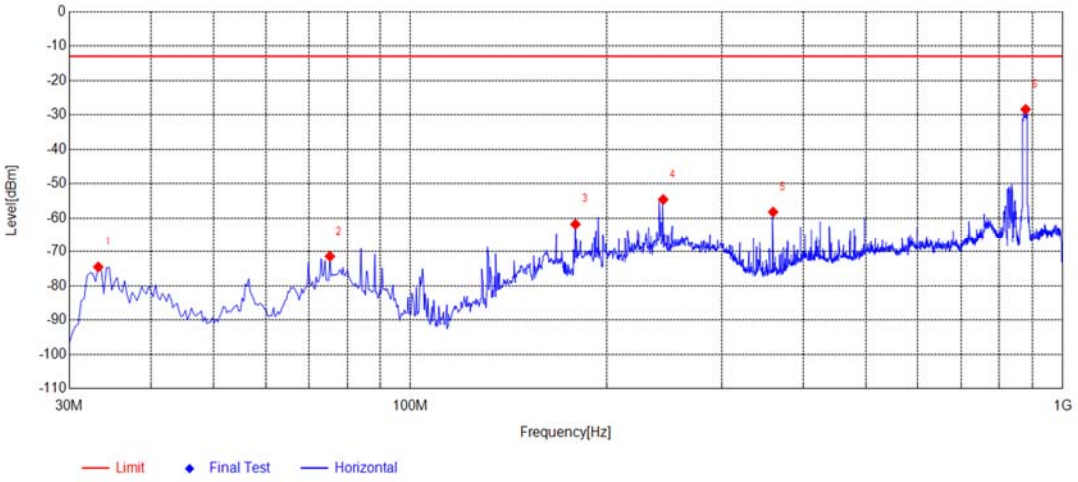
Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
135.4418	-56.21	-64.45	-13.00	51.45	-8.24	Vertical	PASS
180.4001	-49.78	-60.61	-13.00	47.61	-10.83	Vertical	PASS
266.1120	-51.05	-58.39	-13.00	45.39	-7.34	Vertical	PASS
423.6279	-58.13	-60.57	-13.00	47.57	-2.44	Vertical	PASS
814.1964	-26.82	-21.68	-13.00	8.68	5.14	Vertical	NA
862.8610	-34.02	-30.25	-13.00	17.25	3.77	Vertical	NA



(Antenna Vertical, 1GHz to 18GHz)

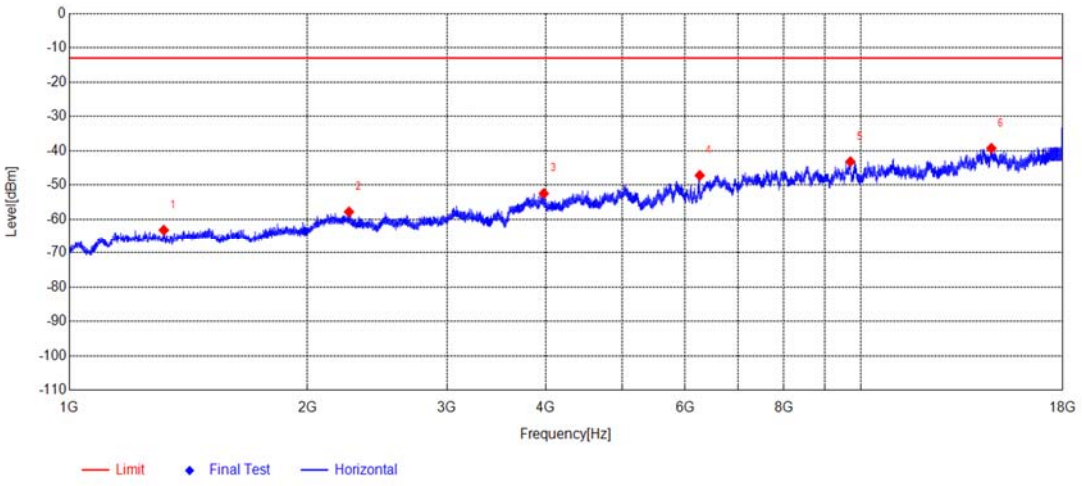
Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
2250.1250	-49.38	-57.72	-13.00	44.72	-8.34	Vertical	PASS
3951.2951	-49.82	-52.59	-13.00	39.59	-2.77	Vertical	PASS
7252.9253	-53.99	-45.25	-13.00	32.25	8.74	Vertical	PASS
9697.5698	-57.31	-43.10	-13.00	30.10	14.21	Vertical	PASS
14201.6202	-57.82	-39.07	-13.00	26.07	18.75	Vertical	PASS
17606.3606	-61.76	-36.94	-13.00	23.94	24.82	Vertical	PASS

Plot for Mid Channel



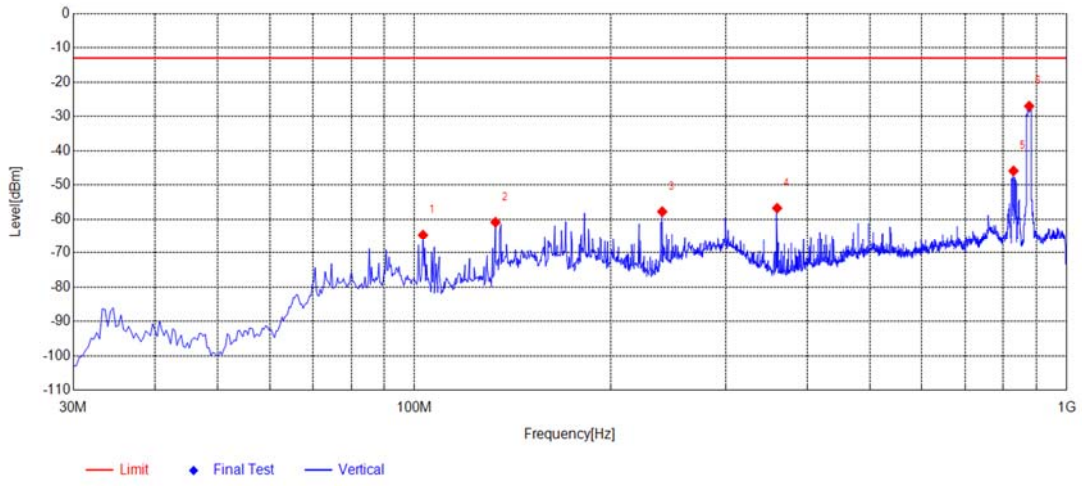
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
33.2344	-42.62	-74.48	-13.00	61.48	-31.86	Horizontal	PASS
75.2818	-46.60	-71.39	-13.00	58.39	-24.79	Horizontal	PASS
179.1064	-50.03	-61.77	-13.00	48.77	-11.74	Horizontal	PASS
244.1180	-50.38	-54.59	-13.00	41.59	-4.21	Horizontal	PASS
359.9100	-52.29	-58.20	-13.00	45.20	-5.91	Horizontal	PASS
877.7392	-32.09	-28.39	-13.00	15.39	3.70	Horizontal	NA



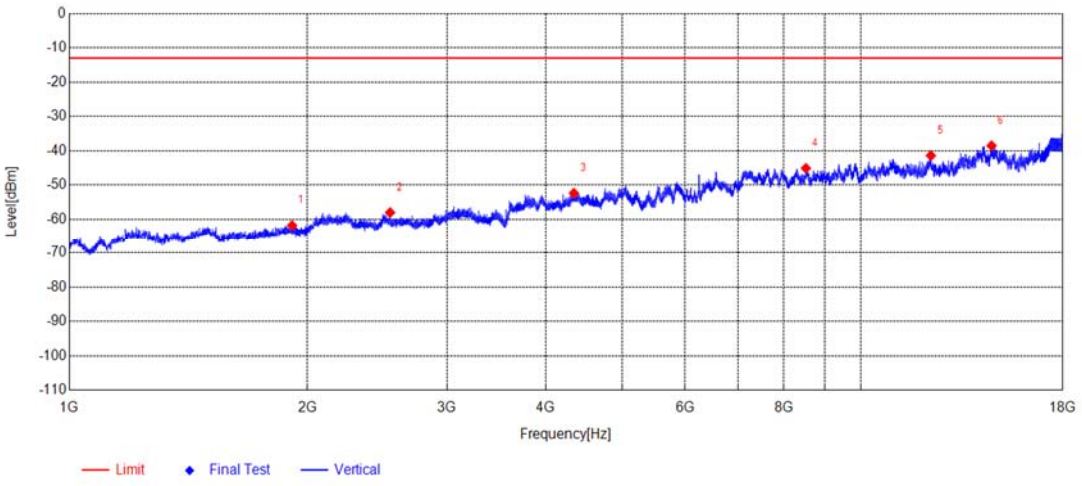
(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
1316.5317	-48.43	-63.15	-13.00	50.15	-14.72	Horizontal	PASS
2256.6257	-49.21	-57.82	-13.00	44.82	-8.61	Horizontal	PASS
3977.2977	-49.11	-52.47	-13.00	39.47	-3.36	Horizontal	PASS
6261.6262	-50.44	-47.19	-13.00	34.19	3.25	Horizontal	PASS
9707.1707	-57.58	-43.19	-13.00	30.19	14.39	Horizontal	PASS
14630.0630	-59.10	-39.28	-13.00	26.28	19.82	Horizontal	PASS



(Antenna Vertical, 30MHz to 1GHz)

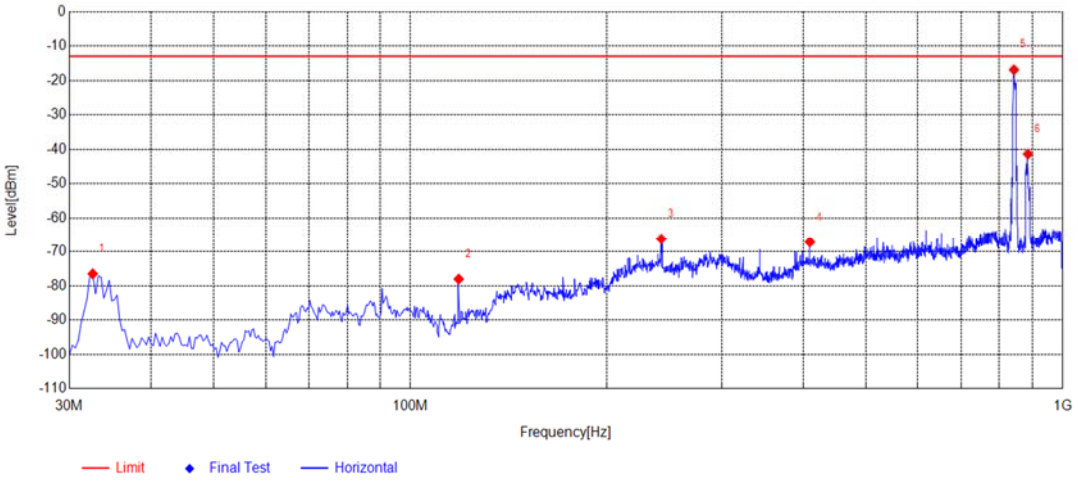
Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
103.0977	-50.80	-64.61	-13.00	51.61	-13.81	Vertical	PASS
133.1777	-50.41	-60.84	-13.00	47.84	-10.43	Vertical	PASS
239.9133	-48.65	-57.76	-13.00	44.76	-9.11	Vertical	PASS
359.9100	-51.43	-56.74	-13.00	43.74	-5.31	Vertical	PASS
828.8996	-51.60	-45.88	-13.00	32.88	5.72	Vertical	NA
876.1220	-32.30	-27.01	-13.00	14.01	5.29	Vertical	NA



(Antenna Vertical, 1GHz to 18GHz)

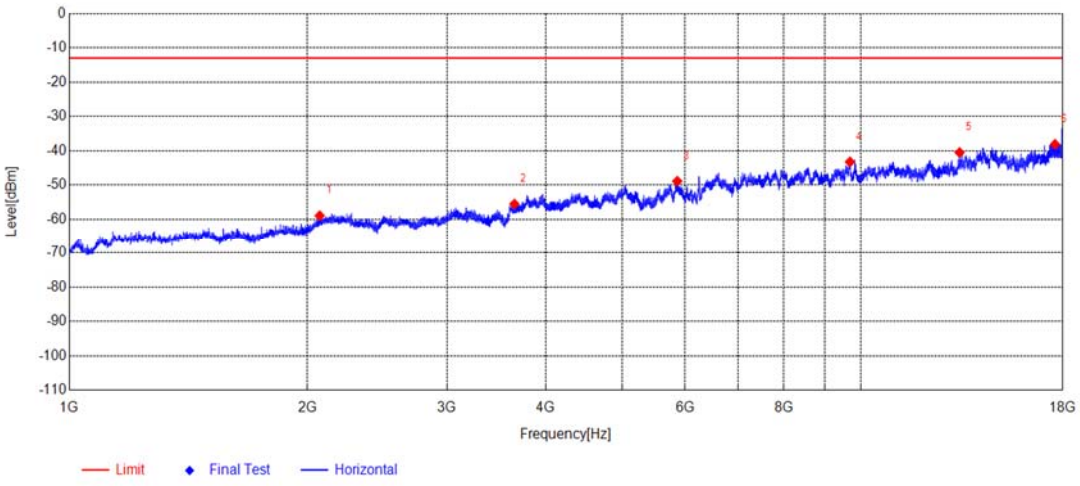
Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
1912.0912	-49.90	-61.81	-13.00	48.81	-11.91	Vertical	PASS
2543.1543	-48.99	-58.02	-13.00	45.02	-9.03	Vertical	PASS
4341.3341	-50.41	-52.38	-13.00	39.38	-1.97	Vertical	PASS
8528.6529	-54.62	-45.11	-13.00	32.11	9.51	Vertical	PASS
12267.0267	-57.63	-41.42	-13.00	28.42	16.21	Vertical	PASS
14636.0636	-59.29	-38.54	-13.00	25.54	20.75	Vertical	PASS

Plot for High Channel



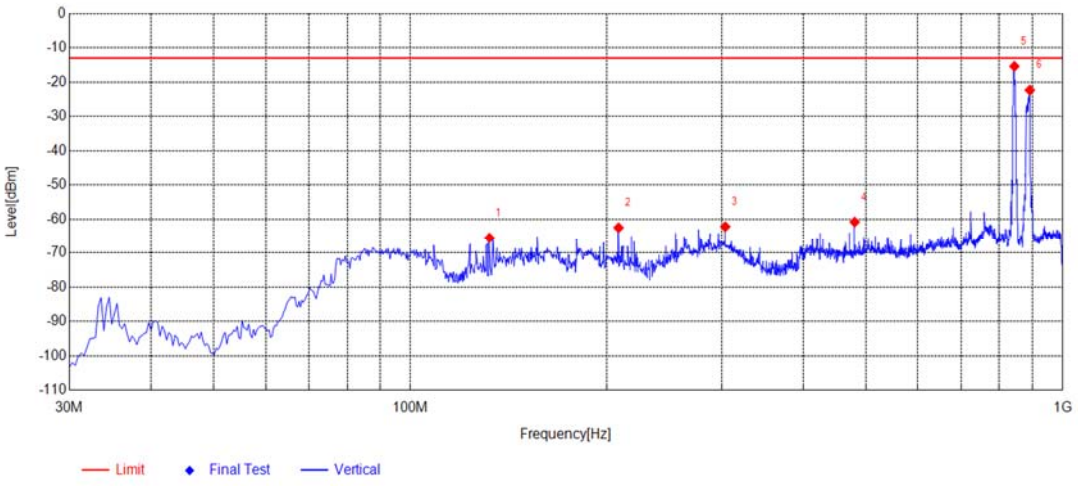
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
32.5875	-46.08	-76.47	-13.00	63.47	-30.39	Horizontal	PASS
118.6229	-56.30	-78.00	-13.00	65.00	-21.70	Horizontal	PASS
242.5008	-62.41	-66.19	-13.00	53.19	-3.78	Horizontal	PASS
409.7199	-65.65	-67.13	-13.00	54.13	-1.48	Horizontal	PASS
848.1607	-21.17	-16.90	-13.00	3.90	4.27	Horizontal	NA
889.8550	-46.06	-41.37	-13.00	28.37	4.69	Horizontal	NA



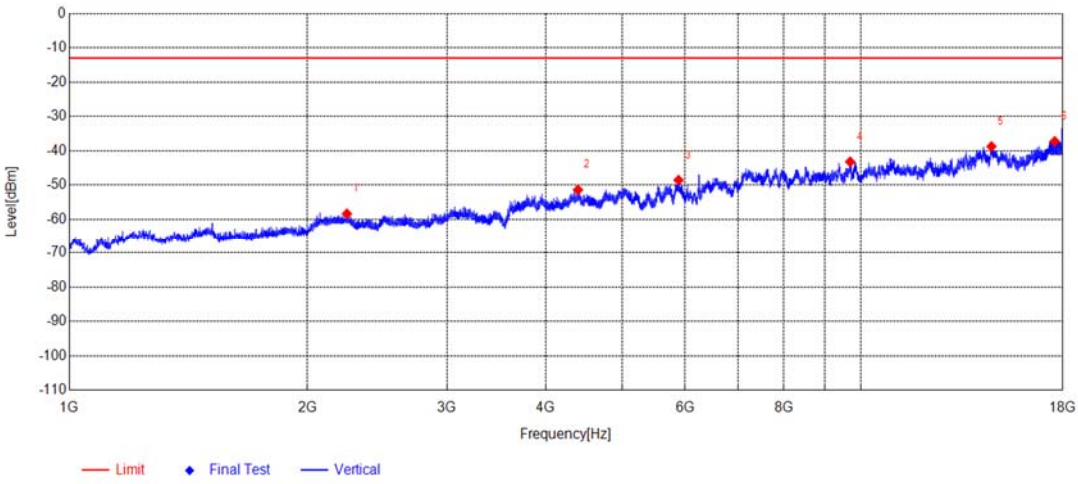
(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
2072.1072	-49.41	-58.96	-13.00	45.96	-9.55	Horizontal	PASS
3651.7652	-49.26	-55.55	-13.00	42.55	-6.29	Horizontal	PASS
5864.9865	-52.44	-48.89	-13.00	35.89	3.55	Horizontal	PASS
9693.9694	-57.86	-43.26	-13.00	30.26	14.60	Horizontal	PASS
13336.3336	-57.12	-40.50	-13.00	27.50	16.62	Horizontal	PASS
17605.1605	-61.57	-38.13	-13.00	25.13	23.44	Horizontal	PASS



(Antenna Vertical, 30MHz to 1GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
132.2074	-54.79	-65.54	-13.00	52.54	-10.75	Vertical	PASS
208.5395	-53.08	-62.49	-13.00	49.49	-9.41	Vertical	PASS
303.9547	-56.82	-62.18	-13.00	49.18	-5.36	Vertical	PASS
479.9066	-60.93	-60.81	-13.00	47.81	0.12	Vertical	PASS
848.4545	-19.51	-15.39	-13.00	2.39	4.12	Vertical	NA
890.6769	-27.88	-22.34	-13.00	9.34	5.54	Vertical	NA



(Antenna Vertical, 1GHz to 18GHz)

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Polarity	Verdict
2243.1243	-49.97	-58.40	-13.00	45.40	-8.43	Vertical	PASS
4393.8394	-49.86	-51.41	-13.00	38.41	-1.55	Vertical	PASS
5886.9887	-52.33	-48.58	-13.00	35.58	3.75	Vertical	PASS
9701.1701	-57.50	-43.22	-13.00	30.22	14.28	Vertical	PASS
14633.6634	-59.45	-38.78	-13.00	25.78	20.67	Vertical	PASS
17591.9592	-61.93	-37.27	-13.00	24.27	24.66	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	±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 C63.10-2013and 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	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2024.06.19	2025.06.18
Communication Test Station	6200995016	MT8820C	Anritsu	2024.09.11	2025.09.10
Temperature Chamber	S022177101 00089002	KMT-36LF 1A0	KOMEG	2024.09.11	2025.09.10

4.2 List of Software Used

Description	Manufacturer	Software Version
MOR-2023E Test System	MORLAB	V7.99
JS36-RSE	Tonscend	5.0.0

4.3 Radiated Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
System Simulator	152038	CMW500	R&S	2024.09.11	2025.09.10
Signal Analyzer	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2025.05.13	2026.05.12
Test Antenna - Horn	9120D-963	BBHA 9120D	Schwarzbeck	2025.05.16	2026.05.15
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KK F-2	Qualwave	2024.07.03	2025.07.02
Preamplifier (10MHz-6GHz)	46732	S10M100L380 2	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (2GHz-18GHz)	61171/61172	S020180L320 3	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-4 0C-S	Decentest	2025.05.13	2026.05.12
Notch Filter	N/A	WRCGV -LTE 26	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.11.30	2025.11.29

END OF REPORT