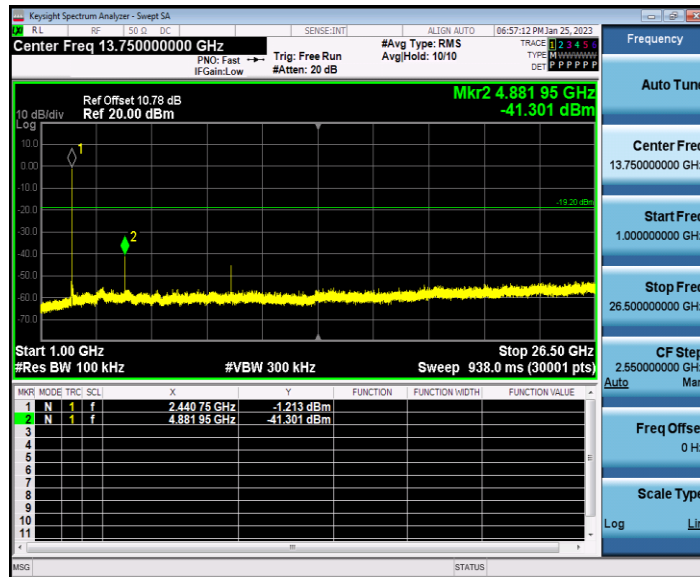
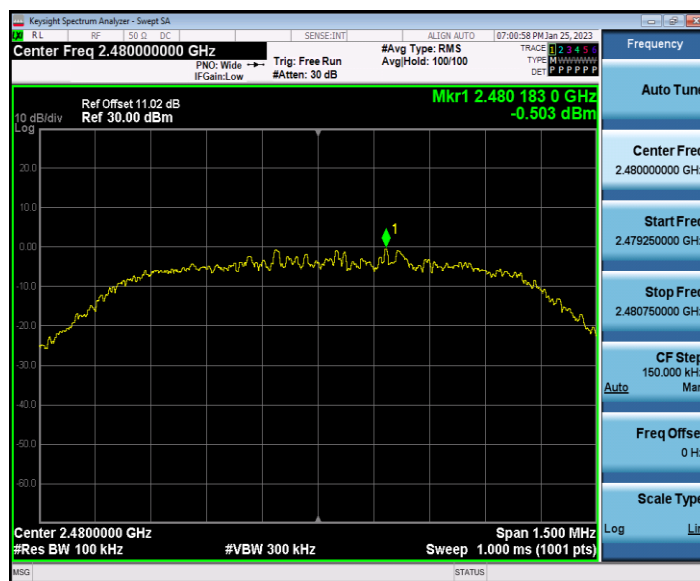
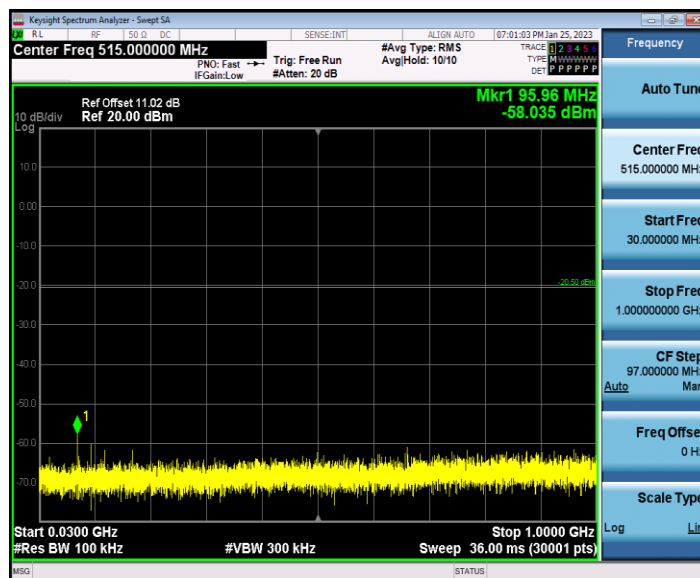




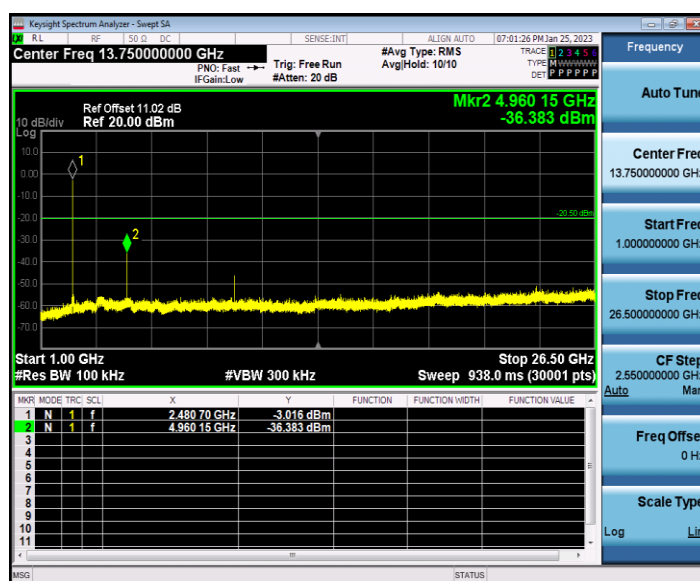
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



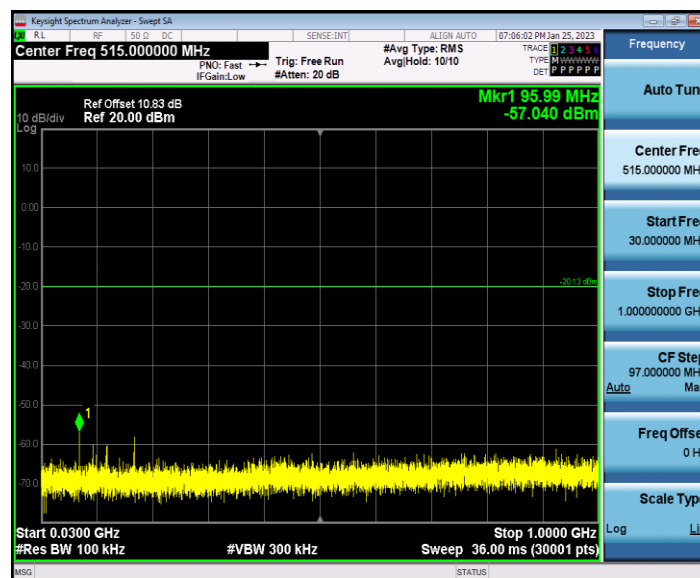
2DH5_Ant1_2480_1000~26500



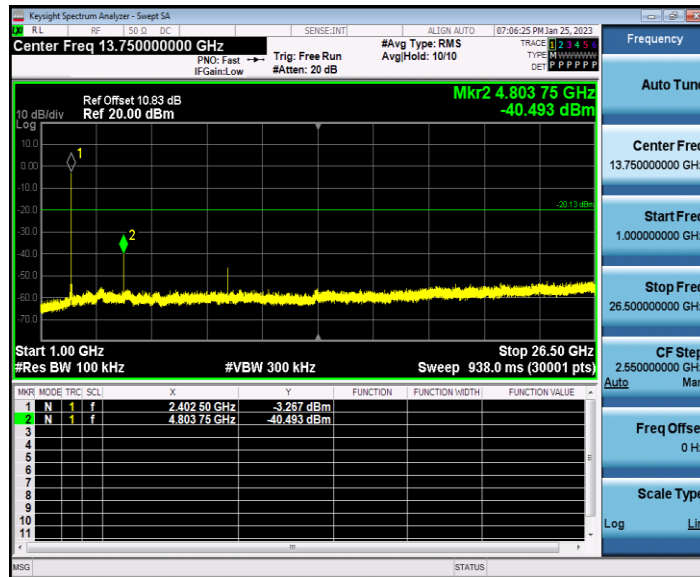
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



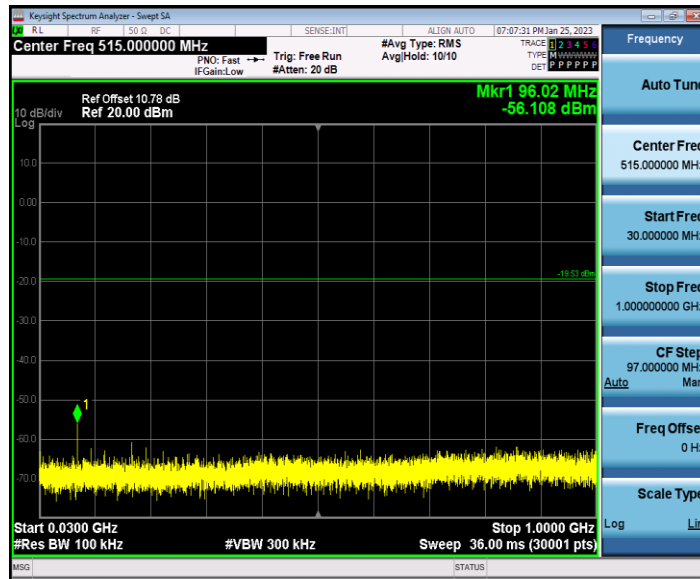
3DH5_Ant1_2402_1000~26500



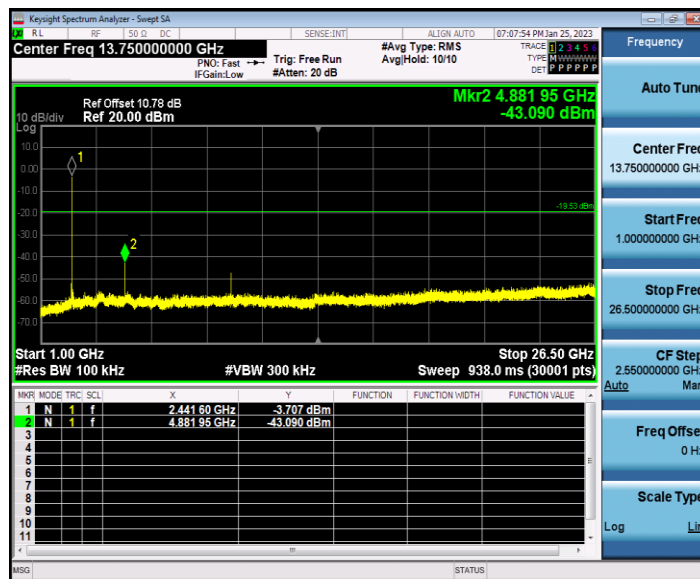
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



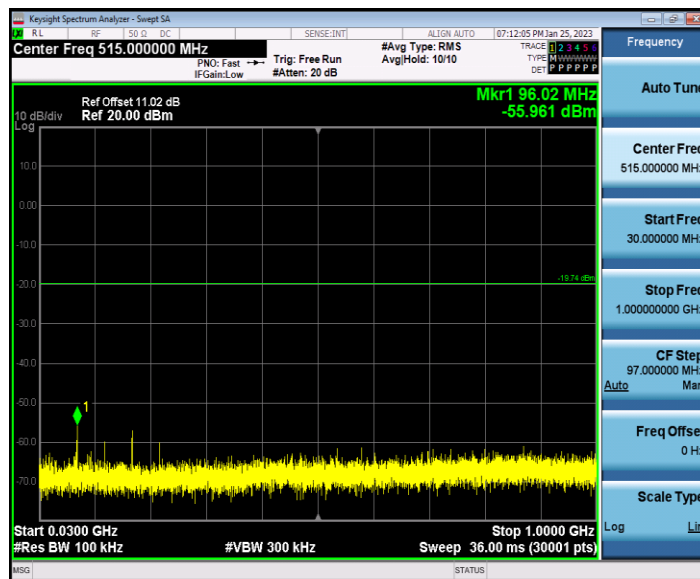
3DH5_Ant1_2441_1000~26500



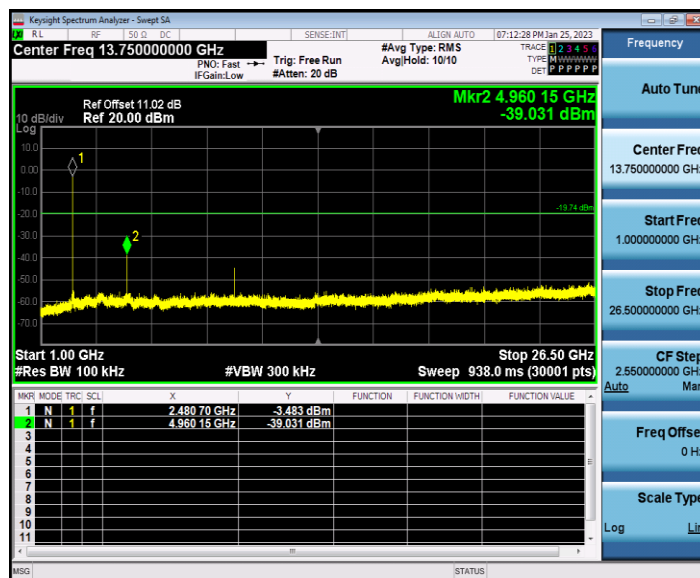
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



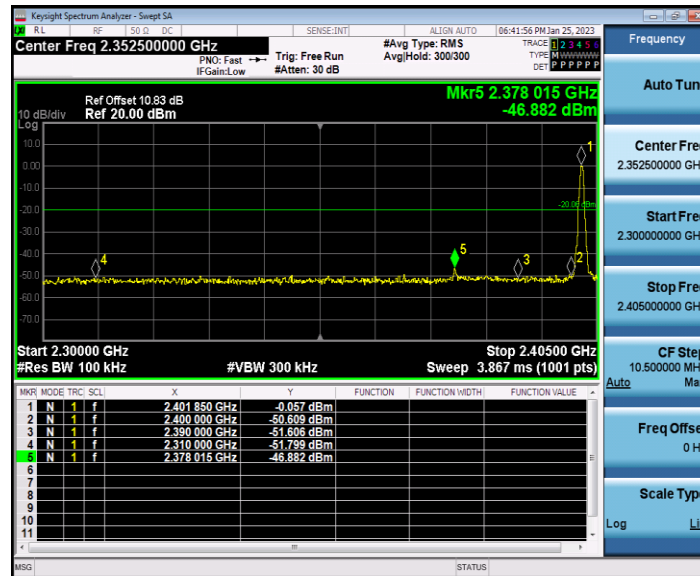
Band edge

A. Test Verdict:

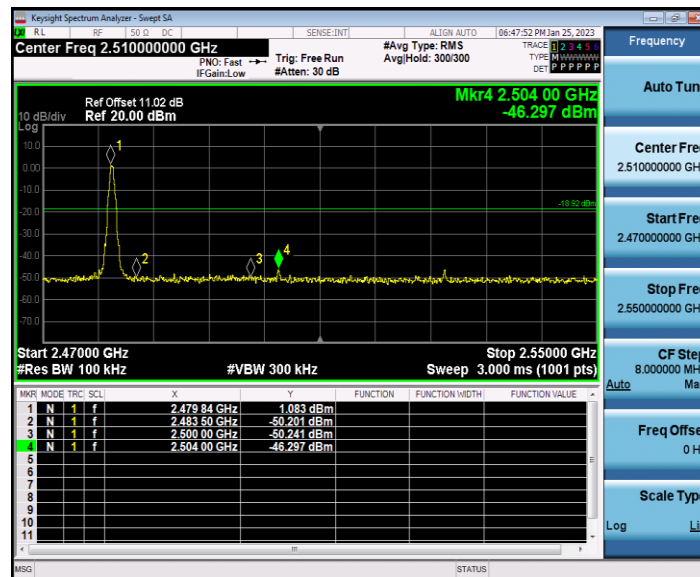
TestMode	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
GFSK	Low	2402	-0.06	-46.88	≤ -20.06	PASS
	High	2480	1.08	-46.3	≤ -18.92	PASS
	Low	Hop_2402	-0.58	-48.61	≤ -20.58	PASS
	High	Hop_2480	0.39	-48.3	≤ -19.61	PASS
$\pi/4$ -DQPSK	Low	2402	0.29	-47.56	≤ -19.72	PASS
	High	2480	0.14	-47.93	≤ -19.86	PASS
	Low	Hop_2402	-2.30	-48.25	≤ -22.3	PASS
	High	Hop_2480	-2.13	-48.11	≤ -22.13	PASS
8-DPSK	Low	2402	-0.06	-47.74	≤ -20.06	PASS
	High	2480	0.49	-47.87	≤ -19.51	PASS
	Low	Hop_2402	-3.86	-47.94	≤ -23.86	PASS
	High	Hop_2480	-0.06	-47.95	≤ -20.06	PASS

B. Test Plot:

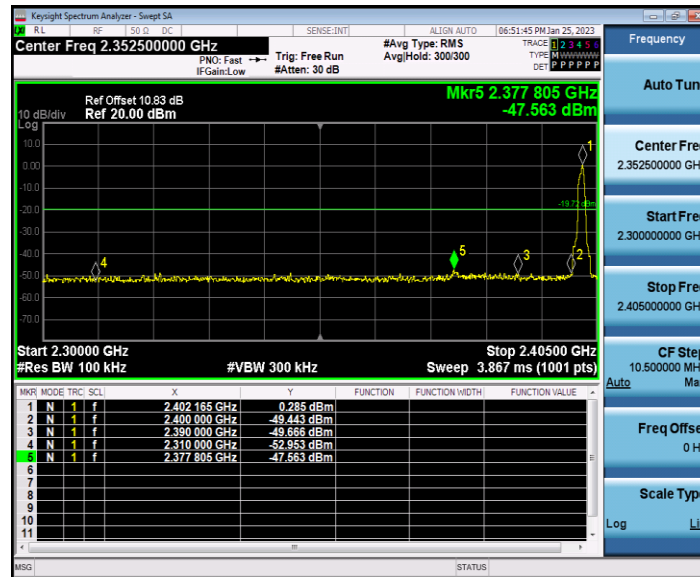
DH5_Ant1_Low_2402



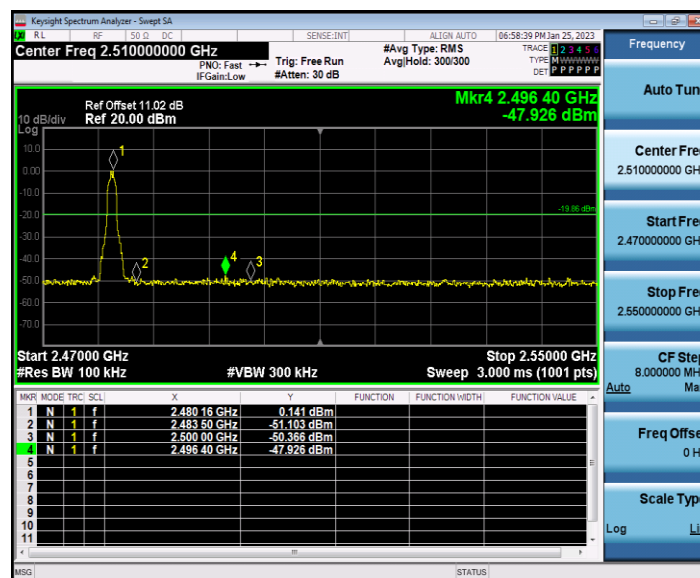
DH5_Ant1_High_2480



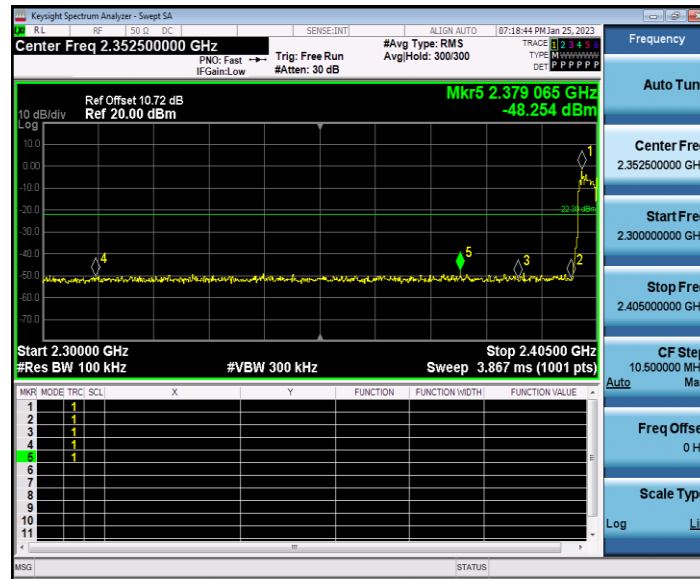
DH5_Ant1_Low_Hop_2402



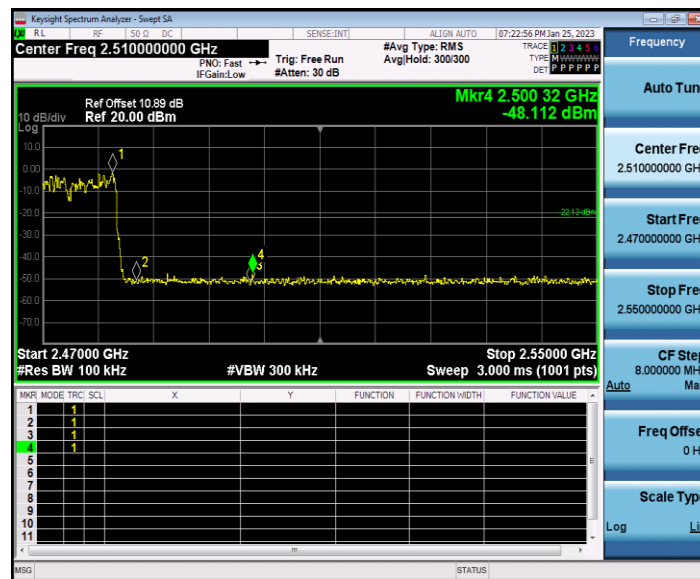
2DH5_Ant1_High_2480



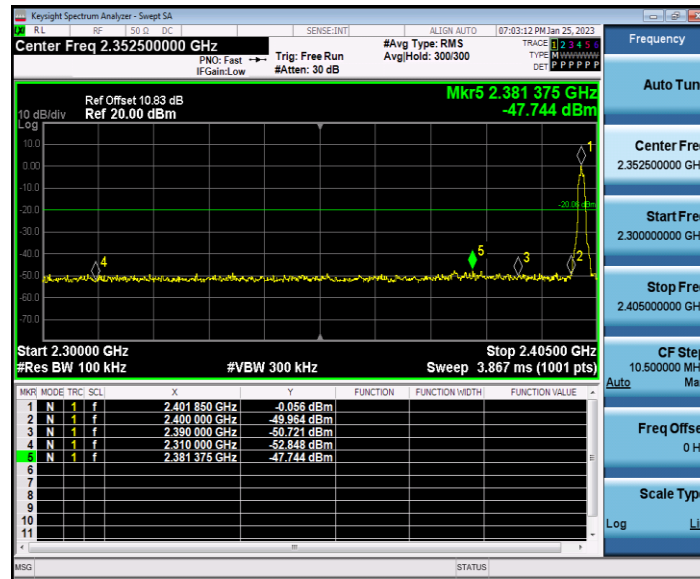
2DH5_Ant1_Low_Hop_2402



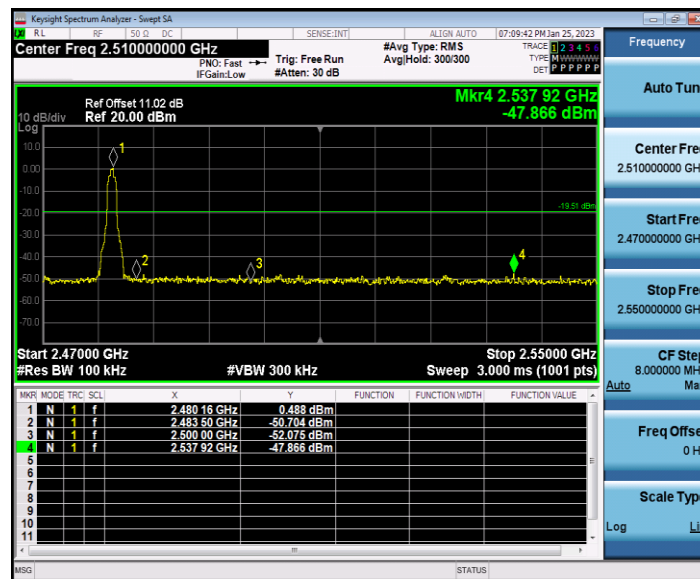
2DH5_Ant1_High_Hop_2480



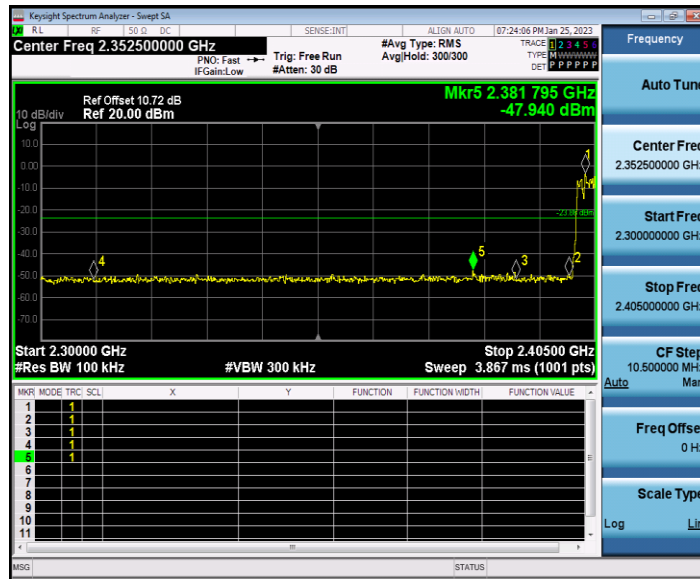
3DH5_Ant1_Low_2402



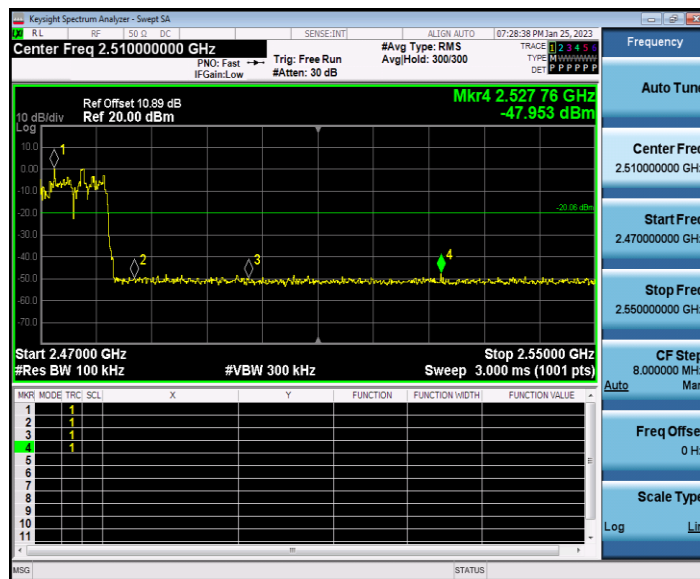
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



2.10. Conducted Emission

2.10.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

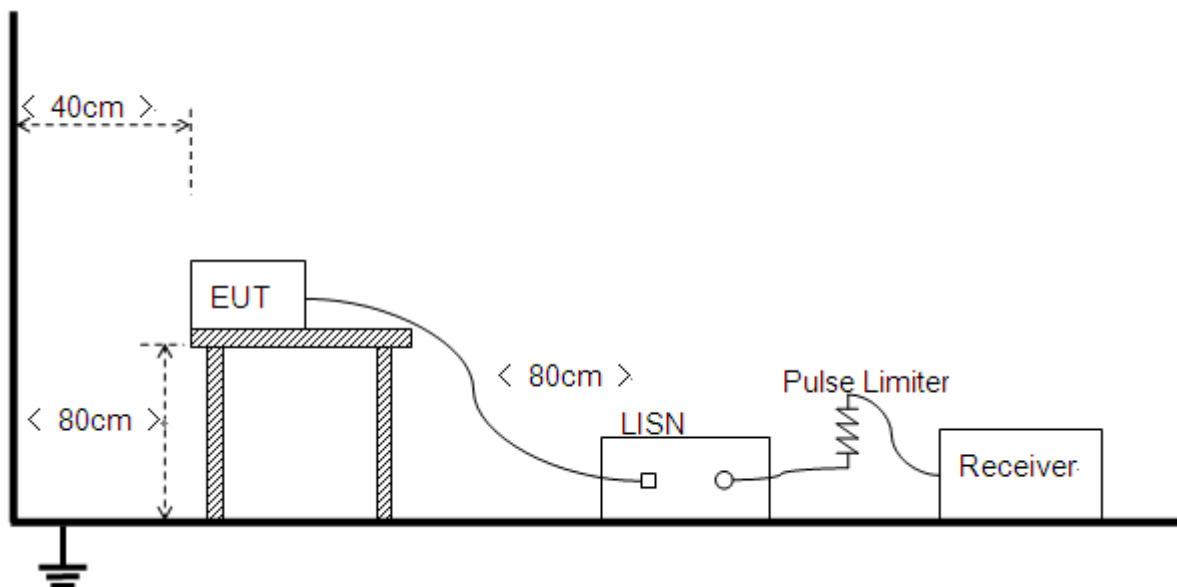
Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5- 30	60	50

Note:

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.10.2. Test Description

Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

2.10.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT+Adapter + BT TX

Test Voltage: AC 120V/60Hz

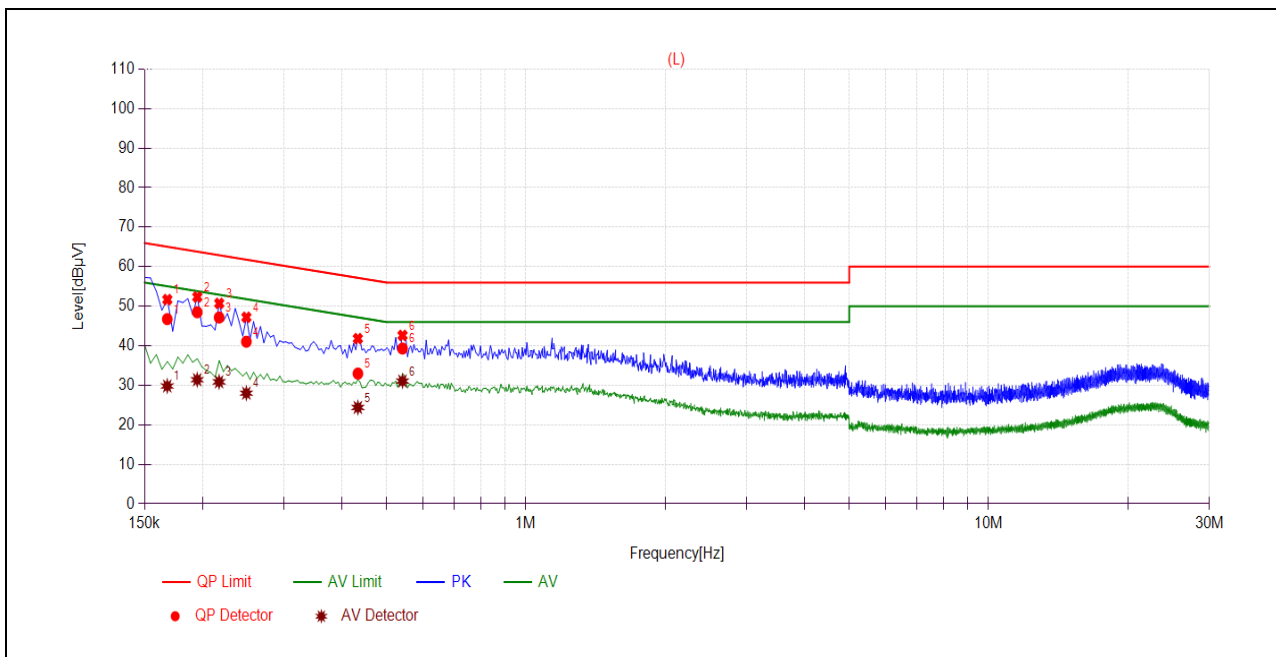
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

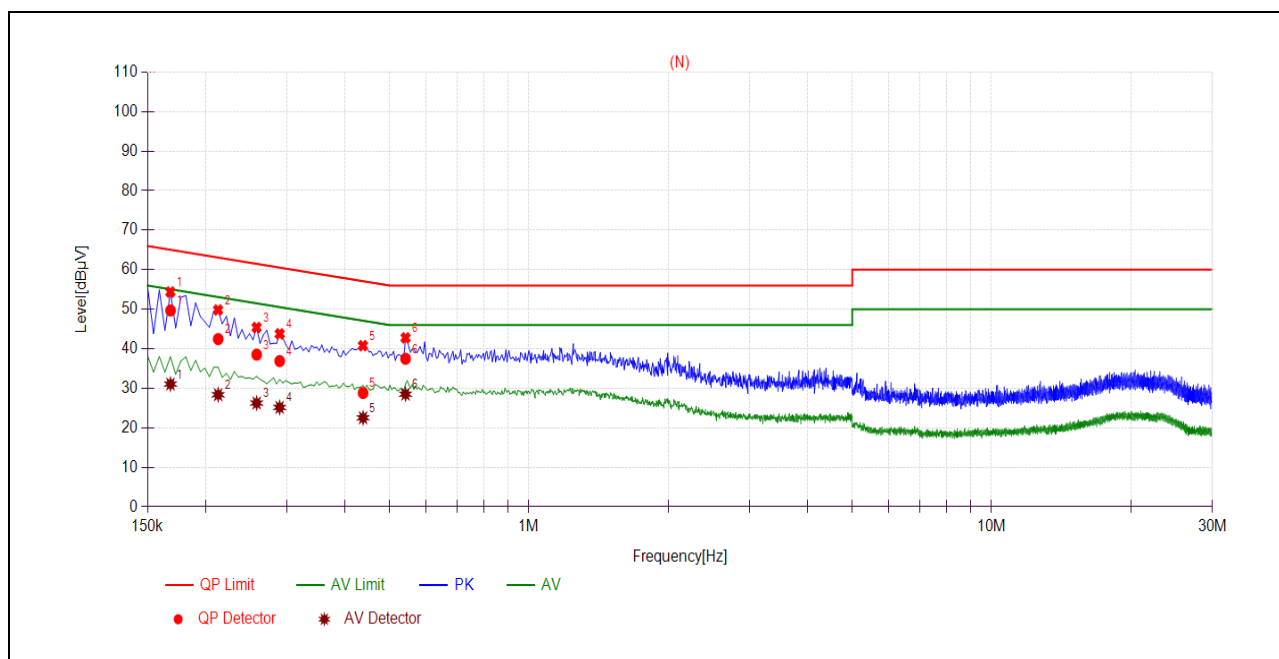
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1679	46.75	29.81	65.06	55.06	Line	PASS
2	0.1949	48.48	31.41	63.83	53.83		PASS
3	0.2173	47.15	30.87	62.92	52.92		PASS
4	0.2489	41.02	28.00	61.79	51.79		PASS
5	0.4335	32.97	24.38	57.19	47.19		PASS
6	0.5413	39.31	31.07	56.00	46.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1681	49.69	31.07	65.05	55.05	Neutral	PASS
2	0.2131	42.46	28.37	63.08	53.08		PASS
3	0.2581	38.52	26.25	61.49	51.49		PASS
4	0.2894	36.89	25.16	60.54	50.54		PASS
5	0.4383	28.81	22.52	57.09	47.09		PASS
6	0.5414	37.48	28.51	56.00	46.00		PASS

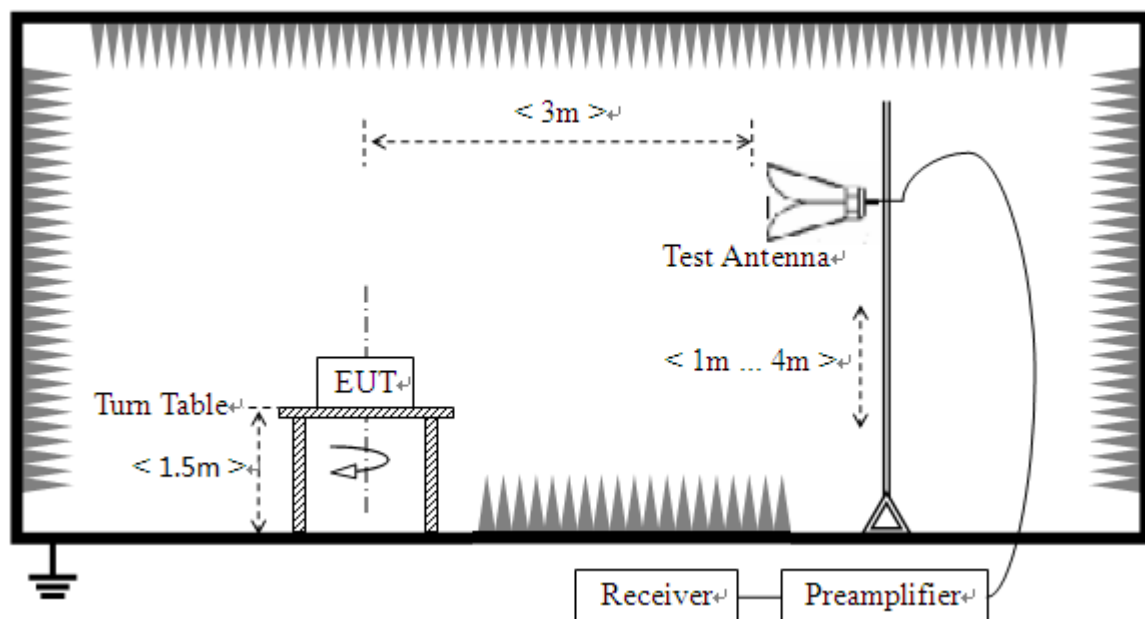
2.11. Restricted Frequency Bands

2.11.1. Requirement

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

2.11.2. Test Description

Test Setup:



The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Horn Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

2.11.3. Test Procedure

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1\text{GHz}$, 100 kHz for $f < 1\text{GHz}$

VBW = 3 MHz

Sweep = auto

Detector function = peak/average

Trace = max hold

Allow the trace to stabilize

2.11.4. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

The measurement results are obtained as below:

$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$

AT: Total correction Factor except Antenna

UR: Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

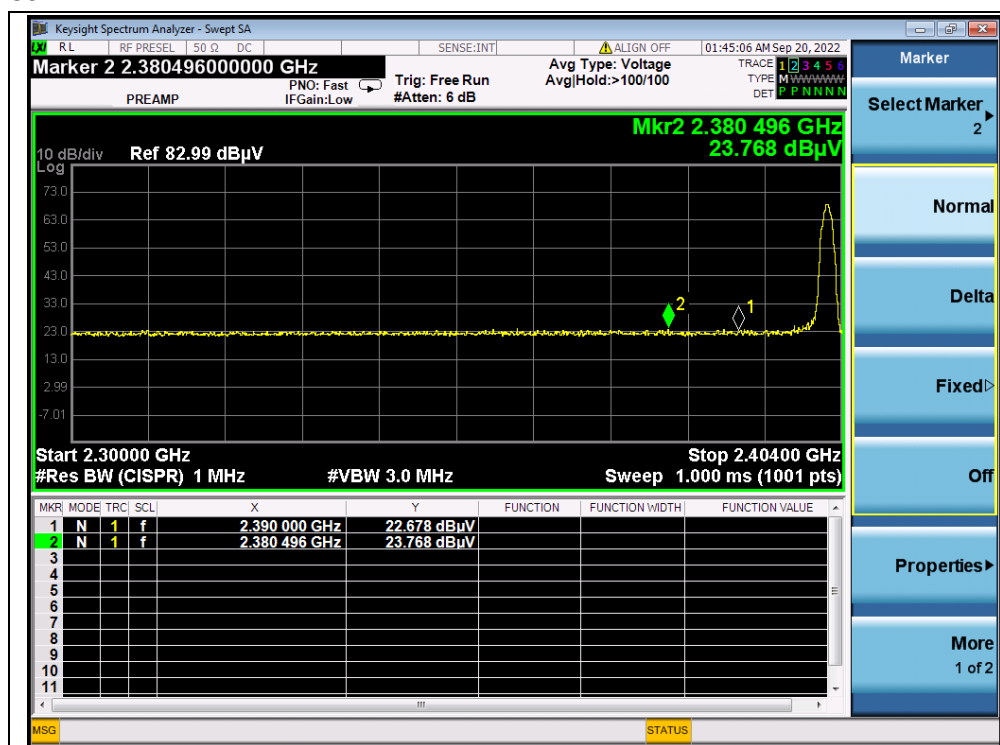
Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

GFSK Mode

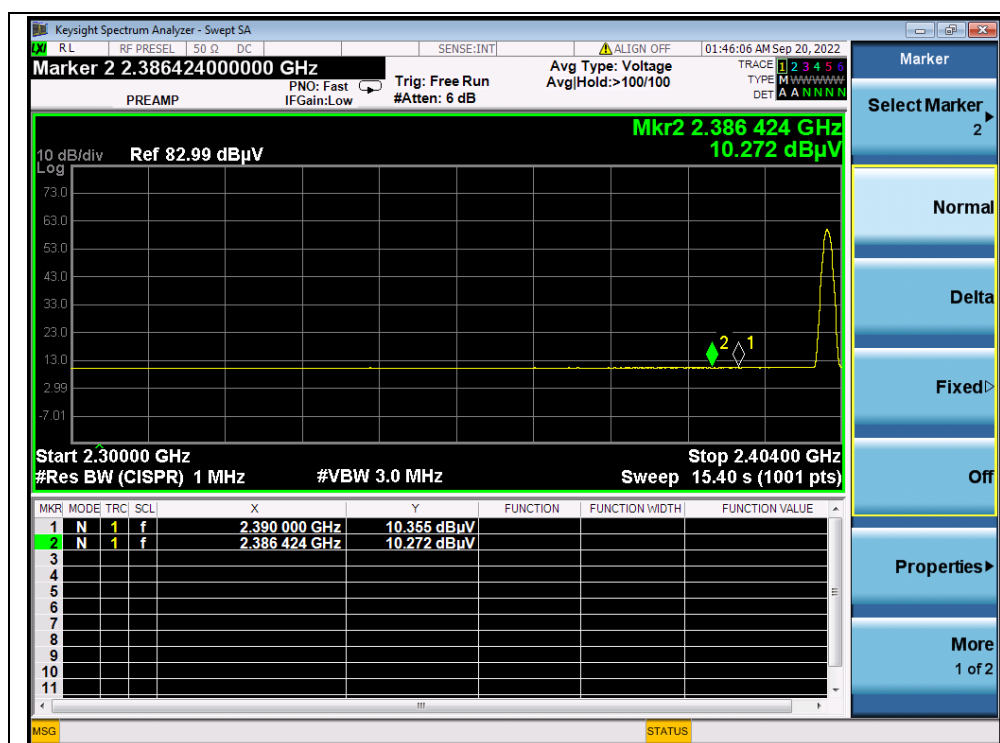
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
0	2380.50	PK	23.77	6.74	27.20	57.71	74	PASS
0	2390.00	AV	10.36	6.74	27.20	44.30	54	PASS
78	2483.65	PK	22.74	6.74	27.20	56.68	74	PASS
78	2483.50	AV	10.09	6.74	27.20	44.03	54	PASS

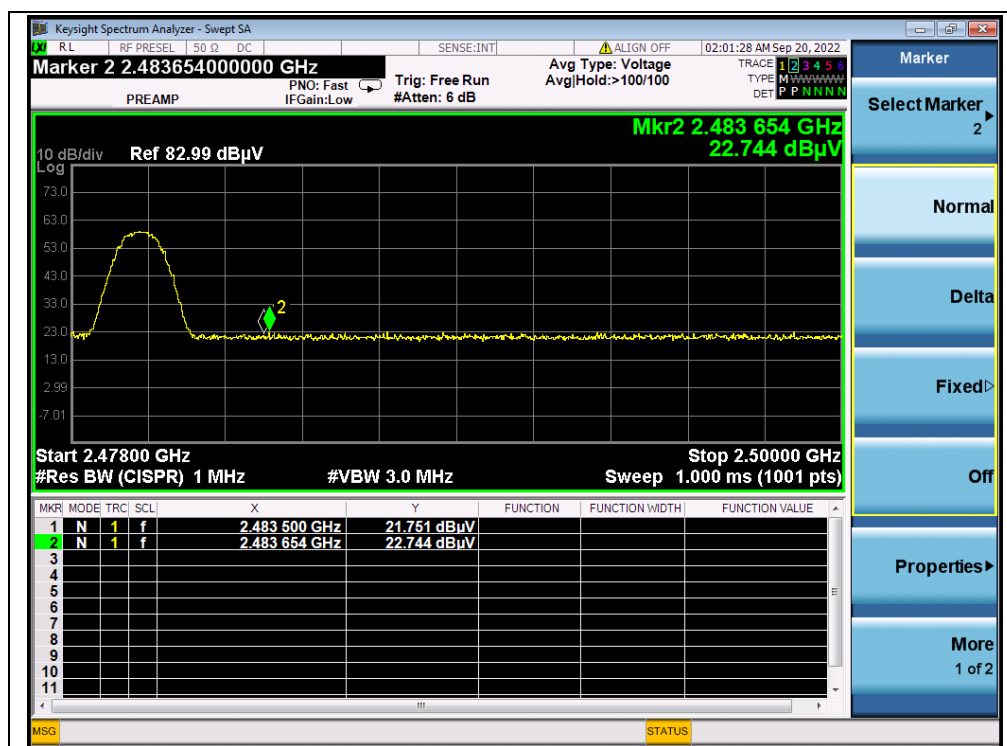
B. Test Plot:



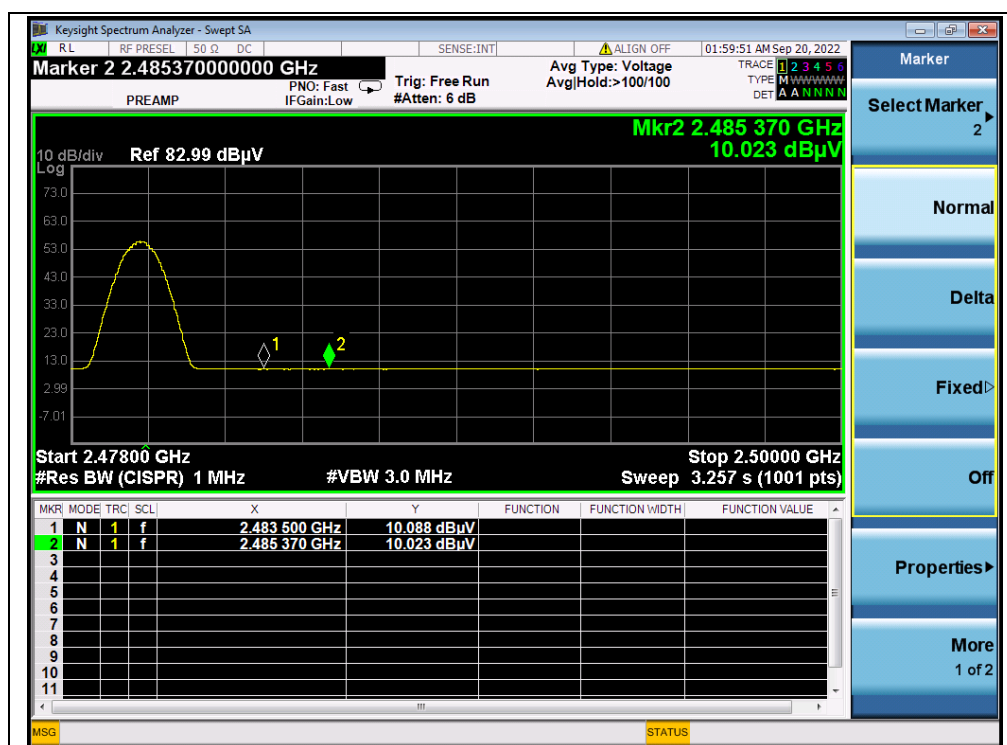
(PEAK, Channel 0, GFSK)



(AVERAGE, Channel 0, GFSK)



(PEAK, Channel 78, GFSK)



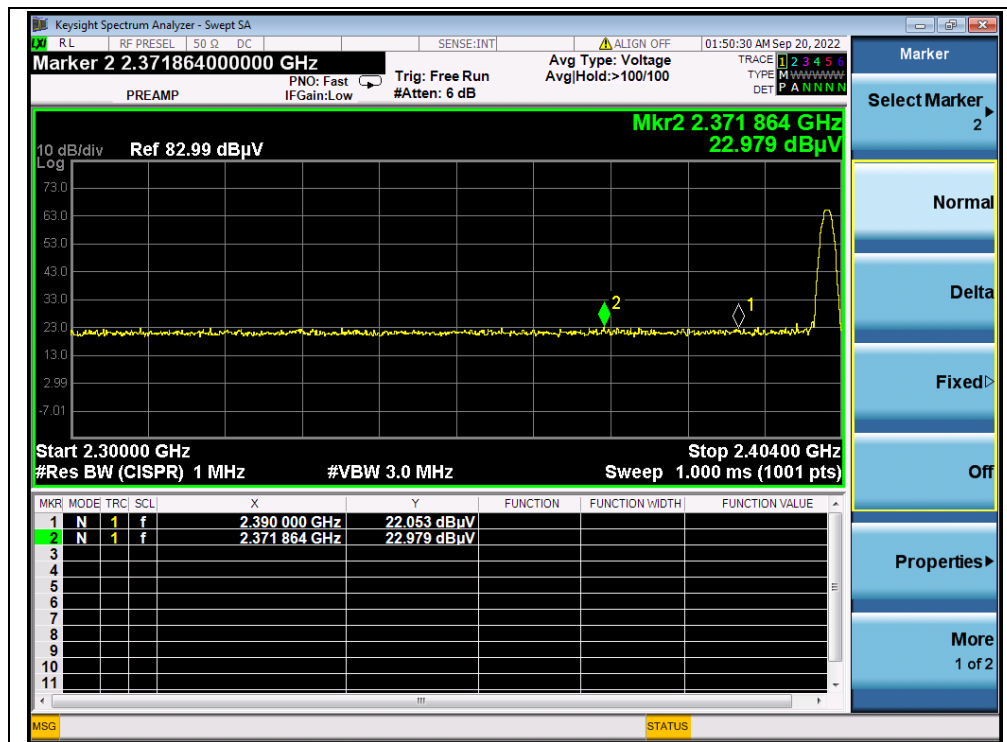
(AVERAGE, Channel 78, GFSK)

π/4-DQPSK Mode

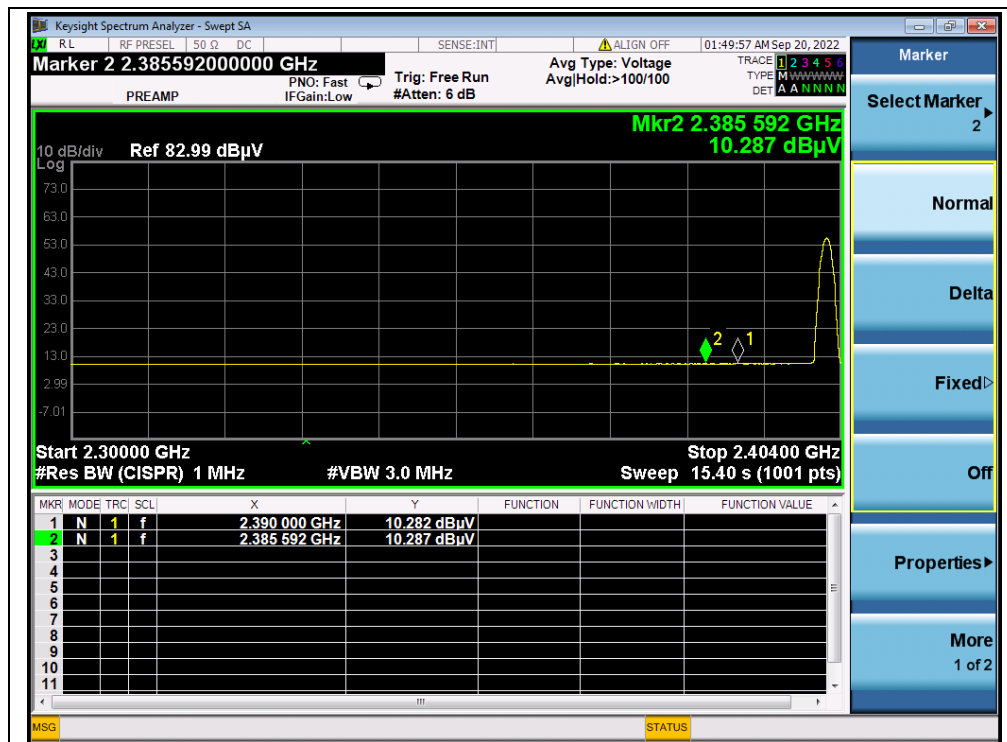
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
0	2371.86	PK	22.98	6.74	27.20	56.92	74	PASS
0	2385.59	AV	10.29	6.74	27.20	44.23	54	PASS
78	2483.98	PK	22.99	6.74	27.20	56.93	74	PASS
78	2483.50	AV	10.05	6.74	27.20	43.99	54	PASS

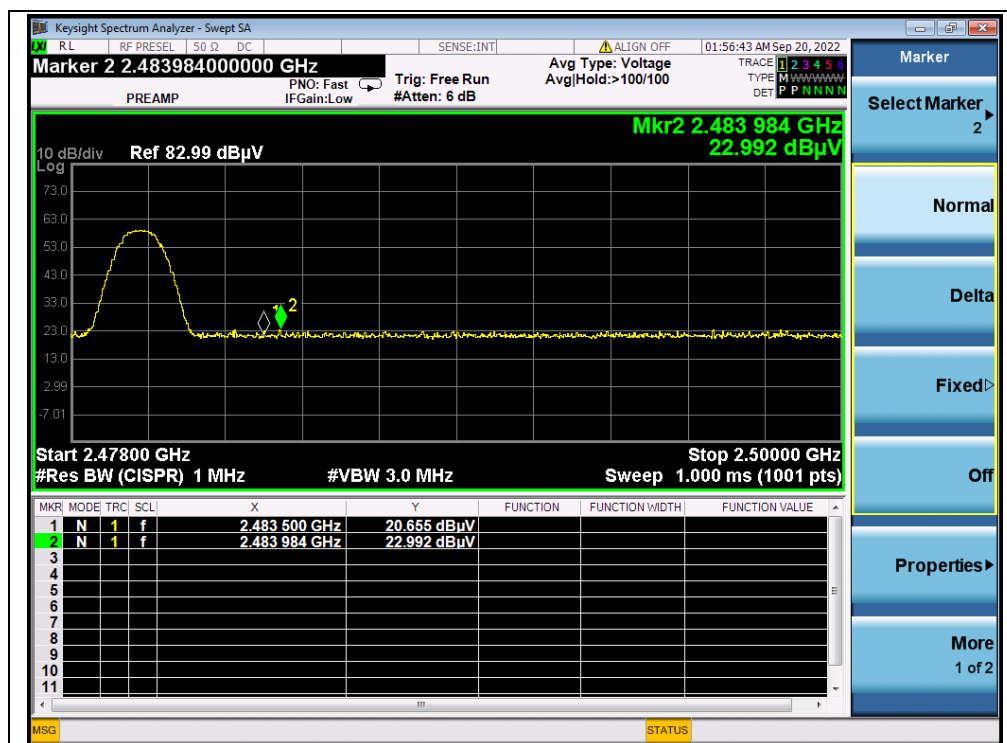
B. Test Plot:



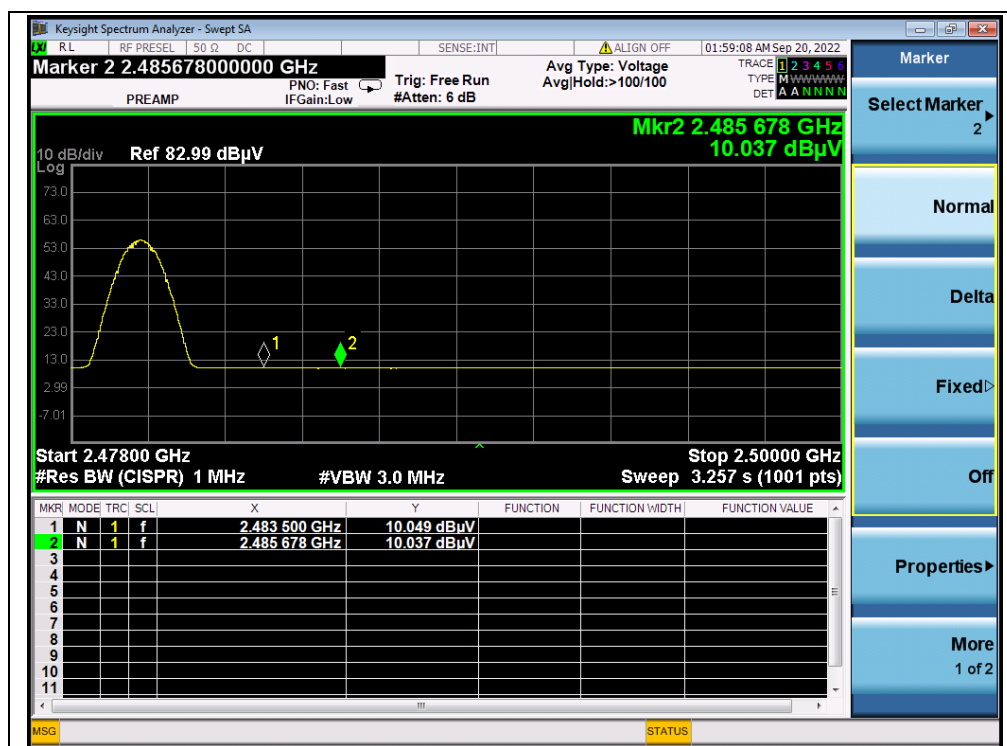
(PEAK, Channel 0, π/4-DQPSK)



(AVERAGE, Channel 0, $\pi/4$ -DQPSK)



(PEAK, Channel 78, $\pi/4$ -DQPSK)



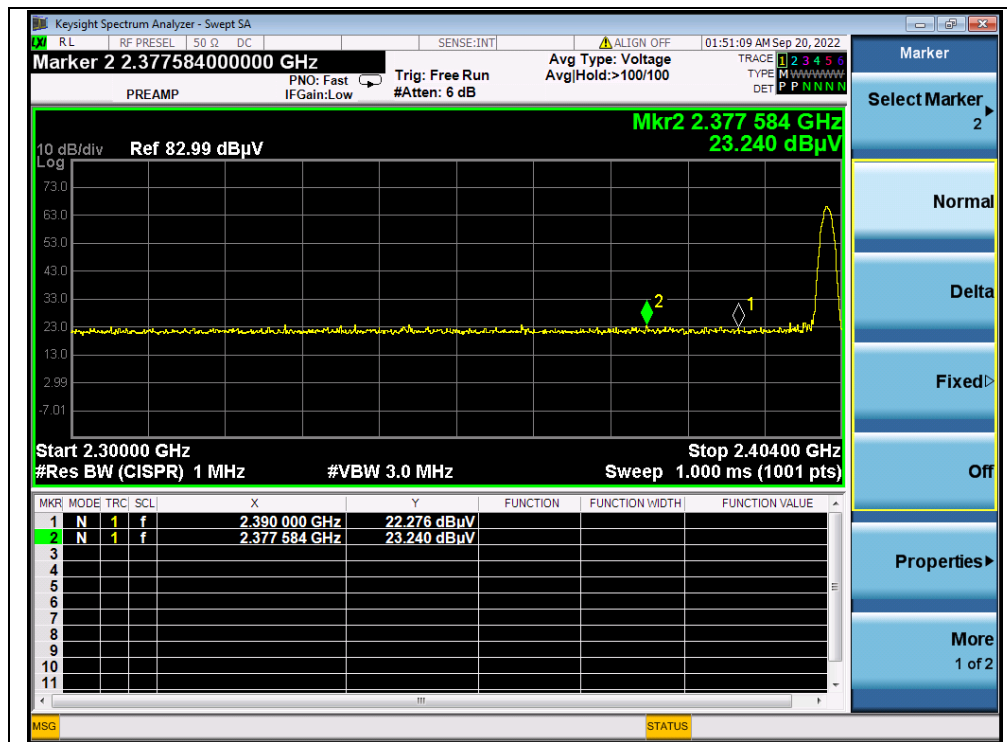
(AVERAGE, Channel 78, $\pi/4$ -DQPSK)

8-DPSK Mode

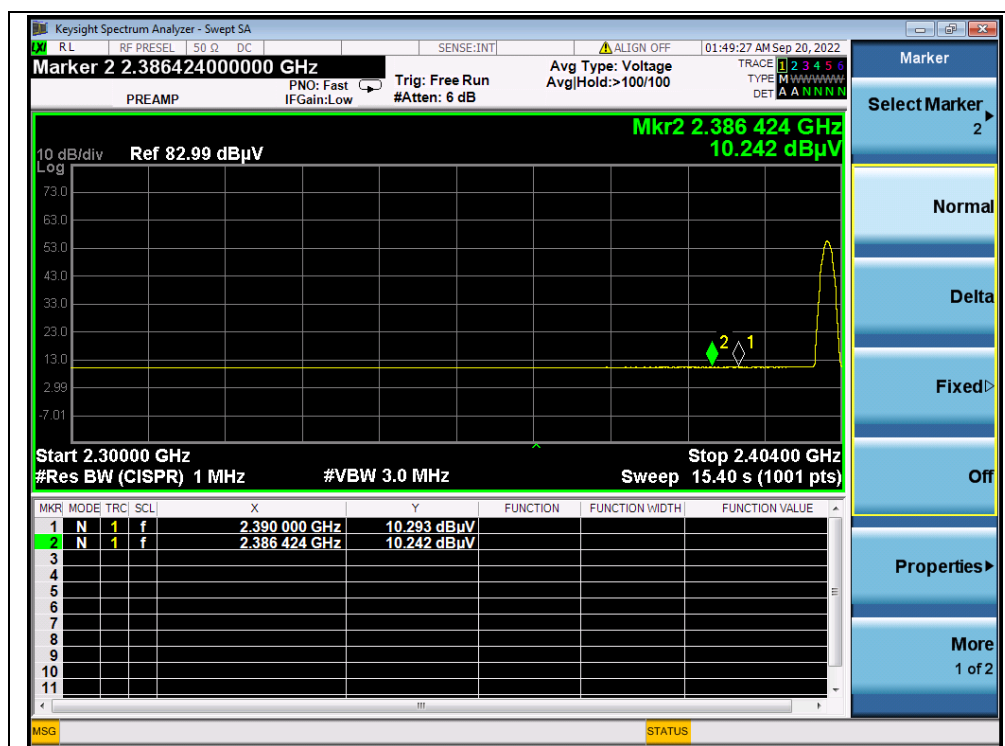
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
0	2377.58	PK	23.24	6.74	27.20	57.18	74	PASS
0	2390.00	AV	10.29	6.74	27.20	44.23	54	PASS
78	2484.69	PK	22.81	6.74	27.20	56.75	74	PASS
78	2483.50	AV	10.08	6.74	27.20	44.02	54	PASS

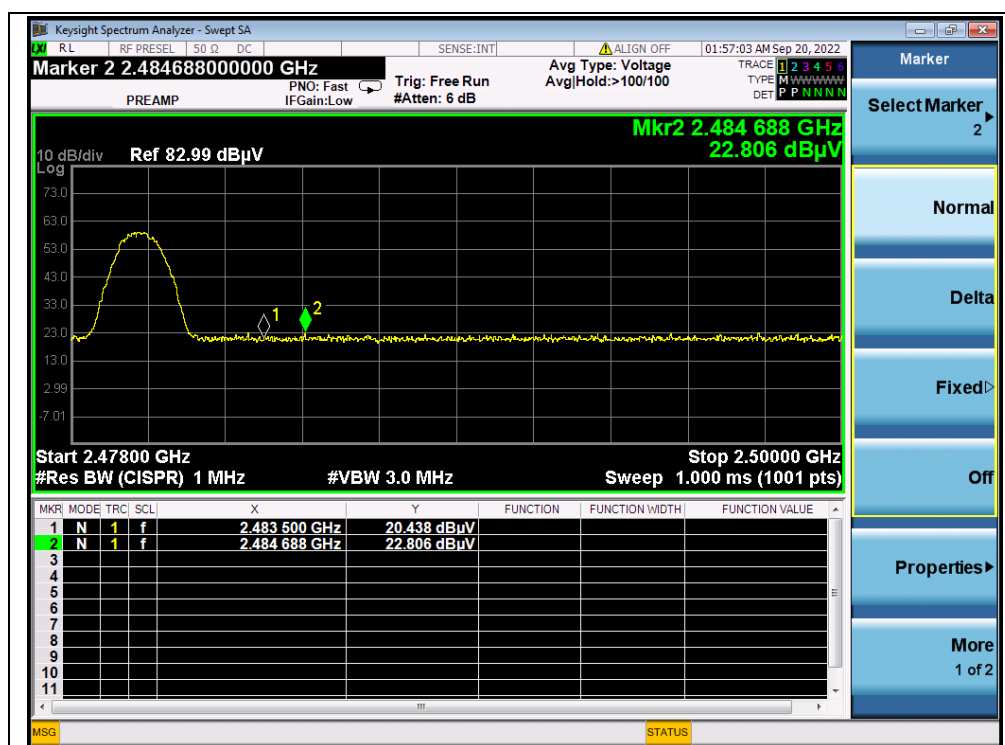
B. Test Plot:



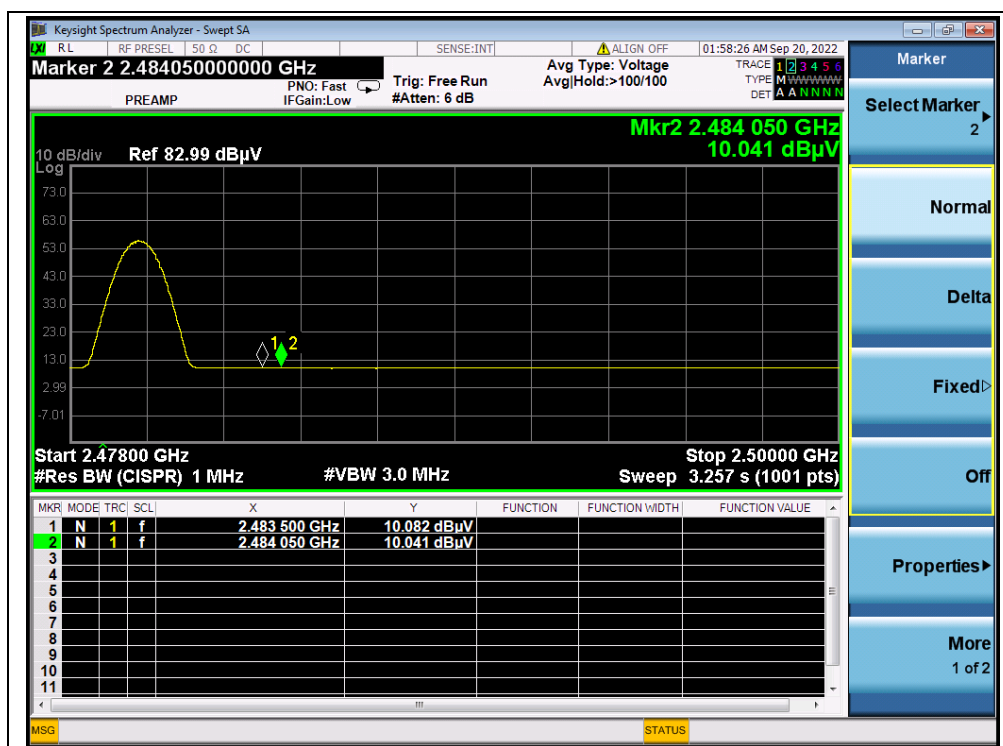
(PEAK, Channel 0, 8-DPSK)



(AVERAGE, Channel 0, 8-DPSK)



(PEAK, Channel 78, 8-DPSK)



(AVERAGE, Channel 78, 8-DPSK)

2.12. Radiated Emission

2.12.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measurement Distance (m)
0.009 - 0.490	$2400/F(\text{kHz})$	300
0.490 - 1.705	$24000/F(\text{kHz})$	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

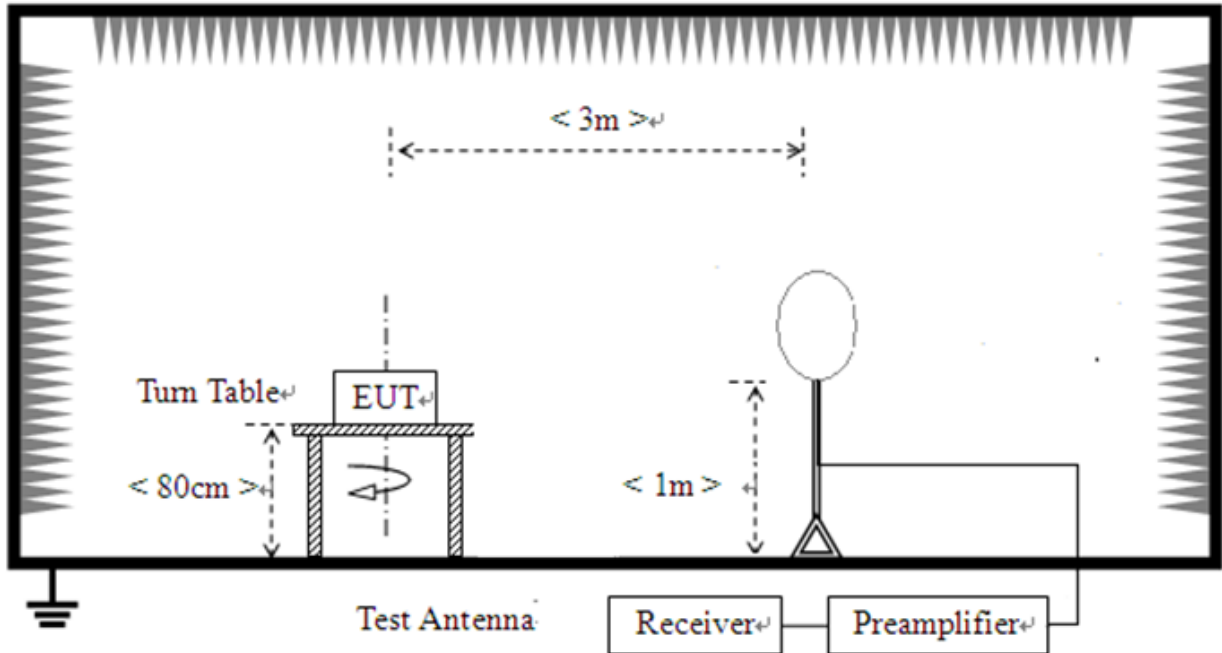
Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

Note2:For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

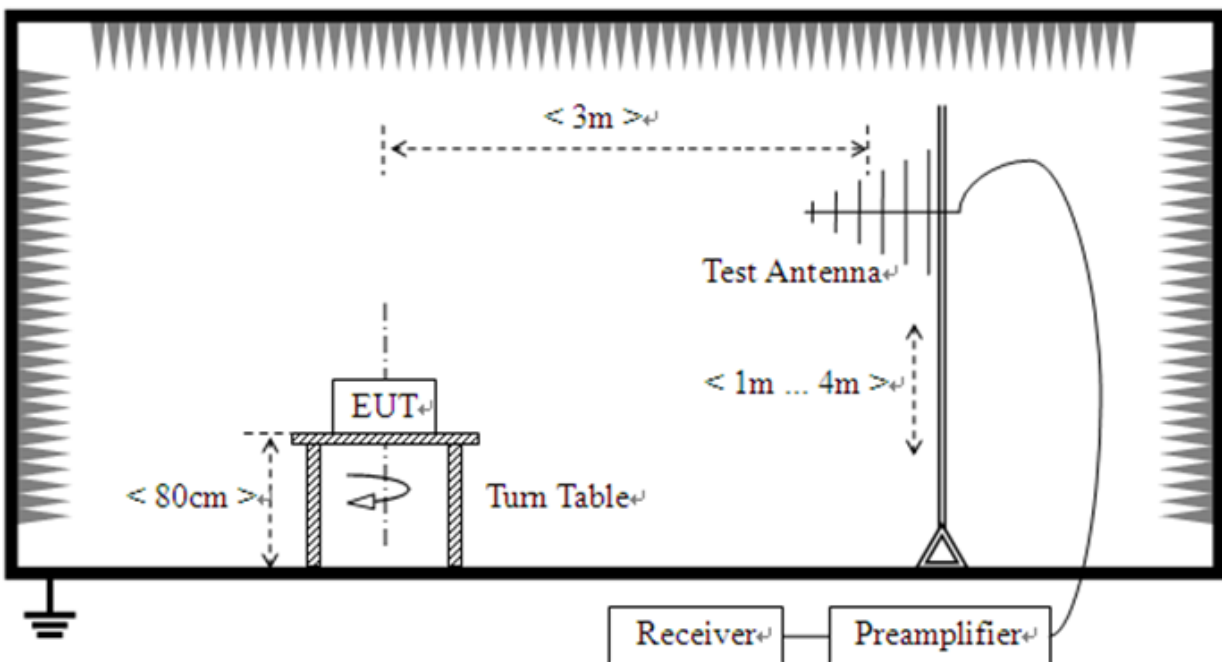
2.12.2. Test Description

Test Setup:

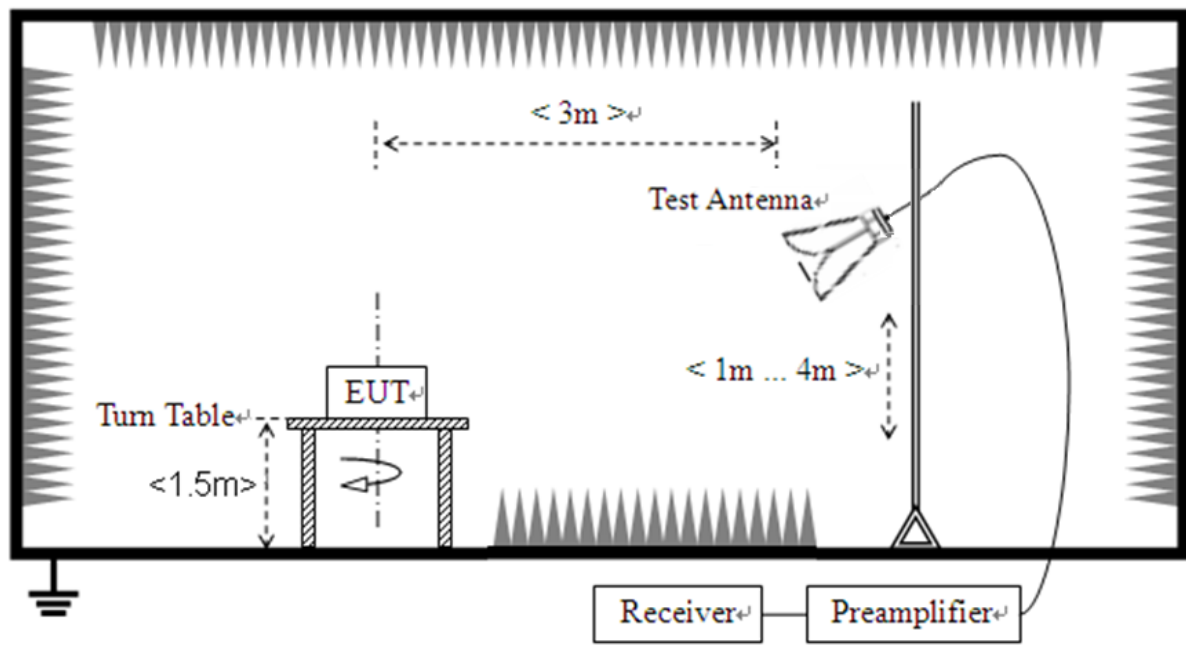
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

2.12.3. Test Result

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

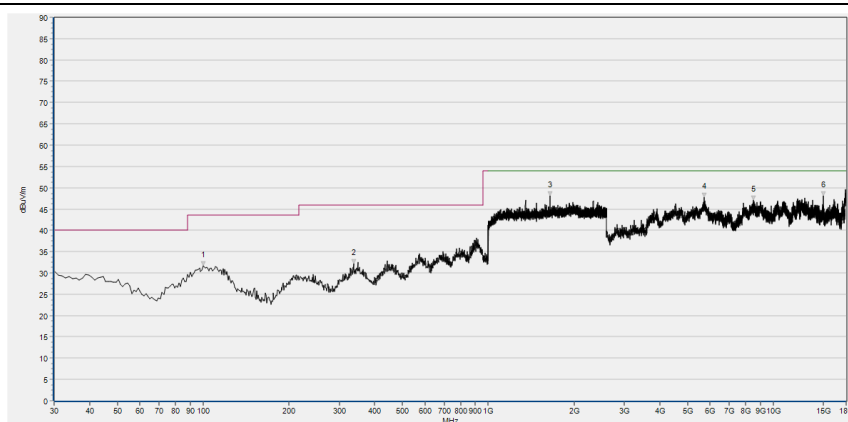
Note 1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note 2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

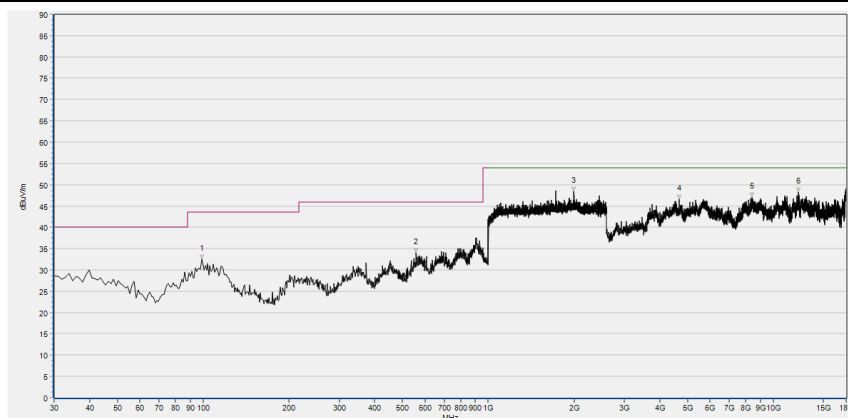
GFSK Mode

Plots for Channel 0



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	31.71	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
337.490	32.22	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1648.533	48.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5720.040	47.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8485.880	47.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14978.520	48.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

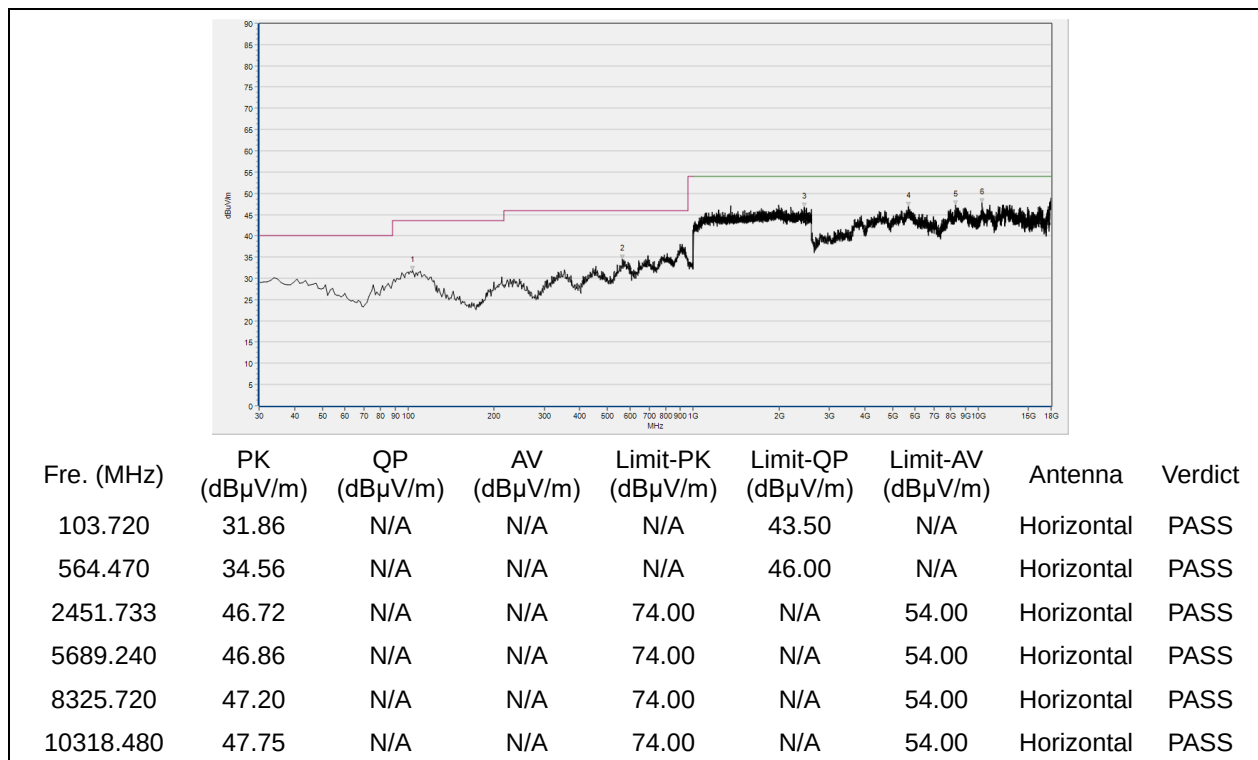
(Antenna Horizontal, 30MHz to 18GHz)



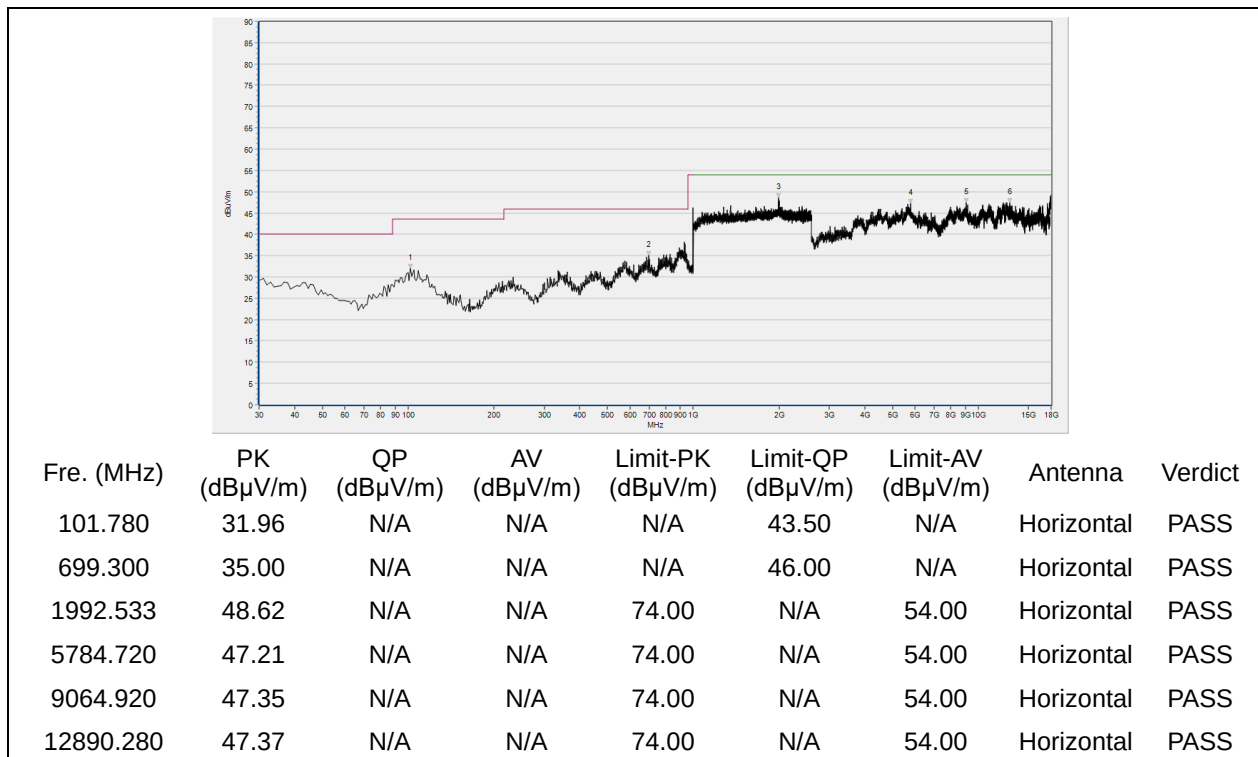
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	32.49	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
558.650	34.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1996.800	48.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4682.080	46.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8418.120	47.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12212.680	48.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39

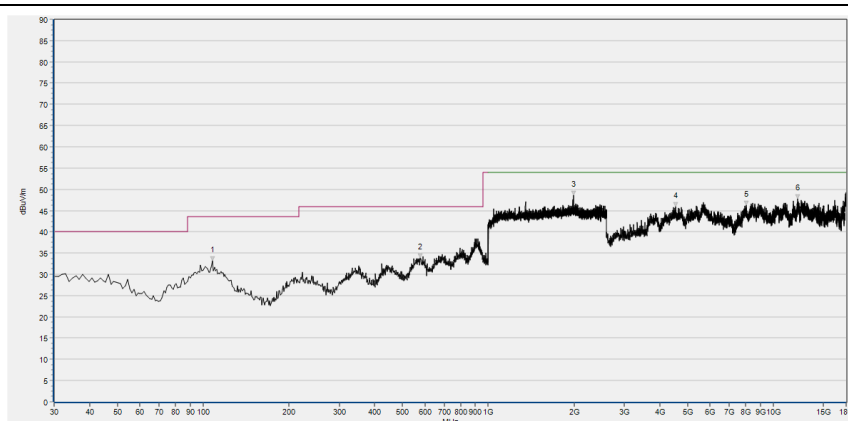


(Antenna Horizontal, 30MHz to 18GHz)



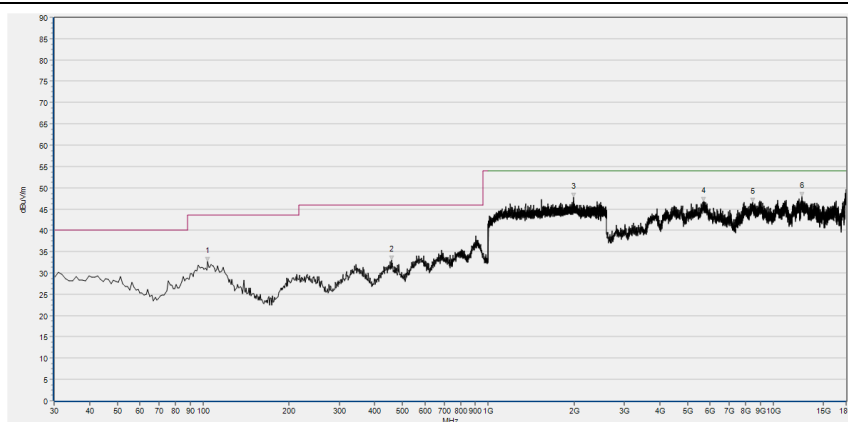
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
107.600	33.12	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
577.080	33.87	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1996.267	48.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4543.480	45.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8020.800	46.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12148.000	47.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

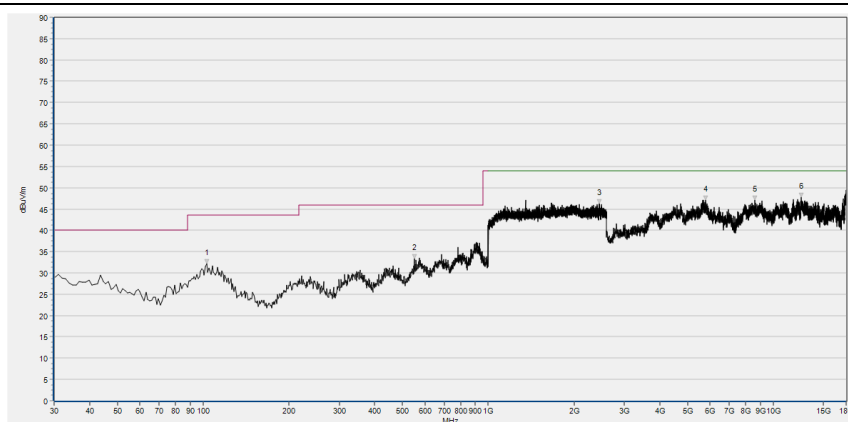


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	32.68	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
456.800	33.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1990.933	47.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5689.240	46.72	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8442.760	46.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12594.600	47.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

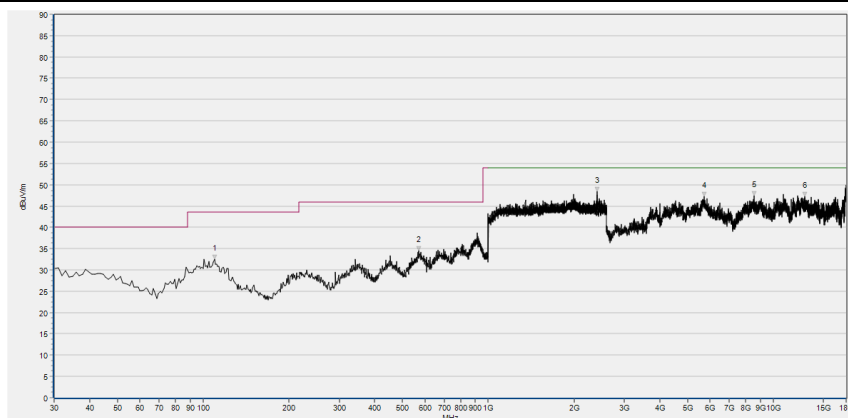
π/4-DQPSK Mode

Plots for Channel 0



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	32.20	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
549.920	33.42	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2453.333	46.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5790.880	47.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8615.240	47.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12526.840	47.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

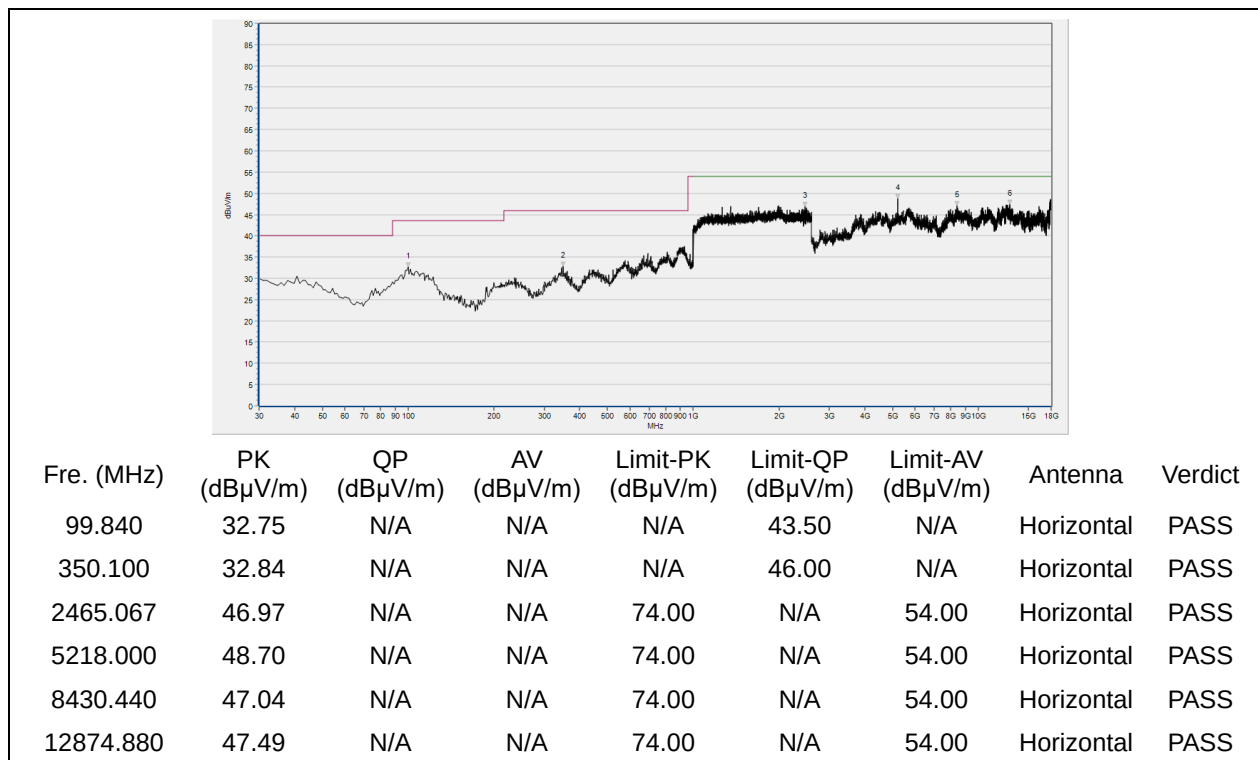
(Antenna Horizontal, 30MHz to 18GHz)



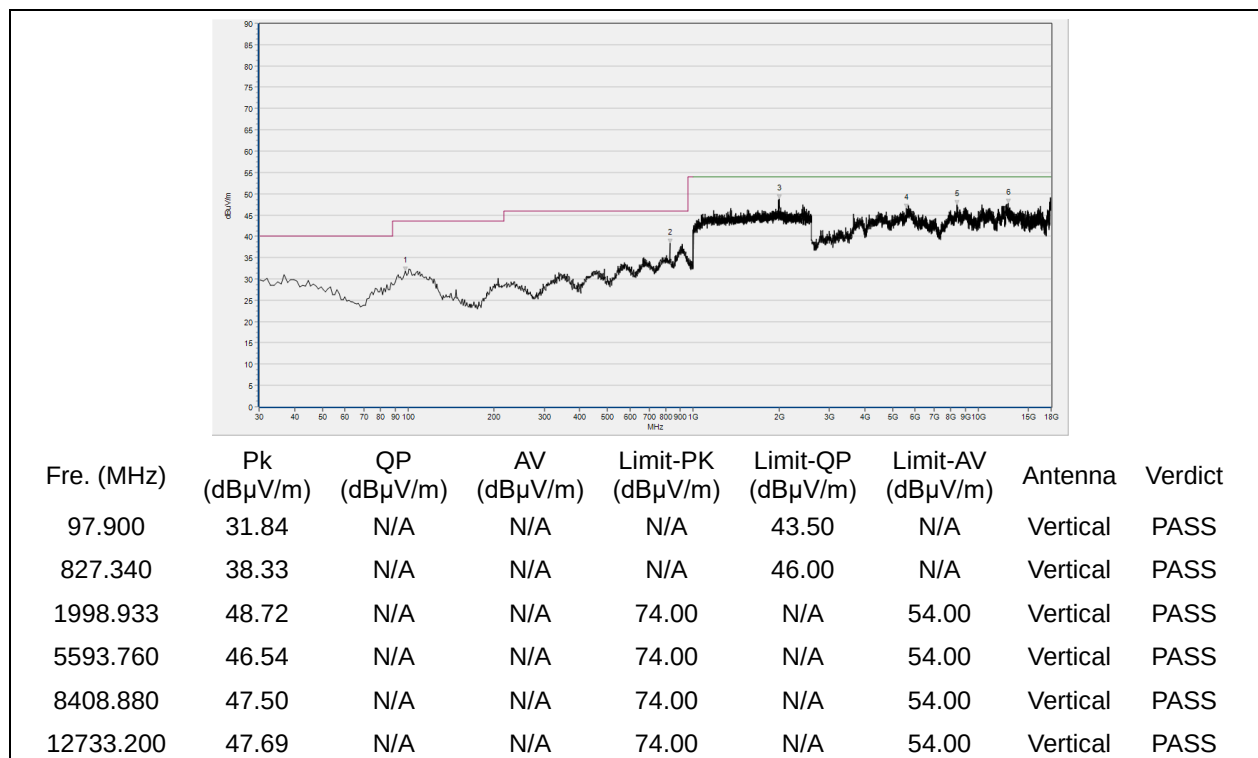
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.45	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
570.290	34.46	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2411.200	48.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5729.280	47.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8547.480	47.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12887.200	47.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39

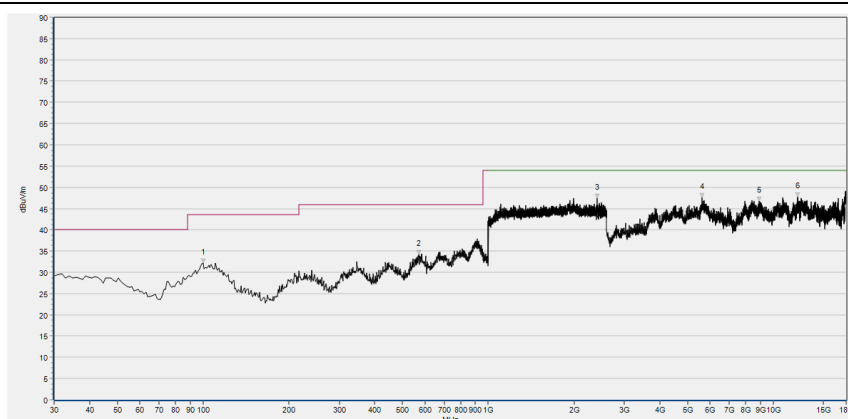


(Antenna Horizontal, 30MHz to 18GHz)



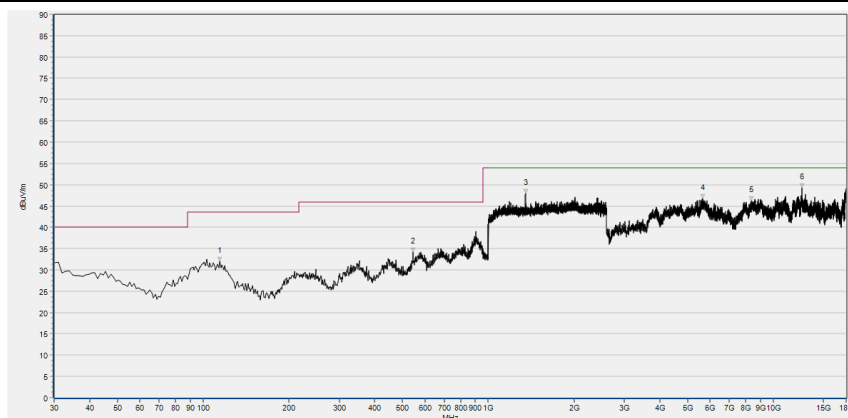
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	32.23	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
571.260	34.21	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2410.667	47.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5612.240	47.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8889.360	46.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12144.920	47.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

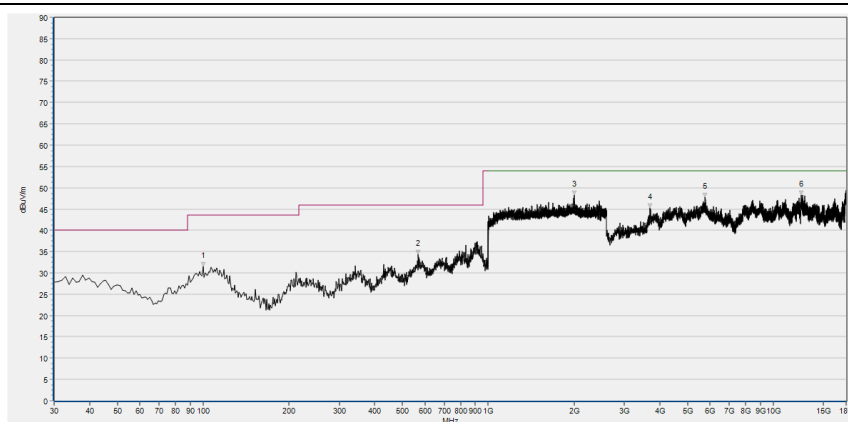


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
114.390	31.96	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
544.100	34.17	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1349.867	47.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5661.520	46.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8344.200	46.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12606.920	49.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

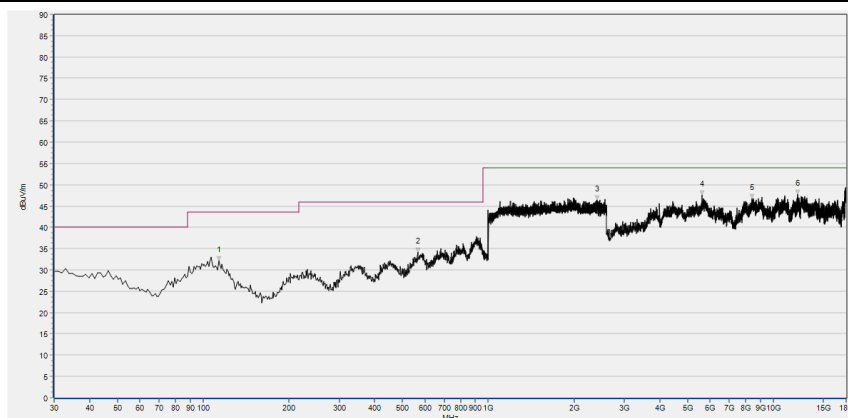
8-DPSK Mode

Plots for Channel 0



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	31.43	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
568.350	34.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2004.267	48.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3693.400	45.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5766.240	47.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12523.760	48.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

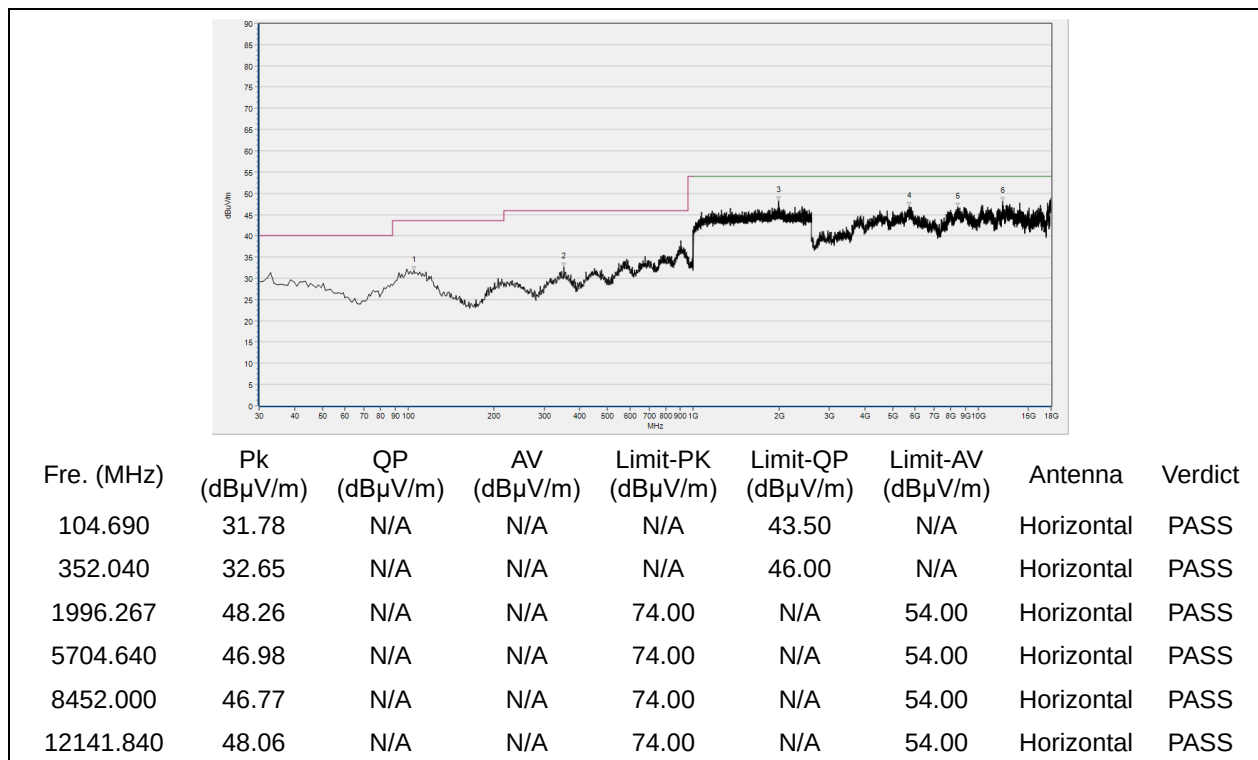
(Antenna Horizontal, 30MHz to 18GHz)



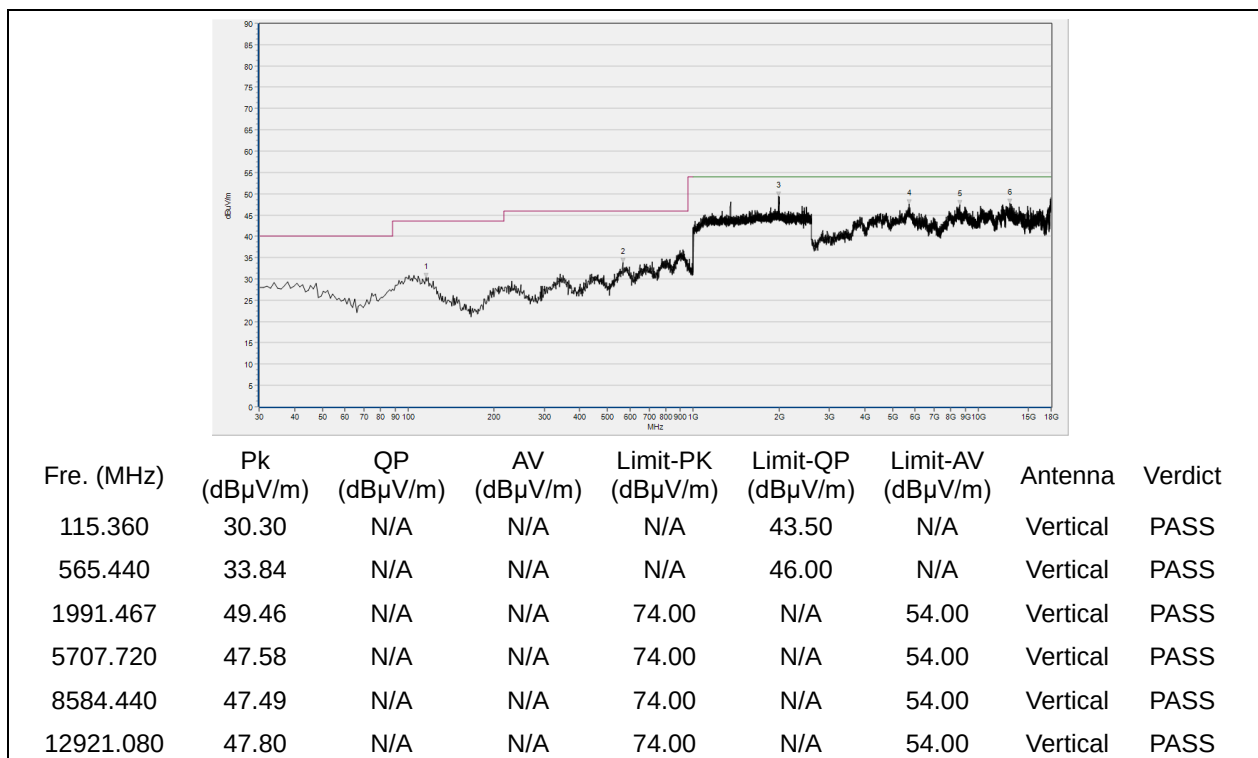
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
113.420	32.21	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
565.440	34.13	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2405.867	46.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5618.400	47.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8411.960	46.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12151.080	47.80	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39

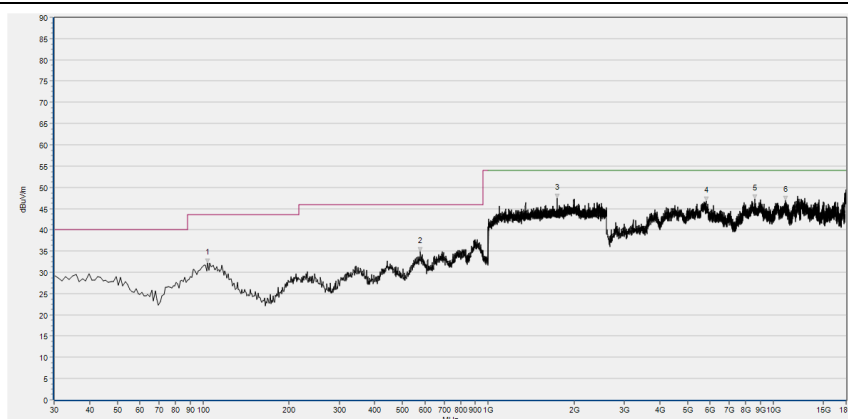


(Antenna Horizontal, 30MHz to 18GHz)



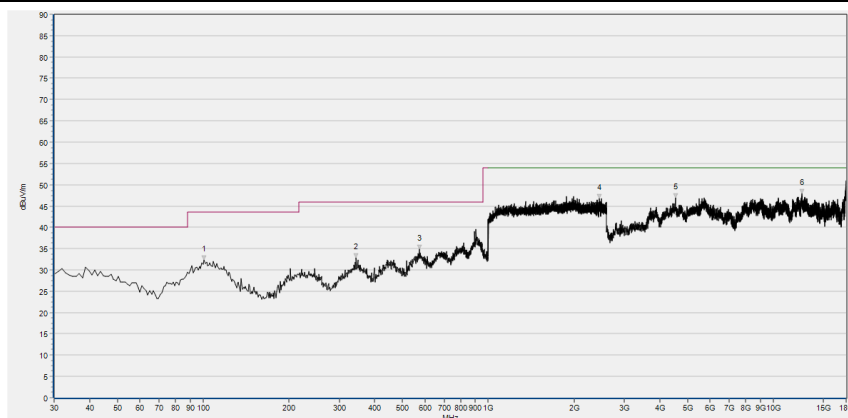
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	32.14	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
578.050	34.82	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1746.133	47.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5803.200	46.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8599.840	47.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11026.880	46.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	32.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
344.280	32.78	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
572.230	34.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2450.667	46.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4528.080	46.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12588.440	47.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

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
Number of Hopping Frequency	±5%
Peak Output Power	±2.22dB
Bandwidth	±5%
Carrier Frequency Separation	±5%
Time of Occupancy (Dwell time)	±5%
Conducted Spurious Emission	±2.77dB
Restricted Frequency Bands	±5%
Radiated Emission	±2.95dB
Conducted Emission	±2.44dB

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 Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2022.03.01	2023.02.28
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2022.03.03	2023.03.02
LISN	812744	NSLK 8127	Schwarzbeck	2022.03.03	2023.03.02
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2022.07.06	2023.07.05
Coaxial Cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A

4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Tonscend	V2.5.77.0418
TS+ -[JS32-RE]	Tonscend	V2.5.0.1
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

4.4 Radiated Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2022.07.06	2023.07.05
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2022.05.25	2025.05.24
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2022.07.13	2025.07.12
Test Antenna – Horn	BBHA9170#773	BBHA 9170	Schwarzbeck	2022.07.14	2025.07.13
Coaxial Cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L3203	Tonscend	2022.07.08	2023.07.07
18-26.5GHz pre-Amplifier	46732	S10M100L3802	Tonscend	2022.07.08	2023.07.07
26-40GHz pre-Amplifier	56774	S40M400L4002	Tonscend	2022.07.08	2023.07.07
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	2022.07.08	2023.07.07
Anechoic Chamber	N/A	9m*6m*6m	CRT	2023.01.05	2026.01.05

END OF REPORT