



REPORT No.: SZ24060309W08

TEST REPORT

APPLICANT : BLU Products, Inc.

PRODUCT NAME : Smart Phone

MODEL NAME : F5

BRAND NAME : BLU

FCC ID : YHLBLU5C

STANDARD(S) : 47 CFR Part 2
47 CFR Part 24
47 CFR Part 27

RECEIPT DATE : 2024-07-10

TEST DATE : 2024-07-15 to 2024-08-06

ISSUE DATE : 2024-09-05



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Change History		
Version	Date	Reason for change
1.0	2024-09-05	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.:	15#	
Hardware Version:	BL_E115S2_01	
Software Version:	BLU_F0090_V14.0.02.00_GENERIC 12-07-2024	
Modulation Type:	QPSK, 16QAM, 64QAM	
Operation Band:	Uplink: 4A_12A; 5A_66A; 12A_66A;	
	Band 4	Tx: 1710MHz–1755MHz
		Rx: 2110MHz–2155MHz
	Band 12	Tx: 699MHz–716MHz
		Rx: 729MHz–746MHz
	Band 66	Tx: 1710MHz –1780MHz
		Rx: 2110MHz–2200MHz
	Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
Antenna Type:	PIFA Antenna	
	Band 4	-1.94dBi
	Band 12	-1.85dBi
	Band 66	-1.94dBi
Accessory Information:	Battery	
	Brand Name:	BLU
	Model No.:	C896551500P
	Serial No.:	N/A



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	Capacity:	5000mAh
	Rated Voltage:	3.87V
	Charge Limit:	4.45V
	Manufacturer:	Huizhou Highpower Technology Co., Ltd.
	AC Adapter	
	Brand Name:	BLU
	Model No.:	US-HJ-2024
	Serial No.:	N/A
	Rated Input:	100-240V~50/60Hz, 0.3A
	Rated Output:	5V $\overline{\text{---}}$ 2000mA
	Manufacturer:	Shenzhen Huajin Electronics Co., Ltd.

Note1: 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

Channel bandwidth	Maximum ERP/EIRP (W)			
CA_4A-12A	QPSK	16QAM	64QAM	256QAM
20+10	0.139	/	/	/
CA_5A-66A	QPSK	16QAM	64QAM	256QAM
20+20	0.150	/	/	/
CA_12A-66A	QPSK	16QAM	64QAM	256QAM
10+20	0.139	/	/	/



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 24, 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
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

B4 & B66			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)(4)	EIRP $\leq$ 1 W	PASS
Peak-Average Ratio	§27.50(d) (5)	Limit $\leq$ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(h)(1) §27.53(h)(3)(i)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)(1)	$\leq$ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(h)(1)	$\leq$ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A



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B12			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(c)(10)	ERP ≤3W	PASS
Peak-Average Ratio	N/A	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §27.53(g)	Refer to section the following description	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	≤ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A



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

Test Item	Test Engineer	Result	Method Determination /Remark
Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Gan Jing	PASS	No deviation
Occupied Bandwidth	Gan Jing	PASS ^[5]	No deviation
Peak to Average Ratio	Gan Jing	PASS ^[5]	No deviation
Conducted Spurious Emissions	Gan Jing	PASS	No deviation
Band Edge	Gan Jing	PASS ^[5]	No deviation
Radiated Spurious Emissions	Li Hanbin	PASS	No deviation
Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016. Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 23.5dB contains two parts that cable loss 13.5dB and Attenuator 10dB. 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. Note 4: 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 5: The test items of inter band CA were cover by LTE single carrier due to the CA power is lower than single carrier power.			

1.5. Environmental Conditions

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

Temperature (°C):	15-35
Relative Humidity (%):	30-60

2. Summary Test Results And Description

2.1. Transmitter Conducted Output Power

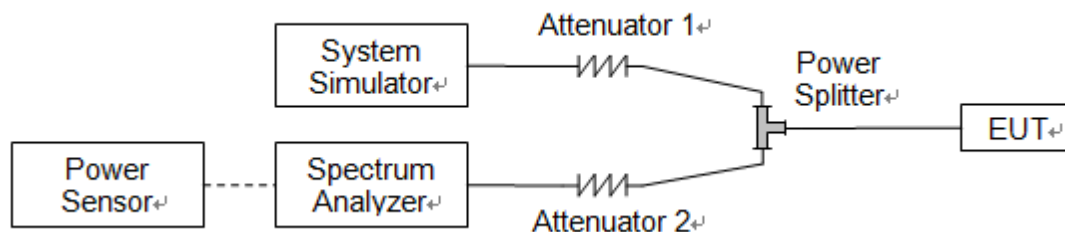
2.1.1. Requirement

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 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

According to FCC section 27.50 (c)(10)for LTE Band 12, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

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.

$E.I.R.P. (dBm) = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

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



2.1.4. Result

Conducted Output Power

Configure	CA Configuration	PCC				
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)
Inter-band	CA_4A-12A	4	20	20175	1732.5	QPSK/1#0
	CA_5A-66A	5	20	20525	836.5	QPSK/1#0
	CA_12A-66A	12	10	23060	704	QPSK/1#0

SCC				
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)
12	10	23060	704	23.29
66	20	132322	1745	23.12
66	20	132322	1745	23.28

Effective Radiated Power and Effective Isotropic Radiated Power

Configure	CA Configuration	PCC				
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)
Inter-band	CA_4A-12A	4	20	20175	1732.5	QPSK/1#0
	CA_5A-66A	5	20	20525	836.5	QPSK/1#0
	CA_12A-66A	12	10	23060	704	QPSK/1#0

SCC					
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	EIRP(W)
12	10	23060	704	21.44	0.139
66	20	132322	1745	21.76	0.150
66	20	132322	1745	21.43	0.139

2.2. Conducted Spurious Emissions

2.2.1. 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.

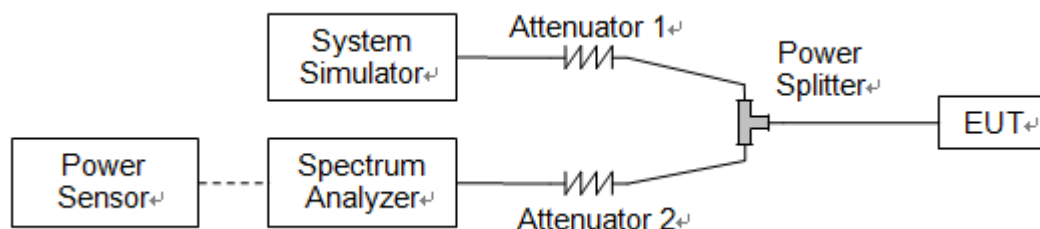
Additional requirement for LTE Band 4/66:

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB. This calculated to be -13dBm.

Additional requirement for LTE Band 12:

For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. This calculated to be -13dBm

2.2.2. Test Description



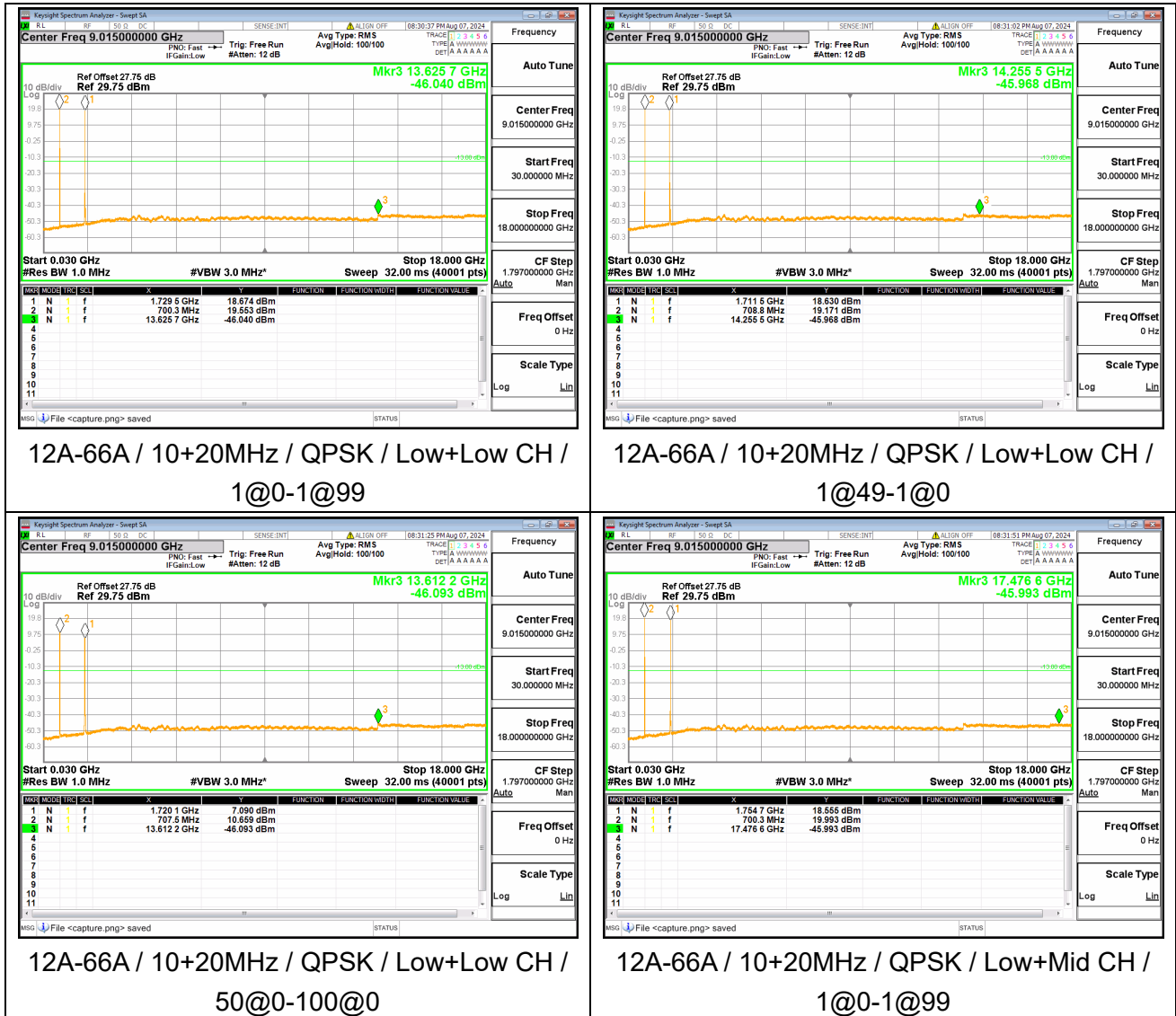
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

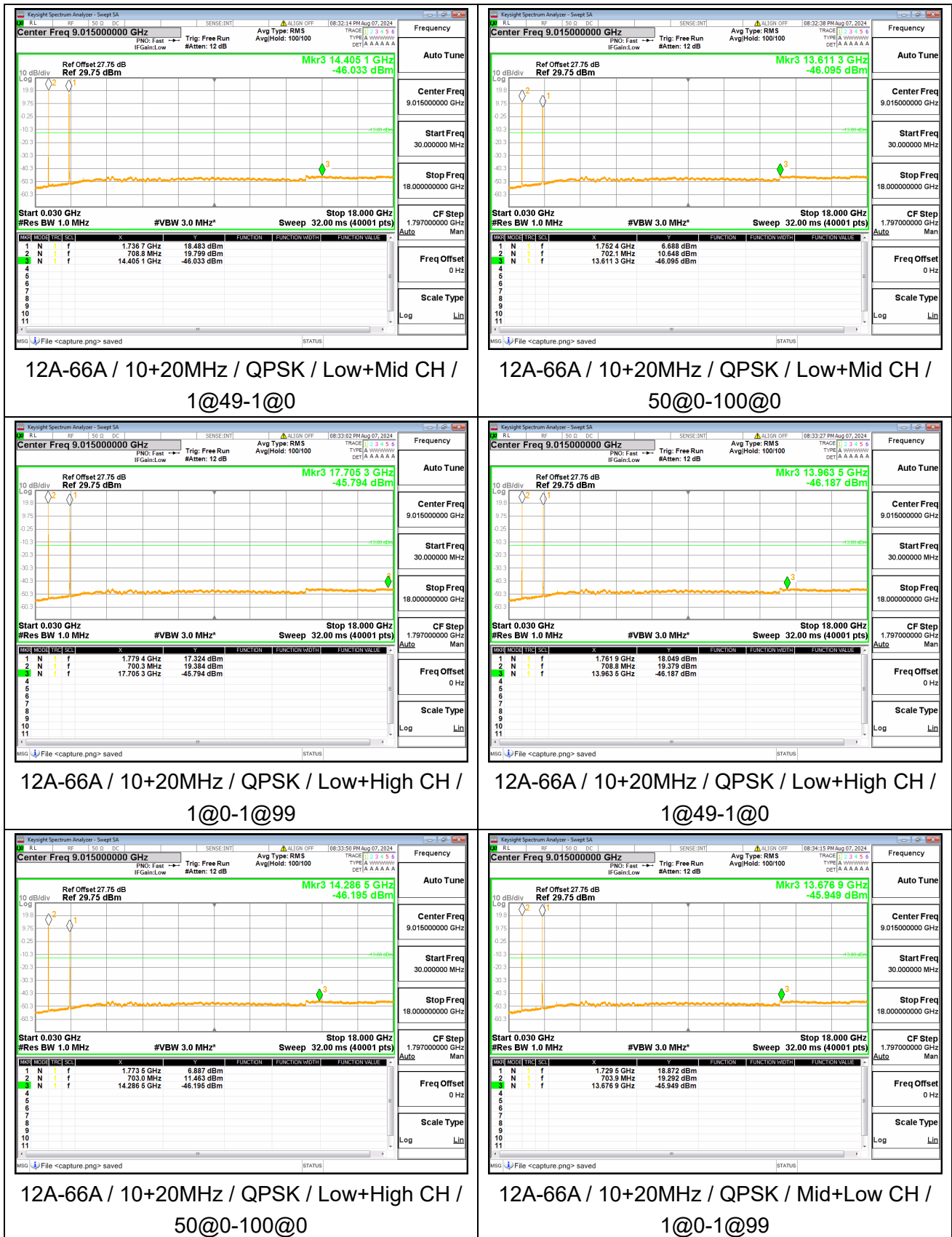
2.2.3. Test Procedure

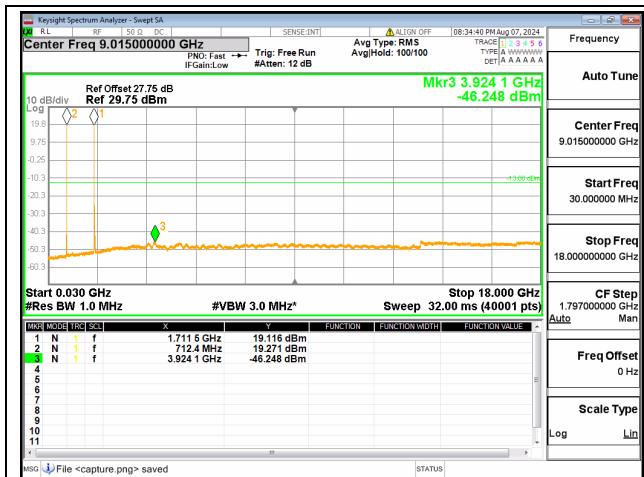
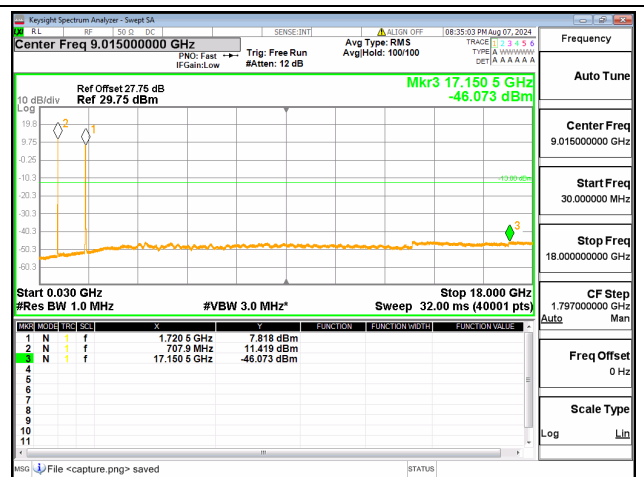
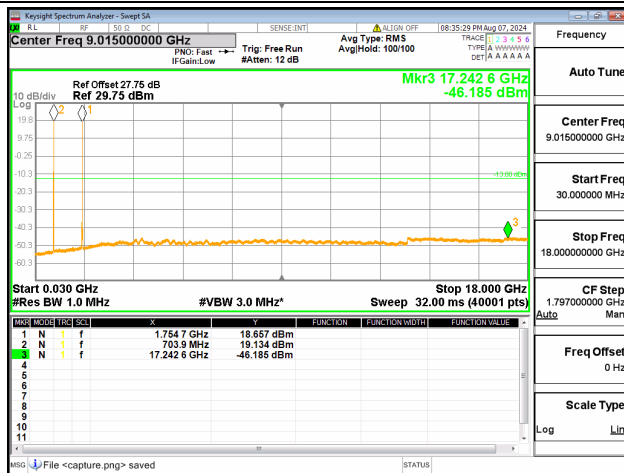
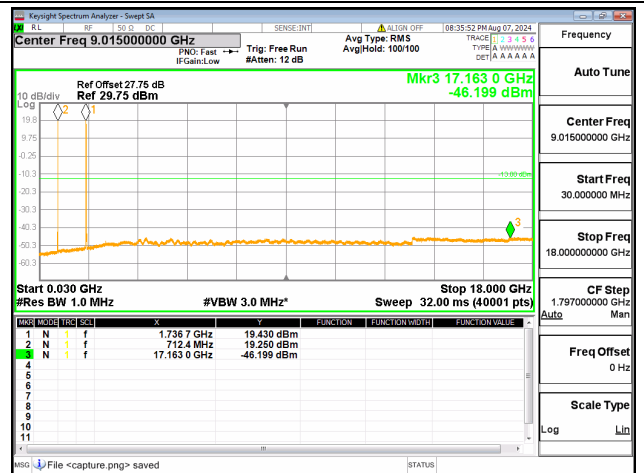
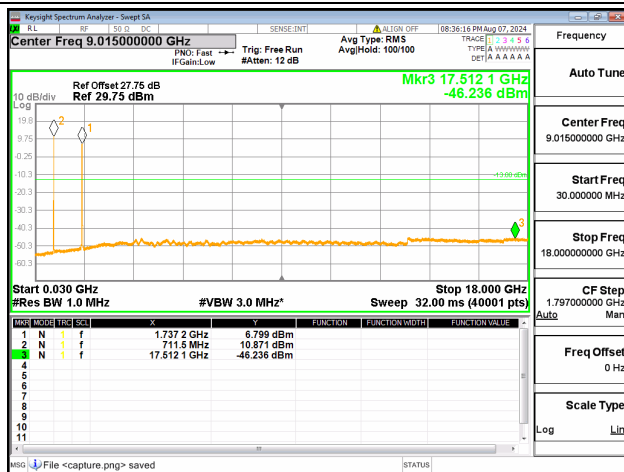
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

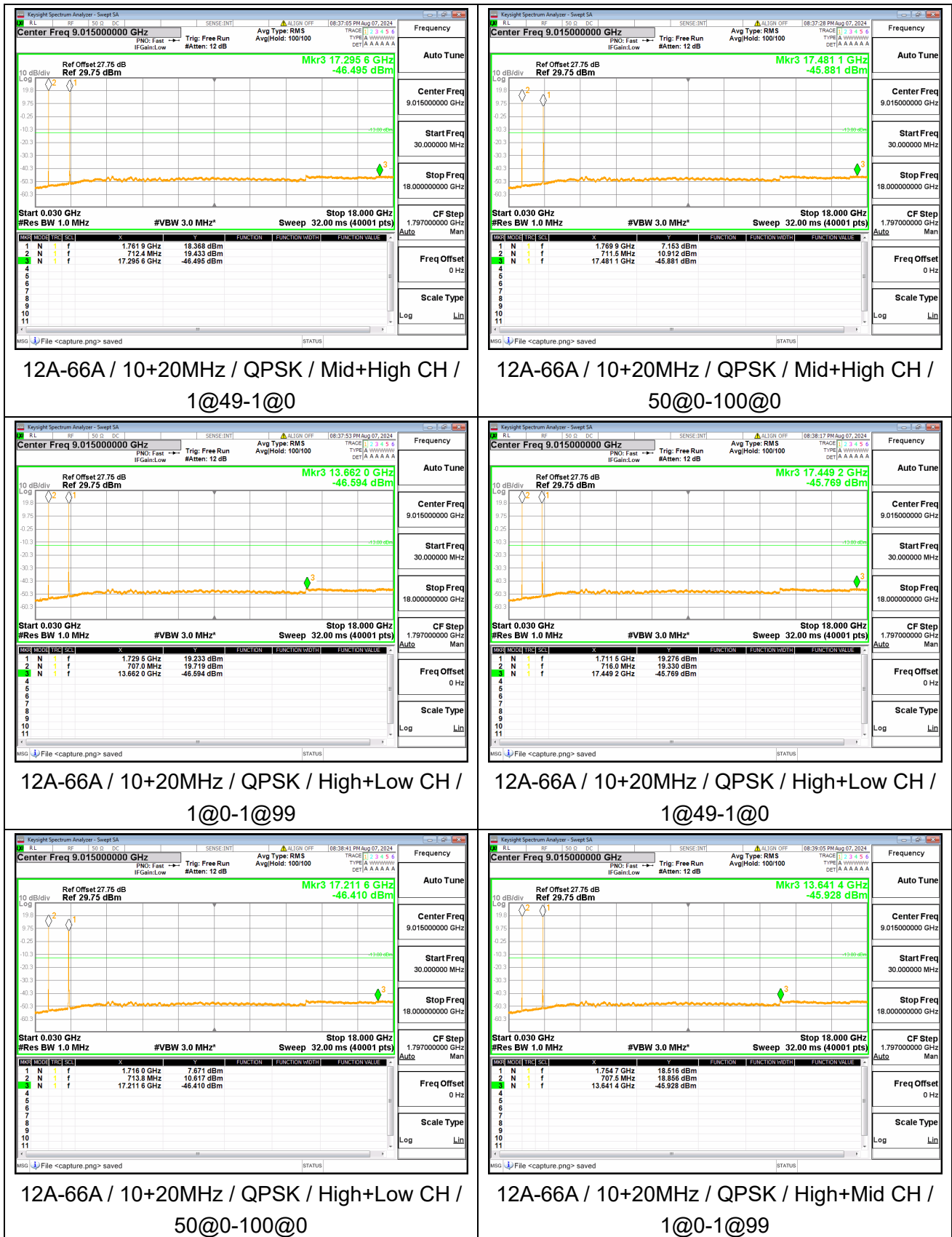


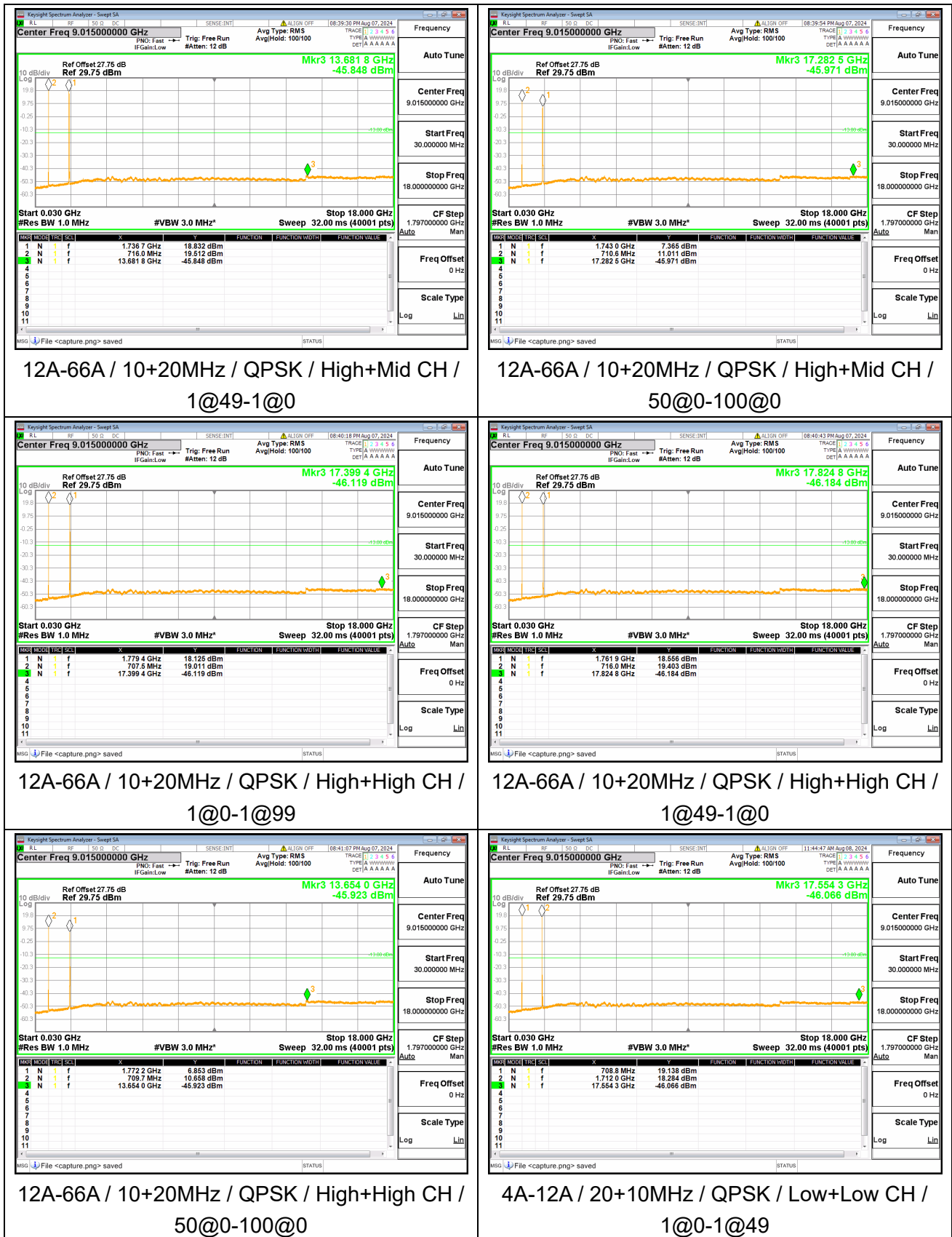
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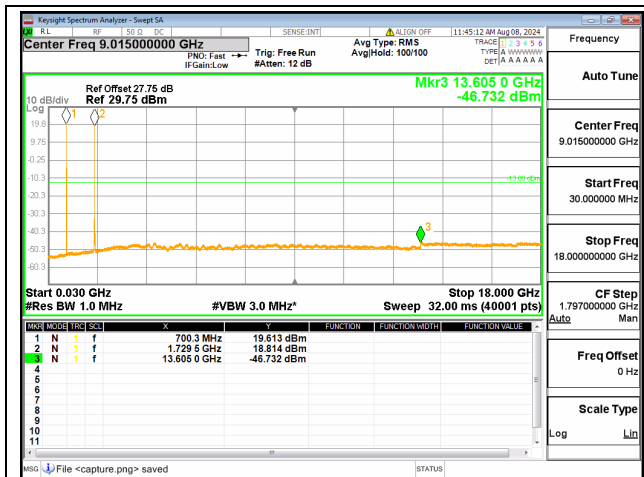




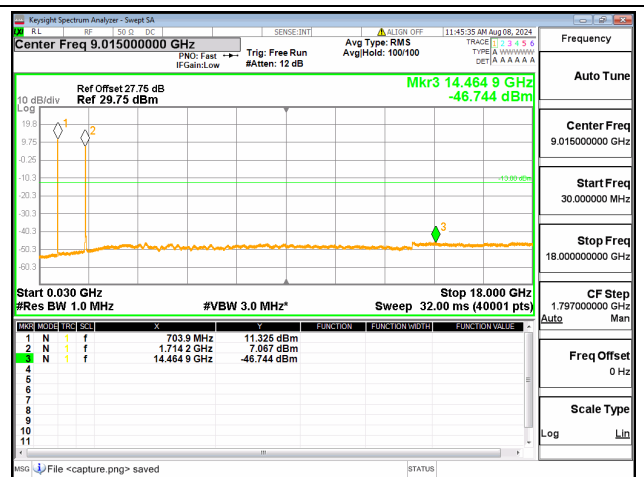
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1@49-1@012A-66A / 10+20MHz / QPSK / Mid+Low CH /
50@0-100@012A-66A / 10+20MHz / QPSK / Mid+Mid CH /
1@0-1@9912A-66A / 10+20MHz / QPSK / Mid+Mid CH /
1@49-1@012A-66A / 10+20MHz / QPSK / Mid+Mid CH /
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1@0-1@99



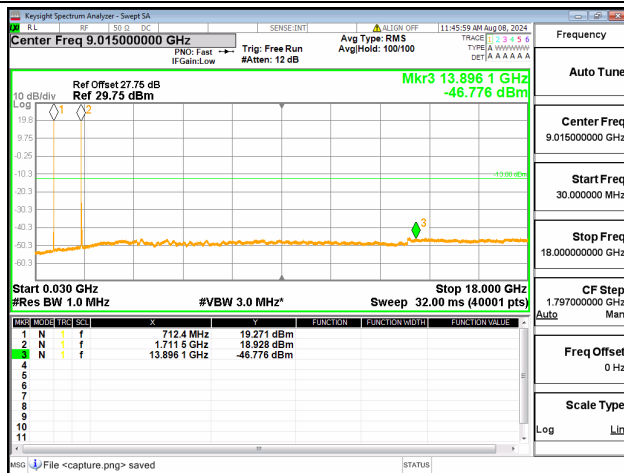




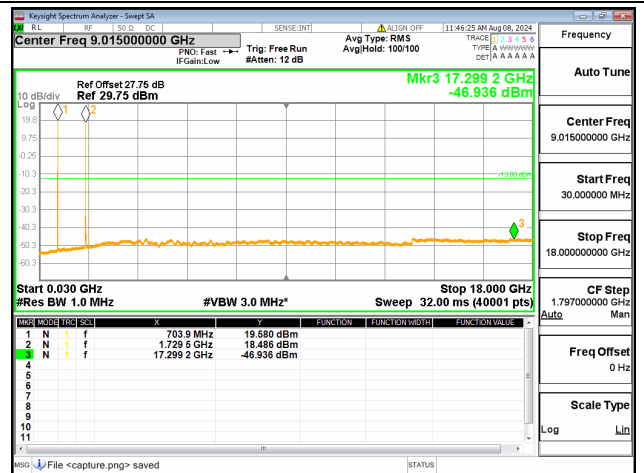
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1@99-1@0



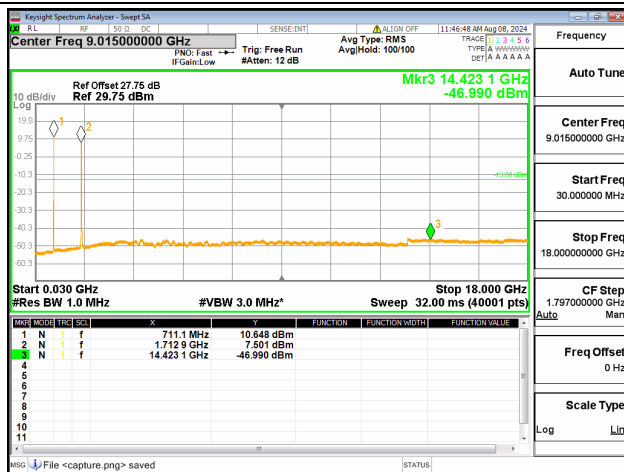
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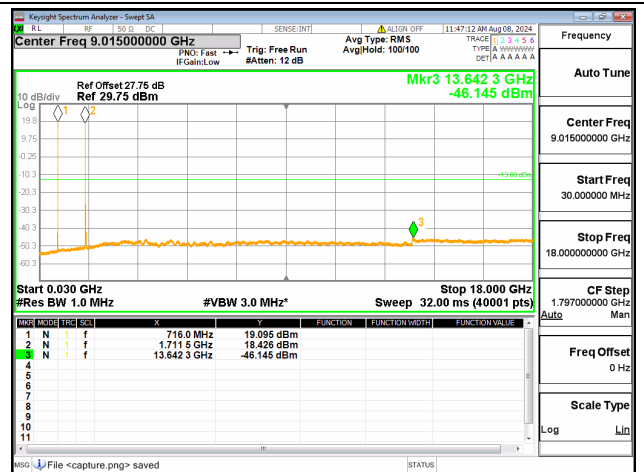
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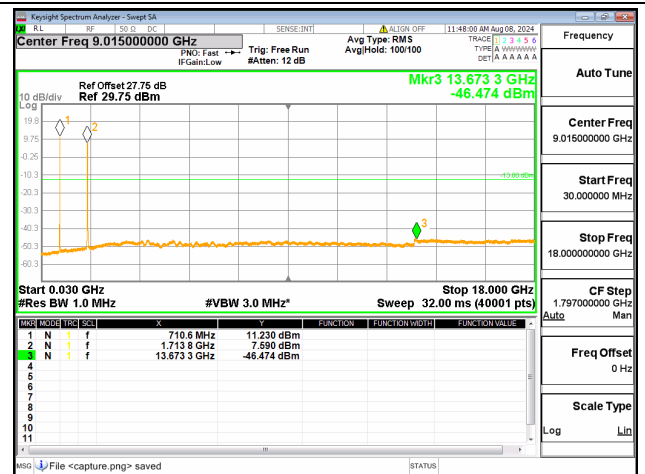
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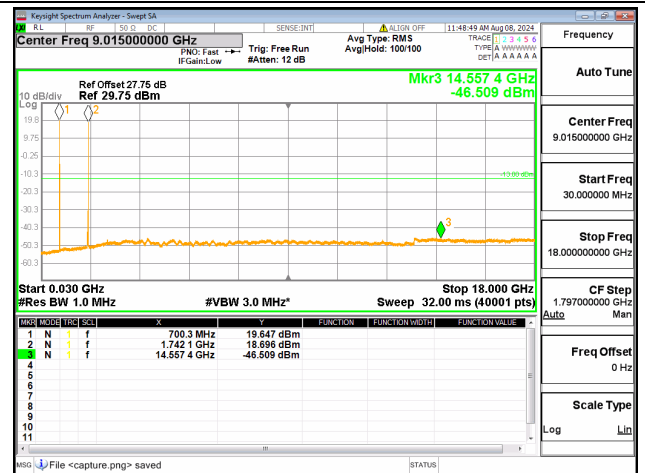
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4A-12A / 20+10MHz / QPSK / Low+High CH /
1@0-1@49



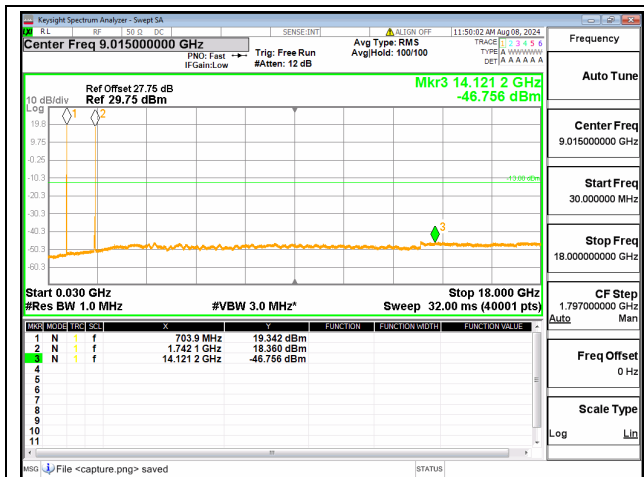
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100@0-50@0



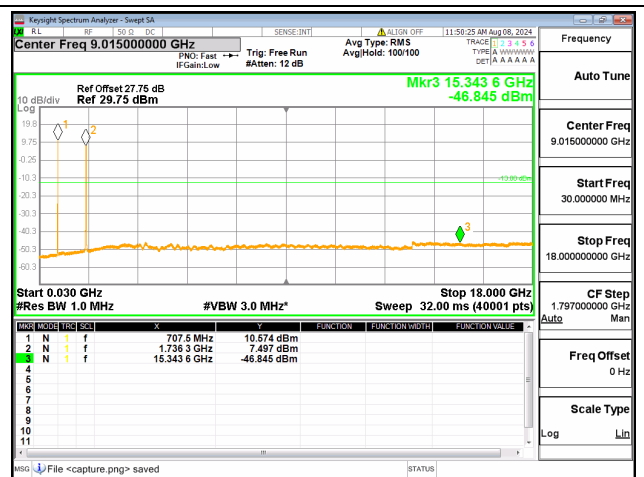
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1@99-1@0



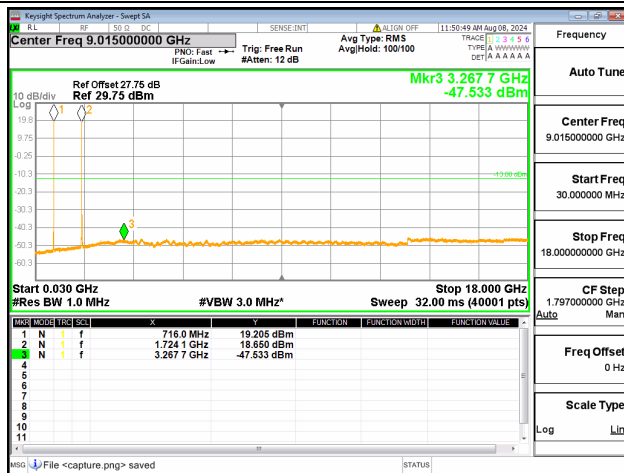
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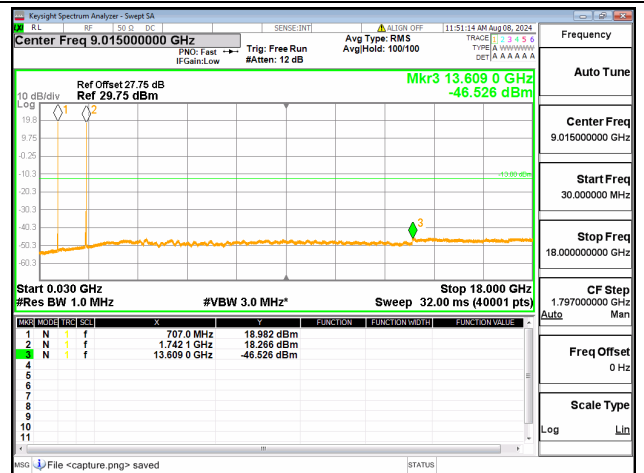
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1@99-1@0



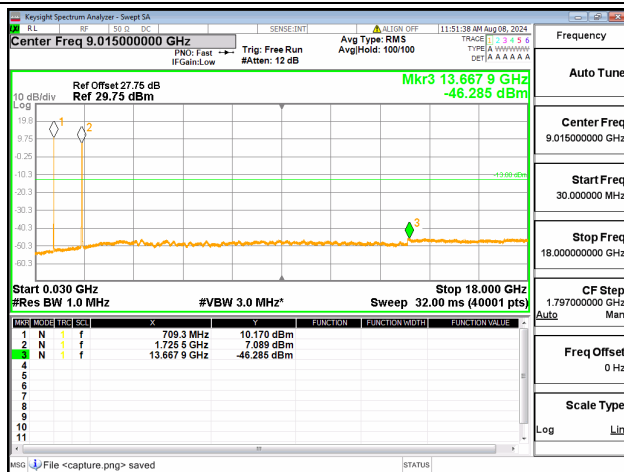
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100@0-50@0



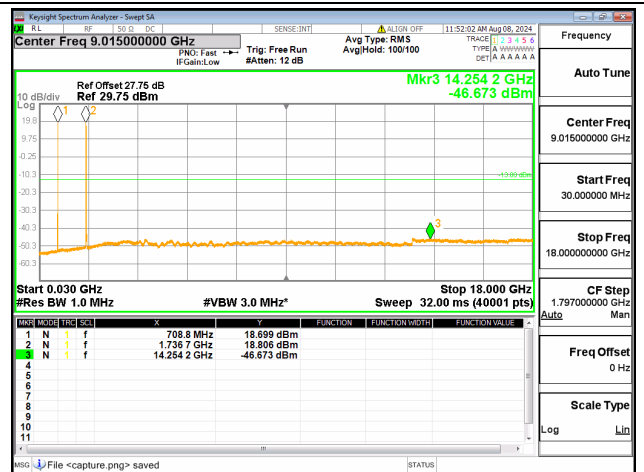
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1@0-1@49



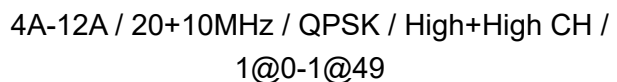
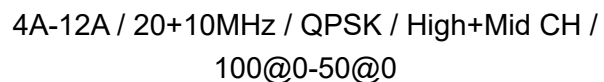
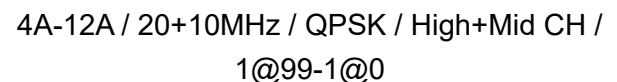
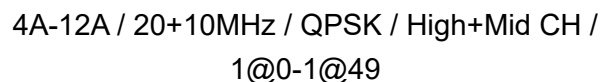
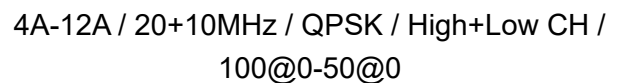
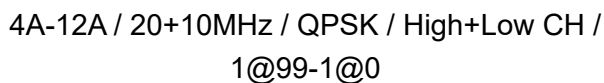
4A-12A / 20+10MHz / QPSK / Mid+High CH /
1@99-1@0

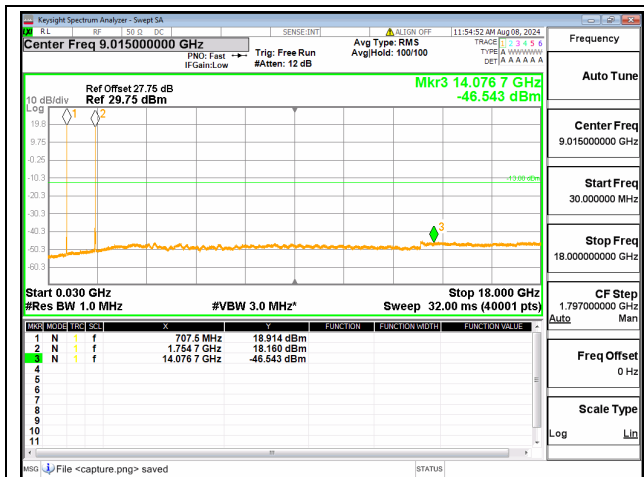


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100@0-50@0

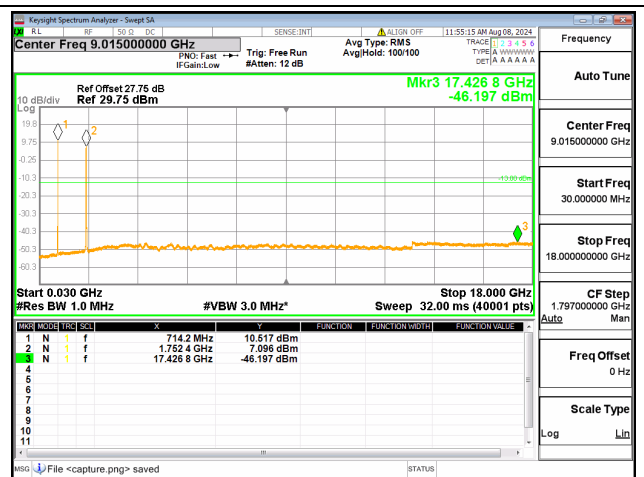


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1@0-1@49

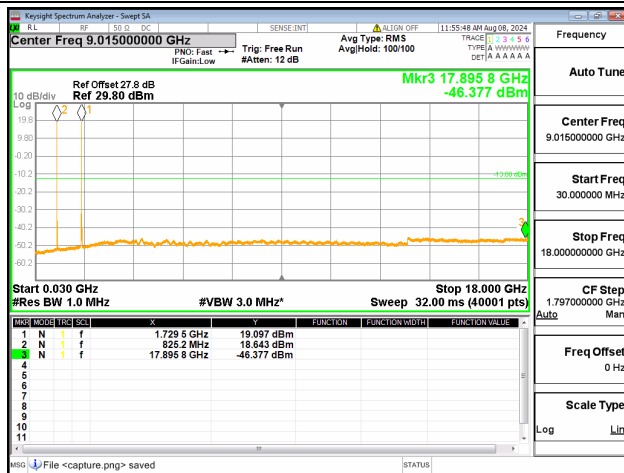




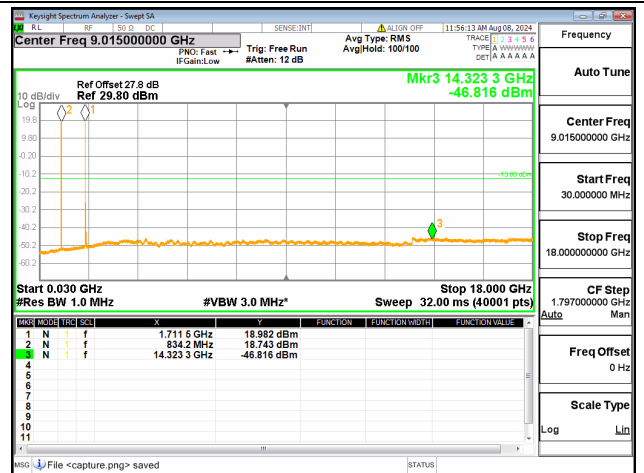
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1@99-1@0



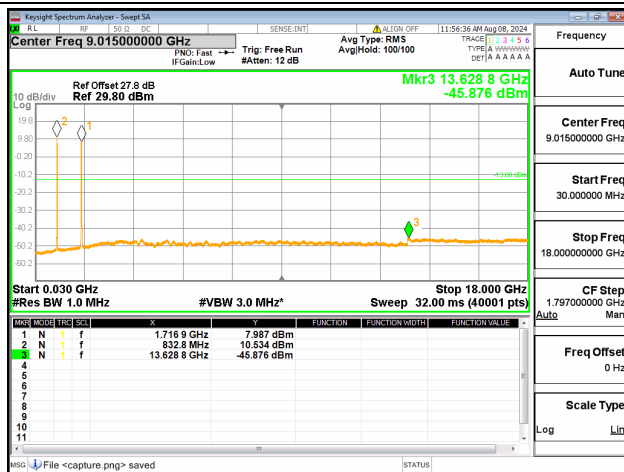
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100@0-50@0



5A-66A / 10+20MHz / QPSK / Low+Low CH /
1@0-1@99



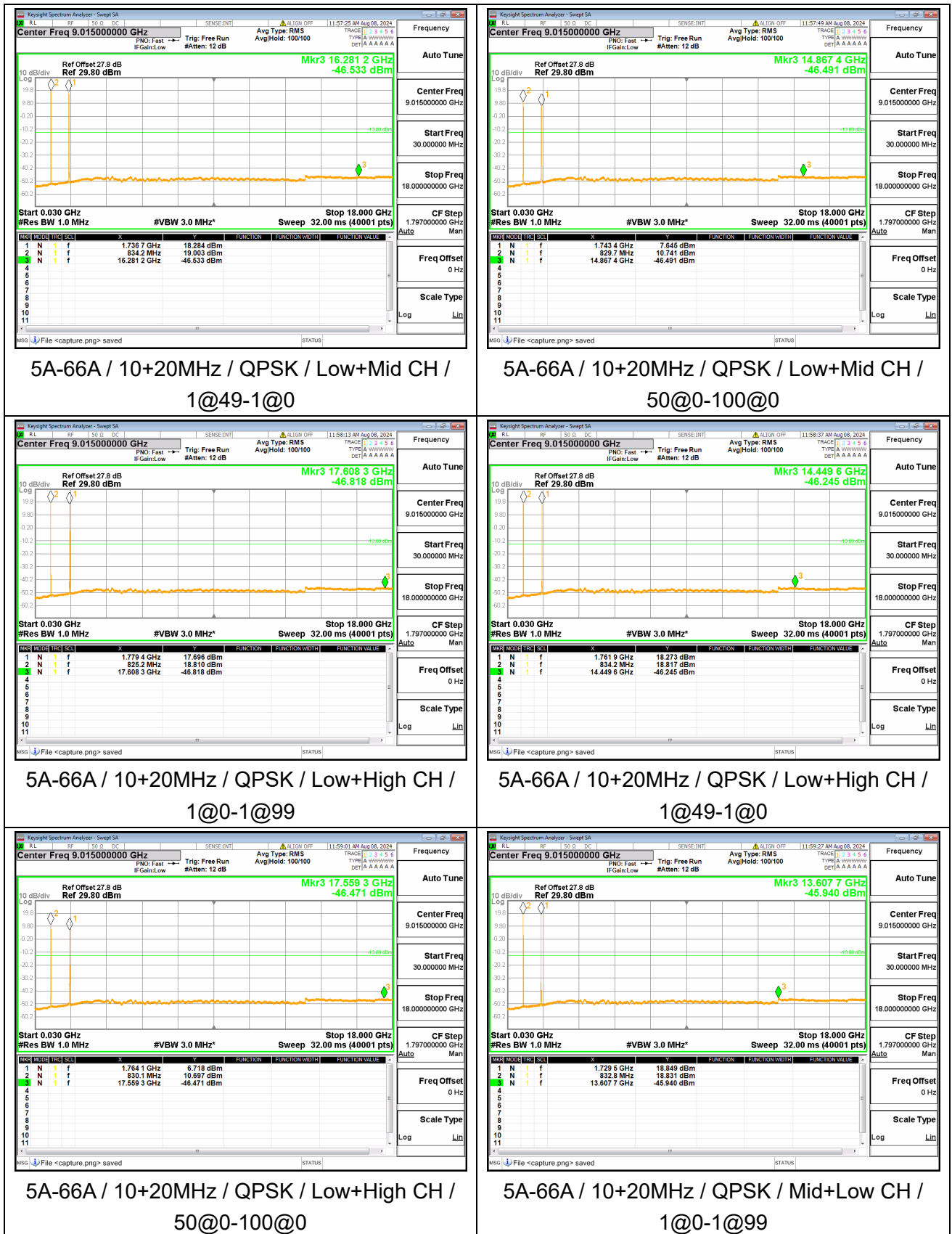
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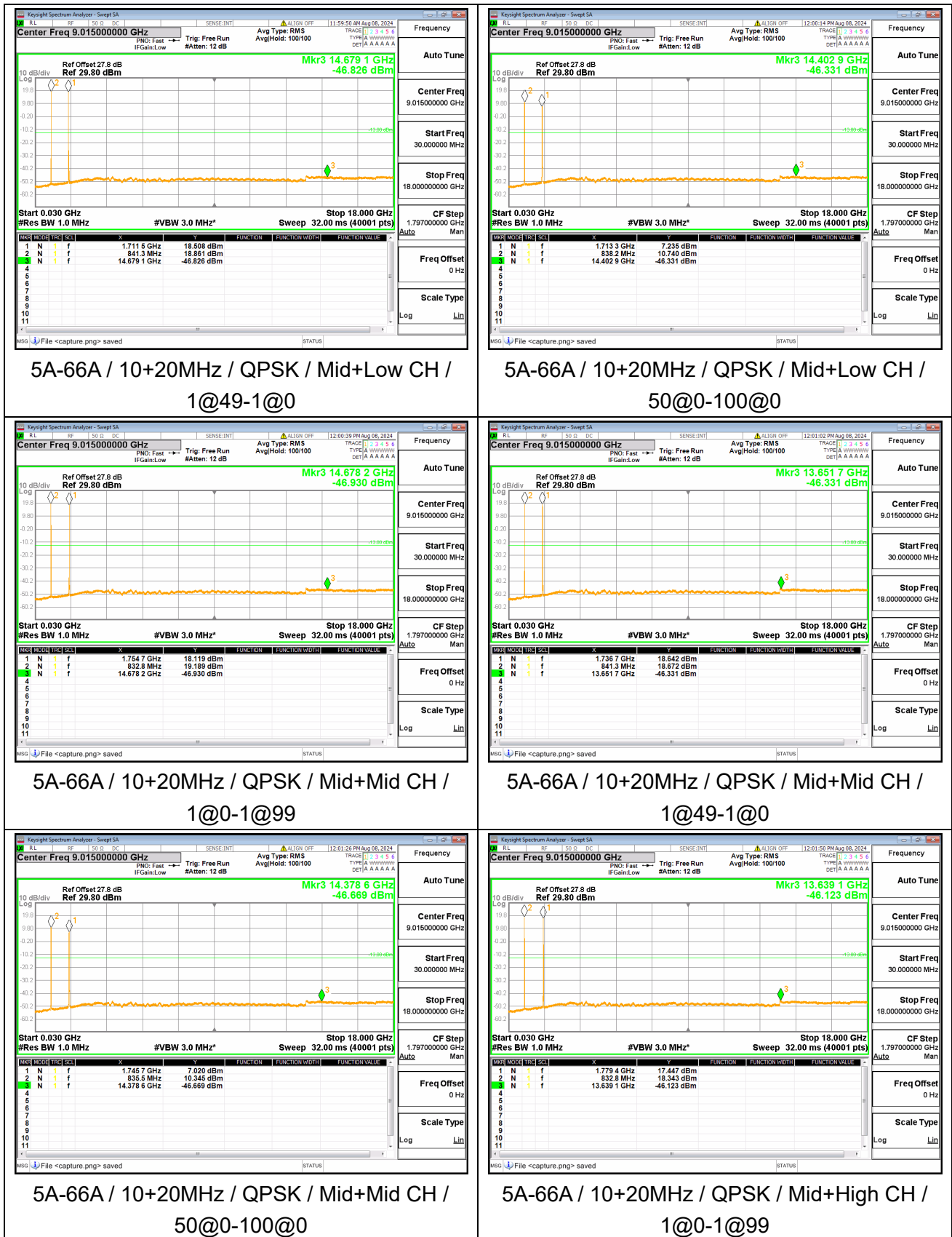


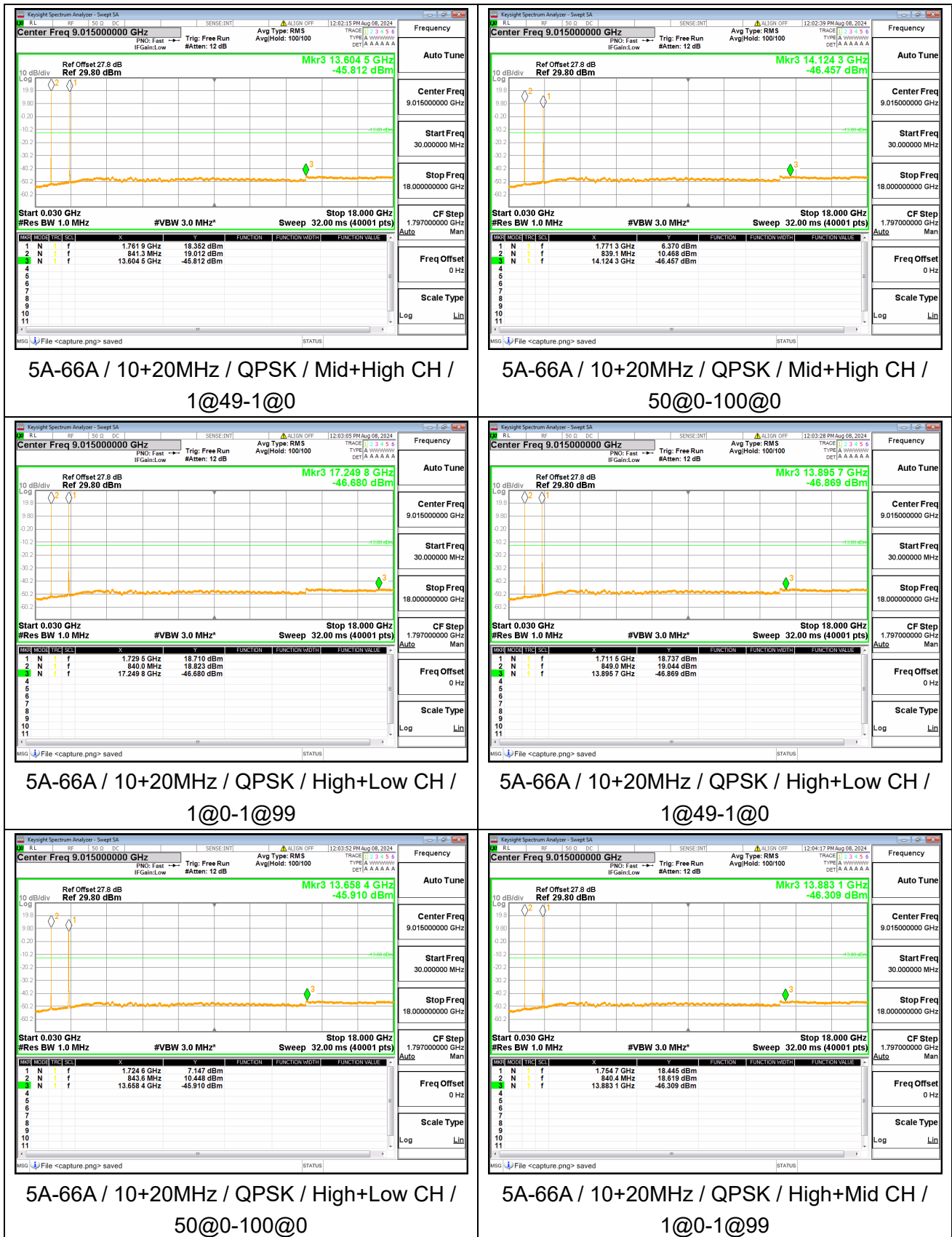
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50@0-100@0

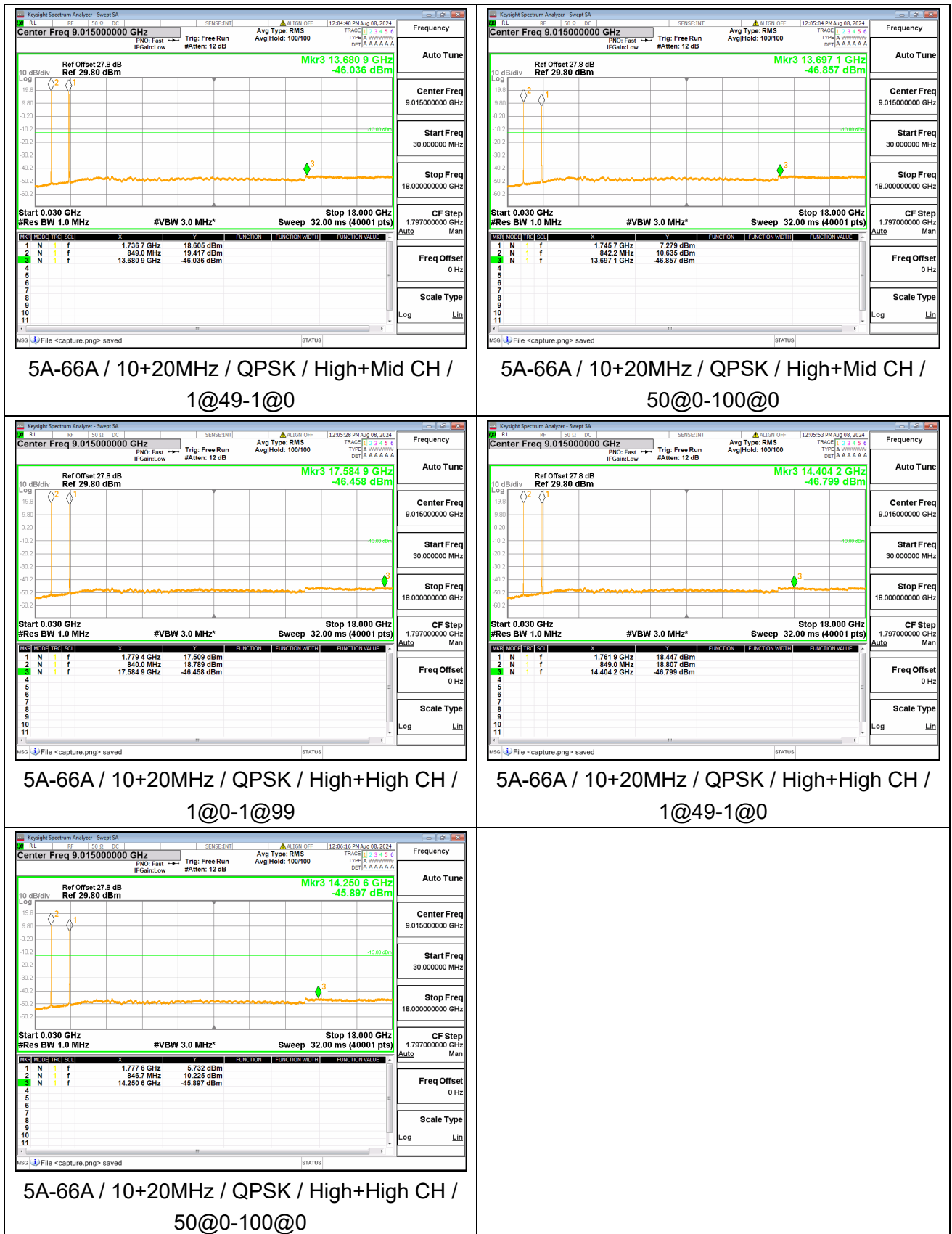


5A-66A / 10+20MHz / QPSK / Low+Mid CH /
1@0-1@99











2.3. Radiated Spurious Emissions

2.3.1. 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.

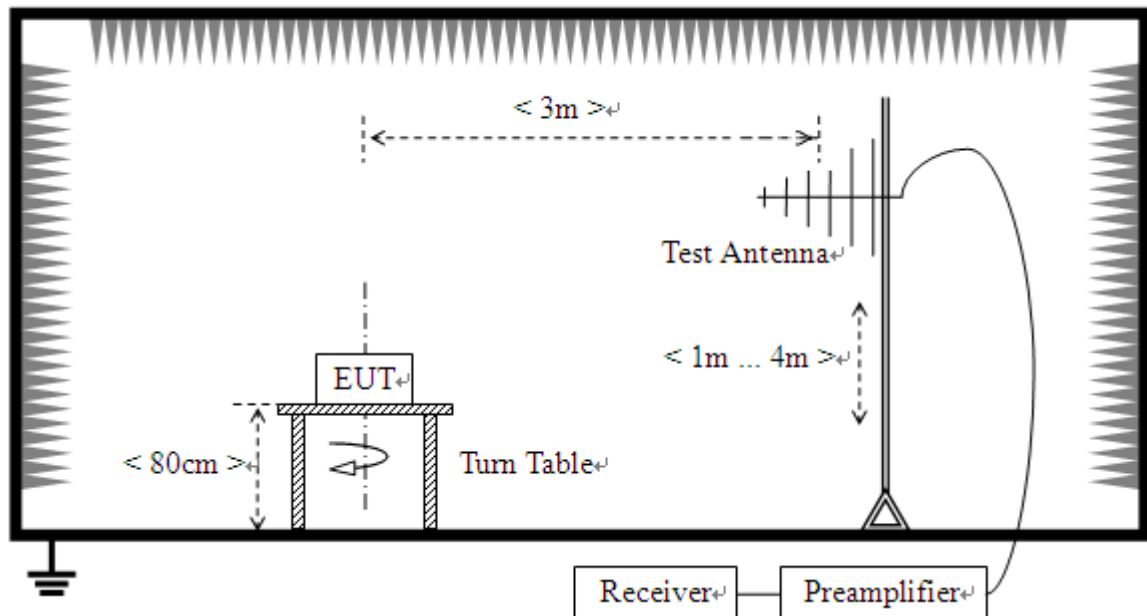
Additional requirement for LTE Band 4/66:

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB. This calculated to be -13dBm.

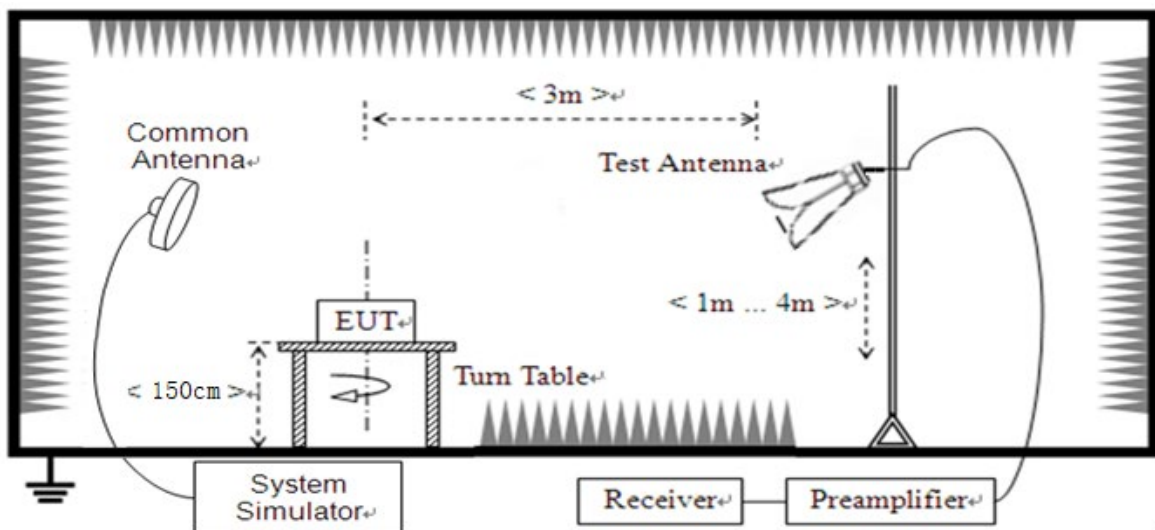
Additional requirement for LTE Band 12:

For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. This calculated to be -13dBm

2.3.2. Test Description



(For the test frequency from 30MHz to 1GHz)



(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.

2.3.3. Test Procedure

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

2.3.4. 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

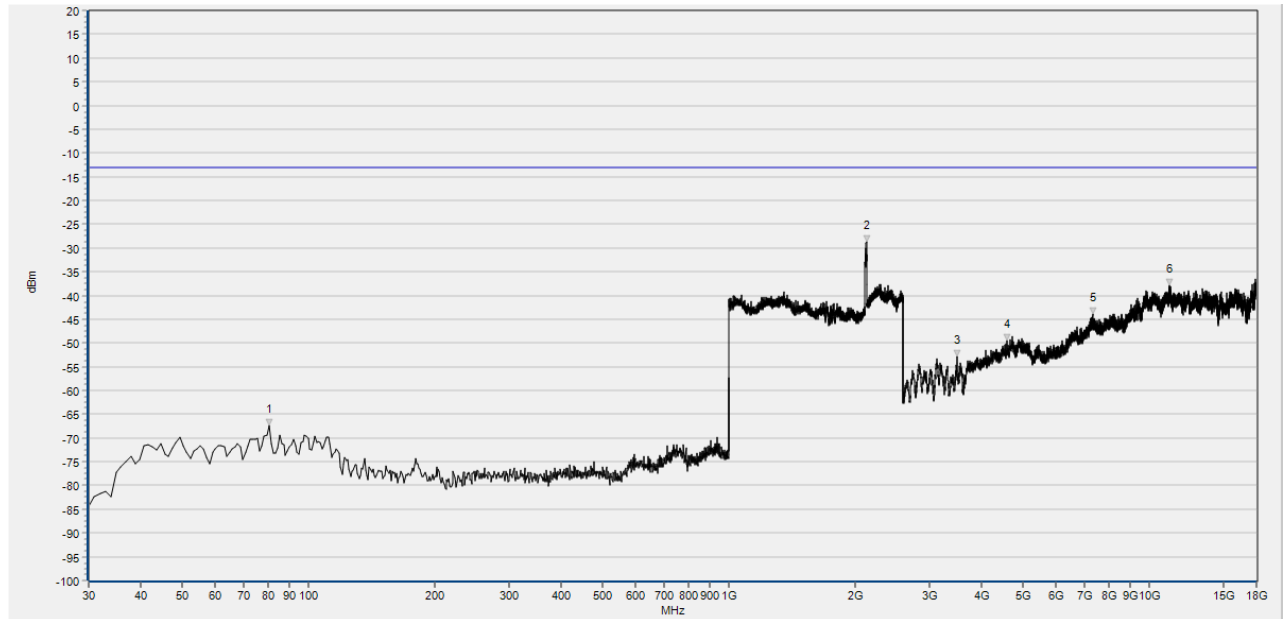
During the test, the data of A_{TOT} was added in the test spectrum analyze, so spectrum analyze reading is the final values which contain the data of A_{TOT} .

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.

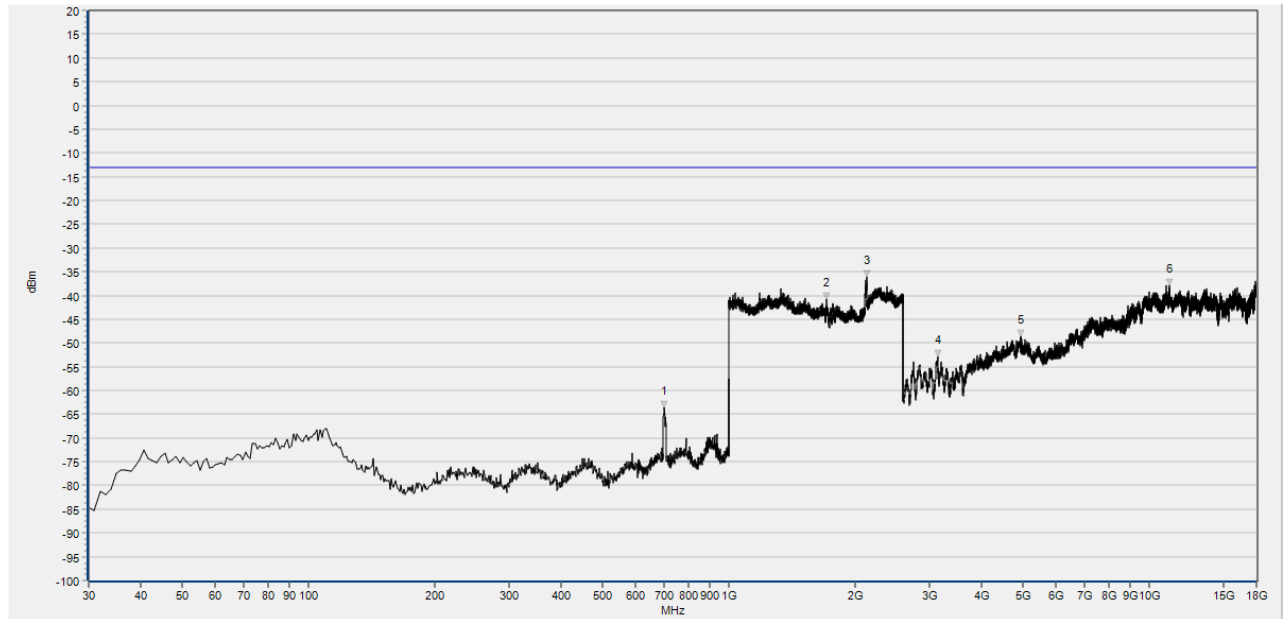
Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band; only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

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



Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	80.440	-67.40	-13.00	0.0	H	PASS
2	2124.290	-28.80	-13.00	188.7	H	NA
3	3490.562	-52.90	-13.00	185.8	H	PASS
4	4599.564	-49.43	-13.00	290.1	H	PASS
5	7330.060	-43.97	-13.00	281.7	H	PASS
6	11144.354	-37.84	-13.00	185.8	H	PASS

4A-12A Low 30M-18G H

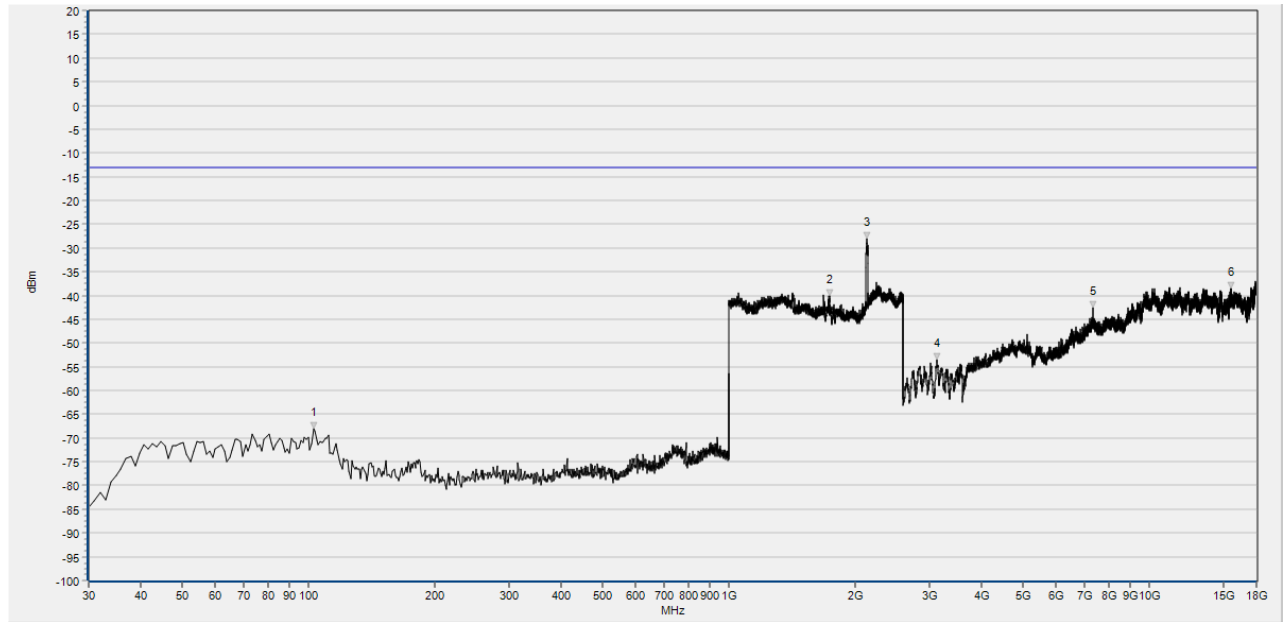


Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	703.180	-63.60	-13.00	360.0	V	NA
2	1710.044	-40.79	-13.00	353.1	V	NA
3	2126.210	-36.00	-13.00	50.6	V	NA
4	3137.698	-52.88	-13.00	309.8	V	PASS
5	4935.625	-48.61	-13.00	248.5	V	PASS
6	11152.755	-37.81	-13.00	75.6	V	PASS

4A-12A Low 30M-18G V

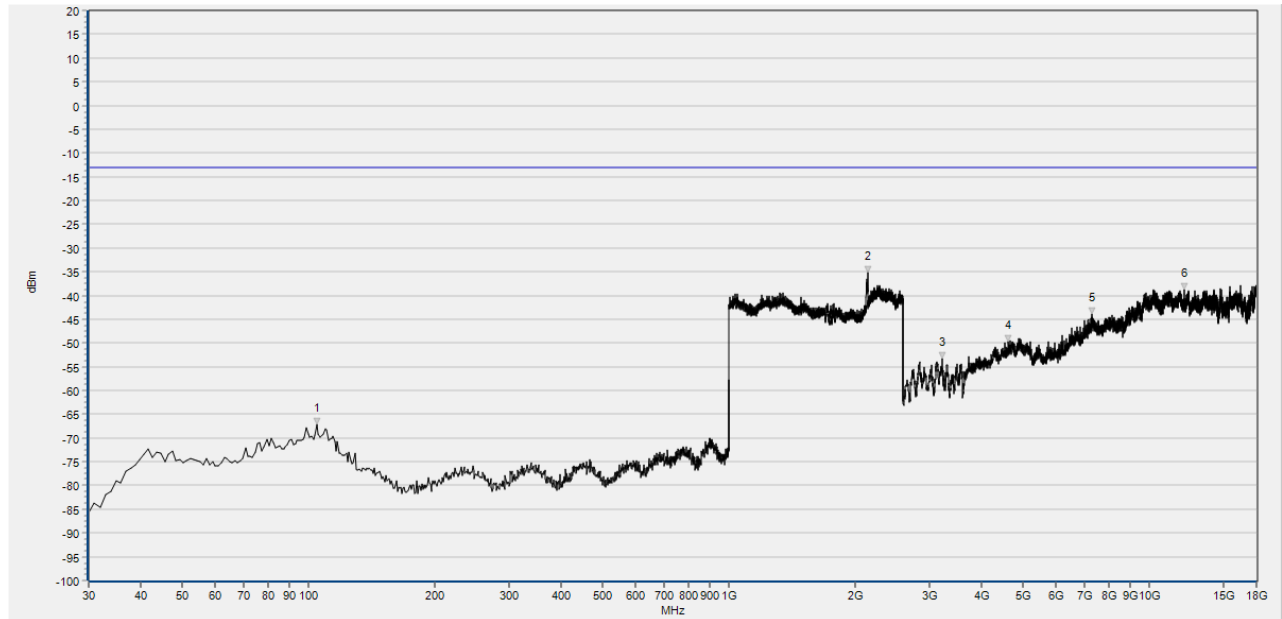


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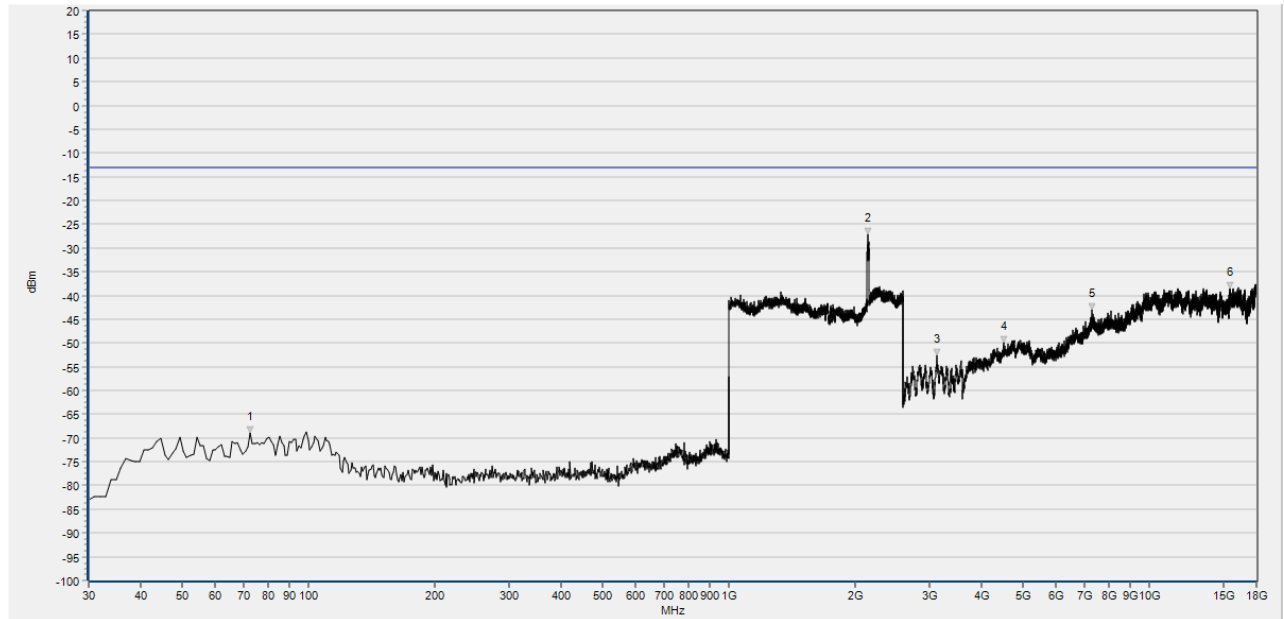
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	102.750	-68.15	-13.00	0.0	H	PASS
2	1733.733	-40.20	-13.00	356.5	H	NA
3	2129.412	-28.00	-13.00	1.4	H	NA
4	3123.695	-53.46	-13.00	149.2	H	PASS
5	7346.863	-42.59	-13.00	213.7	H	PASS
6	15625.168	-38.64	-13.00	140.6	H	PASS

4A-12A Mid 30M-18G H



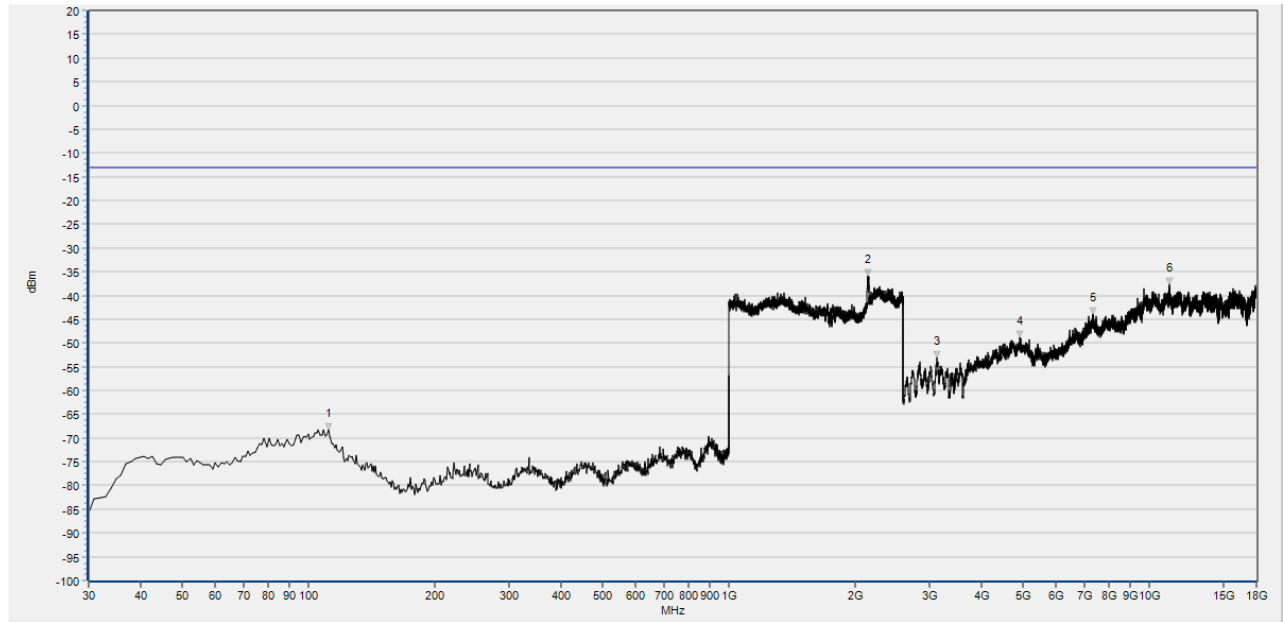
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	104.690	-67.24	-13.00	0.0	V	PASS
2	2139.656	-35.20	-13.00	67.4	V	NA
3	3213.312	-53.40	-13.00	116.6	V	PASS
4	4627.569	-49.76	-13.00	255.0	V	PASS
5	7313.257	-44.00	-13.00	237.9	V	PASS
6	12132.933	-38.77	-13.00	237.9	V	PASS

4A-12A Mid 30M-18G V



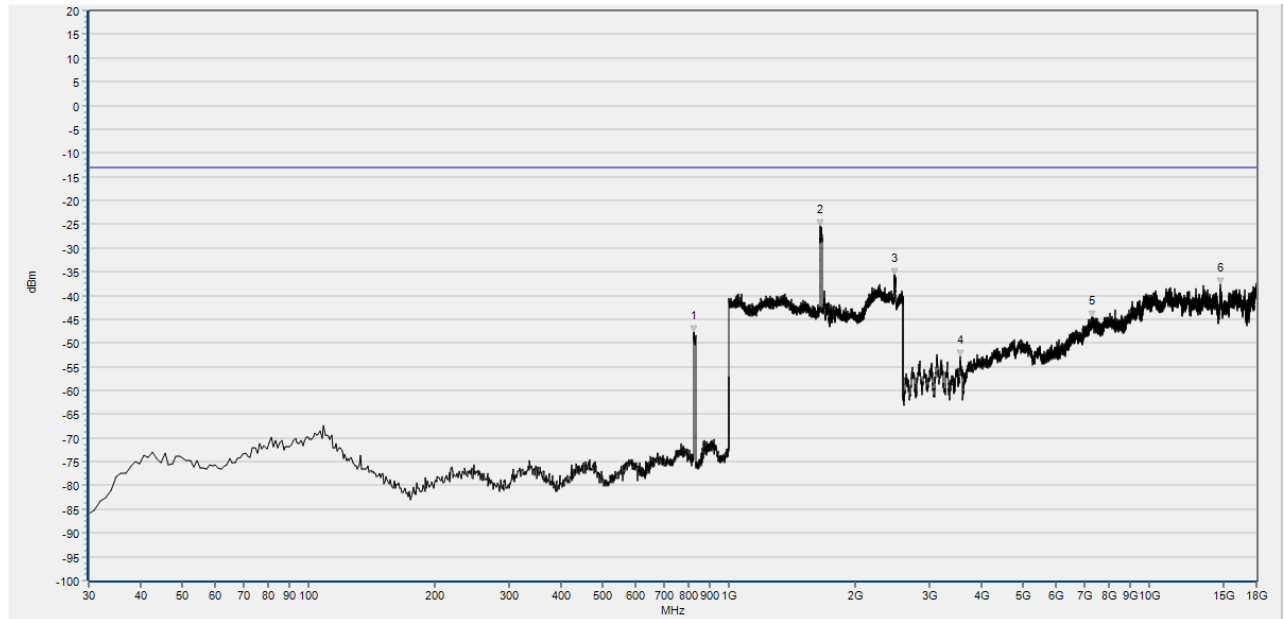
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	72.680	-68.92	-13.00	0.0	H	PASS
2	2147.979	-27.05	-13.00	199.5	H	NA
3	3126.496	-52.60	-13.00	69.9	H	PASS
4	4498.745	-49.95	-13.00	165.3	H	PASS
5	7316.057	-42.95	-13.00	265.2	H	PASS
6	15605.565	-38.53	-13.00	308.4	H	PASS

4A-12A High 30M-18G H



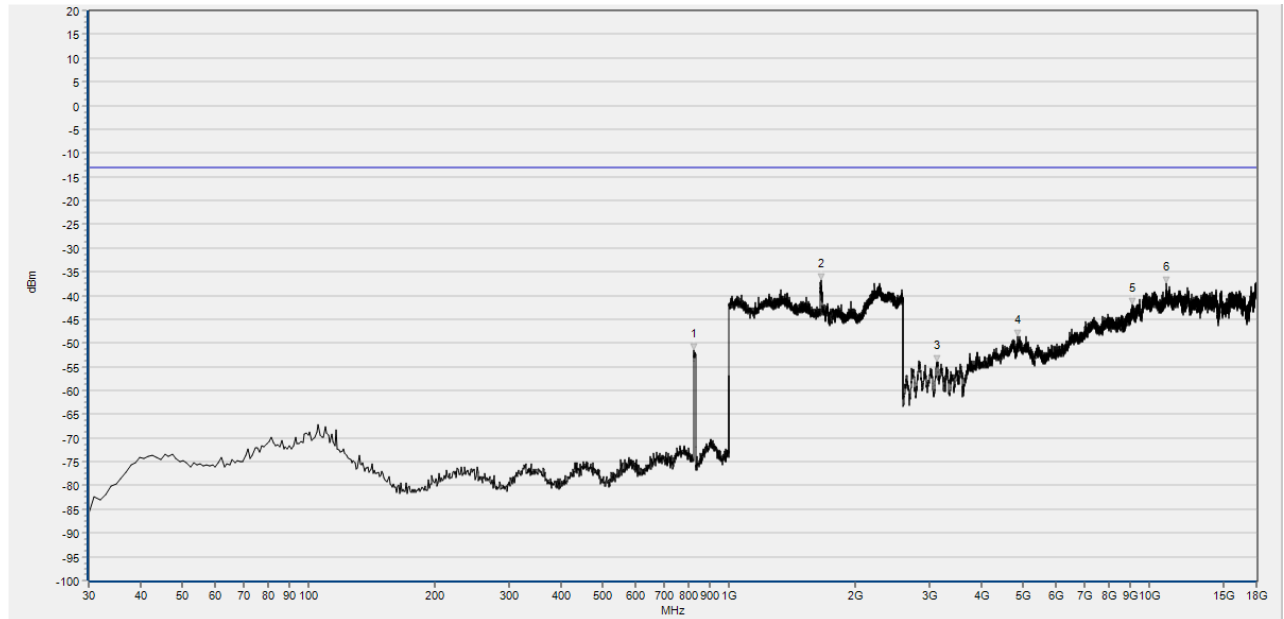
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	111.480	-68.31	-13.00	360.0	V	PASS
2	2140.296	-35.87	-13.00	55.1	V	NA
3	3132.097	-52.98	-13.00	251.7	V	PASS
4	4932.824	-48.82	-13.00	360.0	V	PASS
5	7341.262	-43.85	-13.00	61.9	V	PASS
6	11147.154	-37.55	-13.00	279.1	V	PASS

4A-12A High 30M-18G V



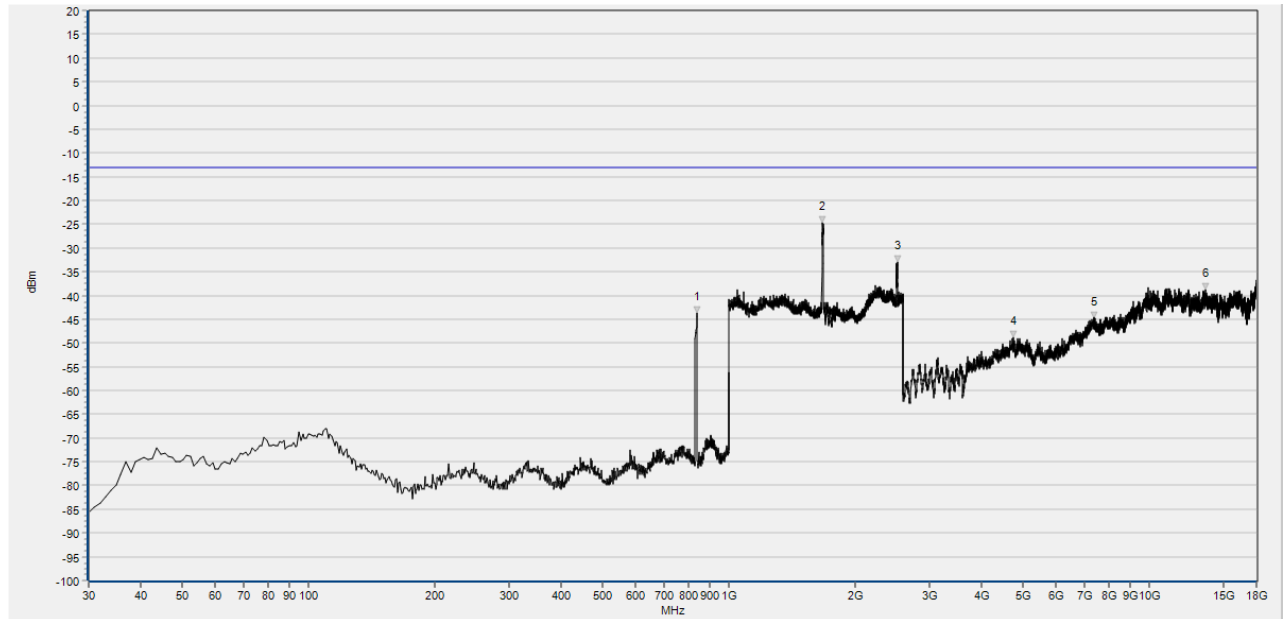
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	825.400	-47.76	-13.00	0.0	H	NA
2	1651.781	-25.27	-13.00	75.6	H	PASS
3	2476.431	-35.68	-13.00	82.3	H	PASS
4	3549.373	-52.89	-13.00	152.2	H	PASS
5	7302.055	-44.64	-13.00	213.2	H	PASS
6	14787.816	-37.70	-13.00	187.5	H	PASS

5A-66A Low 30M-18G H



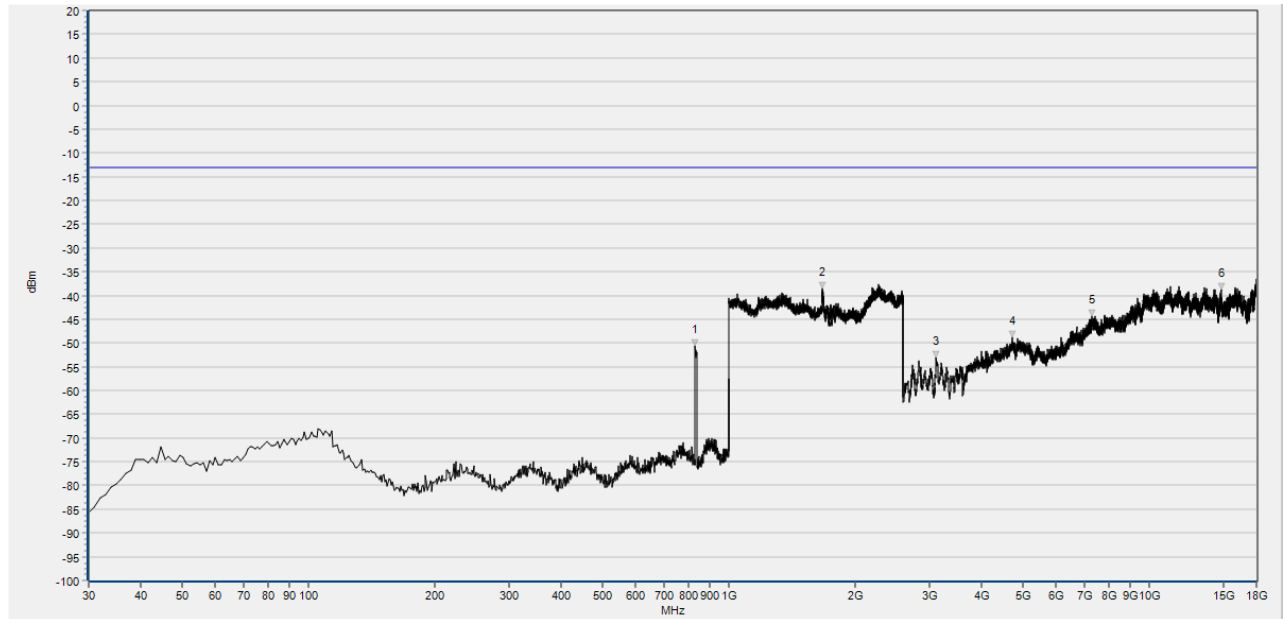
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	825.400	-51.56	-13.00	0.0	V	NA
2	1662.025	-36.83	-13.00	149.3	V	PASS
3	3118.094	-54.02	-13.00	153.7	V	PASS
4	4874.013	-48.58	-13.00	51.2	V	PASS
5	9127.987	-42.00	-13.00	111.0	V	PASS
6	11009.929	-37.51	-13.00	8.6	V	PASS

5A-66A Low 30M-18G V



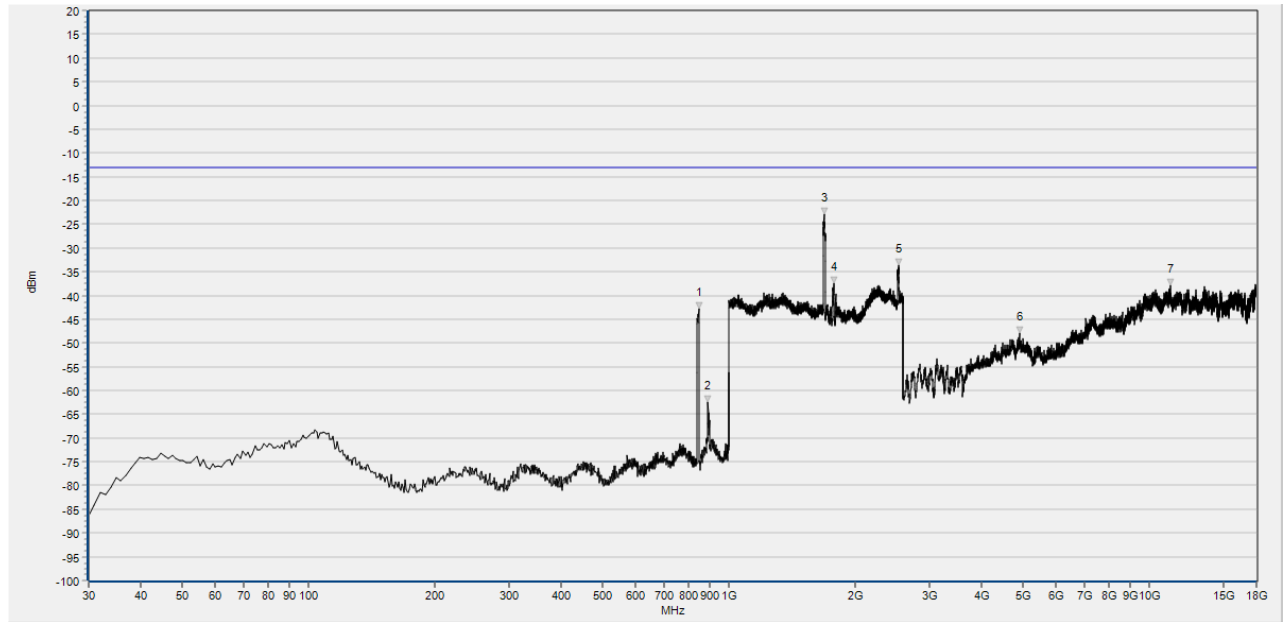
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	840.920	-43.63	-13.00	0.0	H	NA
2	1672.909	-24.76	-13.00	89.7	H	PASS
3	2516.767	-32.89	-13.00	89.7	H	PASS
4	4742.390	-48.76	-13.00	71.9	H	PASS
5	7374.868	-44.89	-13.00	63.3	H	PASS
6	13591.999	-38.78	-13.00	175.4	H	PASS

5A-66A Mid 30M-18G H



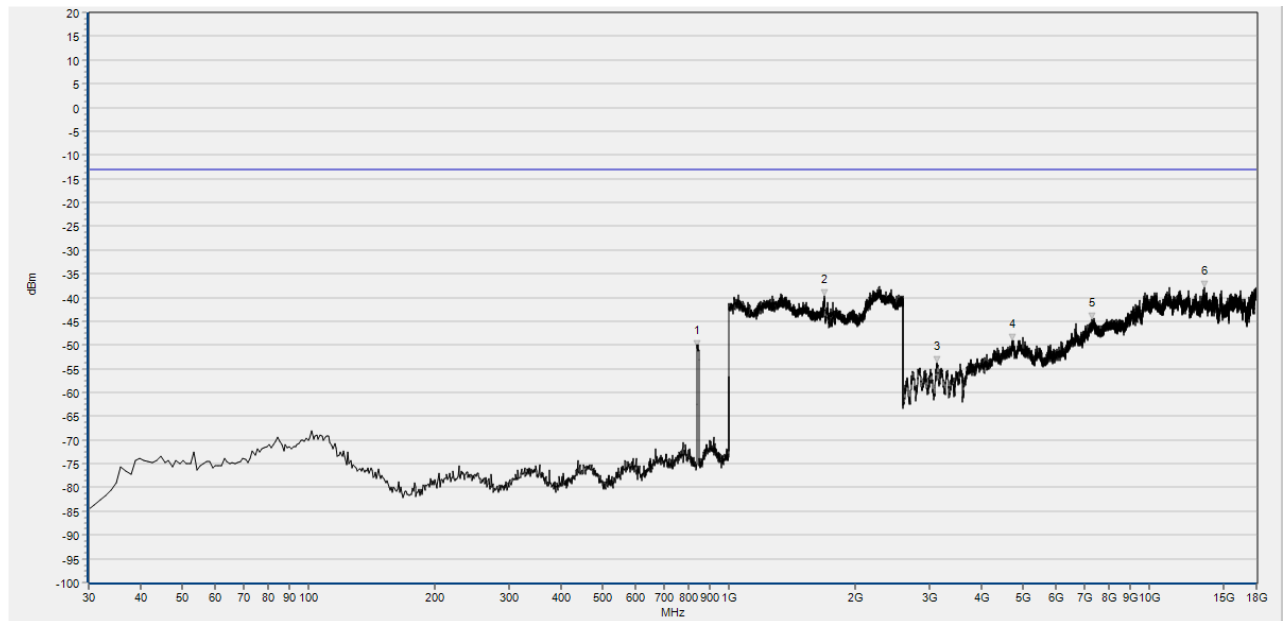
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	832.190	-50.53	-13.00	0.0	V	NA
2	1672.909	-38.51	-13.00	137.4	V	PASS
3	3115.294	-53.18	-13.00	5.6	V	PASS
4	4733.988	-48.93	-13.00	117.6	V	PASS
5	7296.454	-44.44	-13.00	202.9	V	PASS
6	14815.821	-38.74	-13.00	31.1	V	PASS

5A-66A Mid 30M-18G V



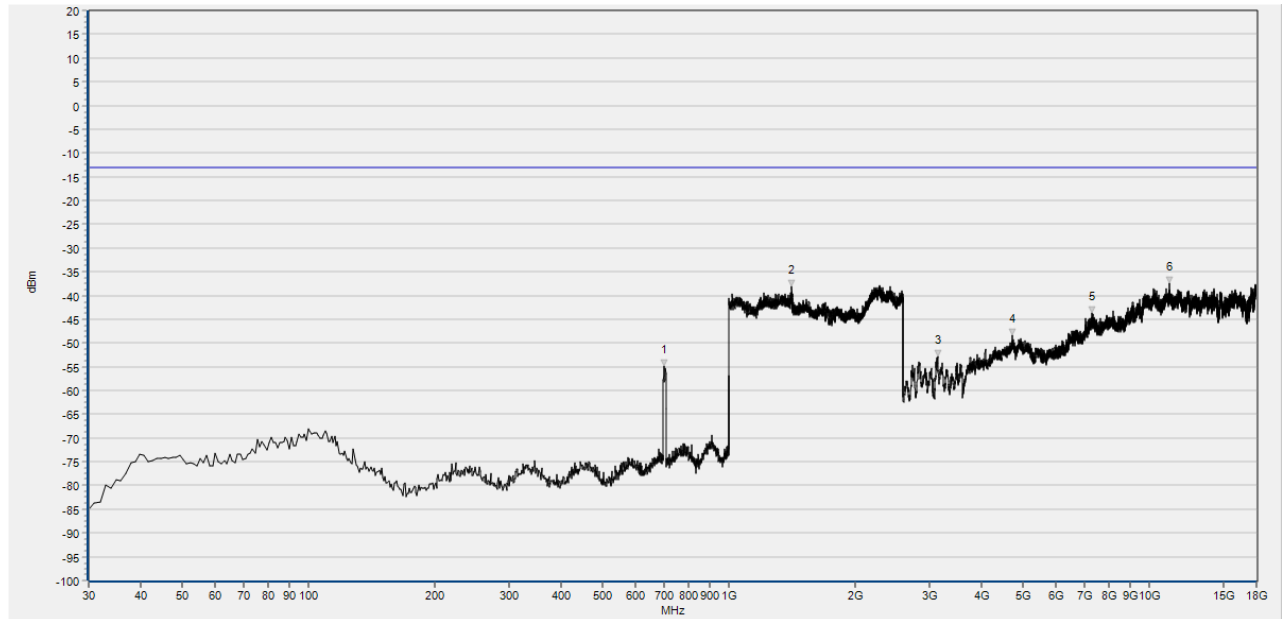
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	847.710	-42.86	-13.00	0.0	H	NA
2	892.330	-62.46	-13.00	0.0	H	NA
3	1683.153	-22.98	-13.00	93.5	H	PASS
4	1775.350	-37.49	-13.00	167.5	H	NA
5	2531.493	-33.71	-13.00	85.7	H	PASS
6	4907.620	-48.00	-13.00	324.7	H	PASS

5A-66A High 30M-18G H



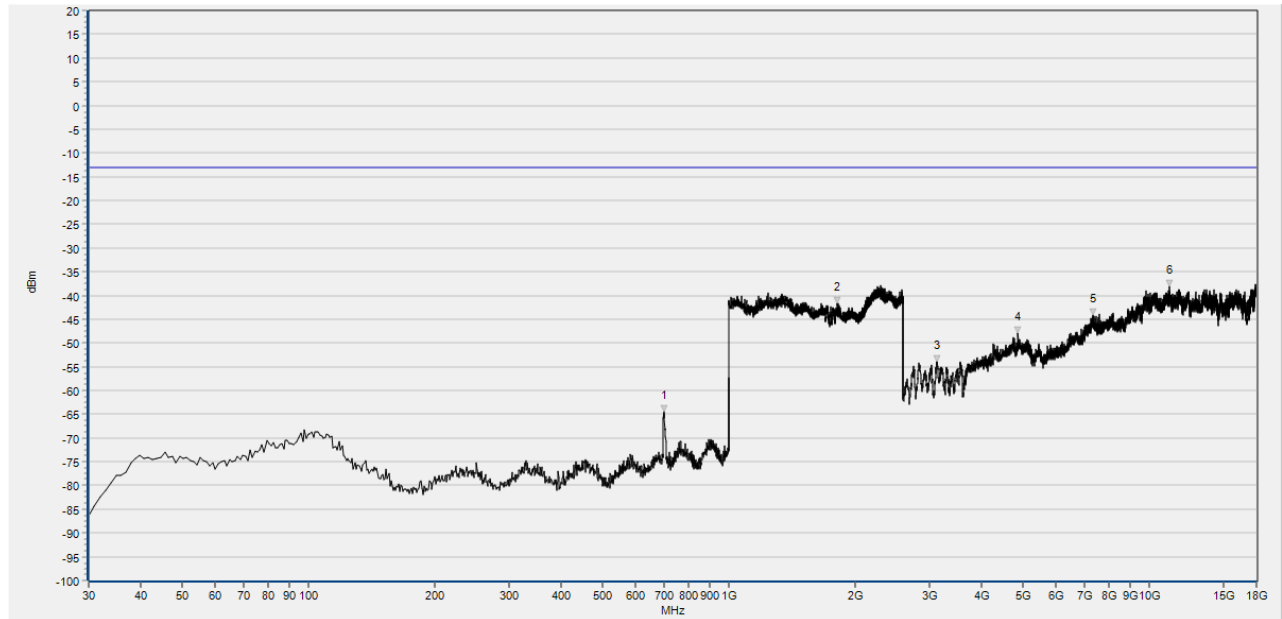
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	840.920	-50.35	-13.00	0.0	V	NA
2	1683.794	-39.71	-13.00	135.8	V	PASS
3	3123.695	-53.80	-13.00	15.5	V	PASS
4	4736.789	-49.02	-13.00	325.4	V	PASS
5	7310.456	-44.69	-13.00	342.5	V	PASS
6	13561.193	-37.92	-13.00	289.8	V	PASS

5A-66A High 30M-18G V



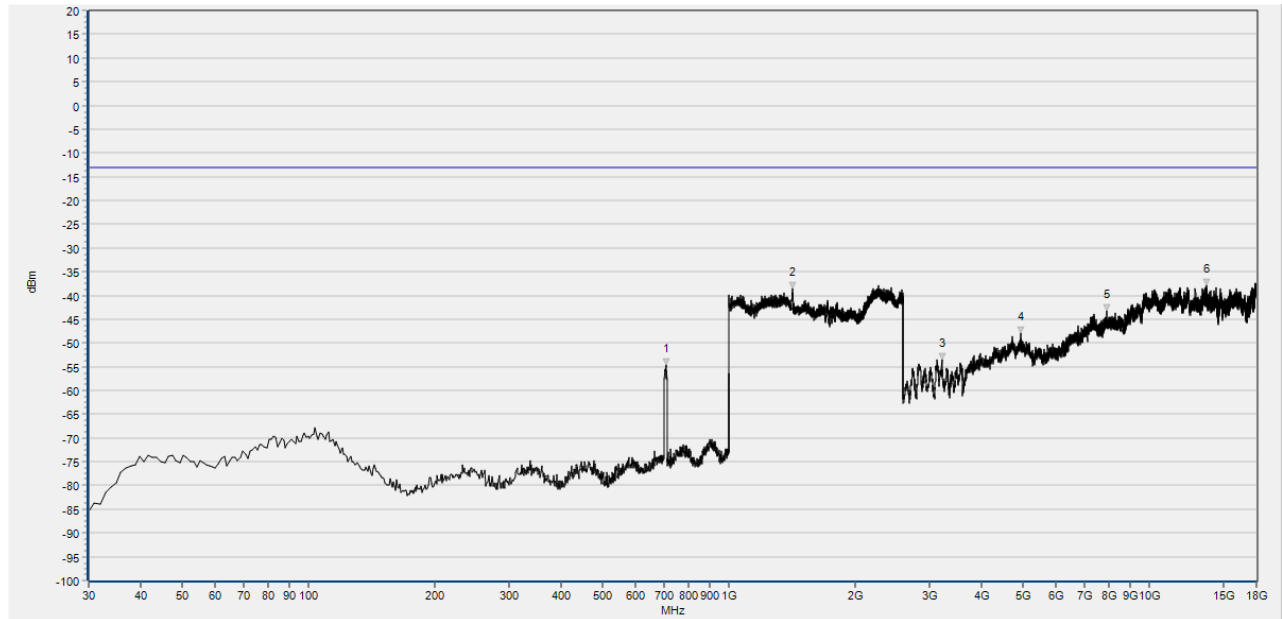
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	701.240	-54.92	-13.00	0.0	H	NA
2	1412.325	-38.07	-13.00	105.8	H	PASS
3	3137.698	-52.86	-13.00	328.2	H	PASS
4	4714.384	-48.44	-13.00	242.4	H	PASS
5	7324.459	-43.74	-13.00	175.7	H	PASS
6	11152.755	-37.48	-13.00	193.0	H	PASS

12A-66A Low 30M-18G H



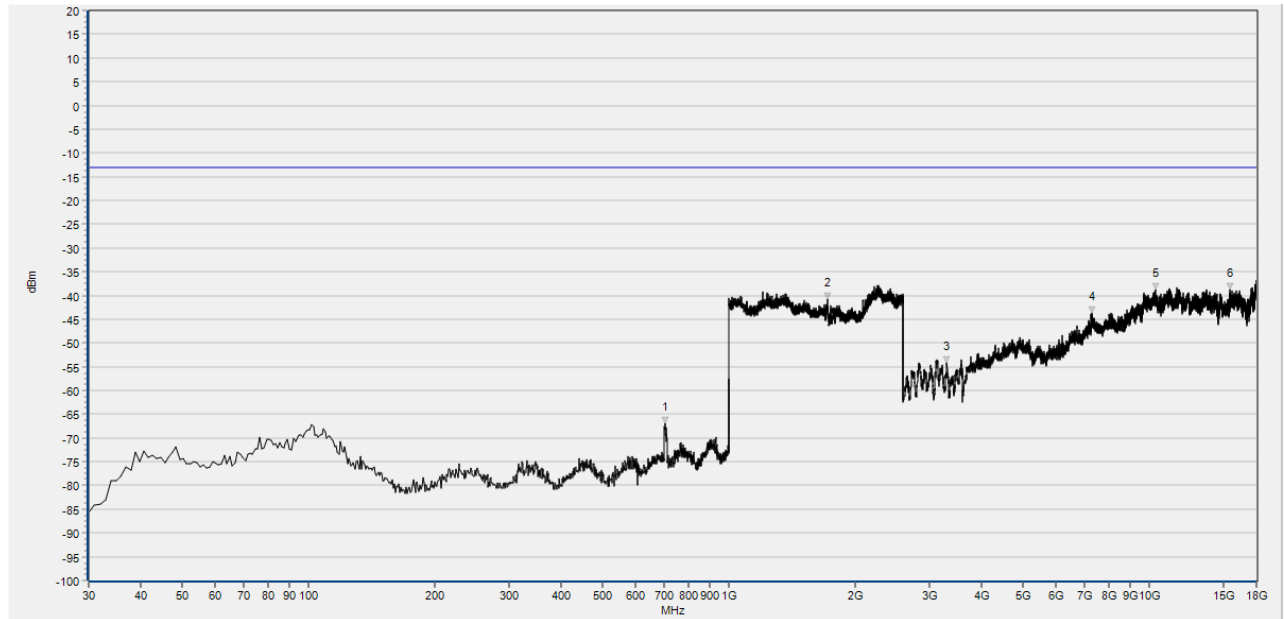
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	700.270	-64.42	-13.00	0.0	V	NA
2	1814.406	-41.72	-13.00	227.5	V	PASS
3	3120.895	-54.03	-13.00	316.6	V	PASS
4	4876.814	-47.94	-13.00	144.8	V	PASS
5	7338.462	-44.19	-13.00	179.4	V	PASS
6	11169.558	-38.10	-13.00	171.0	V	PASS

12A-66A Low 30M-18G V



Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	709.000	-54.54	-13.00	0.0	H	NA
2	1414.886	-38.58	-13.00	110.9	H	PASS
3	3210.511	-53.51	-13.00	97.1	H	PASS
4	4952.428	-48.00	-13.00	255.5	H	PASS
5	7934.970	-43.32	-13.00	324.5	H	PASS
6	13701.218	-37.92	-13.00	3.5	H	PASS

12A-66A Mid 30M-18G H

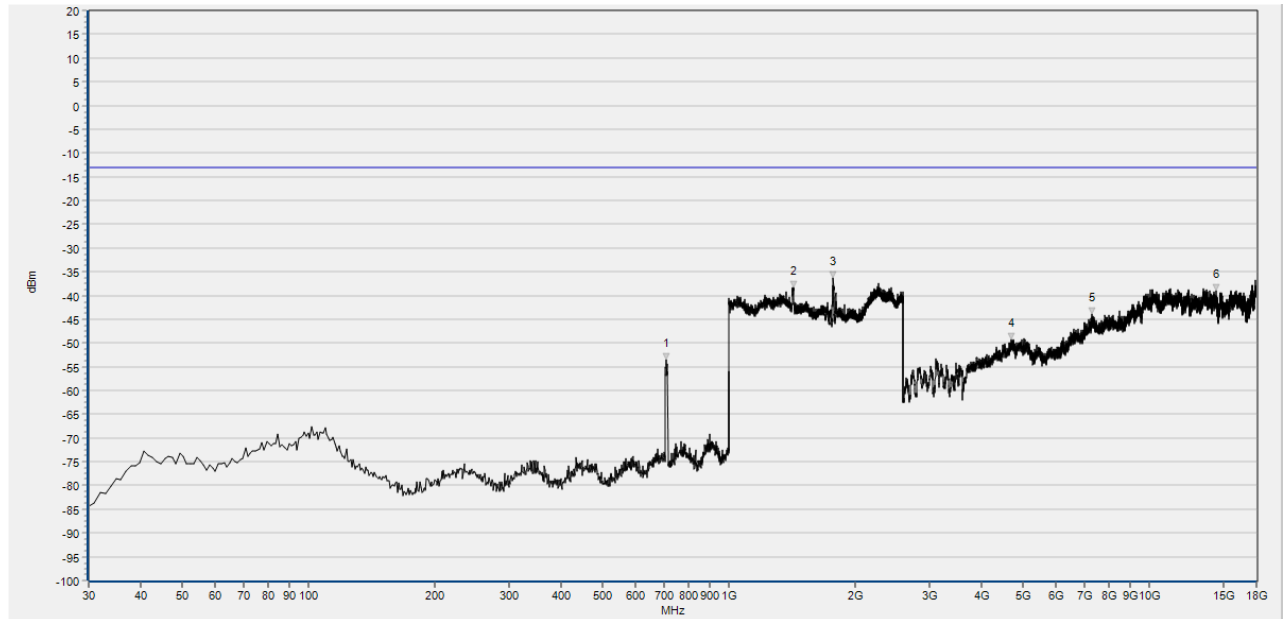


Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	706.090	-67.01	-13.00	0.0	V	NA
2	1716.447	-40.85	-13.00	20.2	V	PASS
3	3302.928	-54.27	-13.00	213.0	V	PASS
4	7307.656	-43.78	-13.00	221.9	V	PASS
5	10332.206	-38.67	-13.00	93.1	V	PASS
6	15588.762	-38.69	-13.00	6.6	V	PASS

12A-66A Mid 30M-18G V

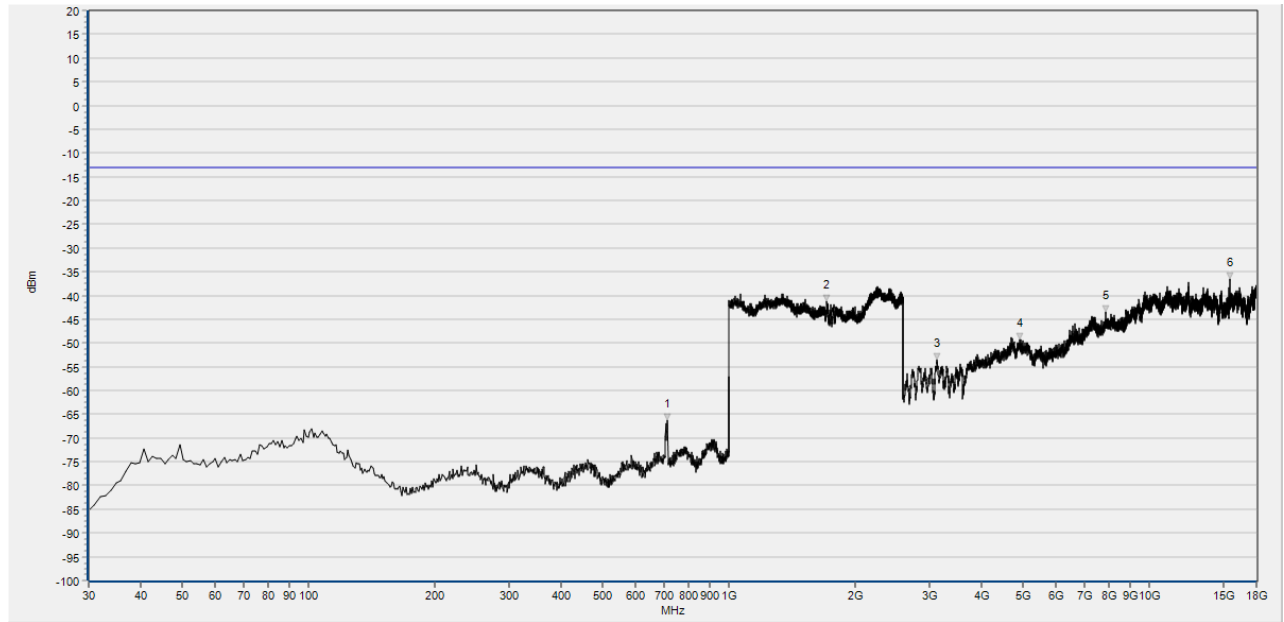


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Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	709.000	-53.43	-13.00	0.0	H	NA
2	1424.490	-38.29	-13.00	103.5	H	PASS
3	1773.429	-36.39	-13.00	358.2	H	NA
4	4686.379	-49.31	-13.00	218.4	H	PASS
5	7299.254	-43.99	-13.00	47.7	H	PASS
6	14457.356	-38.89	-13.00	105.5	H	PASS

12A-66A High 30M-18G H



Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	715.790	-66.29	-13.00	0.0	V	NA
2	1711.965	-41.19	-13.00	116.2	V	PASS
3	3132.097	-53.41	-13.00	238.2	V	PASS
4	4927.223	-49.38	-13.00	108.4	V	PASS
5	7878.960	-43.52	-13.00	185.5	V	PASS
6	15588.762	-36.61	-13.00	99.7	V	PASS

12A-66A High 30M-18G V



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 A 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.



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4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Power Splitter	NW521	1506A	Weinschel	N/A	N/A
Attenuator 1	(N/A.)	10dB	Resnet	N/A	N/A
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2024.06.19	2025.06.18
EXA Signal Analyzer	MY54170556	N9030A	Keysight	2023.10.07	2024.10.06
System Simulator	6261830572	MT8821C	Anritsu	2024.01.25	2025.01.24
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Computer	T430i	Think Pad	Lenovo	N/A	N/A



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4.2 List of Software Used

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



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4.3 Radiated Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Loop Antenna	1519-022	FMZB 1519	SCHWARZBE CK	2024/06/3	2025/06/2
Bi-Log Antenna	9163-274	VULB 9163	SCHWARZBE CK	2024/06/29	2025/06/28
Horn Antenna	9120D-963	BBHA 9120D	SCHWARZBE CK	2024/06/3	2025/06/2
Signal Analyzer	MY56060145	N9020A	Agilent	2024/05/30	2025/05/29
Preamplifier (2GHz-18GHz)	61171/061172	S020180L320 3	LUCIX CORP.	2024/05/30	2025/05/29
Preamplifier (10MHz-6GHz)	46732	S10M100L380 2	LUCIX CORP.	2024/05/30	2025/05/29
System Simulator	152038	CMW500	R&S	2023/9/19	2024/9/18
System Simulator	MY48364176	8960-E5515C	Agilent	2024/1/24	2025/1/23
System Simulator	6262148249	MT8000A	anritsu	2024/06/30	2025/06/29
System Simulator	6261830572	MT8821C	anritsu	2024/1/25	2025/1/24
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2024/05/30	2025/05/29
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2024/05/30	2025/05/29
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2024/05/30	2025/05/29
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK- 0.5	Qualwave	2024/7/3	2025/7/2
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KK F-2	Qualwave	2024/7/3	2025/7/2
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN -5	Qualwave	2024/7/3	2025/7/2

_____ END OF REPORT _____