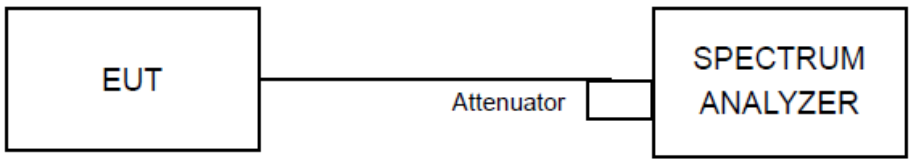
4.7 Conducted Band Edges Measurement

4.7.1 Limit

Below -20dB of the highest emission level of operating band (in 100kHz RBW).

4.7.2 Test Setup



4.7.3 Test Procedures

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz and 300 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

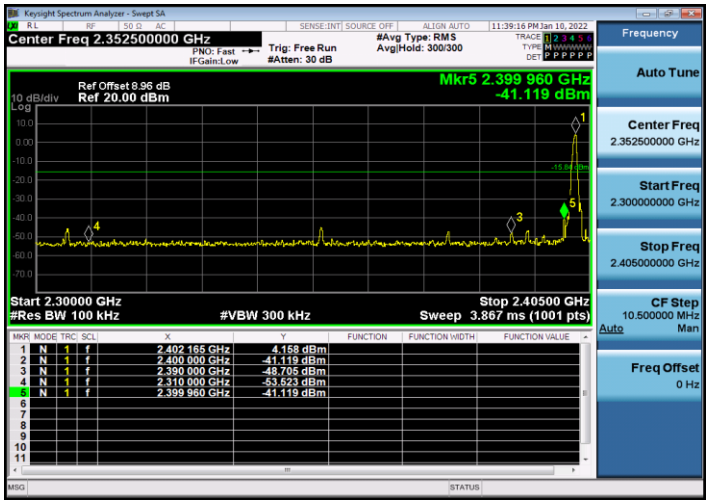
4.7.4 Deviation of Test Standard

No deviation.

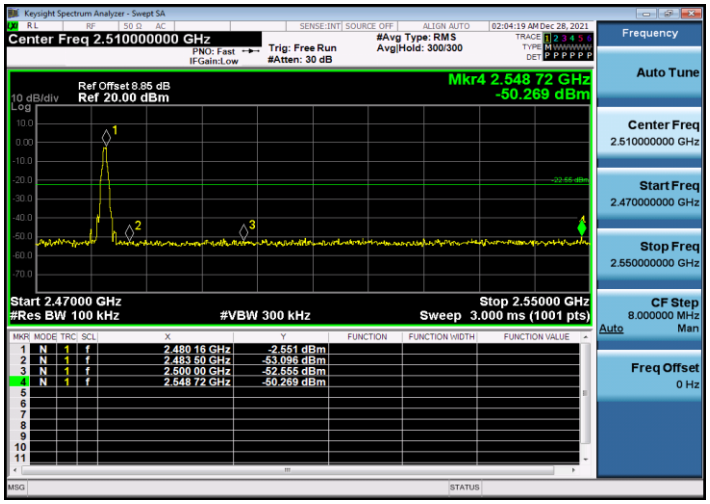
4.7.5 Test Result

Test Mode	Antenna	ChName	Channel [MHz]	RefLevel [dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.16	-41.12	<=-15.84	PASS
		High	2480	-2.55	-50.27	<=-22.55	PASS
		Low	Hop_2402	2.94	-46.22	<=-17.06	PASS
		High	Hop_2480	-2.71	-46.26	<=-22.71	PASS
2DH5	Ant1	Low	2402	2.97	-40.73	<=-17.04	PASS
		High	2480	-2.73	-49.47	<=-22.73	PASS
		Low	Hop_2402	-0.33	-48.66	<=-20.33	PASS
		High	Hop_2480	-5.22	-47.46	<=-25.22	PASS
3DH5	Ant1	Low	2402	3.48	-41.09	<=-16.52	PASS
		High	2480	-2.69	-50.25	<=-22.69	PASS
		Low	Hop_2402	-0.67	-48.4	<=-20.67	PASS
		High	Hop_2480	-3.62	-48.36	<=-23.62	PASS

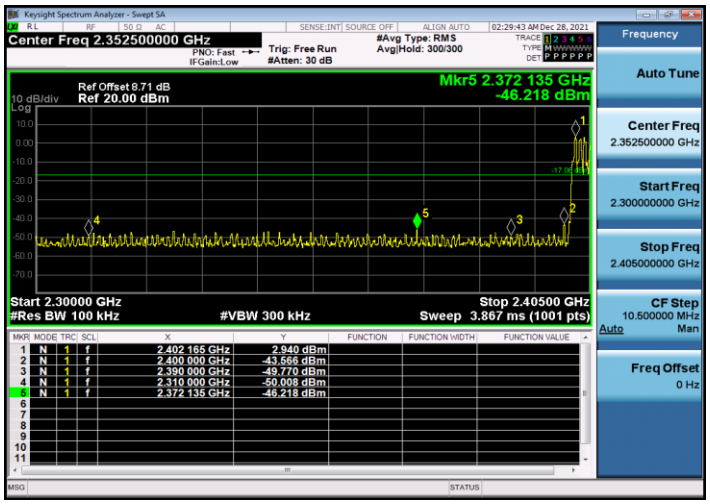
DH5_Ant1_Low_2402



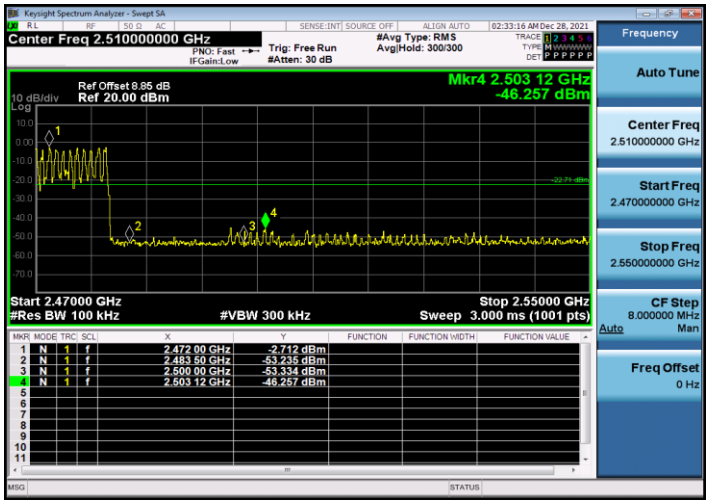
DH5_Ant1_High_2480



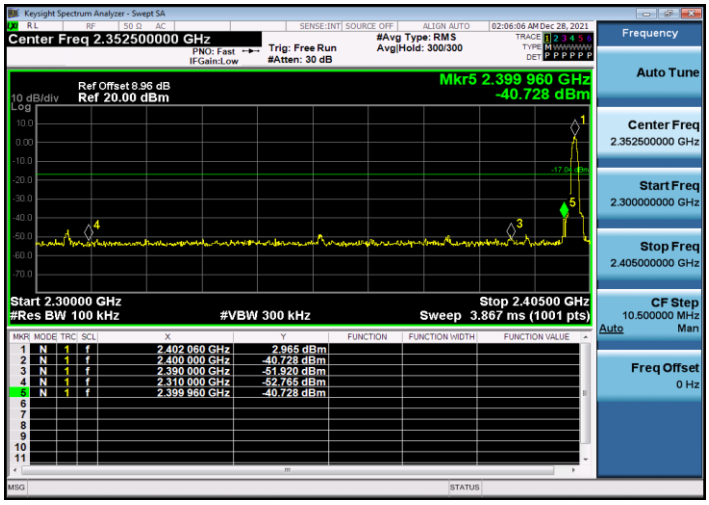
DH5_Ant1_Low_Hop_2402



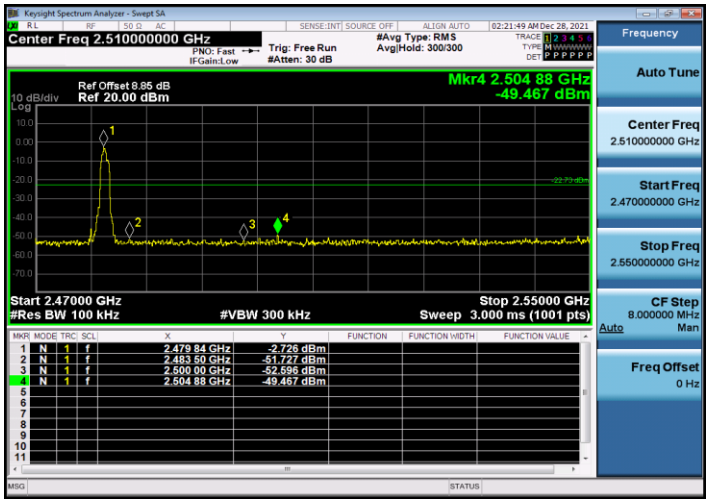
DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480



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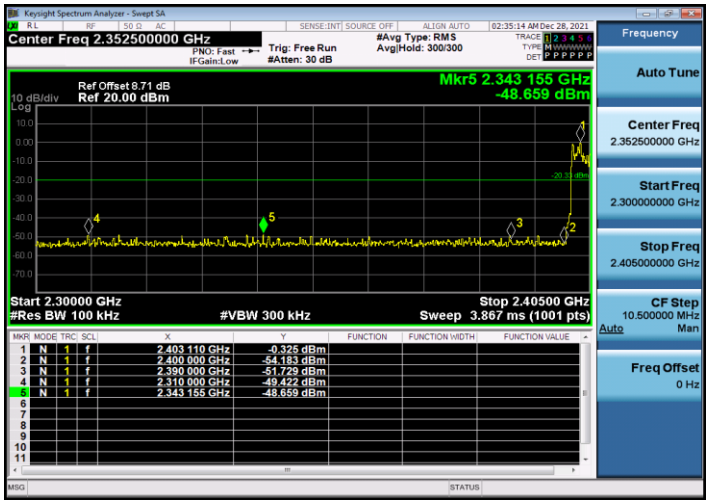
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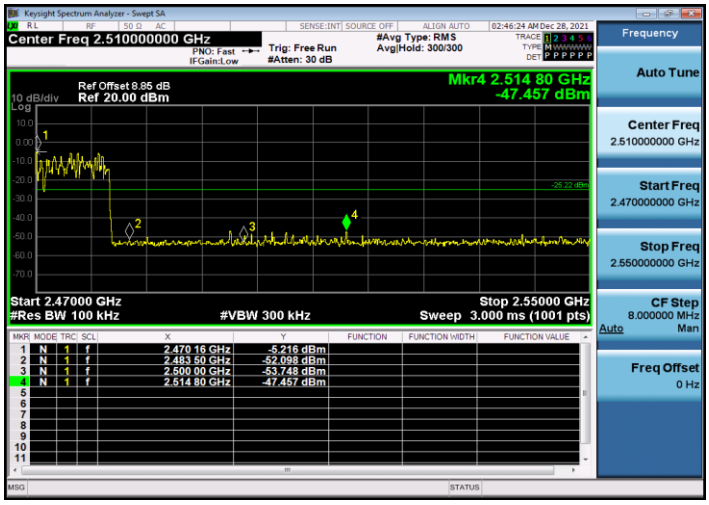
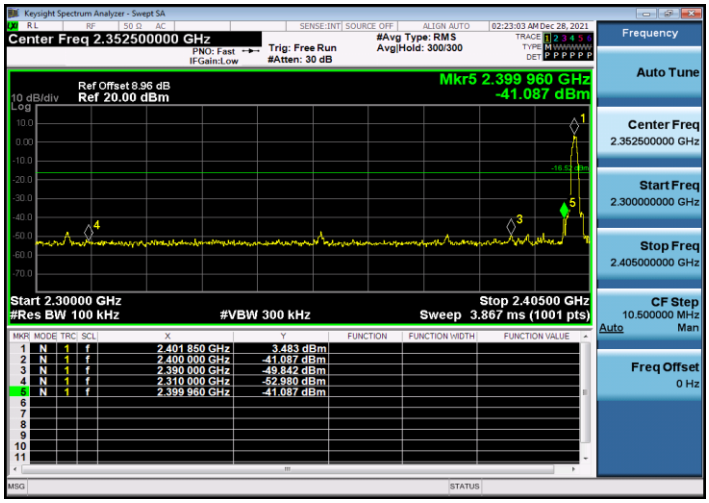

3DH5_Ant1_Low_2402


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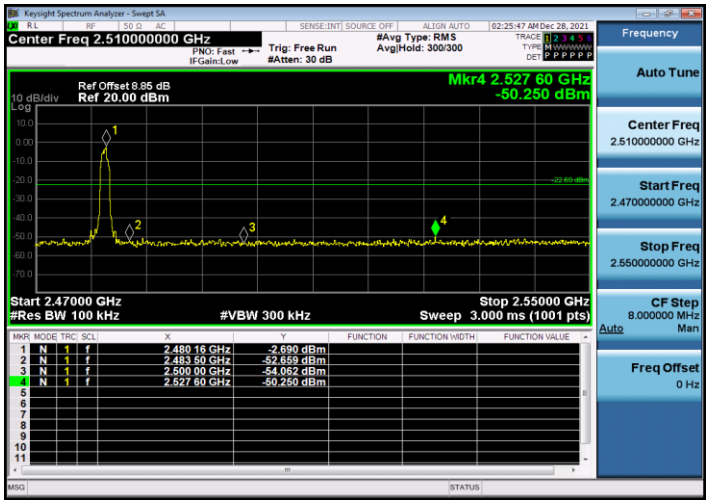
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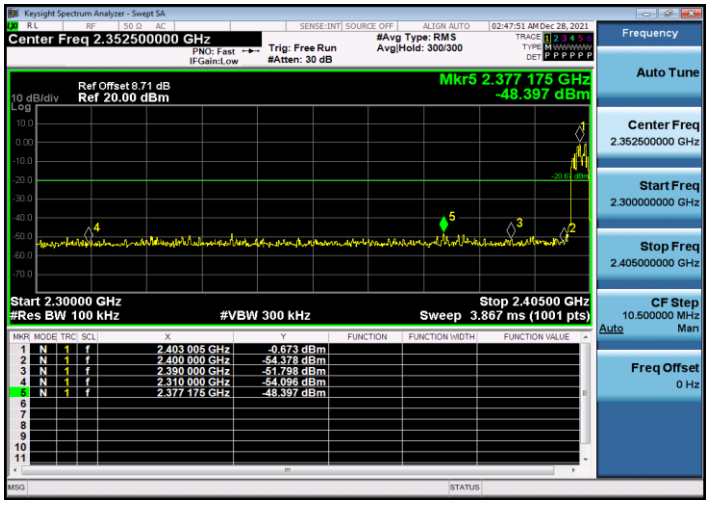
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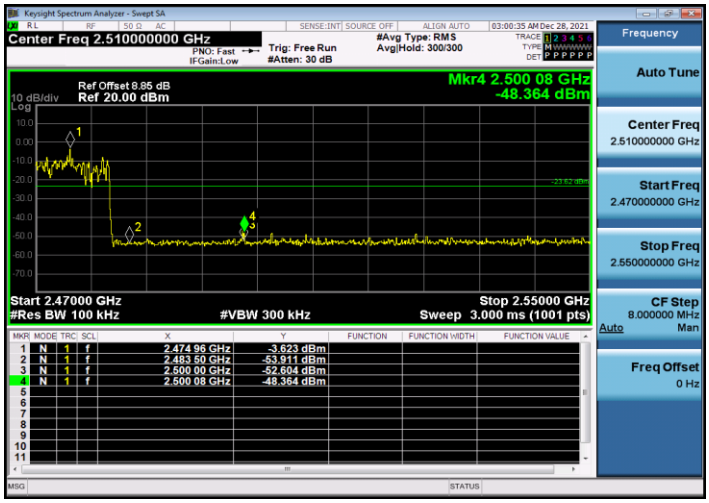
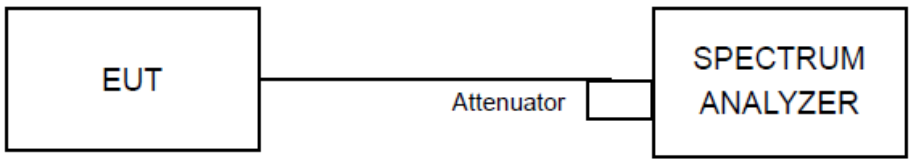


4.8 Conducted Spurious Emissions

4.8.1 Limit

Below –20dB of the highest emission level of operating band (in 100kHz RBW).

4.8.2 Test Setup



4.8.3 Test Procedures

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz and 300 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.8.4 Deviation of Test Standard

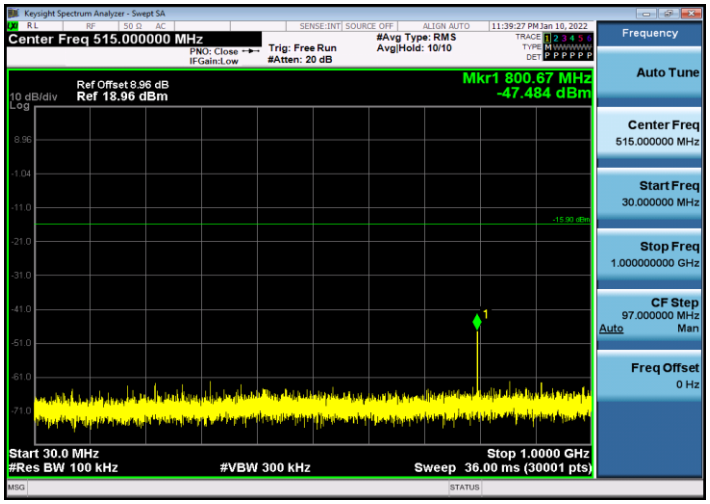
No deviation.

4.8.5 Test Result

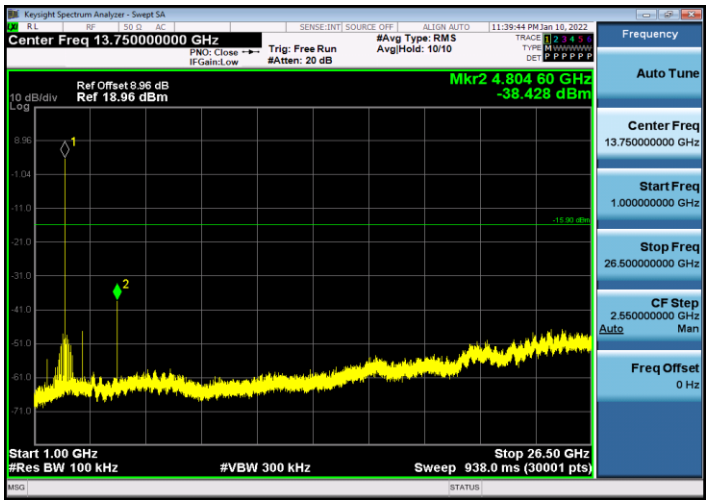
Test Mode	Antenna	Channel [MHz]	FreqRange [MHz]	RefLevel [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.10	4.10	--	PASS
			30~1000	4.10	-47.48	<=-15.9	PASS
			1000~26500	4.10	-38.43	<=-15.9	PASS
		2441	Reference	0.43	0.43	--	PASS
			30~1000	0.43	-48.84	<=-19.57	PASS
			1000~26500	0.43	-46.27	<=-19.57	PASS
		2480	Reference	-2.59	-2.59	--	PASS
			30~1000	-2.59	-50.74	<=-22.59	PASS
			1000~26500	-2.59	-46.92	<=-22.59	PASS
2DH5	Ant1	2402	Reference	3.44	3.44	--	PASS
			30~1000	3.44	-48.78	<=-16.56	PASS
			1000~26500	3.44	-42.94	<=-16.56	PASS
		2441	Reference	-0.02	-0.02	--	PASS
			30~1000	-0.02	-53.41	<=-20.02	PASS
			1000~26500	-0.02	-46.97	<=-20.02	PASS
		2480	Reference	-2.82	-2.82	--	PASS
			30~1000	-2.82	-53.26	<=-22.82	PASS
			1000~26500	-2.82	-47.24	<=-22.82	PASS
3DH5	Ant1	2402	Reference	3.30	3.30	--	PASS
			30~1000	3.30	-49.06	<=-16.7	PASS
			1000~26500	3.30	-45	<=-16.7	PASS
		2441	Reference	0.30	0.30	---	PASS
			30~1000	0.30	-52.69	<=-19.7	PASS
			1000~26500	0.30	-46.9	<=-19.7	PASS
		2480	Reference	-2.76	-2.76	--	PASS
			30~1000	-2.76	-55.26	<=-22.76	PASS
			1000~26500	-2.76	-46.71	<=-22.76	PASS

DH5_Ant1_2402_0~Reference

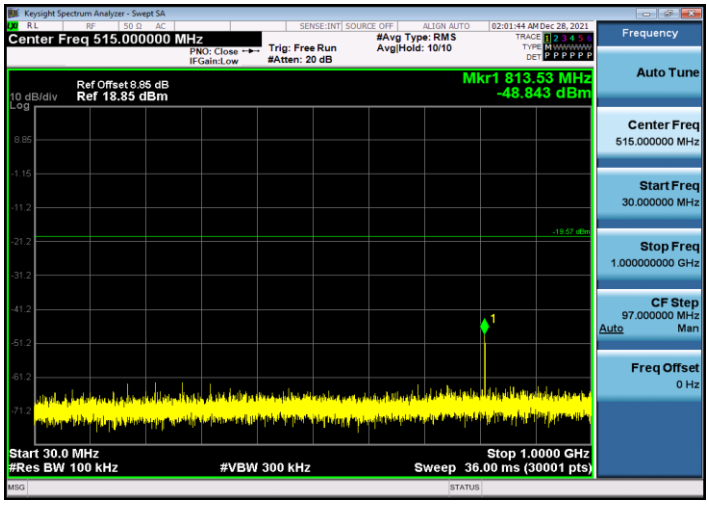
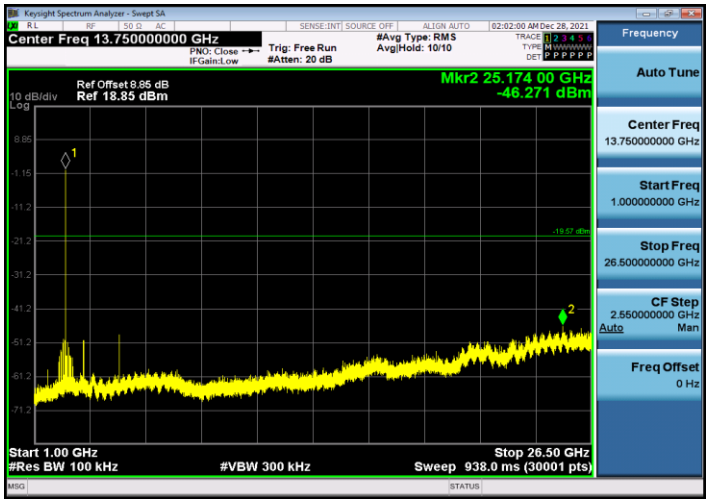
DH5_Ant1_2402_30~1000



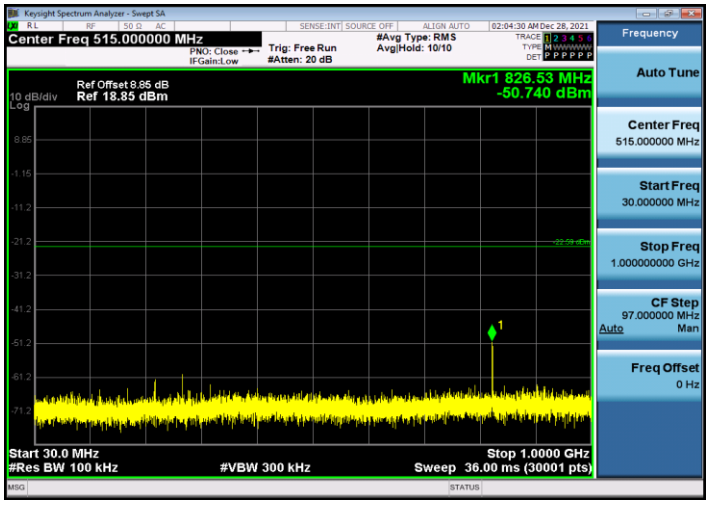
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

DH5_Ant1_2441_30~1000

DH5_Ant1_2441_1000~26500


DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000

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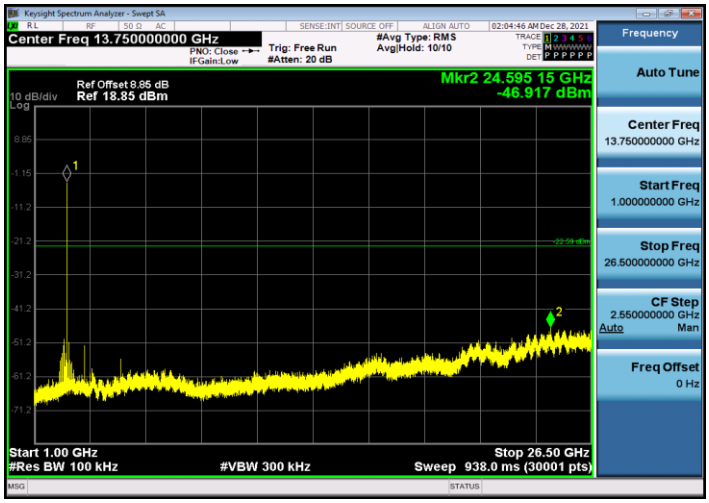
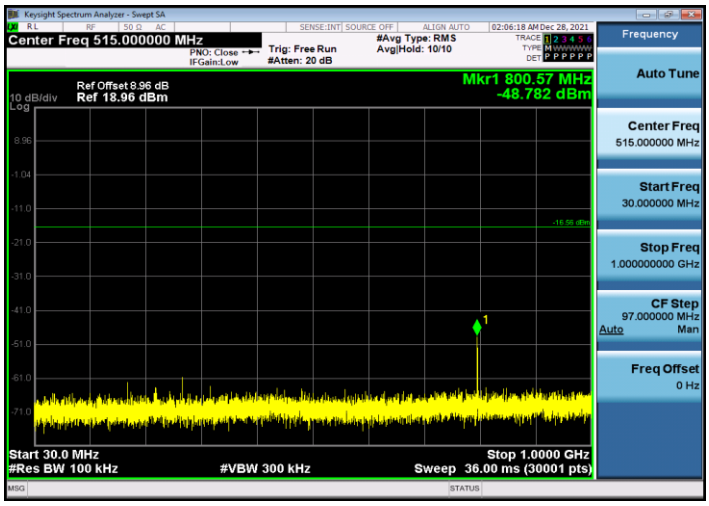
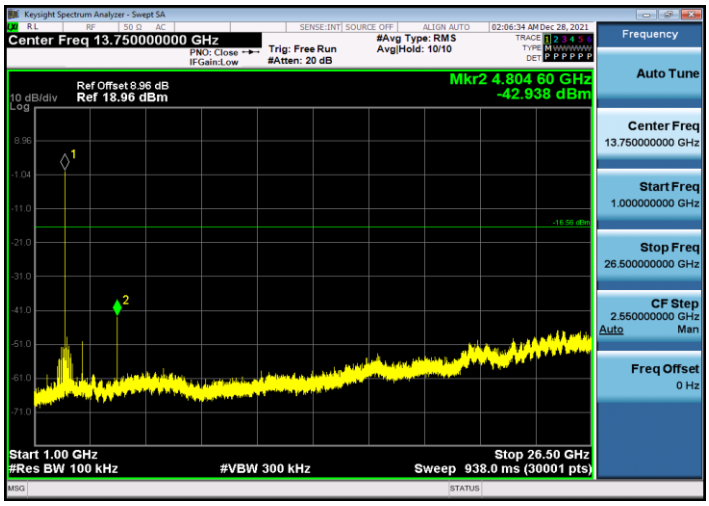
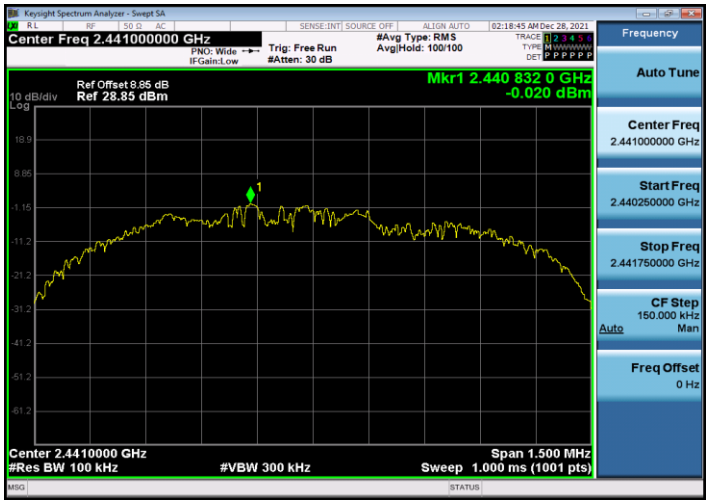
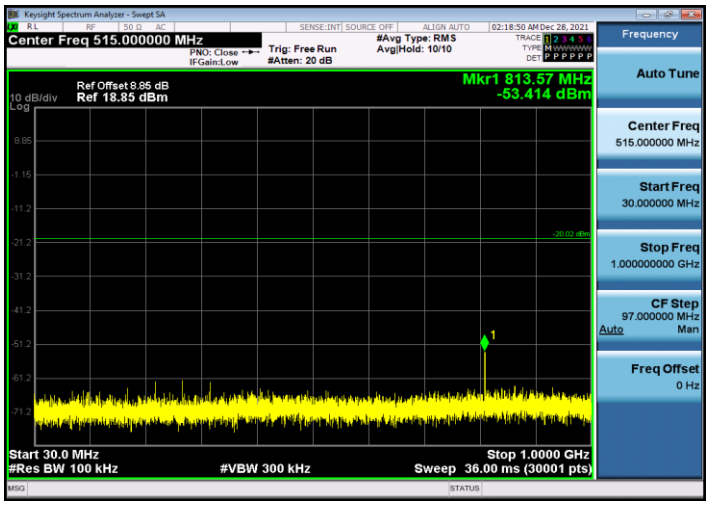


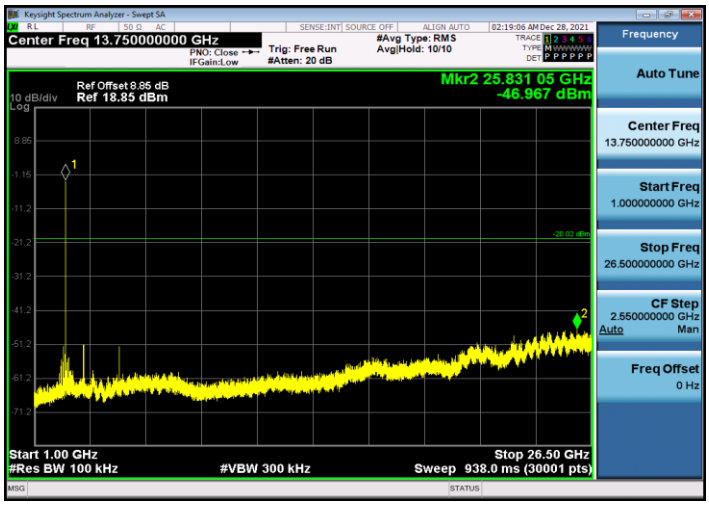
2DH5_Ant1_2402_0~Reference


2DH5_Ant1_2402_30~1000


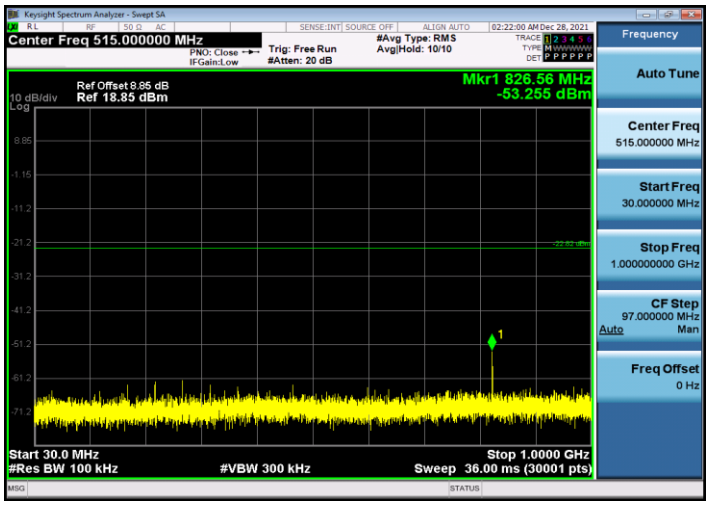
2DH5_Ant1_2402_1000~26500


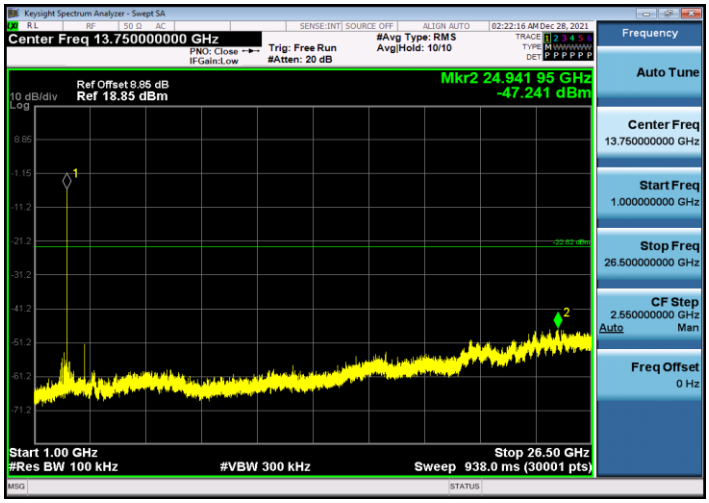
2DH5_Ant1_2441_0~Reference


2DH5_Ant1_2441_30~1000


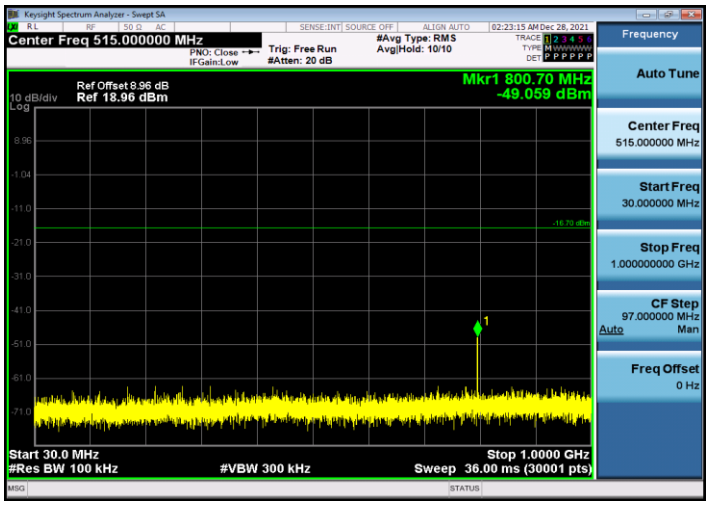
2DH5_Ant1_2441_1000~26500


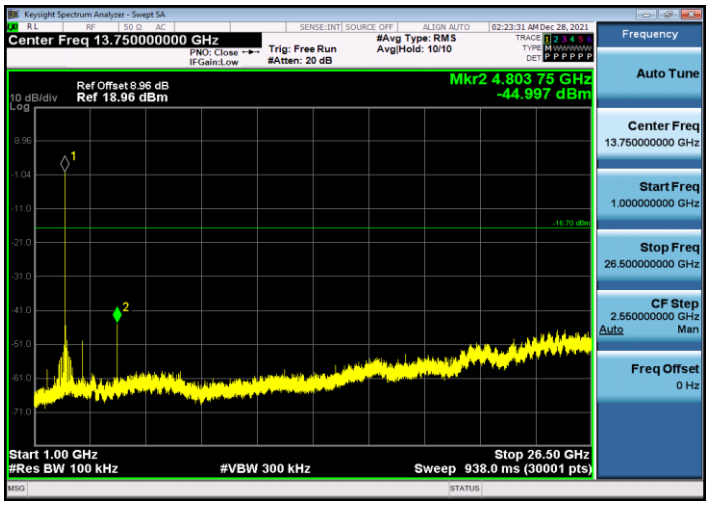
2DH5_Ant1_2480_0~Reference


2DH5_Ant1_2480_30~1000


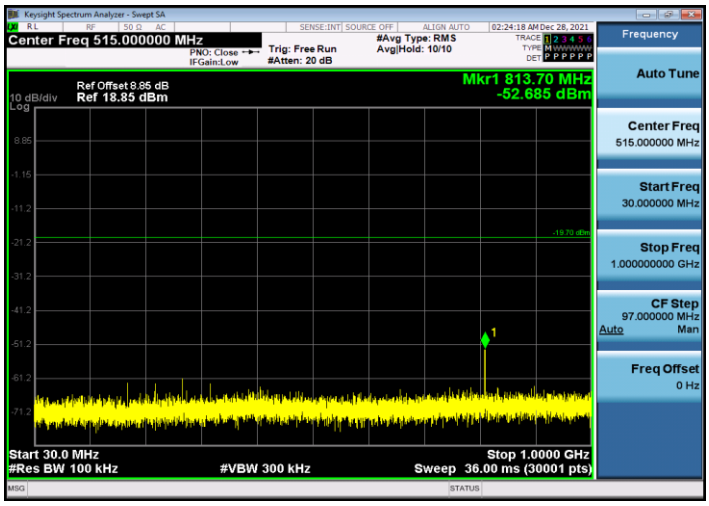
2DH5_Ant1_2480_1000~26500


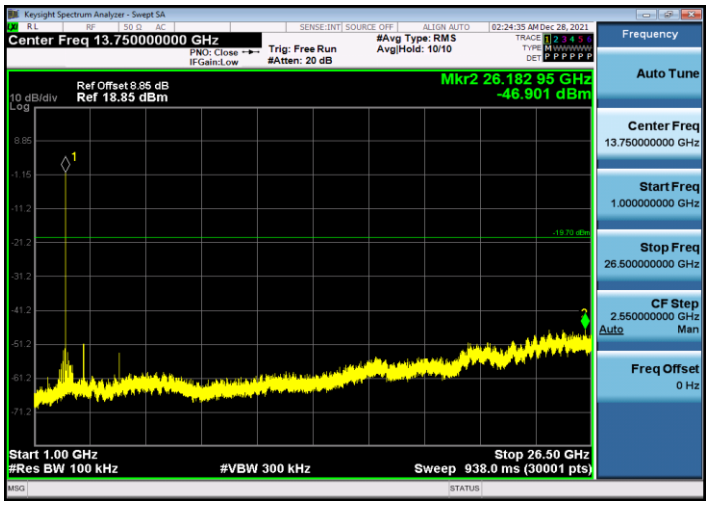
3DH5_Ant1_2402_0~Reference


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


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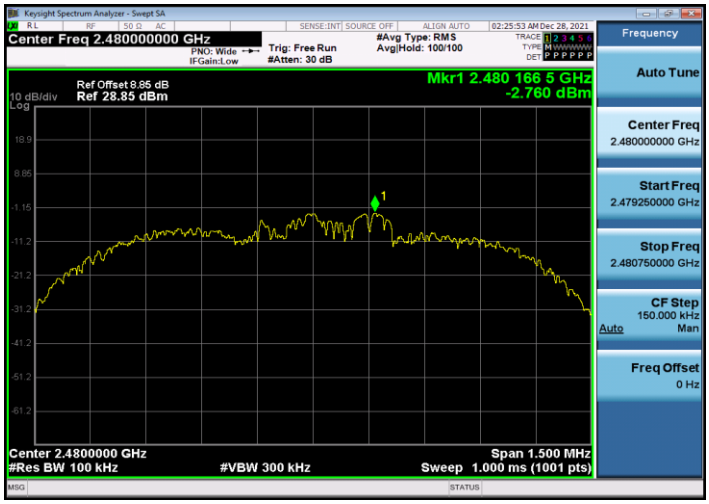
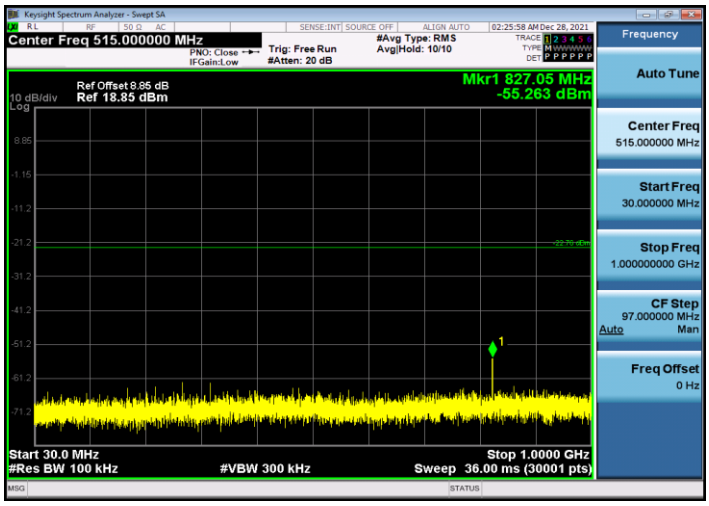
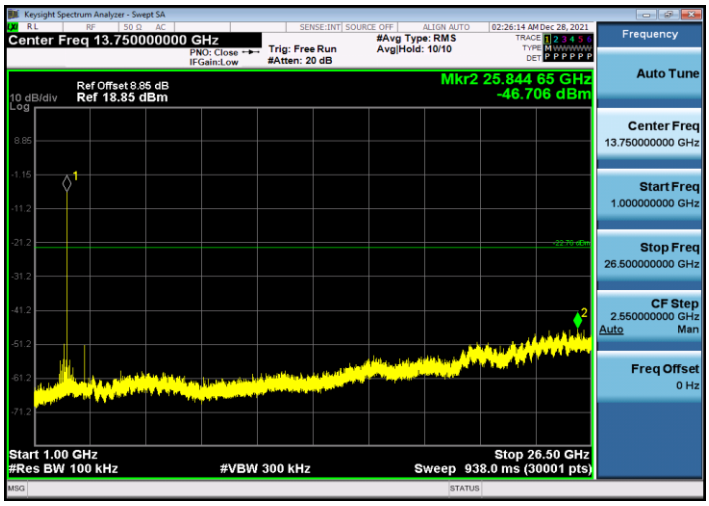


3DH5_Ant1_2480_30~1000


3DH5_Ant1_2480_1000~26500


4.9 Emissions in restricted frequency bands

4.9.1 Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
1 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

4.9.2 Test Procedure Reference

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

4.9.3 Test Procedures

Peak Field Strength Measurements

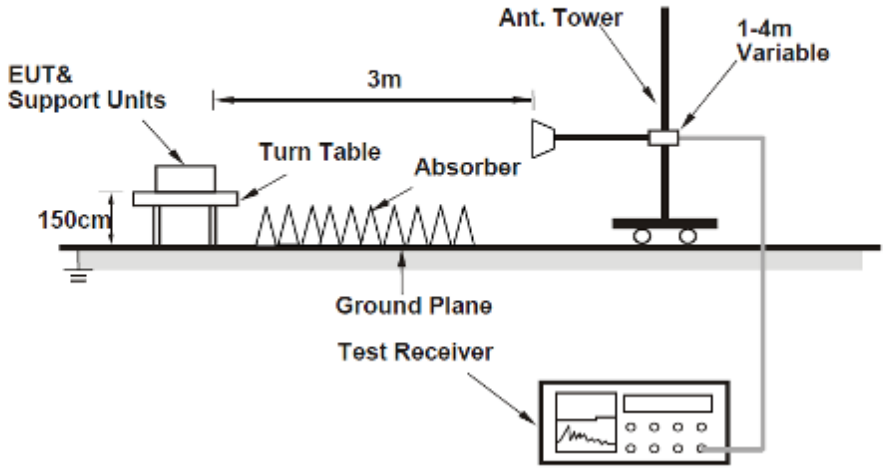
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

8. 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
9. 2. RBW = 1MHz
10. 3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.
11. If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
12. 4. Detector = Peak
13. 5. Sweep time = auto
14. 6. Trace mode = max hold
15. 7. Trace was allowed to stabilize

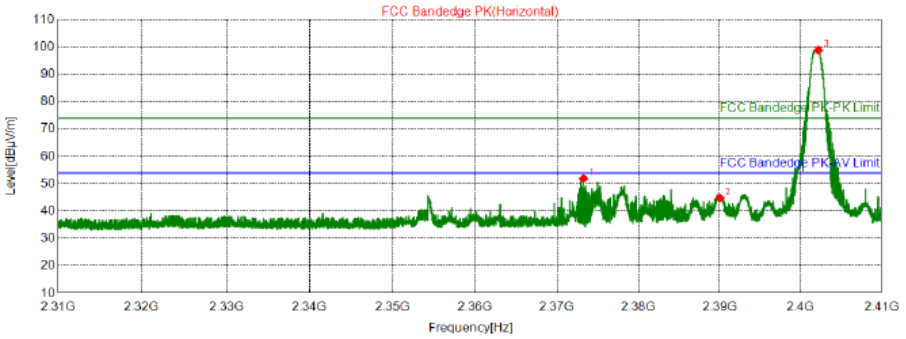
4.9.4 Test Setup

For Radiated emission above 1GHz



4.9.5 Test Results

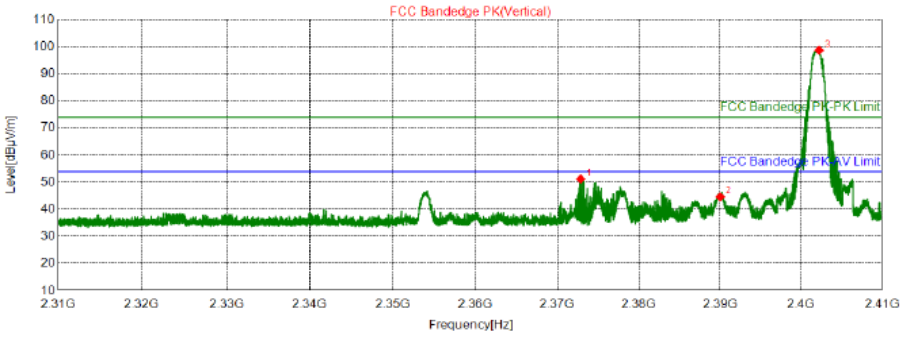
DH5-2402MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2373.2625	69.68	51.91	74.00	22.09	155	186	Horizontal	PK
2	2390.0000	62.48	44.76	74.00	29.24	155	186	Horizontal	PK
3	2402.1625	116.48	98.80	74.00	-24.80	155	186	Horizontal	PK

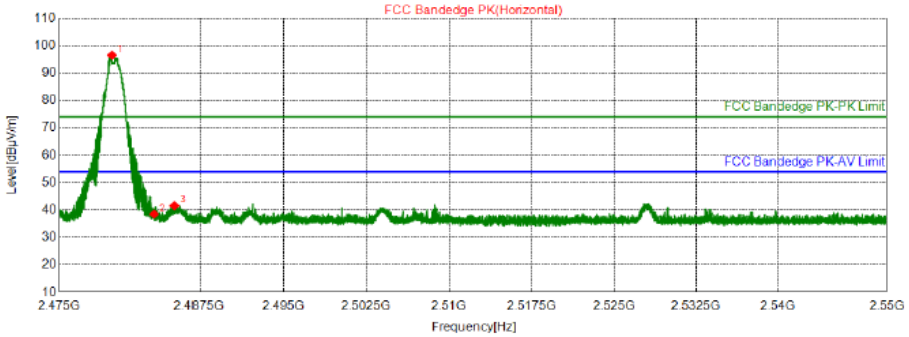
DH5-2402MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2372.8750	68.93	51.16	74.00	22.84	155	102	Vertical	PK
2	2390.0000	62.31	44.59	74.00	29.41	155	79	Vertical	PK
3	2402.2000	116.34	98.66	74.00	-24.66	155	49	Vertical	PK

DH5-2480MHz/ Horizontal

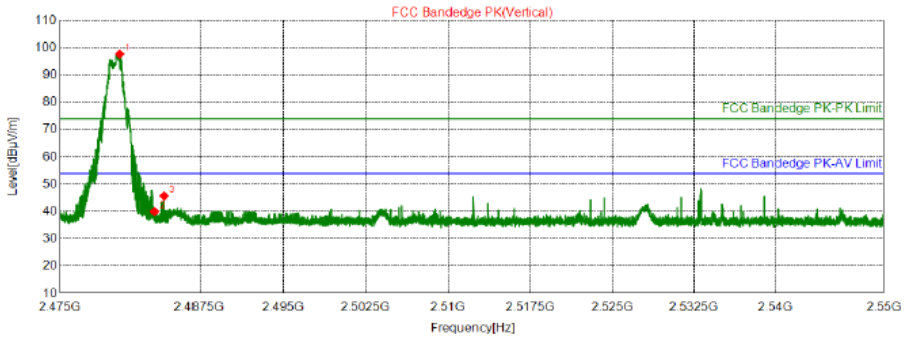


AV Detector

Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2479.7250	113.99	96.54	74.00	-22.54	155	55	Horizontal	PK
2	2483.5031	55.92	38.48	74.00	35.52	155	162	Horizontal	PK
3	2485.3219	58.99	41.56	74.00	32.44	155	198	Horizontal	PK

DH5-2480MHz/ Vertical

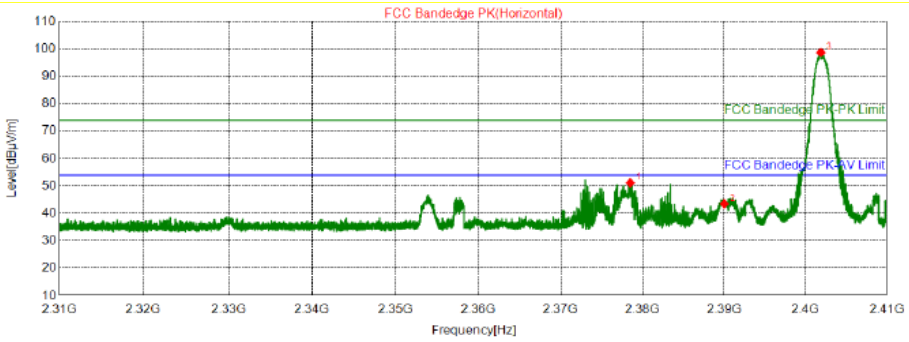


AV Detector

Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2480.3719	115.12	97.68	74.00	-23.68	155	92	Vertical	PK
2	2483.5031	57.42	39.98	74.00	34.02	155	199	Vertical	PK
3	2484.3750	63.13	45.70	74.00	28.30	155	199	Vertical	PK

2DH5-2402MHz/ Horizontal



* AV Detector

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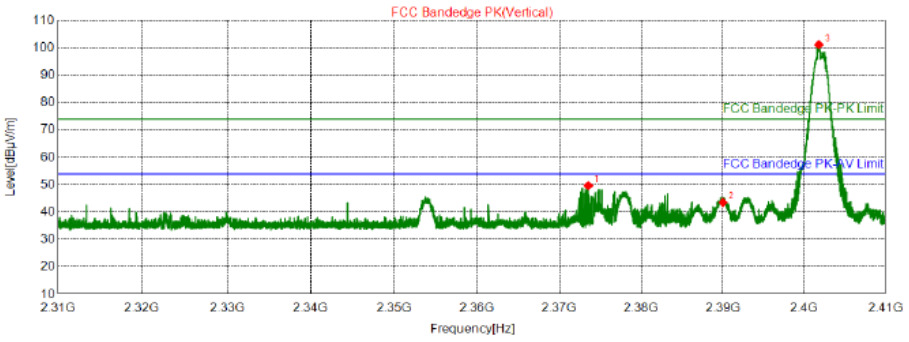
Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2378.5000	68.87	51.11	74.00	22.89	155	50	Horizontal	PK
2	2390.0000	61.19	43.47	74.00	30.53	155	192	Horizontal	PK
3	2401.8750	116.34	98.66	74.00	-24.66	155	186	Horizontal	PK

2DH5-2402MHz/ Vertical



* AV Detector

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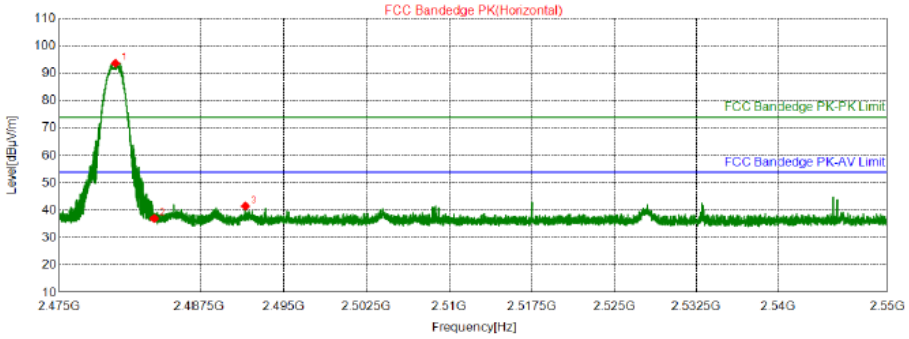
Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2373.5500	67.43	49.66	74.00	24.34	155	102	Vertical	PK
2	2390.0000	61.23	43.51	74.00	30.49	155	85	Vertical	PK
3	2401.7875	118.80	101.12	74.00	-27.12	155	97	Vertical	PK

2DH5-2480MHz/ Horizontal

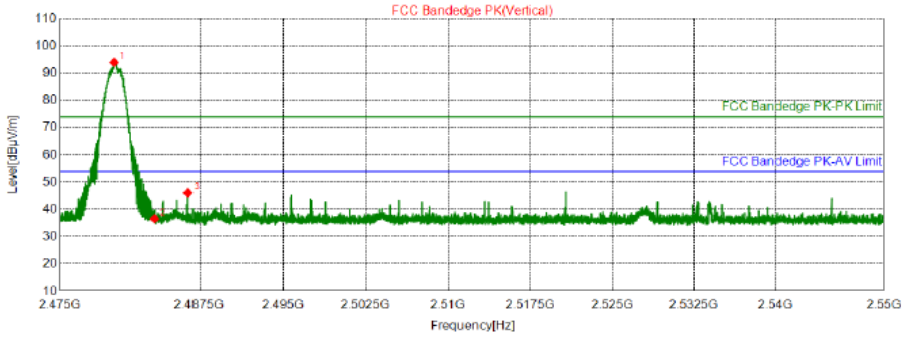


AV Detector

Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2480.0344	111.06	93.61	74.00	-19.61	155	197	Horizontal	PK
2	2483.5031	54.47	37.03	74.00	36.97	155	209	Horizontal	PK
3	2491.5750	58.94	41.53	74.00	32.47	155	120	Horizontal	PK

2DH5-2480MHz/ Vertical

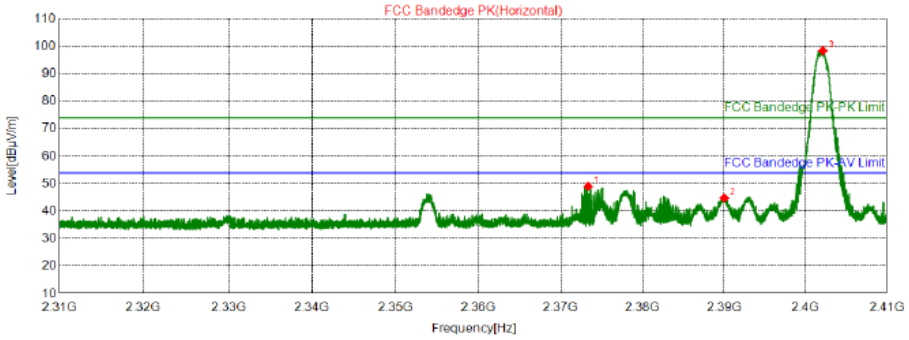


AV Detector

Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2479.8750	111.37	93.92	74.00	-19.92	155	9	Vertical	PK
2	2483.5031	53.97	36.53	74.00	37.47	155	110	Vertical	PK
3	2486.4938	63.49	46.06	74.00	27.94	155	187	Vertical	PK

3DH5-2402MHz/ Horizontal



* AV Detector

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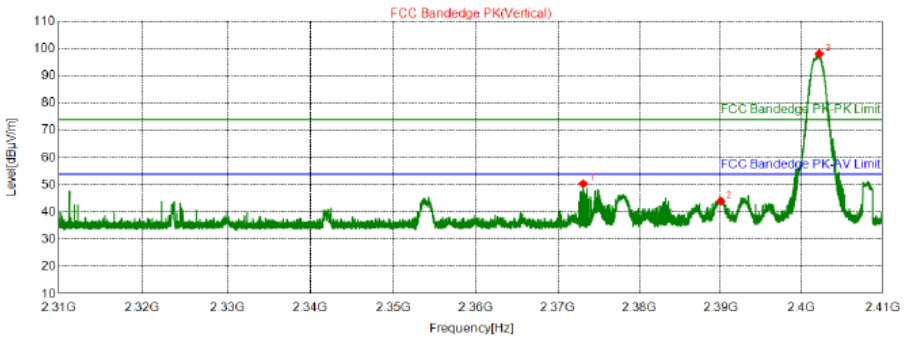
Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2373.3625	66.74	48.97	74.00	25.03	155	192	Horizontal	PK
2	2390.0000	62.48	44.76	74.00	29.24	155	186	Horizontal	PK
3	2402.1125	116.05	98.37	74.00	-24.37	155	180	Horizontal	PK

3DH5-2402MHz/ Vertical



* AV Detector

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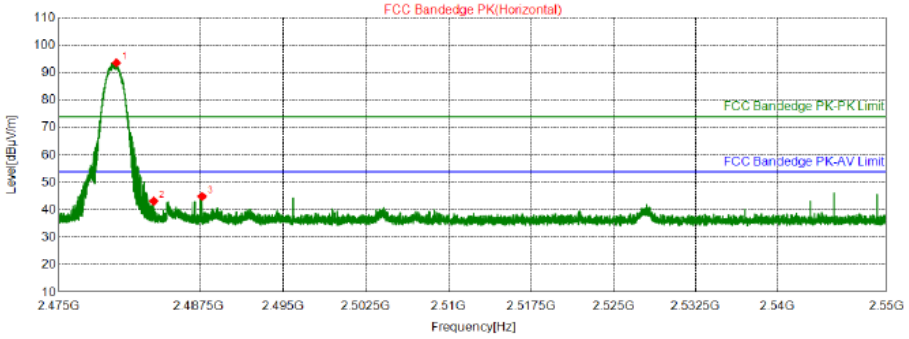
Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2373.1125	68.20	50.43	74.00	23.57	155	97	Vertical	PK
2	2390.0000	61.67	43.95	74.00	30.05	155	73	Vertical	PK
3	2402.1750	115.78	98.10	74.00	-24.10	155	91	Vertical	PK

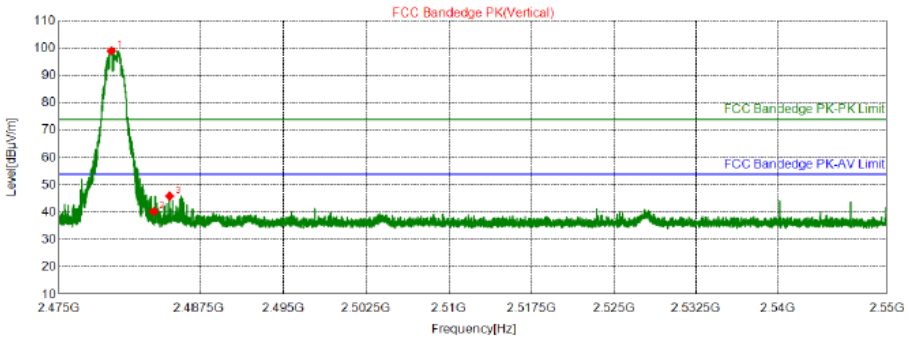
3DH5-2480MHz/ Horizontal



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2480.1563	111.00	93.55	74.00	-19.55	155	192	Horizontal	PK
2	2483.5031	60.67	43.23	74.00	30.77	155	198	Horizontal	PK
3	2487.7313	62.36	44.94	74.00	29.06	155	121	Horizontal	PK

3DH5-2480MHz/ Vertical



Suspected List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	2479.7063	116.42	98.97	74.00	-24.97	155	150	Vertical	PK
2	2483.5031	57.81	40.37	74.00	33.63	155	73	Vertical	PK
3	2484.9188	63.36	45.93	74.00	28.07	155	197	Vertical	PK

4.10 Radiated Emission Measurement

4.10.1Limits

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

4.10.2Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on a 80cm height table above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Both X and Y axes of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotate table was turned from 0 degree to 360 degree to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a The EUT was placed on a 80cm height(above 1GHz is 1.5m height) table above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for RMS Average (Duty cycle < 98 %) for Peak detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz (Duty cycle $\geqslant$ 98 %) for Average detection (AV) at frequency above 1 GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

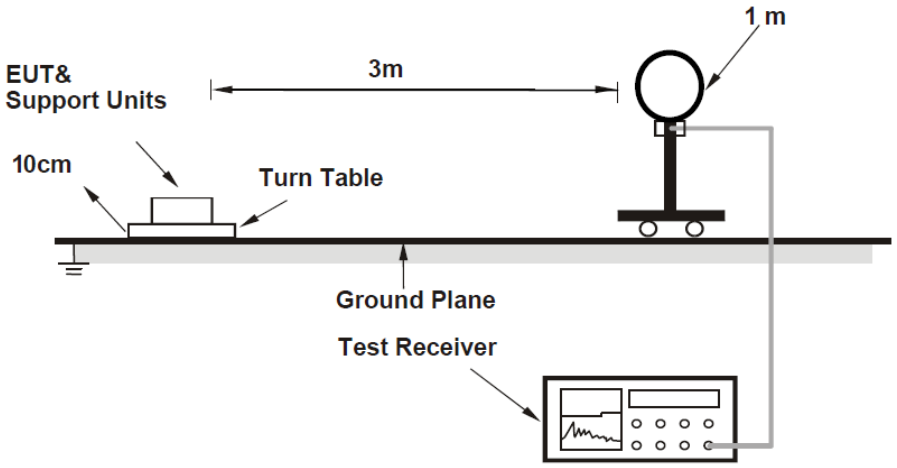
4.10.3

4.10.4Deviation from Test Standard

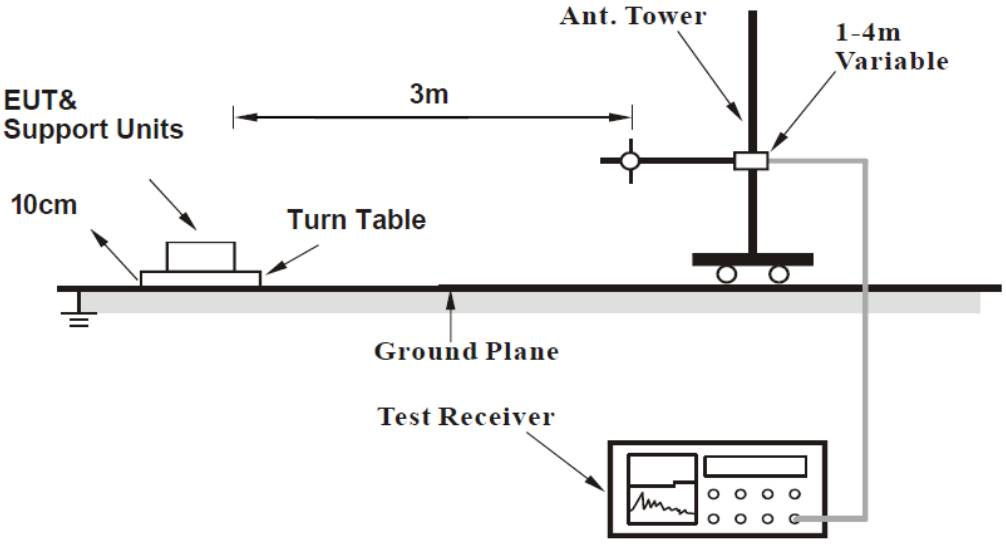
No deviation.

4.10.5Test Setup

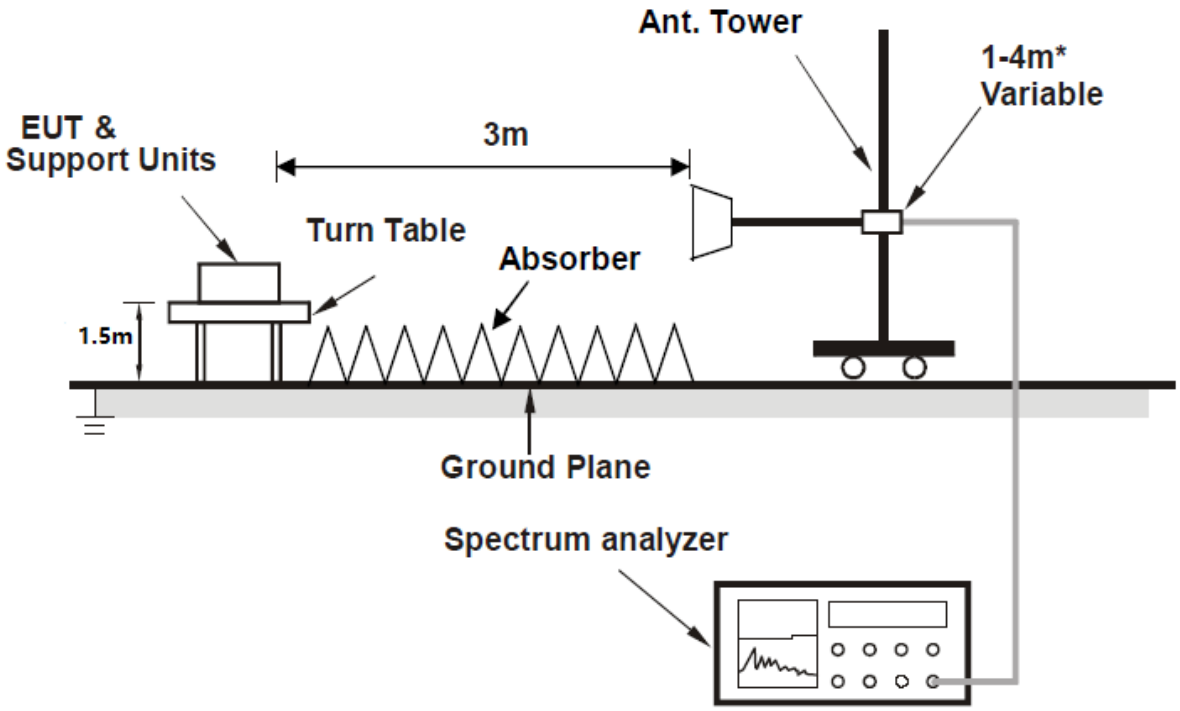
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.10.6EUT Operating Conditions

a. Placed the EUT on a testing table.

b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

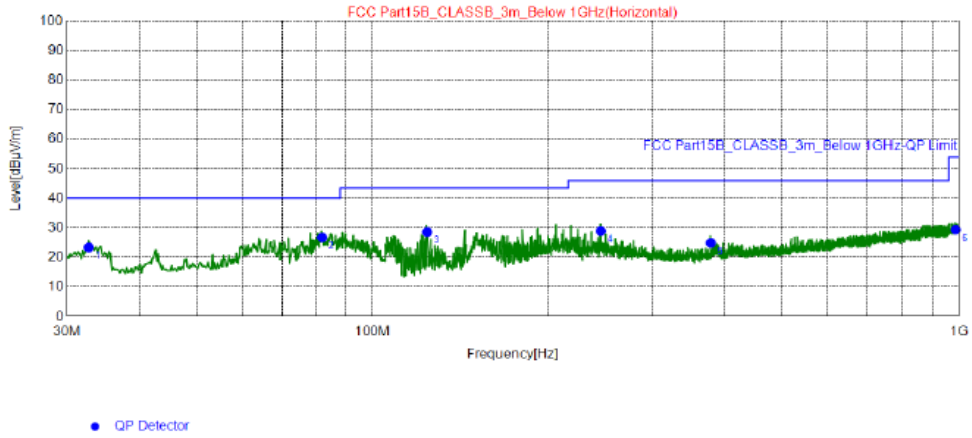
4.10.7Test Results

Radiated Emissions Range 9kHz~30MHz

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Radiated Emissions Range 30MHz~1GHz

Channel	DH5_2402_Ant1	**Detector Function**	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	**Antenna Polarity**	Horizontal
Power supply	AC 120V, 60Hz		



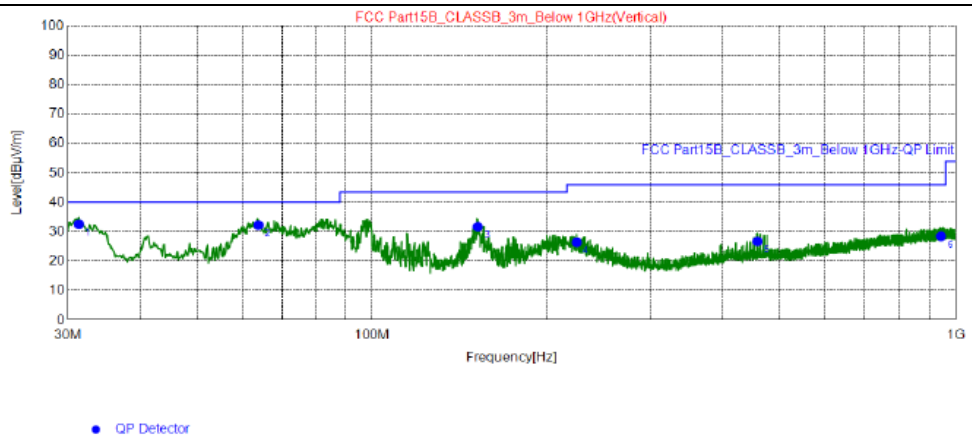
Final Data List

NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	32.71	34.78	-11.39	23.39	40.00	16.61	200	358	Horizontal
2	81.99	40.99	-14.29	26.70	40.00	13.30	200	358	Horizontal
3	123.8	40.24	-11.67	28.57	43.50	14.93	100	160	Horizontal
4	245.3	39	-10.08	28.92	46.00	17.08	100	76	Horizontal
5	378.6	31.12	-6.20	24.92	46.00	21.08	100	108	Horizontal
6	986.2	25.12	4.24	29.36	54.00	24.64	100	360	Horizontal

REMARKS:

1. Emission Level(dBuV/m) = Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	DH5_2402_Ant1	**Detector Function**	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	**Antenna Polarity**	Vertical
Power supply	AC 120V, 60Hz		



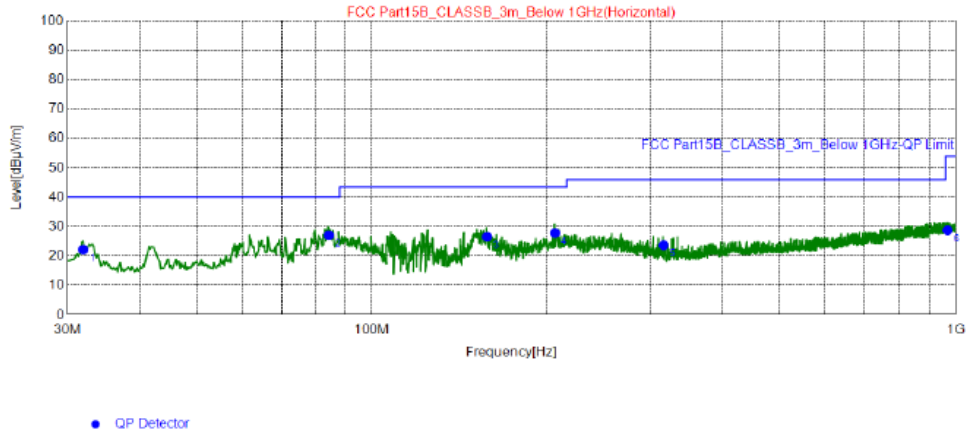
Final Data List

NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.35	44.17	-11.55	32.62	40.00	7.38	100	279	Vertical
2	63.75	43.03	-10.77	32.26	40.00	7.74	100	7	Vertical
3	151.8	41.21	-9.55	31.66	43.50	11.84	100	327	Vertical
4	224.5	37.44	-11.04	26.40	46.00	19.60	100	357	Vertical
5	458.5	31.41	-4.72	26.69	46.00	19.31	200	288	Vertical
6	942.1	24.7	3.79	28.49	46.00	17.51	100	202	Vertical

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	DH5_2402_Ant1	**Detector Function**	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	**Antenna Polarity**	Horizontal
Power supply	AC 240V, 50Hz		



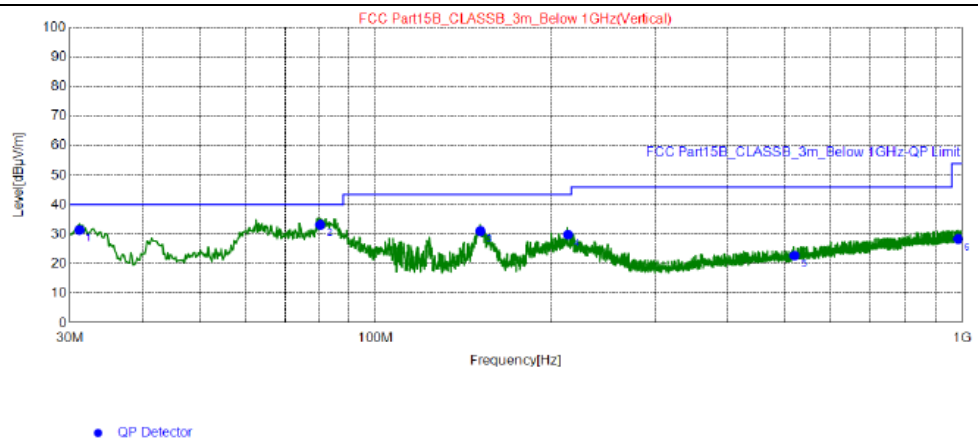
Final Data List

NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.94	33.65	-11.48	22.17	40.00	17.83	200	358	Horizontal
2	84.32	41.73	-14.67	27.06	40.00	12.94	200	358	Horizontal
3	157.6	35.93	-9.40	26.53	43.50	16.97	200	332	Horizontal
4	206.1	39.35	-11.47	27.88	43.50	15.62	200	287	Horizontal
5	316.7	31.22	-7.56	23.66	46.00	22.34	100	293	Horizontal
6	967.6	24.65	4.13	28.78	54.00	25.22	200	199	Horizontal

REMARKS:

1. Emission Level(dBuV/m) = Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Channel	DH5_2402_Ant1	**Detector Function**	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz	**Antenna Polarity**	Vertical
Power supply	AC 240V, 50Hz		



Final Data List

NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.16	43	-11.58	31.42	40.00	8.58	100	268	Vertical
2	80.44	47.28	-14.04	33.24	40.00	6.76	100	10	Vertical
3	151.0	40.66	-9.57	31.09	43.50	12.41	100	344	Vertical
4	213.1	41.26	-11.36	29.90	43.50	13.60	100	358	Vertical
5	519.8	26.68	-3.83	22.85	46.00	23.15	100	175	Vertical
6	984.2	24.22	4.24	28.46	54.00	25.54	100	66	Vertical

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Limit value – Emission Level

Radiated Emission Range 1GHz~10th Harmonic

GFSK

Channel	TX Channel 0	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4804.6000	55.79	74.00	18.21	-12.46	H	PK
2	4804.6000	51.12	54.00	2.88	-12.46	H	AV
3	4804.6000	56.87	74.00	17.13	-12.46	V	PK
4	4804.6000	50.08	54.00	3.92	-12.46	V	AV

Channel	TX Channel 39	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4882.1000	52.18	74.00	21.82	-12.24	H	PK
2	4882.1000	50.23	54.00	3.77	-12.24	H	AV
3	4882.1000	52.64	74.00	21.36	-12.24	V	PK
4	4882.1000	48.51	54.00	5.49	-12.24	V	AV

Channel	TX Channel 78	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4960.0000	46.43	74.00	27.57	-12.05	H	PK
2	4960.0000	43.95	54.00	10.05	-12.05	H	AV
3	4960.0000	48.31	74.00	25.69	-12.05	V	PK
4	4960.0000	44.95	54.00	9.05	-12.05	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

3. The other emission levels were very low against the limit.

4. Margin value =Limit value – Emission Level

π/4-DQPSK

Channel	TX Channel 0	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4804.6000	57.95	74.00	16.05	-12.46	H	PK
2	4804.6000	52.08	54.00	1.92	-12.46	H	AV
3	4804.6000	56.97	74.00	17.03	-12.46	V	PK
4	4804.6000	49.90	54.00	4.10	-12.46	V	AV

Channel	TX Channel 39	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4882.1000	48.98	74.00	25.02	-12.24	H	PK
2	4882.1000	43.11	54.00	10.89	-12.24	H	AV
3	4882.1000	48.21	74.00	25.79	-12.24	V	PK
4	4882.1000	41.99	54.00	12.01	-12.24	V	AV

Channel	TX Channel 78	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4960.0000	43.29	74.00	30.71	-12.05	H	PK
2	4960.0000	38.66	54.00	15.34	-12.05	H	AV
3	4960.0000	45.56	74.00	28.44	-12.05	V	PK
4	4960.0000	39.90	54.00	14.10	-12.05	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

3. The other emission levels were very low against the limit.

4. Margin value =Limit value – Emission Level

8DPSK

Channel	TX Channel 0	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4804.6000	58.86	74.00	15.14	-12.46	H	PK
2	4804.6000	48.21	54.00	5.79	-12.46	H	AV
3	4804.6000	54.81	74.00	19.19	-12.46	V	PK
4	4804.6000	49.36	54.00	4.64	-12.46	V	AV

Channel	TX Channel 39	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4882.1000	51.41	74.00	22.59	-12.24	H	PK
2	4882.1000	48.27	54.00	5.73	-12.24	H	AV
3	4882.1000	48.74	74.00	25.26	-12.24	V	PK
4	4882.1000	44.53	54.00	9.47	-12.24	V	AV

Channel	TX Channel 78	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Spurious Emission Level

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Correction Factor (dB/m)	Antenna Polarity	Detector
1	4960.0000	45.50	74.00	28.50	-12.05	H	PK
2	4960.0000	43.81	54.00	10.19	-12.05	H	AV
3	4960.0000	44.21	74.00	29.79	-12.05	V	PK
4	4960.0000	40.33	54.00	13.67	-12.05	V	AV

REMARKS:

1. Emission Level(dBuV/m) = Original Spectrum reading (dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

3. The other emission levels were very low against the limit.

4. Margin value =Limit value – Emission Level

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

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