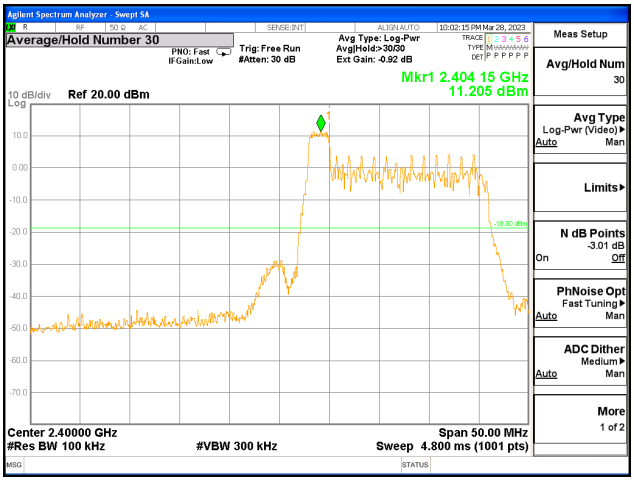
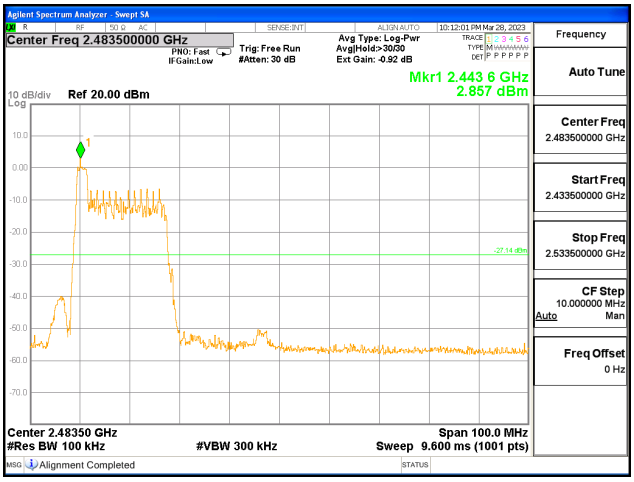
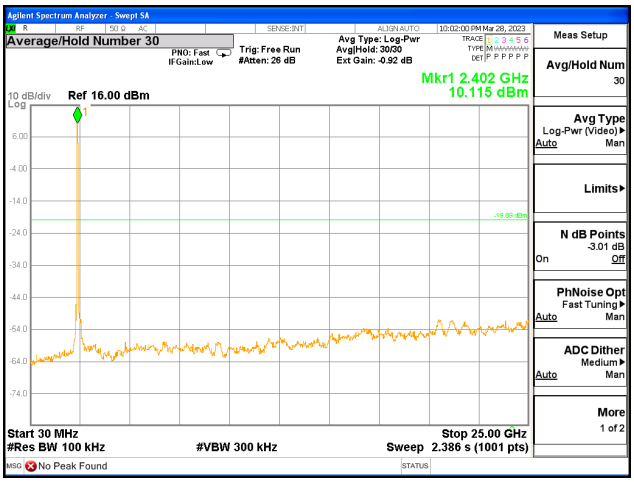
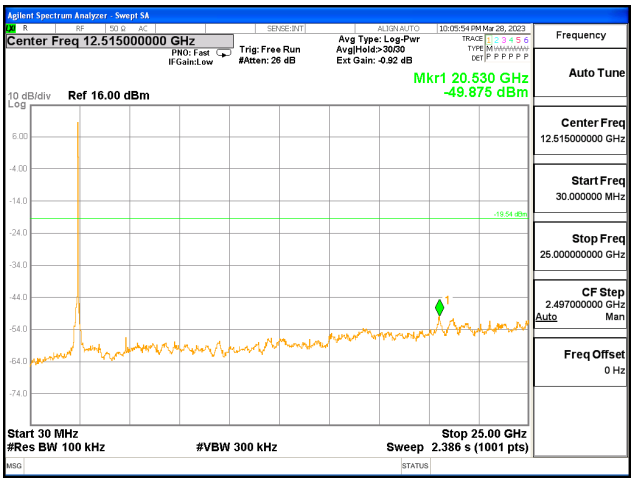
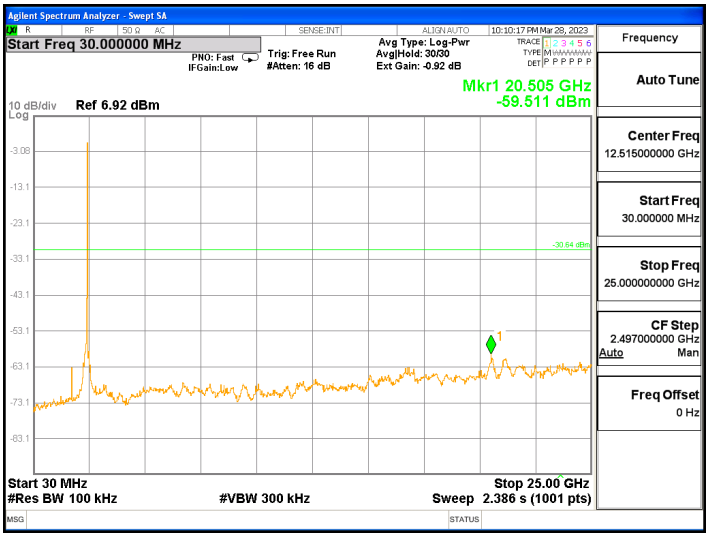


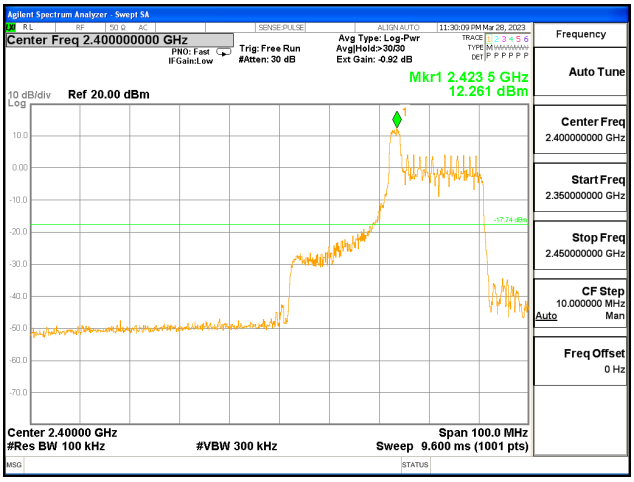


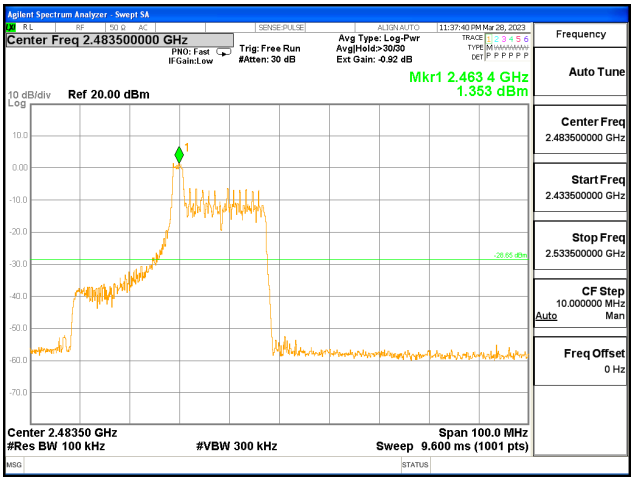


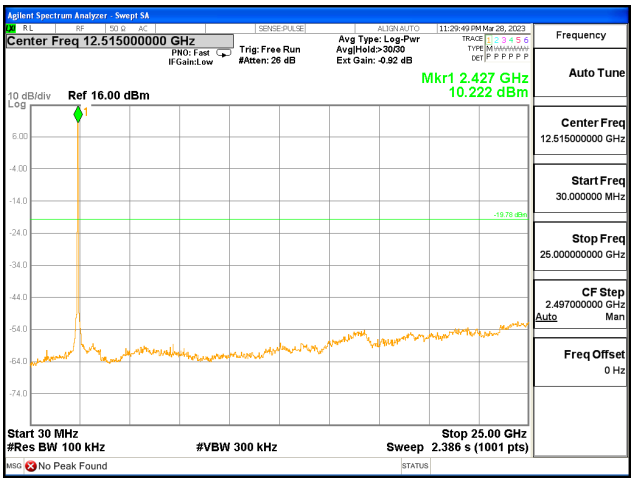


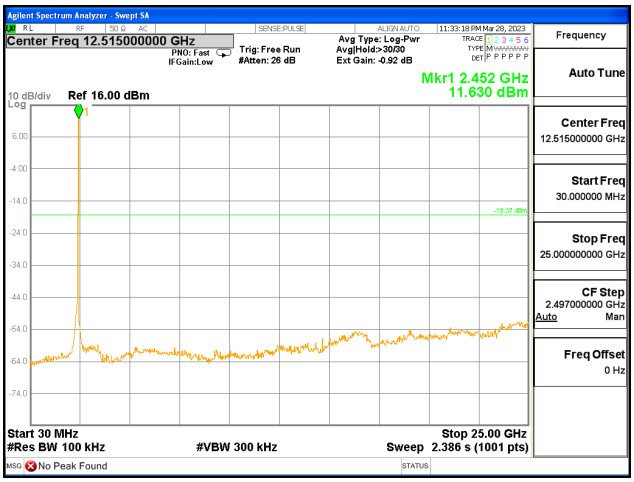


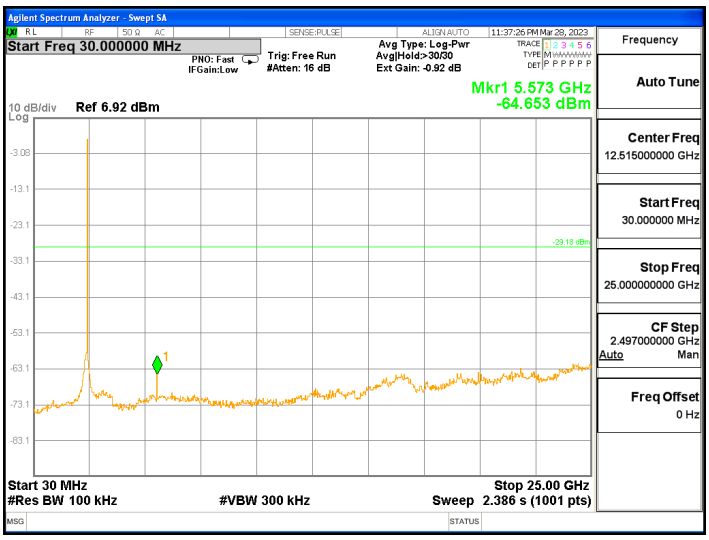
ANT1, 802.11ax_HE40_26T_Low



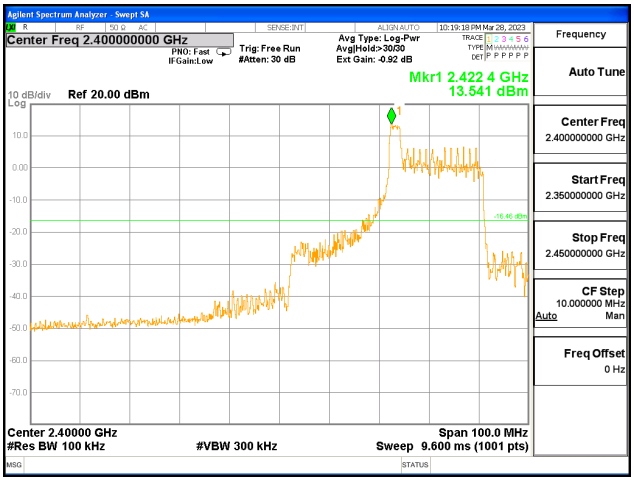


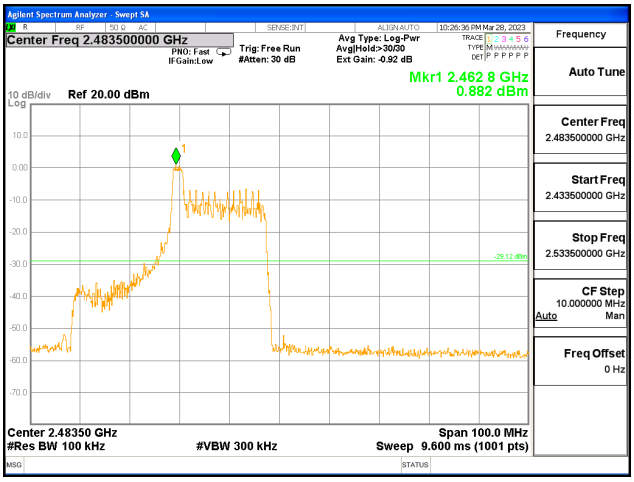


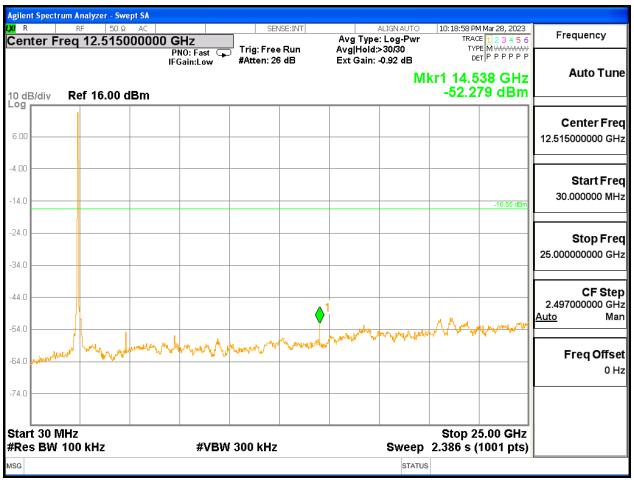


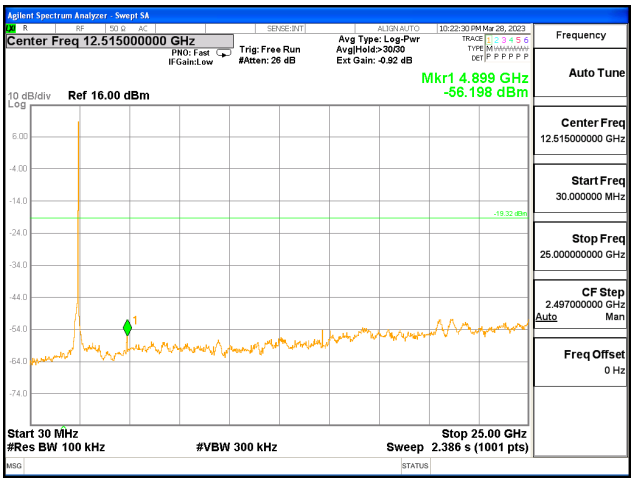


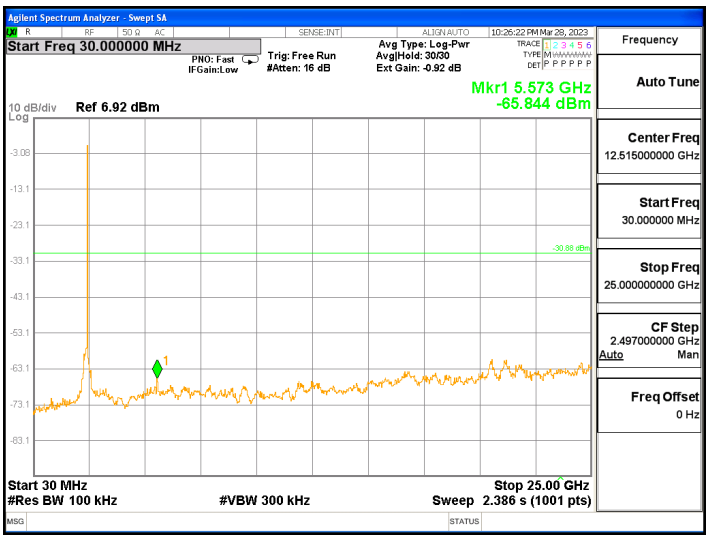
ANT0, 802.11ax_HE40_26T_Mid



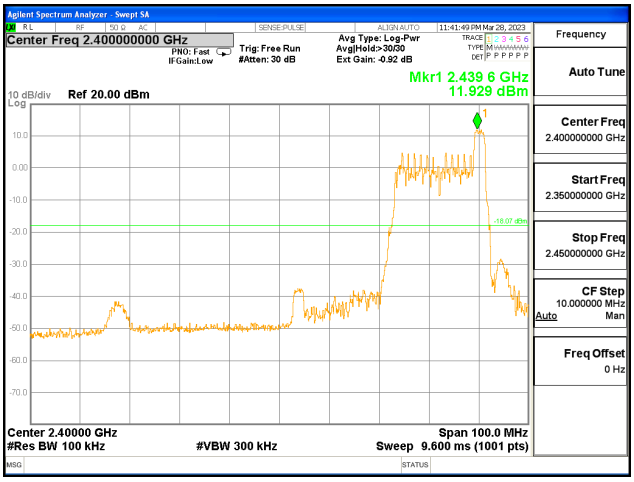


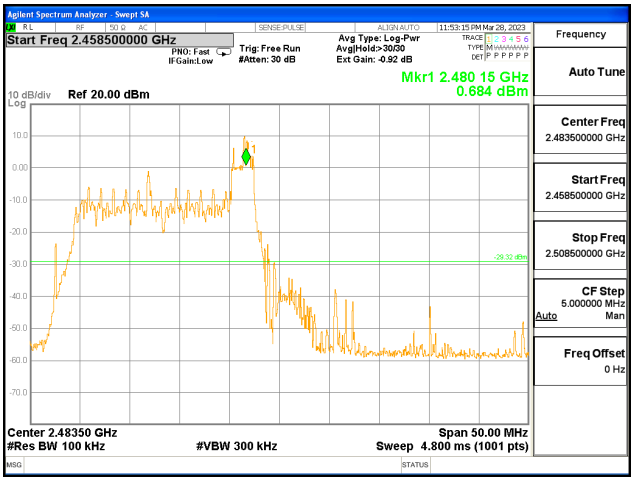


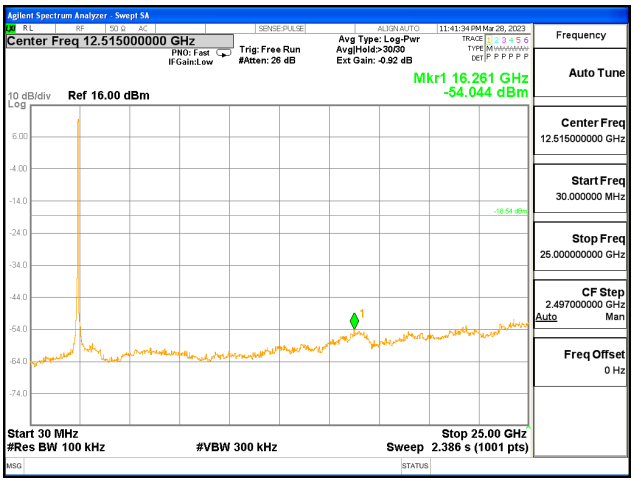


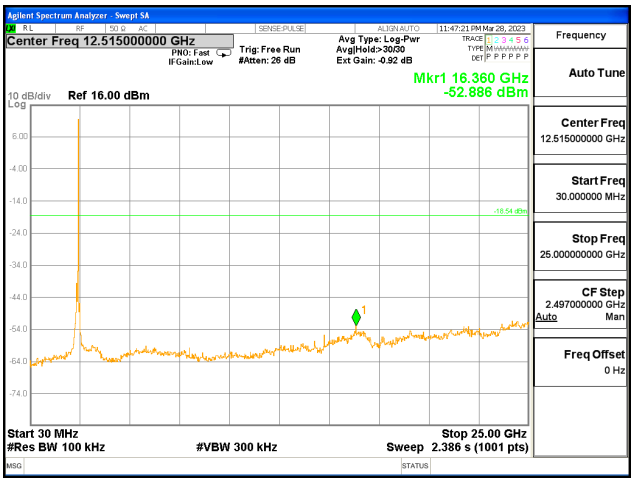


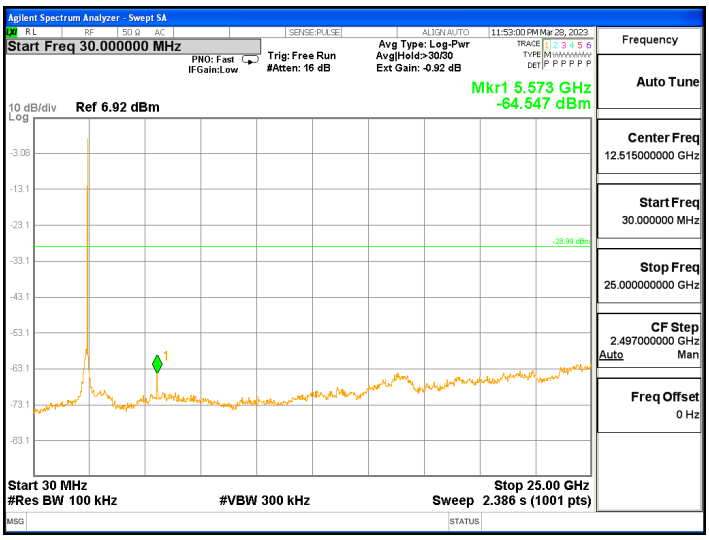
ANT1, 802.11ax_HE40_26T_Mid



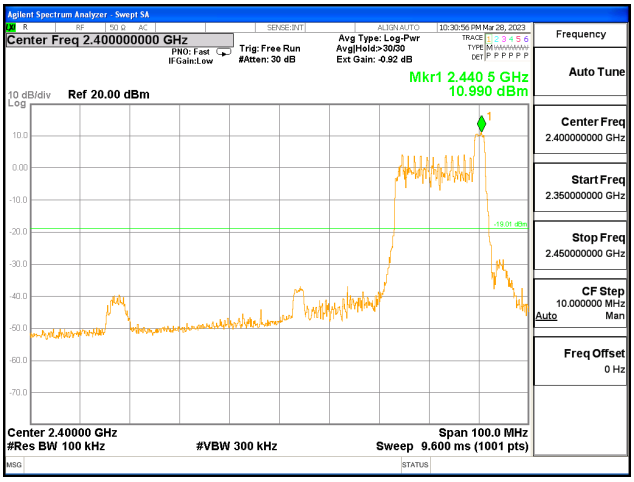


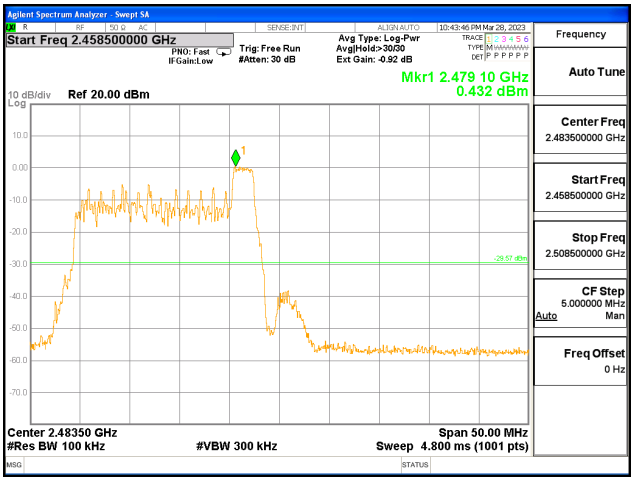


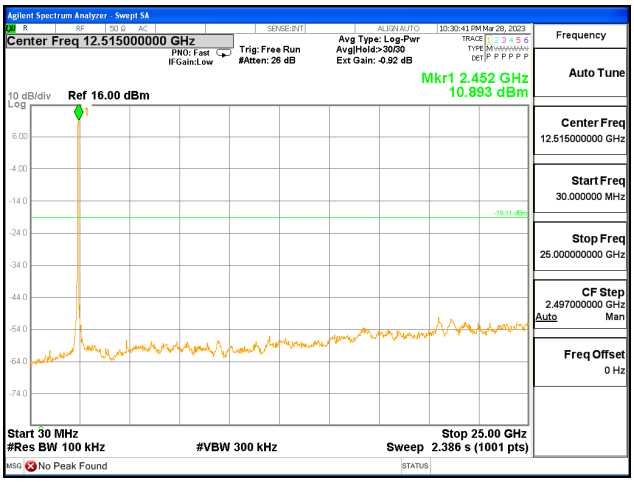


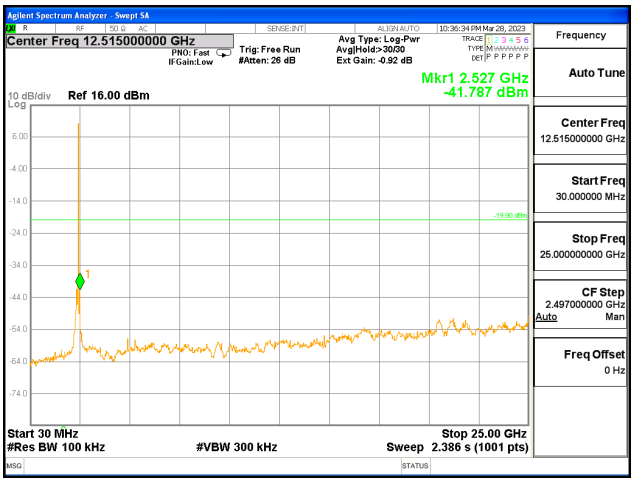


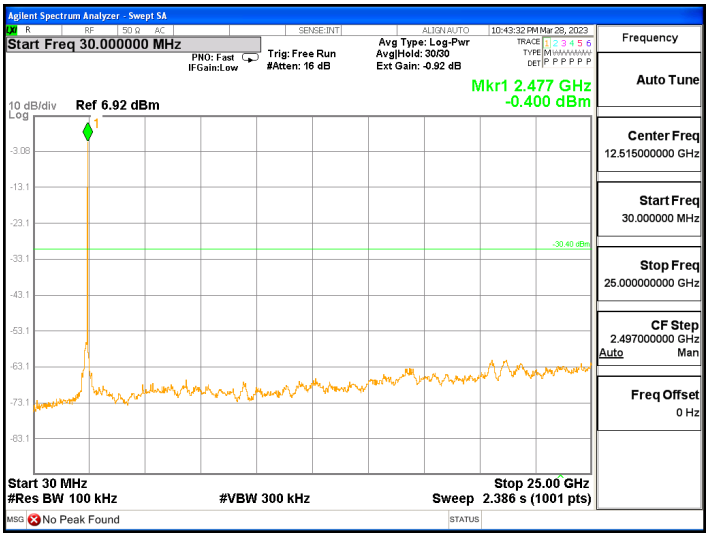
ANT0, 802.11ax_HE40_26T_High



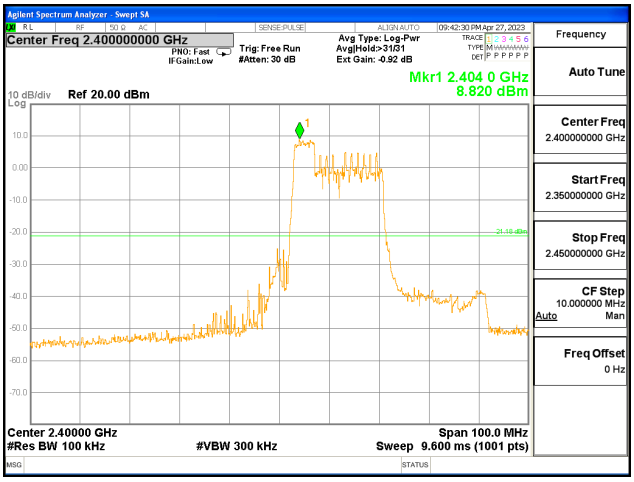


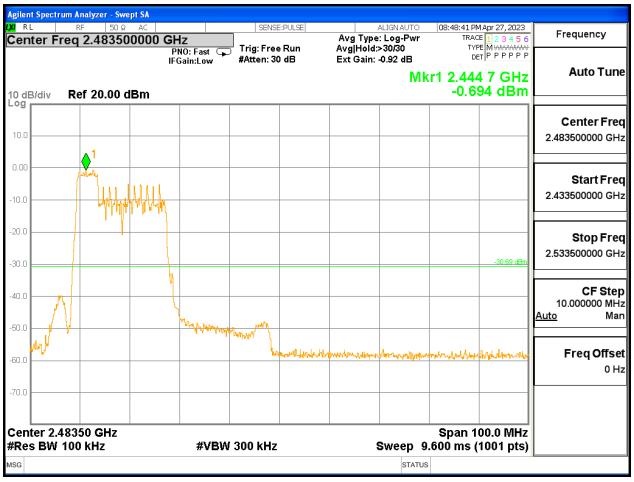




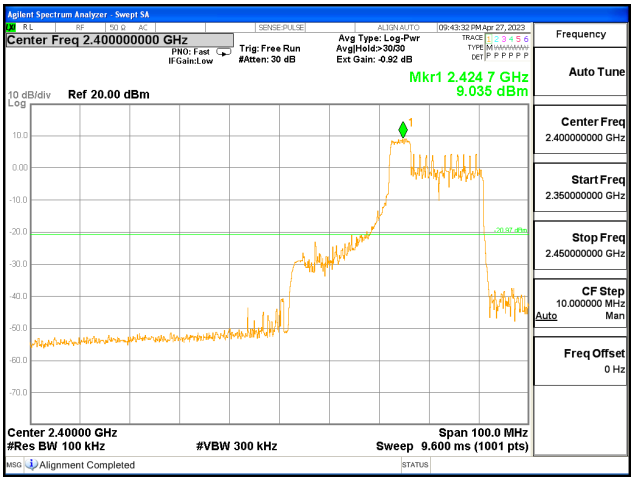


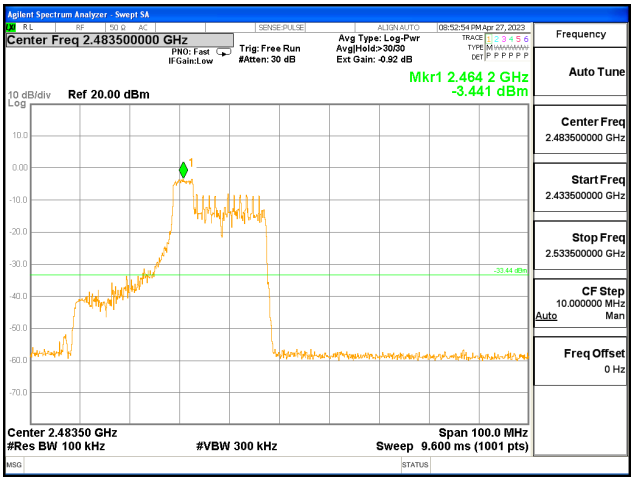
ANT1, 802.11ax_HE40_26T_High





ANT0, 802.11ax_HE40_52T_Low





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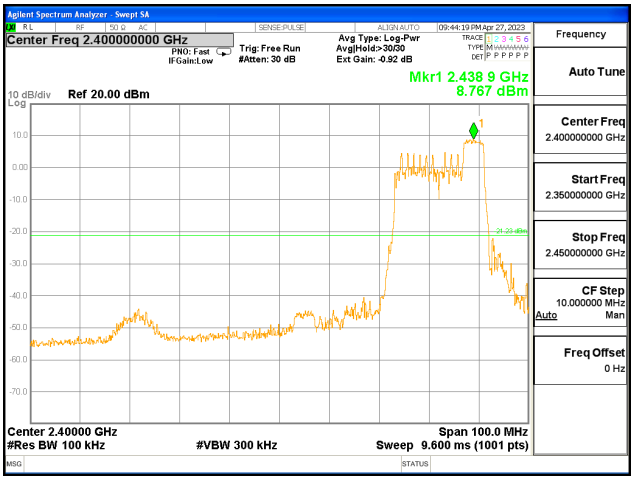

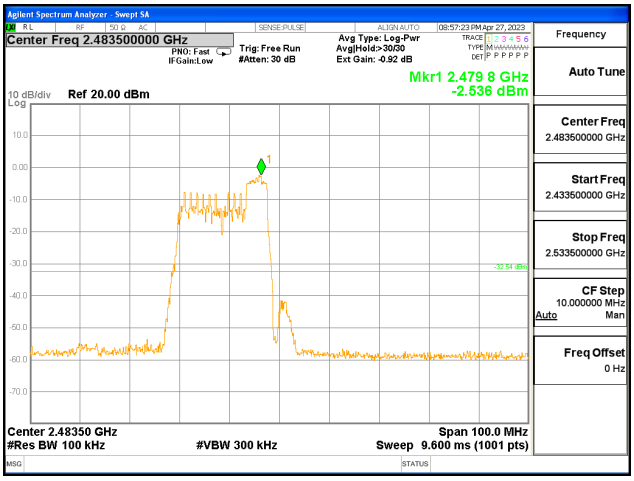

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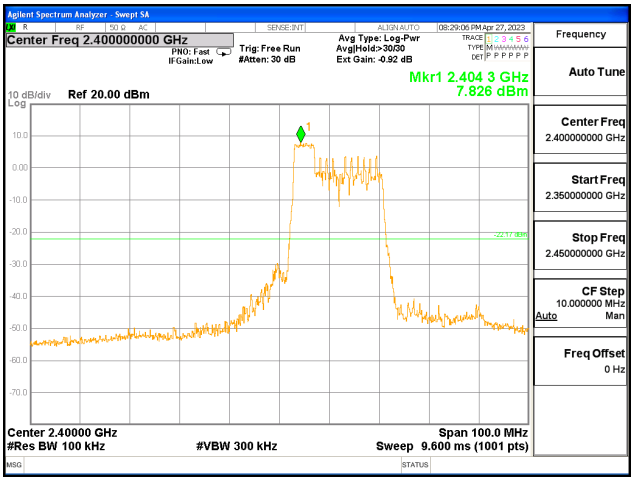

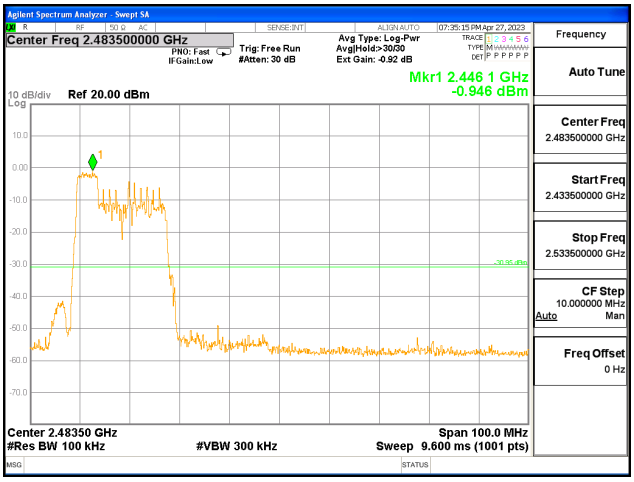

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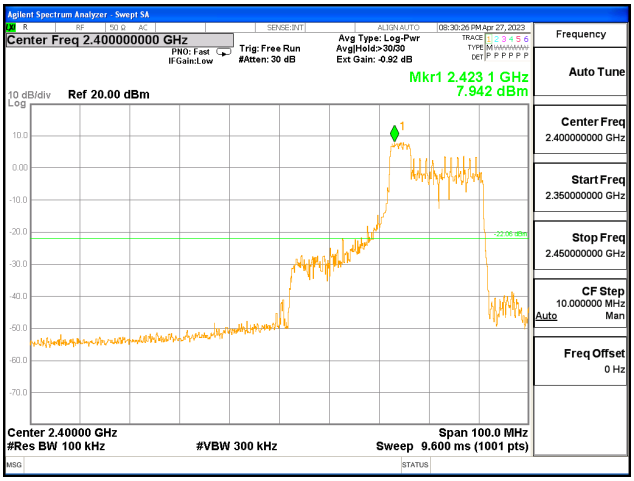
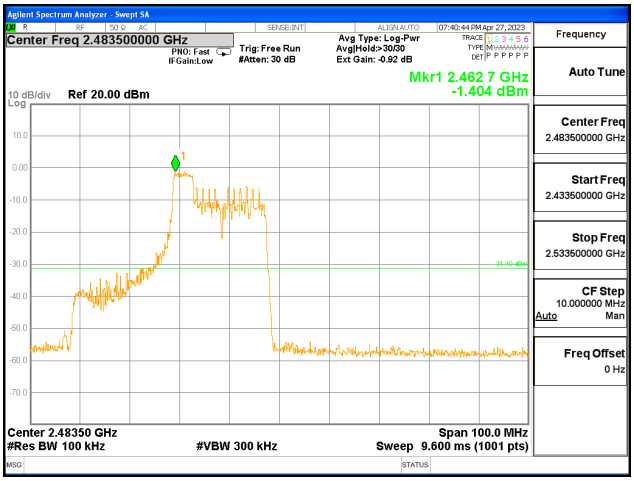
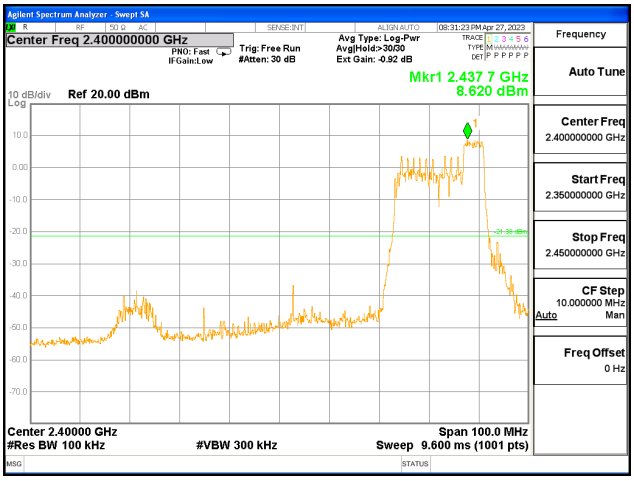
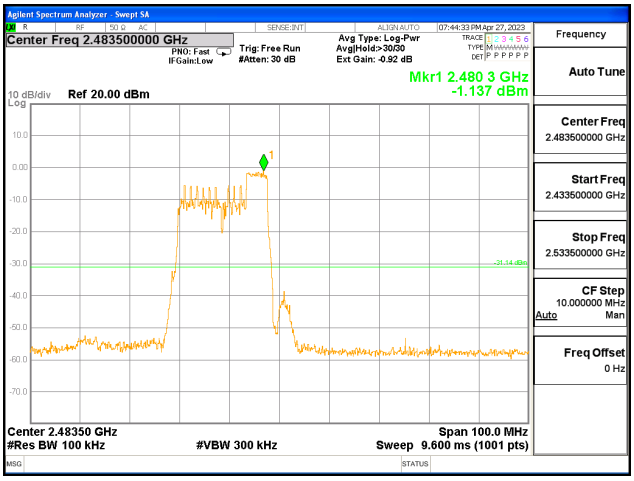




ANT1, 802.11ax_HE40_52T_Mid





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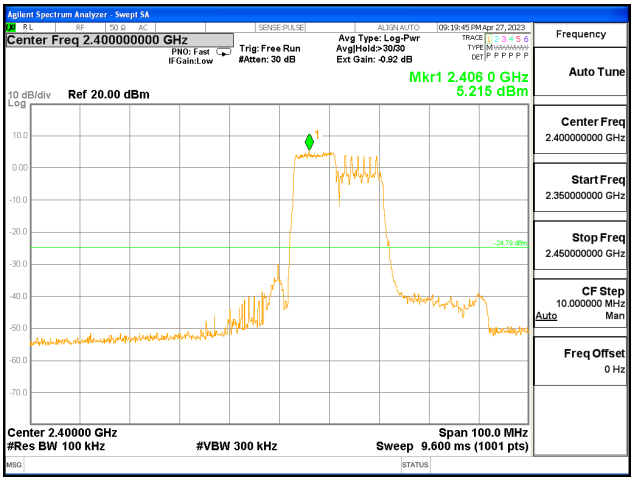
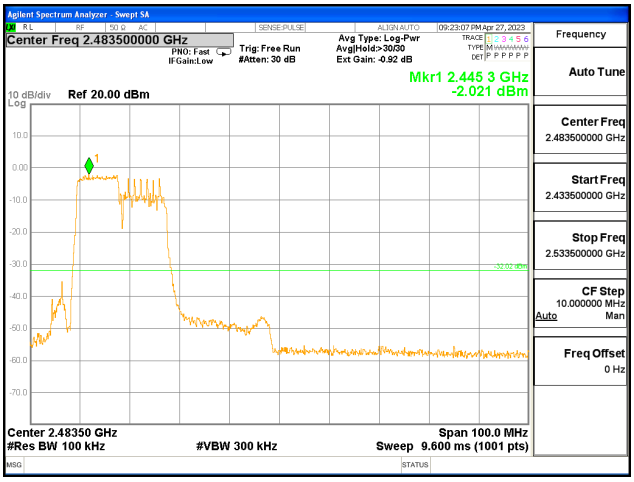
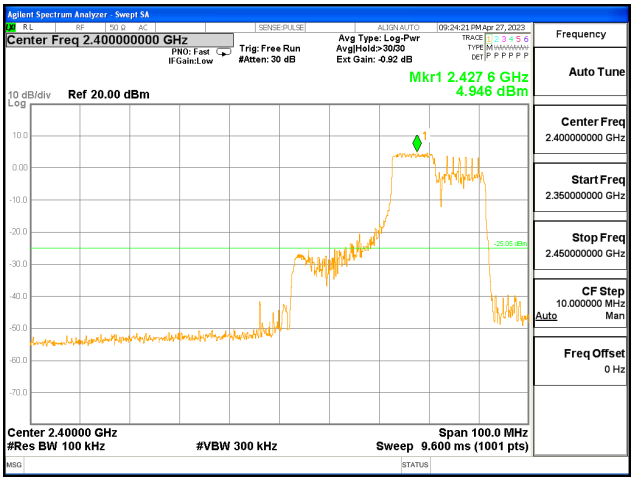
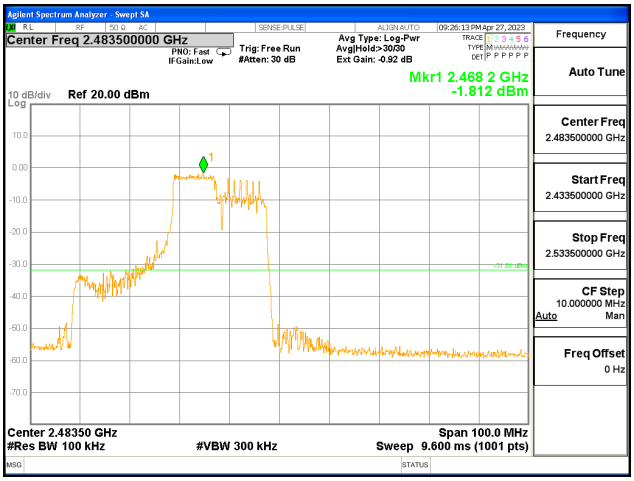


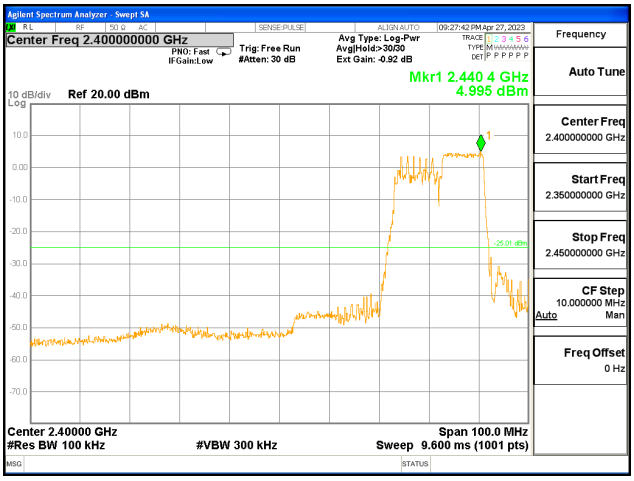


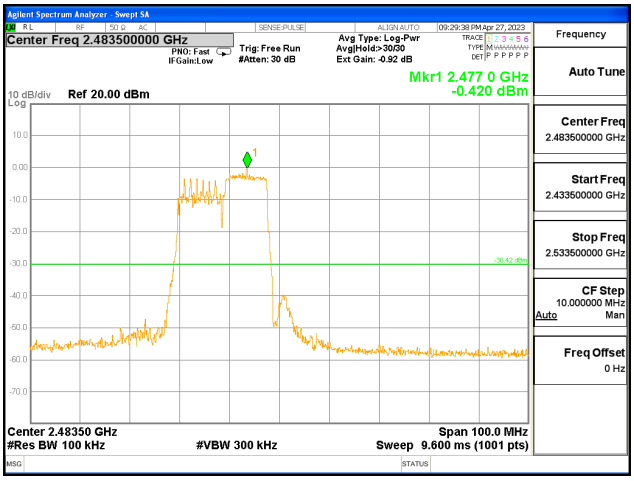
ANT0, 802.11ax_HE40_106T_Low





ANT0, 802.11ax_HE40_106T_Mid





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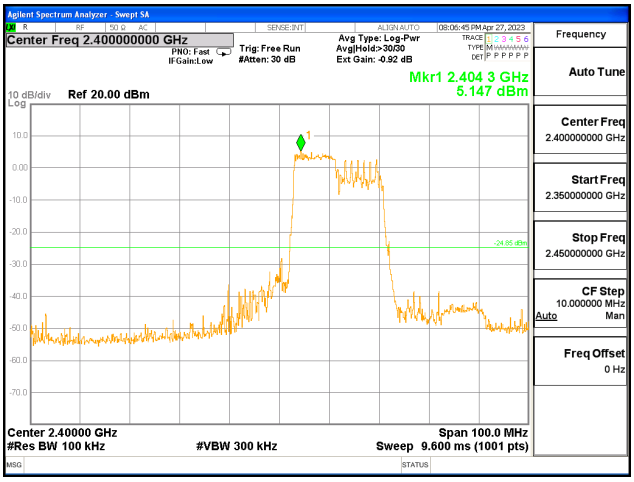

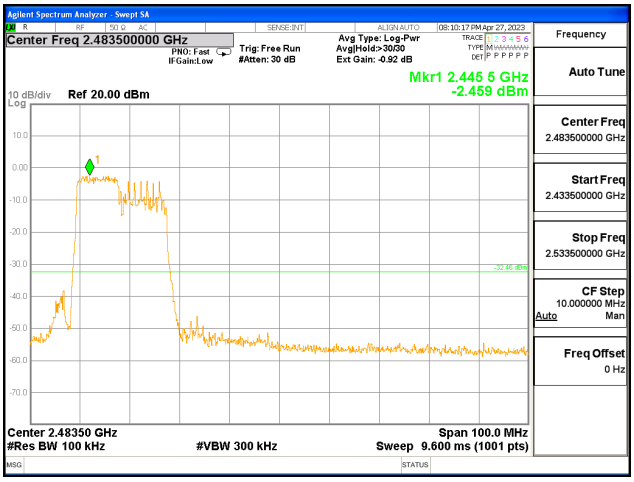

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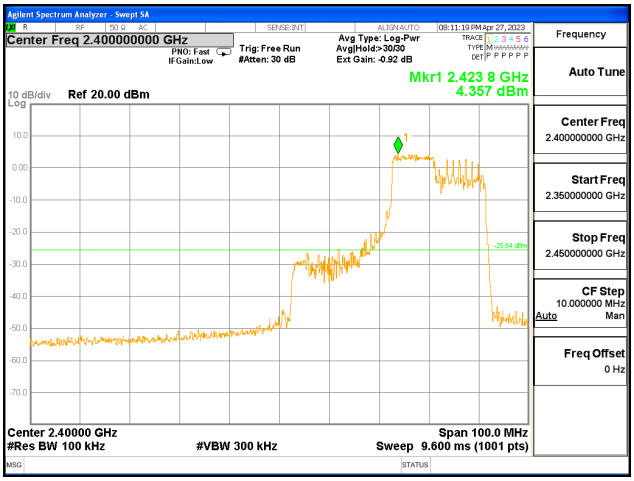
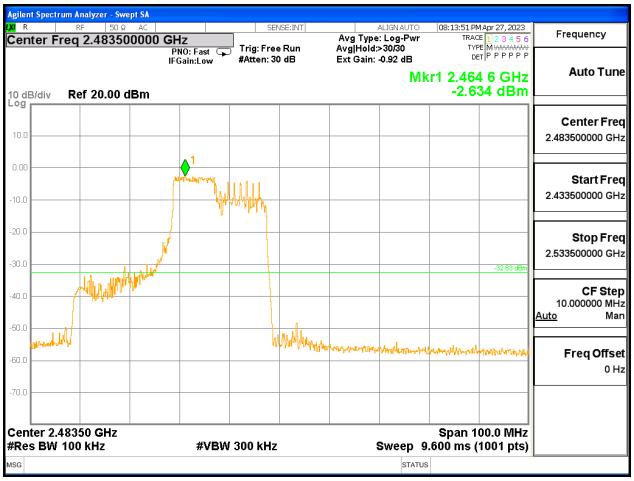
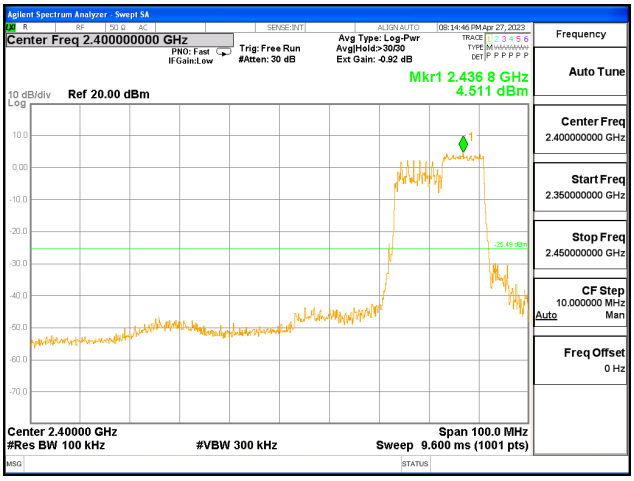
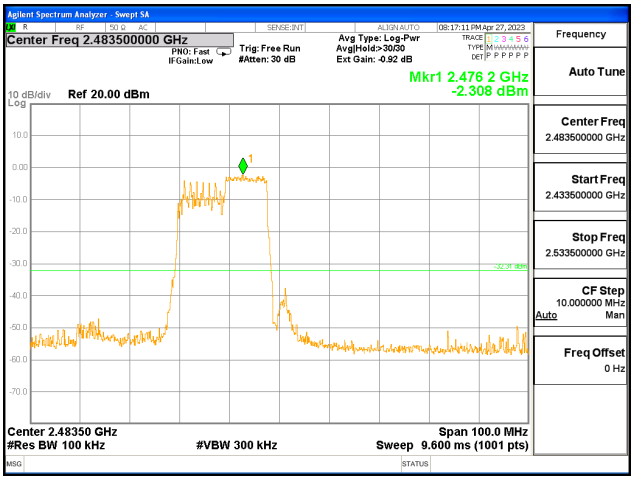




ANT1, 802.11ax_HE40_106T_Mid





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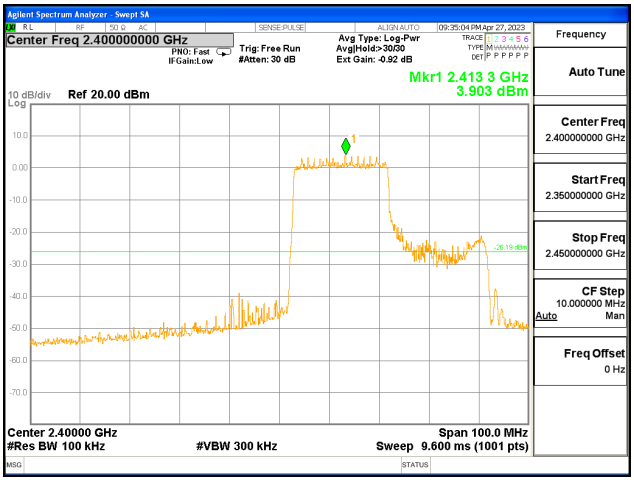
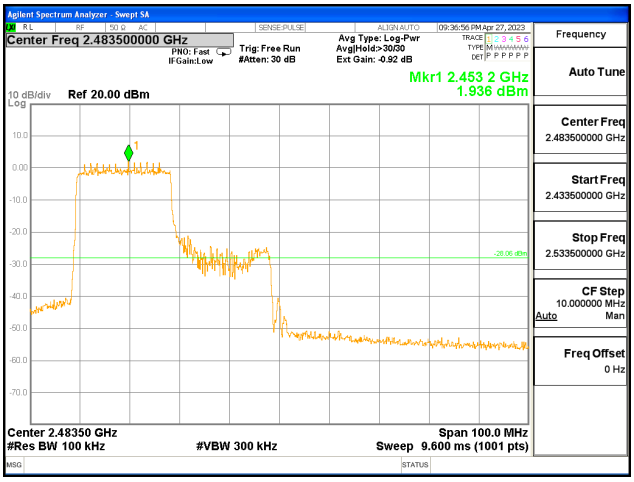
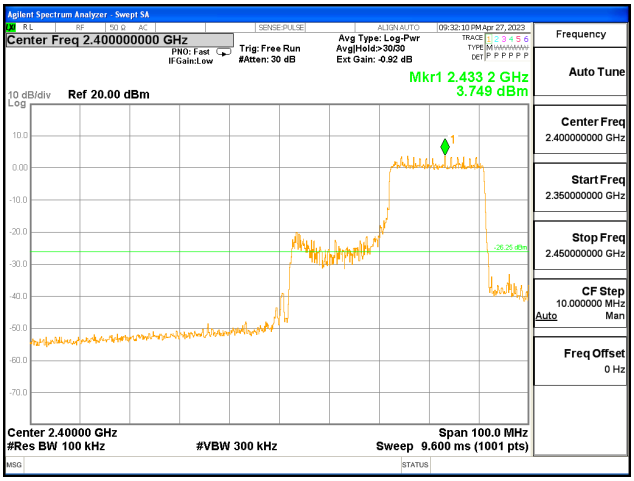
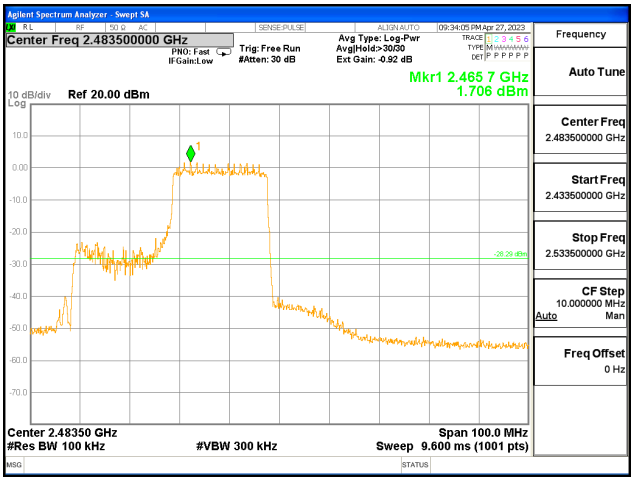




ANT0, 802.11ax_HE40_242T_Low





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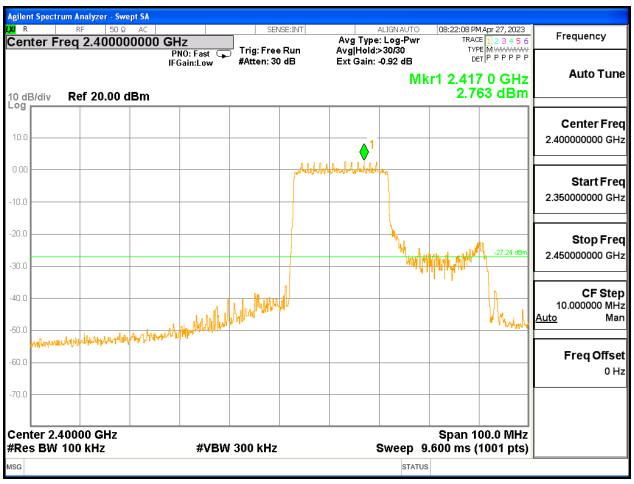
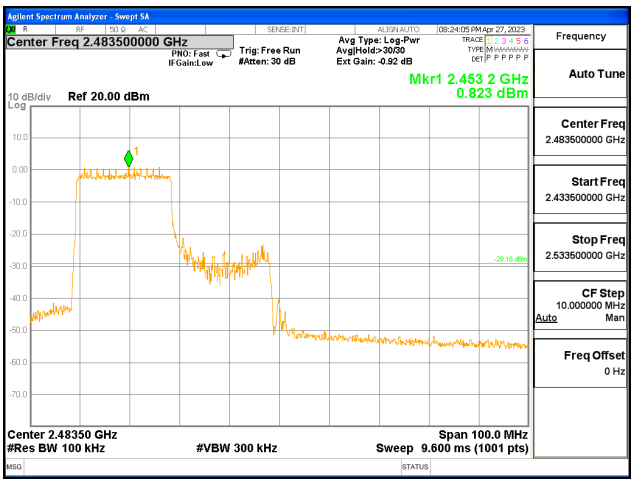
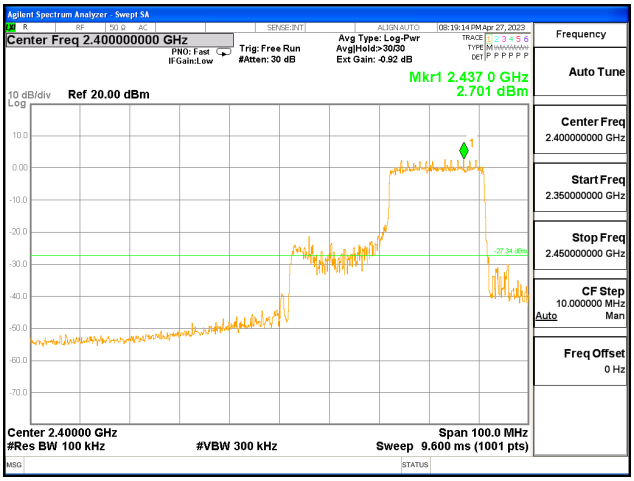
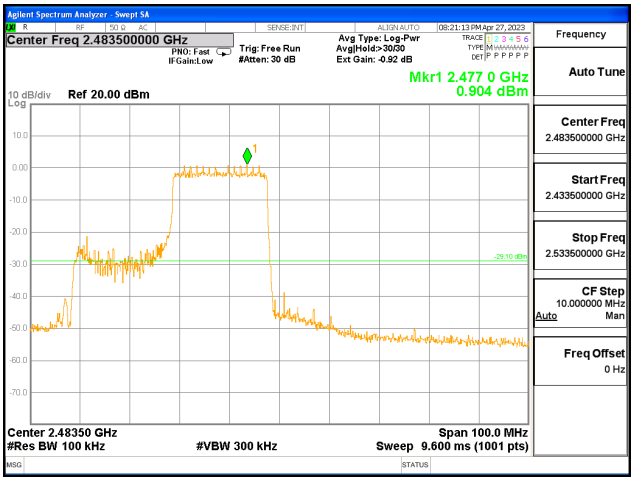


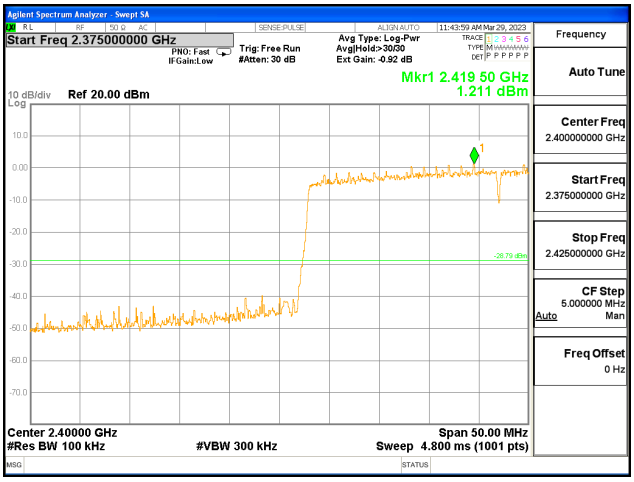


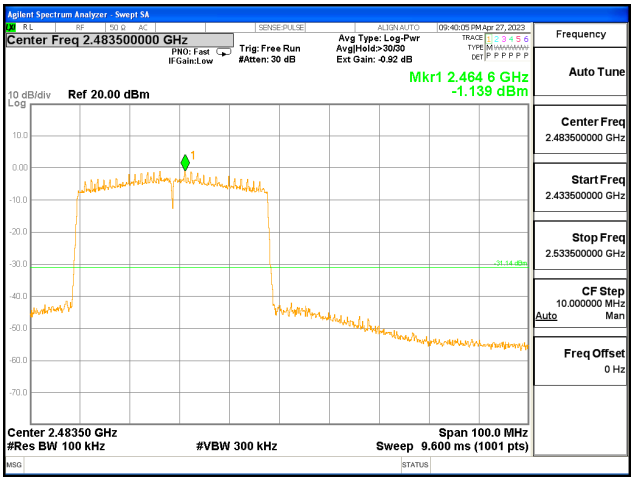
ANT1, 802.11ax_HE40_242T_Low

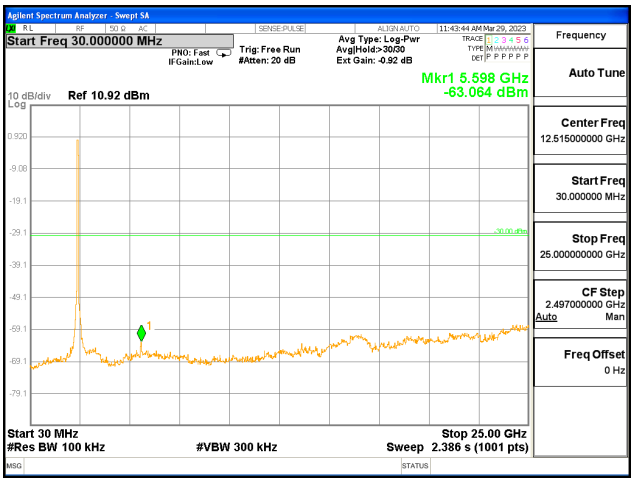


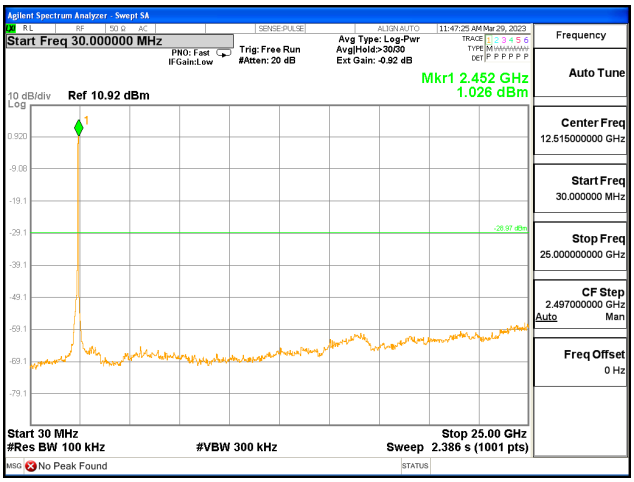


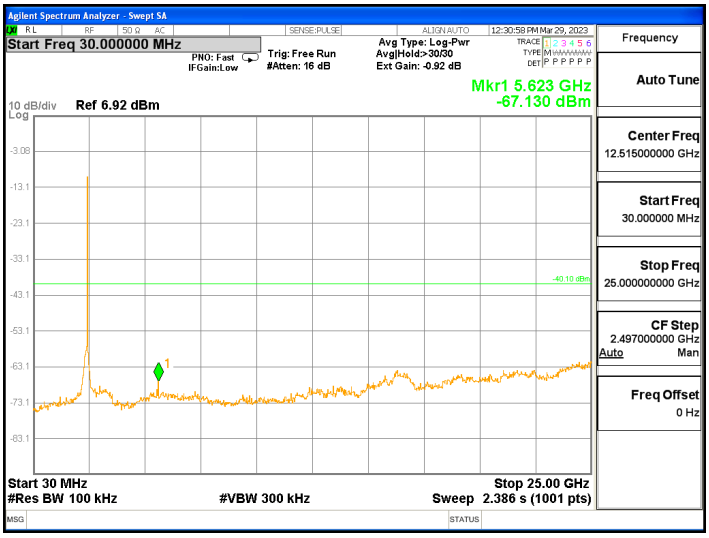
ANT1, 802.11ax_HE40_242T_High



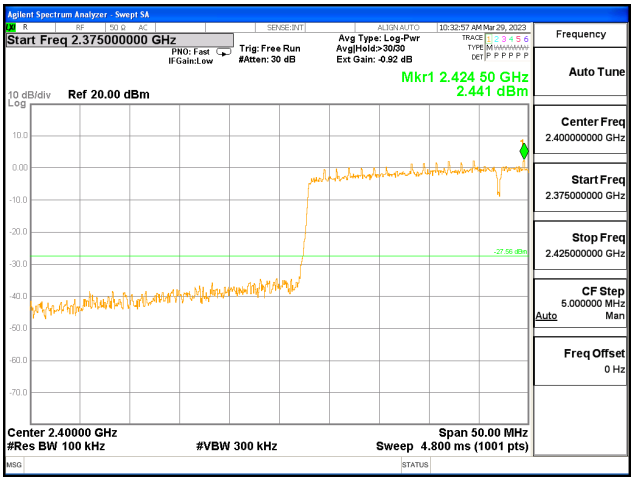


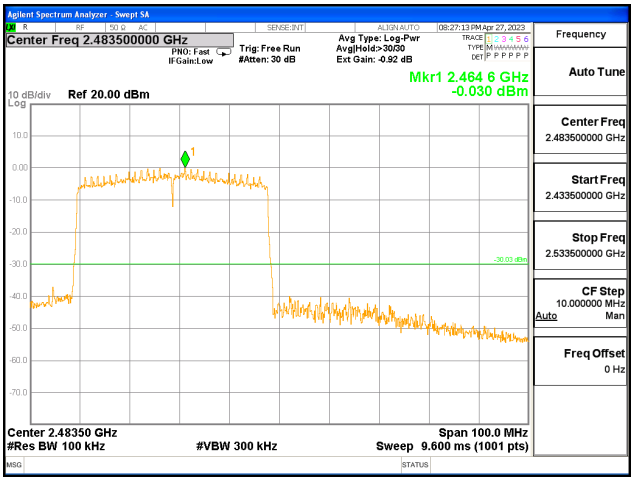


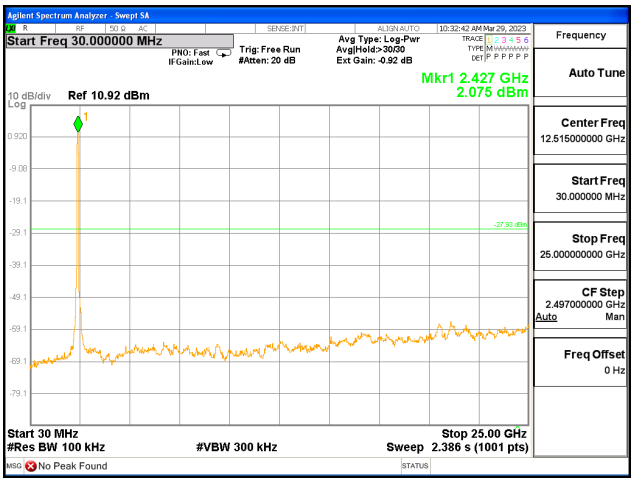


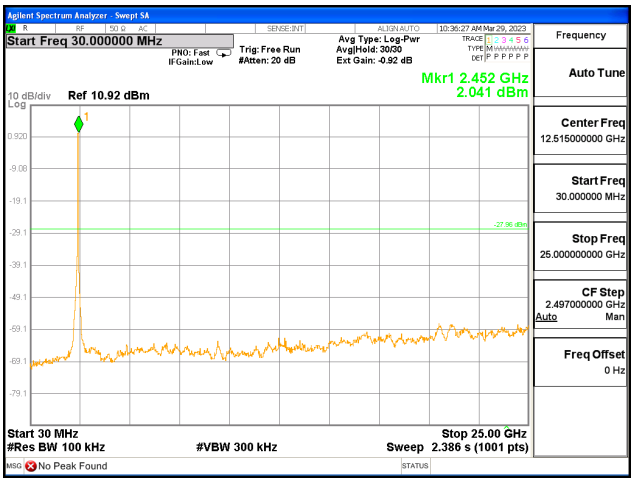


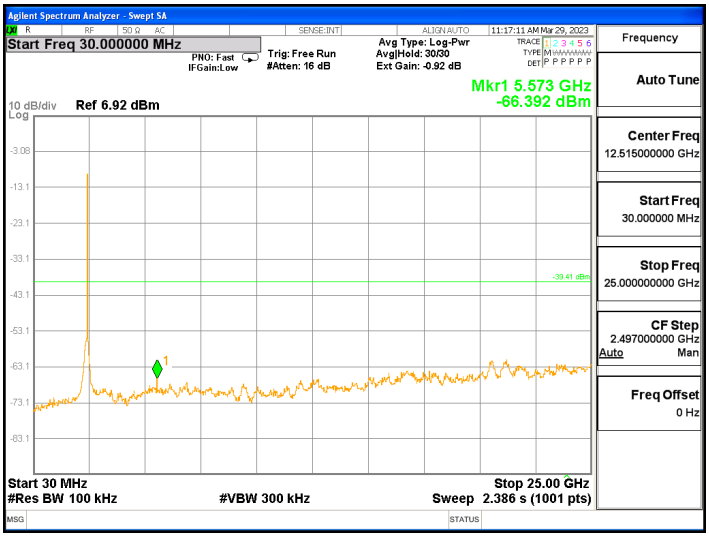
ANT0, 802.11ax_HE40_484T











ANT1, 802.11ax_HE40_484T

4.5 Radiated Emission

Test Location

☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)
☒ 3 m SAC (test distance : 3 m)

Test Procedures

KDB 558074 - Section 8.5, 8.6
ANSI C63.10-2013 - Section 11.11, 11.12

1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
2) In the frequency range above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

Test Settings:

Frequency Range = 9 kHz ~ 1 GHz

a) RBW = 100 kHz for f < 1 GHz, 9 kHz for f < 30 MHz

b) VBW ≥ RBW

c) Detector = CISPR Quasi-peak

d) Sweep time = auto couple

- Peak

Frequency Range = 1 GHz ~ 25 GHz (2.4 GHz 10th harmonic)

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = Peak

d) Sweep time = auto

e) Trace mode = max hold

- Average (duty cycle ≥ 98%)

Frequency Range = 1 GHz ~ 25 GHz (2.4 GHz 10th harmonic)

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

- Average (duty cycle < 98%, duty cycle variations are less than ±2%)

Frequency Range = 1 GHz ~ 25 GHz (2.4 GHz 10th harmonic)

a) RBW = 1 MHz

b) VBW ≥ 3 x RBW

c) Detector = RMS

d) Sweep time = auto

e) Averaging type = power (i.e., RMS)

f) Trace mode = average (at least 100 traces)

A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 % duty cycle.
If power averaging (RMS) mode, then the applicable correction factor is 10 log(1/x), where x is the duty cycle.

Test mode	Duty Cycle Factor
802.11b	0.00 dB
802.11g	0.12 dB
802.11n_HT20	0.13 dB
802.11n_HT40	0.27 dB
802.11ax_HE20_26T	0.21 dB
802.11ax_HE20_52T	0.22 dB
802.11ax_HE20_106T	0.23 dB
802.11ax_HE20_242T	0.25 dB
802.11ax_HE40_26T	0.20 dB
802.11ax_HE40_52T	0.21 dB
802.11ax_HE40_106T	0.23 dB
802.11ax_HE40_242T	0.26 dB
802.11ax_HE40_484T	0.27 dB

Limit :

FCC Part 15 § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	MHz	MHz	GHz
0.09-0.11	8.37626-8.38675	73-74.6	399.9-410	2690-2900	10.6-12.7
[1]0.495-0.505	8.41425-8.41475	74.8-75.2	608-614	3260-3267	13.25-13.4
2.1735-2.1905	12.29-12.293	108-121.94	960-1240	3332-3339	14.47-14.5
4.125-4.128	12.51975-12.52025	123-138	1300-1427	3345.8-3358	15.35-16.2
4.17725-4.17775	12.57675-12.57725	149.9-150.05	1435-1626.5	3600-4400	17.7-21.4
4.20725-4.20775	13.36-13.41	156.52475-156.52525	1645.5-1646.5	4500-5150	22.01-23.12
6.215-6.218	16.42-16.423	156.7-156.9	1660-1710	5350-5460	23.6-24
6.26775-6.26825	16.69475-16.69525	162.0125-167.17	1718.8-1722.2	7250-7750	31.2-31.8
6.31175-6.31225	16.80425-16.80475	167.72-173.2	2200-2300	8025-8500	36.43-36.5
8.291-8.294	25.5-25.67	240-285	2310-2390	9000-9200	[2]Above 38.6
8.362-8.366	37.5-38.25	322-335.4	2483.5-2500	9300-9500	

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

§ 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

FCC Part 15 § 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 uV/m@3m	Field Strength dBuV/m@3m	Deasurement 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**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

Note :

1) For above 1 GHz, 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 20 dB above the maximum permitted average limit.
2) For above 1 GHz, limit field strength of harmonics : 54 dBuV/m@3m (AV) and 74 dBuV/m@3m (PK)

Test Mode

We have done all test mode.
The worst-case antenna configuration and Test mode are determined to be as follows.
802.11b mode : ANT0, ANT1
802.11g mode : ANT0, ANT1
802.11n mode : ANT1 + ANT2 (MIMO)
802.11ax mode : ANT1 + ANT2 (MIMO)

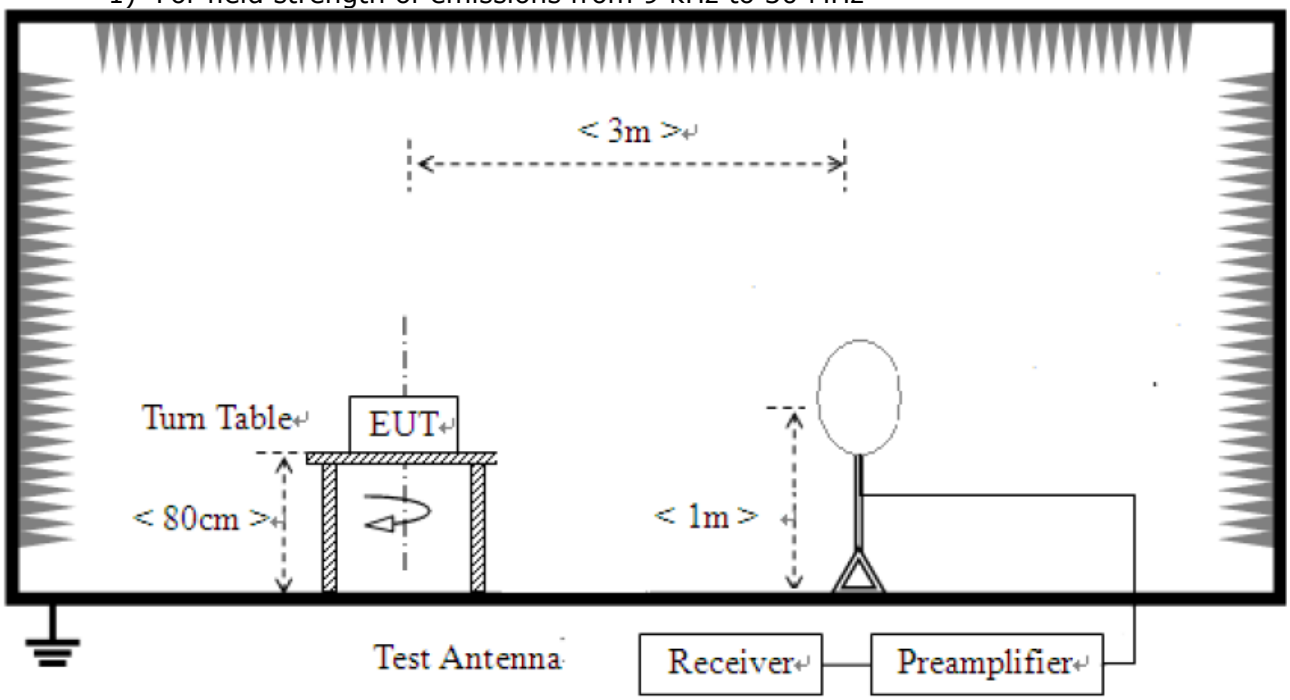
So the results are only attached worst cases.

802.11ax Test RU Index for Tones

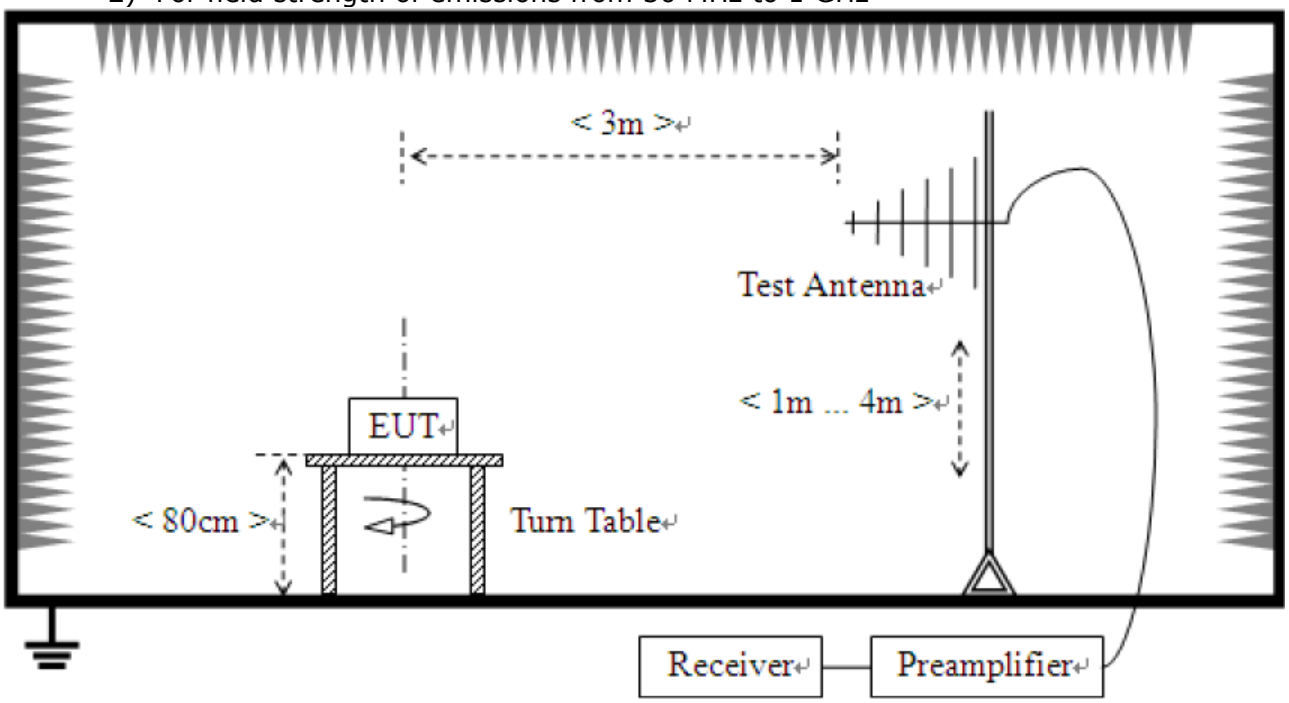
Mode	Bandwidth (MHz)	Frequency (MHz)	Tones	Test RU offset	
				Band Edge	Spurious Emission
802.11ax	20	2 412	26T	0	0
			52T	0	-
			106T	0	-
			242T	61	61
		2 442	26T	-	0
			52T	-	-
			106T	-	-
			242T	-	61
		2 472	26T	8	0
			52T	8	-
			106T	8	-
			242T	61	61
802.11ax	40	2 422	26T	0	0
			52T	0	-
			106T	0	-
			242T	0	-
			484T	65	65
		2 442	26T	-	0
			52T	-	-
			106T	-	-
			242T	-	-
			484T	-	65
		2 462	26T	17	0
			52T	17	-
			106T	17	-
			242T	17	-
			484T	65	65

Test Setup:

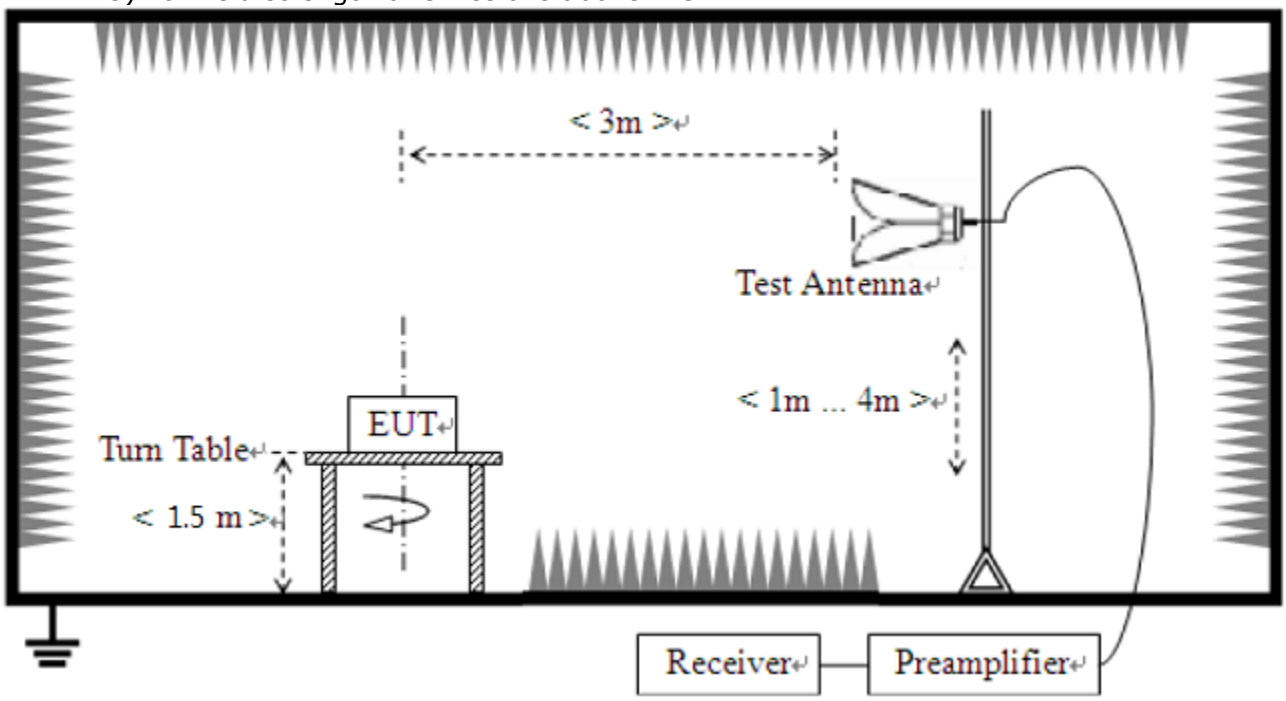
1) For field strength of emissions from 9 kHz to 30 MHz



2) For field strength of emissions from 30 MHz to 1 GHz



3) For field strength of emissions above 1 GHz



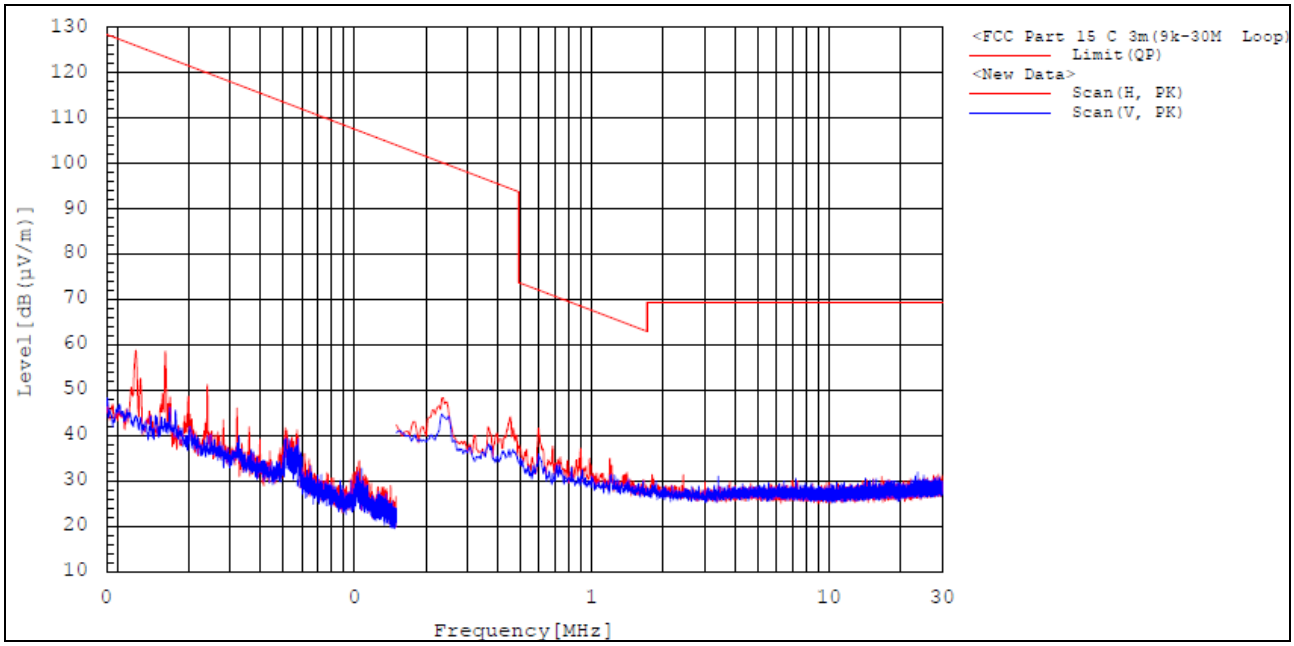
Test results

1) 9 kHz to 30 MHz

Test mode : Transmitter (Worst Case)

The requirements are:
☒ Complies

Test Data



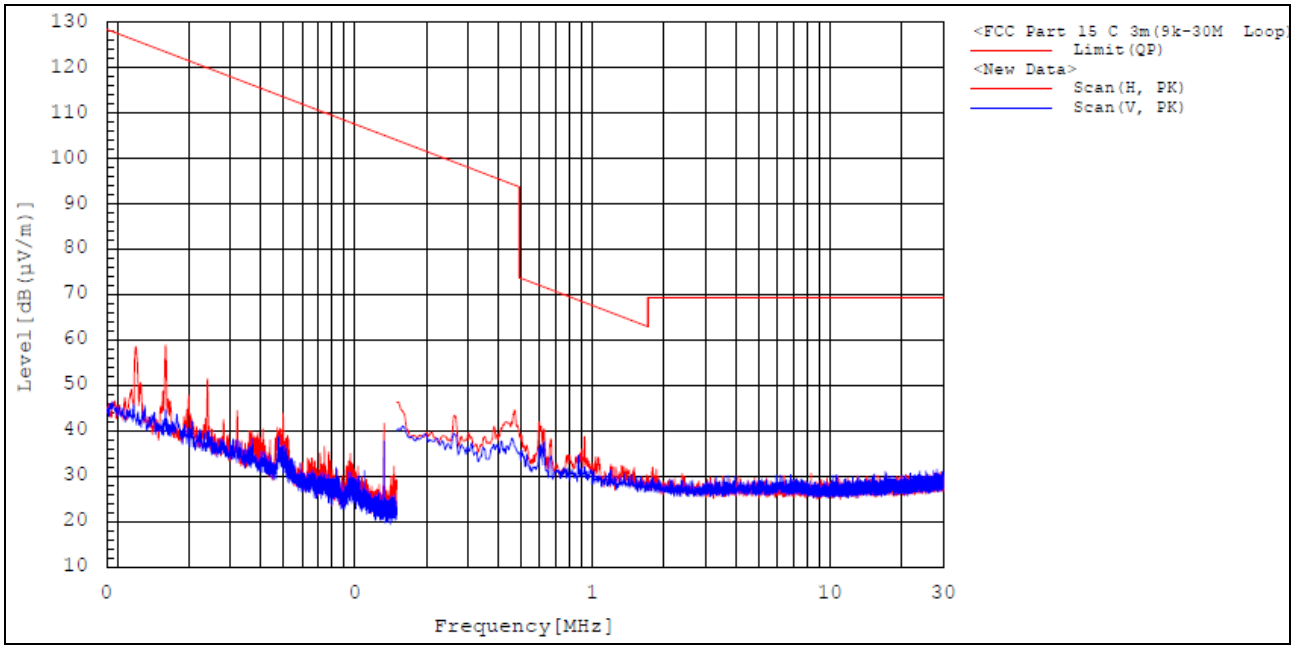
Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Level [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]
The emissions 9 kHz to 30 MHz were 20 dB lower than the limit.						

Remark :
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. This data is the Peak(PK) value.

Test mode : Transmitter (simultaneous transmissions DSS + DTS)

The requirements are:
☒ Complies

Test Data



Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Level [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]
The emissions 9 kHz to 30 MHz were 20 dB lower than the limit.						

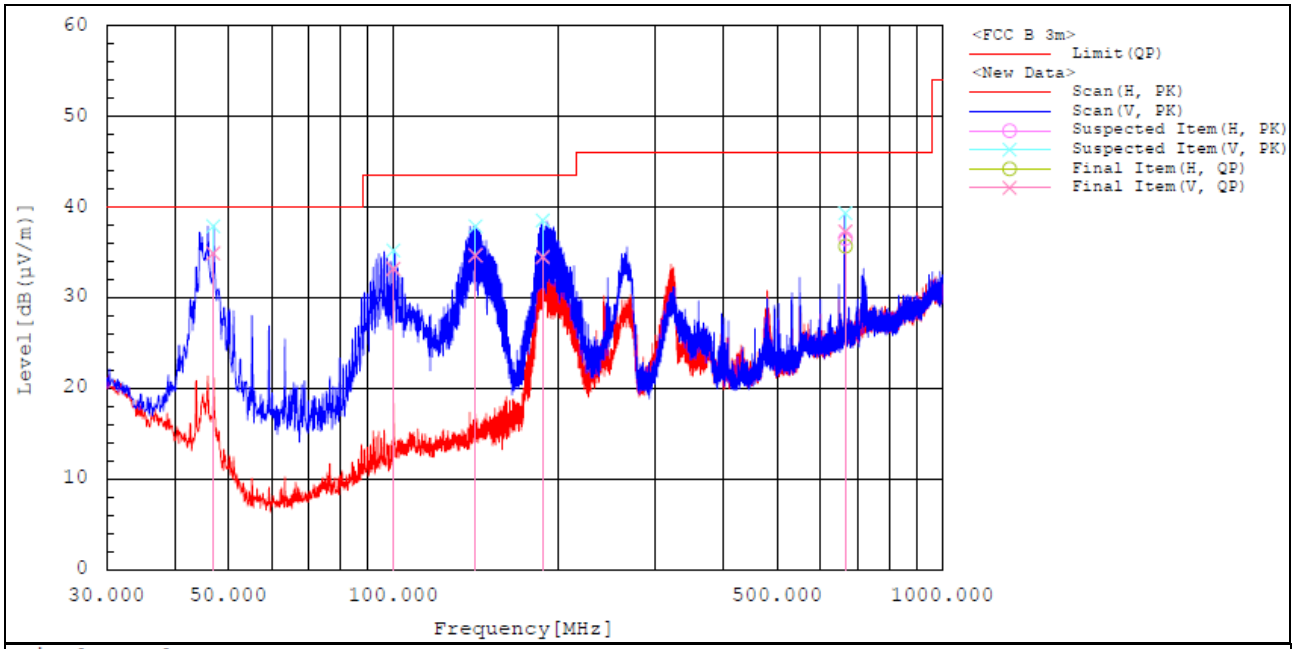
Remark :
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. This data is the Peak(PK) value.

2) 30 MHz to 1 GHz

Test mode : Transmitter (Worst Case)

The requirements are:
☒ Complies

Test Data



Final Result

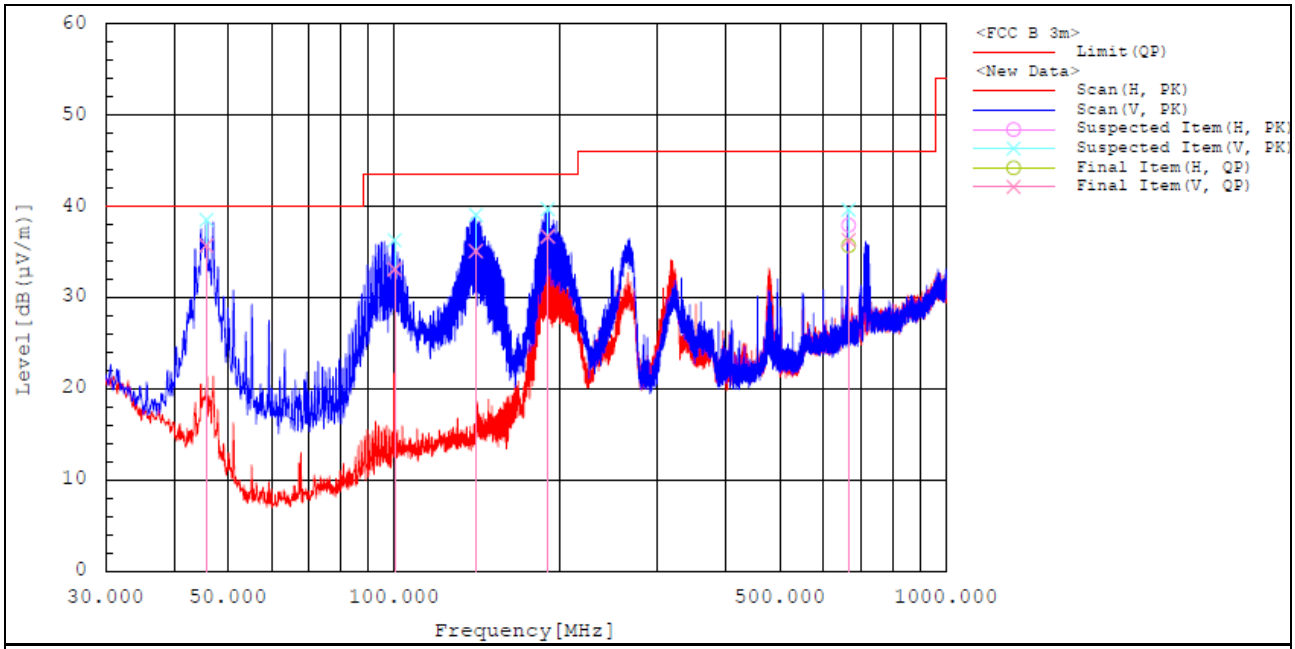
No.	Frequency [MHz]	Pol	Reading QP [dB(µV)]	c.f [dB(1/m)]	Result QP [dB(µV/m)]	Limit QP [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	46.975	V	50.5	-15.6	34.9	40.0	5.1	100.0	0.2
2	100.034	V	48.2	-15.0	33.2	43.5	10.3	100.0	56.0
3	141.162	V	47.4	-12.7	34.7	43.5	8.8	100.0	0.2
4	187.140	V	49.7	-15.2	34.5	43.5	9.0	100.0	296.2
5	666.223	V	38.0	-0.7	37.3	46.0	8.7	100.0	231.6
6	666.514	H	36.4	-0.7	35.7	46.0	10.3	200.0	322.9

Remark :
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain

Test mode : Transmitter (simultaneous transmissions DSS + DTS)

The requirements are:
☒ Complies

Test Data



Final Result

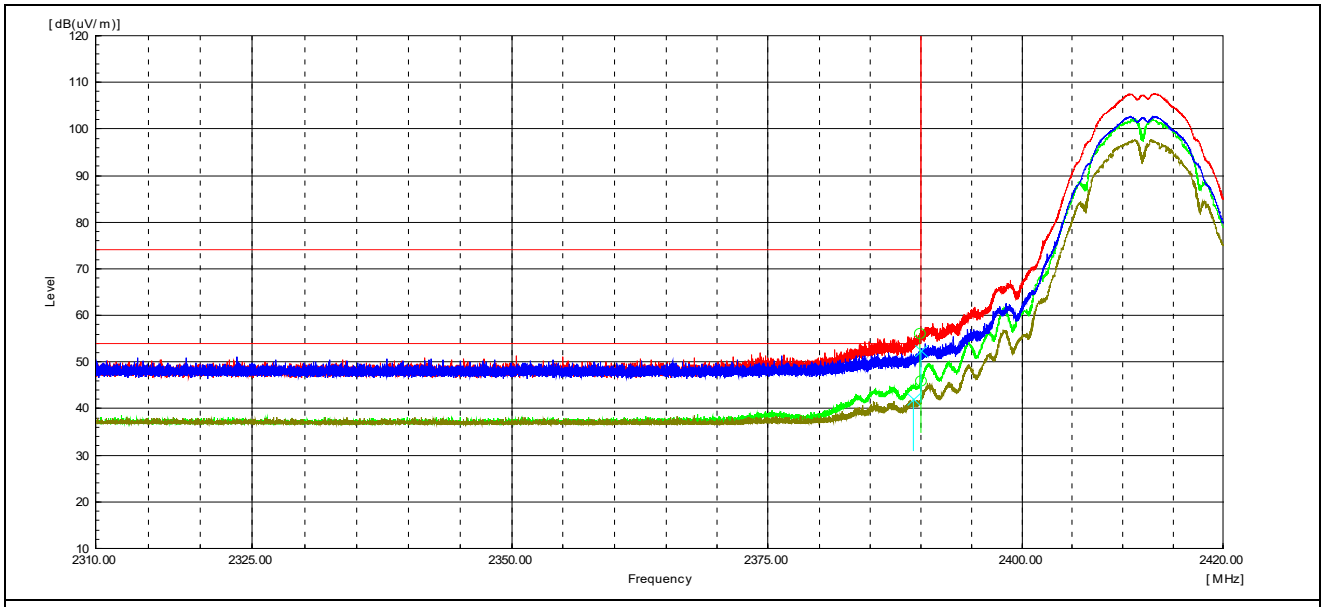
No.	Frequency [MHz]	Pol	Reading QP [dB(µV)]	c.f [dB(1/m)]	Result QP [dB(µV/m)]	Limit QP [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	45.714	V	50.6	-14.9	35.7	40.0	4.3	100.0	339.6
2	100.325	V	48.0	-14.9	33.1	43.5	10.4	100.0	3.9
3	140.774	V	47.9	-12.8	35.1	43.5	8.4	100.0	225.6
4	189.953	V	51.7	-15.0	36.7	43.5	6.8	100.0	339.6
5	666.514	V	37.0	-0.7	36.3	46.0	9.7	100.0	277.4
6	666.514	H	36.4	-0.7	35.7	46.0	10.3	199.9	246.2

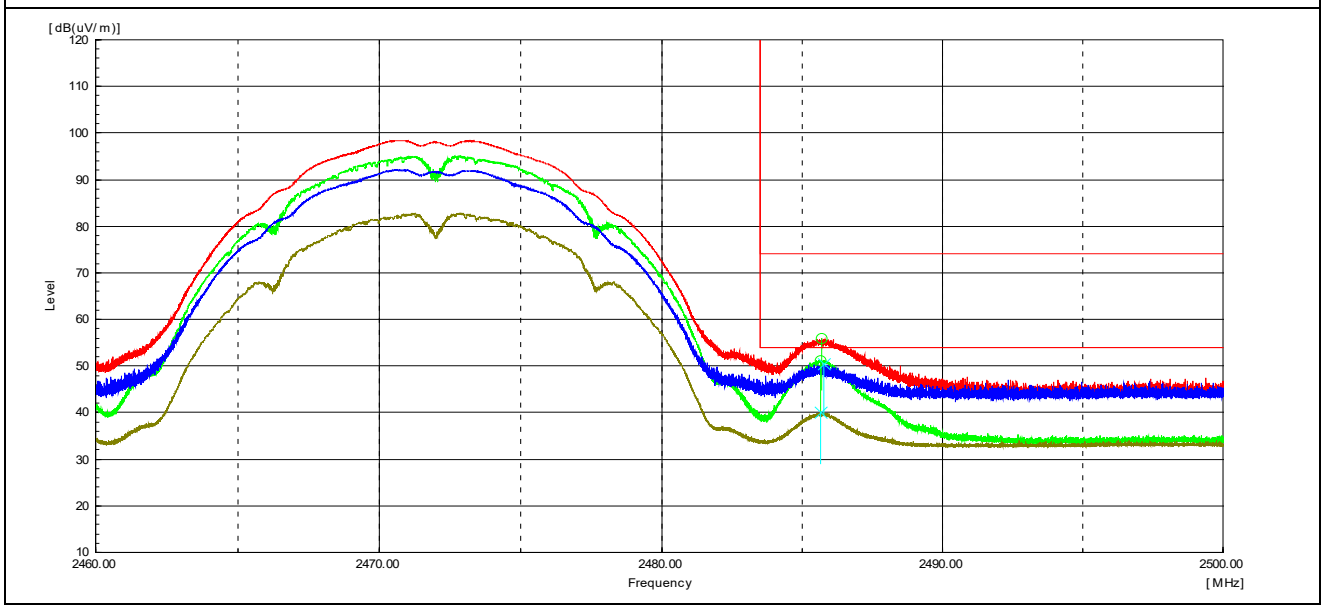
Remark :
1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain

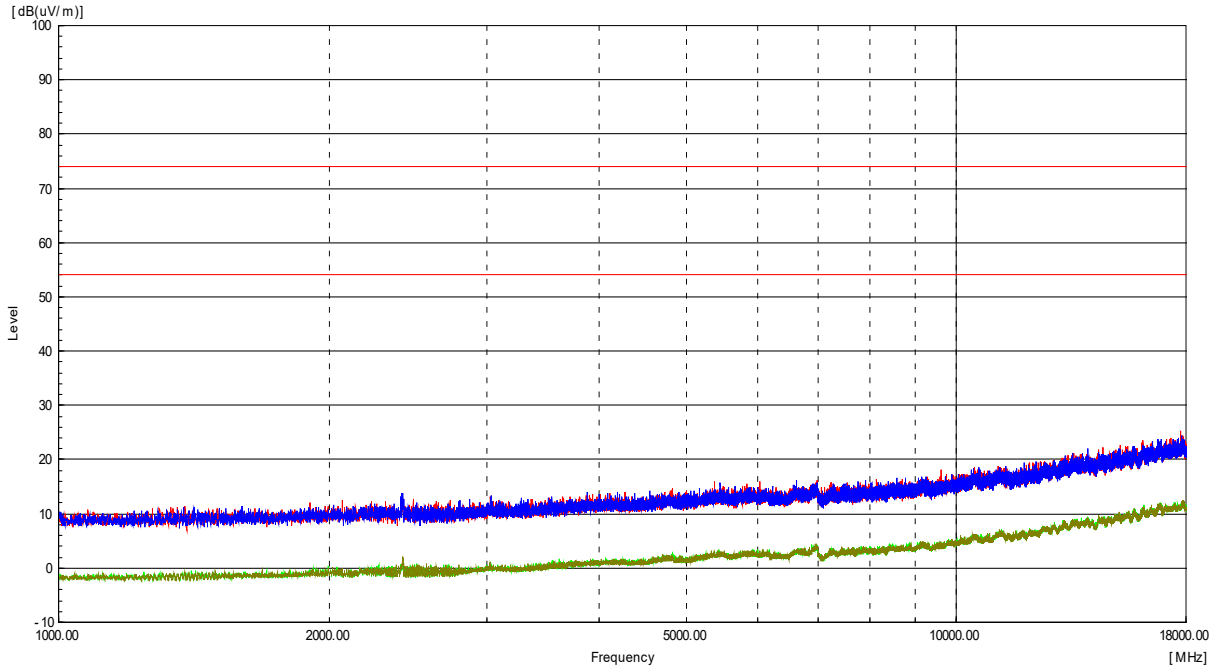
3) above 1 GHz

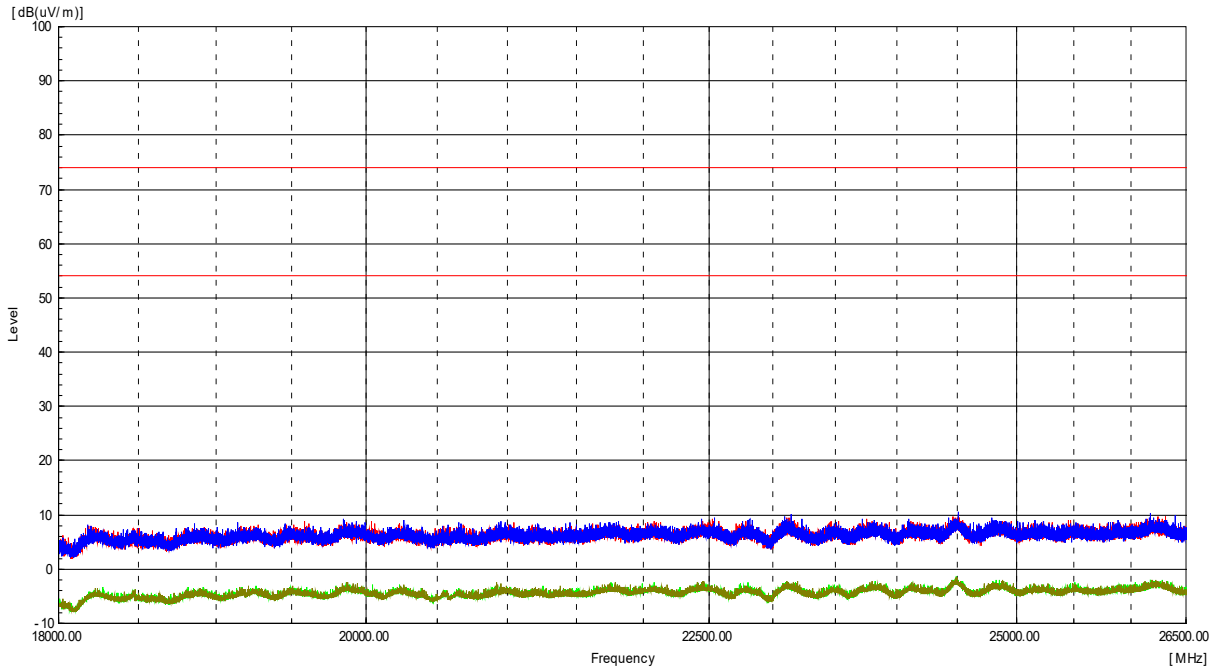
The requirements are:
☒ Complies

Test Data






[dB(uV/m)]
Level
100
90
80
70
60
50
40
30
20
10
0
-10
1000.00
2000.00
5000.00
10000.00
18000.00
Frequency
[MHz]


[dB(uV/m)]
Level
100
90
80
70
60
50
40
30
20
10
0
-10
18000.00
20000.00
22500.00
25000.00
26500.00
Frequency
[MHz]

Test mode : Transmitter (802.11b, ANT0)

Lowest channel 1 (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.88	H	62.0	-5.9	-----	56.1	-----	74.0	-----	17.9	-----	Peak
2 390.00	H	51.8	-5.9	0.0	-----	45.9	-----	54.0	-----	8.1	Average
2 389.98	V	58.3	-5.9	-----	52.4	-----	74.0	-----	21.6	-----	Peak
2 389.32	V	47.9	-5.9	0.0	-----	42.0	-----	54.0	-----	12.0	Average
4 823.77	H	48.5	2.0	-----	50.5	-----	74.0	-----	23.5	-----	Peak
4 824.03	H	37.3	2.0	0.0	-----	39.3	-----	54.0	-----	14.7	Average
4 824.36	V	47.0	2.0	-----	49.0	-----	74.0	-----	25.0	-----	Peak
4 823.85	V	38.5	2.0	0.0	-----	40.5	-----	54.0	-----	13.5	Average
7 235.22	H	47.4	7.9	-----	55.3	-----	74.0	-----	18.7	-----	Peak
7 236.57	H	36.2	7.9	0.0	-----	44.1	-----	54.0	-----	9.9	Average
7 236.75	V	49.1	7.9	-----	57.0	-----	74.0	-----	17.0	-----	Peak
7 237.05	V	36.8	7.9	0.0	-----	44.7	-----	54.0	-----	9.3	Average

Lowest channel 2 (2 417 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.98	H	58.8	-5.9	-----	52.9	-----	74.0	-----	21.1	-----	Peak
2 379.42	H	46.7	-5.9	0.0	-----	40.8	-----	54.0	-----	13.2	Average
2 389.32	V	58.0	-5.9	-----	52.1	-----	74.0	-----	21.9	-----	Peak
2 379.32	V	45.3	-5.9	0.0	-----	39.4	-----	54.0	-----	14.6	Average
4 834.06	H	49.9	2.0	-----	51.9	-----	74.0	-----	22.1	-----	Peak
4 834.09	H	37.7	2.0	0.0	-----	39.7	-----	54.0	-----	14.3	Average
4 833.48	V	48.1	2.0	-----	50.1	-----	74.0	-----	23.9	-----	Peak
4 833.99	V	38.1	2.0	0.0	-----	40.1	-----	54.0	-----	13.9	Average
7 249.48	H	47.7	7.9	-----	55.6	-----	74.0	-----	18.4	-----	Peak
7 252.56	H	34.8	7.9	0.0	-----	42.7	-----	54.0	-----	11.3	Average
7 250.08	V	48.5	7.9	-----	56.4	-----	74.0	-----	17.6	-----	Peak
7 251.64	V	36.7	7.9	0.0	-----	44.6	-----	54.0	-----	9.4	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
4 883.94	H	49.5	2.1	-----	51.6	-----	74.0	-----	22.4	-----	Peak
4 883.98	H	40.2	2.1	0.0	-----	42.3	-----	54.0	-----	11.7	Average
4 884.18	V	48.4	2.1	-----	50.5	-----	74.0	-----	23.5	-----	Peak
4 883.95	V	39.0	2.1	0.0	-----	41.1	-----	54.0	-----	12.9	Average
7 325.50	H	47.4	7.9	-----	55.3	-----	74.0	-----	18.7	-----	Peak
7 325.11	H	35.5	7.9	0.0	-----	43.4	-----	54.0	-----	10.6	Average
7 327.11	V	48.7	7.9	-----	56.6	-----	74.0	-----	17.4	-----	Peak
7 326.84	V	37.0	7.9	0.0	-----	44.9	-----	54.0	-----	9.1	Average

Highest channel 1 (2 467 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.51	H	60.3	-5.1	-----	55.2	-----	74.0	-----	18.8	-----	Peak
2 483.54	H	51.2	-5.1	0.0	-----	46.1	-----	54.0	-----	7.9	Average
2 483.66	V	55.0	-5.1	-----	49.9	-----	74.0	-----	24.1	-----	Peak
2 483.58	V	42.9	-5.1	0.0	-----	37.8	-----	54.0	-----	16.2	Average
4 933.85	H	49.3	2.6	-----	51.9	-----	74.0	-----	22.1	-----	Peak
4 934.04	H	36.8	2.6	0.0	-----	39.4	-----	54.0	-----	14.6	Average
4 933.51	V	47.1	2.6	-----	49.7	-----	74.0	-----	24.3	-----	Peak
4 933.90	V	35.2	2.6	0.0	-----	37.8	-----	54.0	-----	16.2	Average

Highest channel 2 (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 485.69	H	60.9	-5.1	-----	55.8	-----	74.0	-----	18.2	-----	Peak
2 485.65	H	56.3	-5.1	0.0	-----	51.2	-----	54.0	-----	2.8	Average
2 485.78	V	55.6	-5.1	-----	50.5	-----	74.0	-----	23.5	-----	Peak
2 485.66	V	45.3	-5.1	0.0	-----	40.2	-----	54.0	-----	13.8	Average
4 944.29	H	45.7	2.6	-----	48.3	-----	74.0	-----	25.7	-----	Peak
4 944.50	H	33.5	2.6	0.0	-----	36.1	-----	54.0	-----	17.9	Average
4 944.14	V	45.3	2.6	-----	47.9	-----	74.0	-----	26.1	-----	Peak
4 944.55	V	34.1	2.6	0.0	-----	36.7	-----	54.0	-----	17.3	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11b, ANT1)

Lowest channel 1 (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 387.18	H	60.7	-5.9	-----	54.8	-----	74.0	-----	19.2	-----	Peak
2 385.68	H	52.0	-5.9	0.0	-----	46.1	-----	54.0	-----	7.9	Average
2 386.39	V	58.4	-5.9	-----	52.5	-----	74.0	-----	21.5	-----	Peak
2 385.91	V	46.1	-5.9	0.0	-----	40.2	-----	54.0	-----	13.8	Average
4 824.05	H	52.8	2.0	-----	54.8	-----	74.0	-----	19.2	-----	Peak
4 824.04	H	45.3	2.0	0.0	-----	47.3	-----	54.0	-----	6.7	Average
4 824.10	V	53.9	2.0	-----	55.9	-----	74.0	-----	18.1	-----	Peak
4 823.92	V	50.1	2.0	0.0	-----	52.1	-----	54.0	-----	1.9	Average
7 234.44	H	51.1	7.9	-----	59.0	-----	74.0	-----	15.0	-----	Peak
7 236.48	H	39.0	7.9	0.0	-----	46.9	-----	54.0	-----	7.1	Average
7 237.30	V	51.6	7.9	-----	59.5	-----	74.0	-----	14.5	-----	Peak
7 235.16	V	43.7	7.9	0.0	-----	51.6	-----	54.0	-----	2.4	Average

Lowest channel 2 (2 417 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 387.93	H	58.1	-5.9	-----	52.2	-----	74.0	-----	21.8	-----	Peak
2 388.28	H	46.5	-5.9	0.0	-----	40.6	-----	54.0	-----	13.4	Average
2 382.95	V	57.2	-5.9	-----	51.3	-----	74.0	-----	22.7	-----	Peak
2 338.02	V	44.7	-6.0	0.0	-----	38.7	-----	54.0	-----	15.3	Average
4 833.96	H	53.2	2.0	-----	55.2	-----	74.0	-----	18.8	-----	Peak
4 834.00	H	44.2	2.0	0.0	-----	46.2	-----	54.0	-----	7.8	Average
4 833.80	V	53.4	2.0	-----	55.4	-----	74.0	-----	18.6	-----	Peak
4 833.94	V	49.6	2.0	0.0	-----	51.6	-----	54.0	-----	2.4	Average
7 250.92	H	50.6	7.9	-----	58.5	-----	74.0	-----	15.5	-----	Peak
7 251.83	H	38.5	7.9	0.0	-----	46.4	-----	54.0	-----	7.6	Average
7 252.83	V	52.1	7.9	-----	60.0	-----	74.0	-----	14.0	-----	Peak
7 251.69	V	43.9	7.9	0.0	-----	51.8	-----	54.0	-----	2.2	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
4 883.91	H	51.9	2.1	-----	54.0	-----	74.0	-----	20.0	-----	Peak
4 884.02	H	44.5	2.1	0.0	-----	46.6	-----	54.0	-----	7.4	Average
4 884.14	V	52.7	2.1	-----	54.8	-----	74.0	-----	19.2	-----	Peak
4 884.03	V	47.7	2.1	0.0	-----	49.8	-----	54.0	-----	4.2	Average
7 327.11	H	50.2	7.9	-----	58.1	-----	74.0	-----	15.9	-----	Peak
7 326.68	H	37.3	7.9	0.0	-----	45.2	-----	54.0	-----	8.8	Average
7 325.55	V	52.2	7.9	-----	60.1	-----	74.0	-----	13.9	-----	Peak
7 326.69	V	43.2	7.9	0.0	-----	51.1	-----	54.0	-----	2.9	Average

Highest channel 1 (2 467 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.50	H	66.2	-5.1	-----	61.1	-----	74.0	-----	12.9	-----	Peak
2 484.26	H	56.1	-5.1	0.0	-----	51.0	-----	54.0	-----	3.0	Average
2 483.63	V	63.7	-5.1	-----	58.6	-----	74.0	-----	15.4	-----	Peak
2 484.28	V	52.0	-5.1	0.0	-----	46.9	-----	54.0	-----	7.1	Average
4 933.93	H	50.2	2.6		52.8	-----	74.0	-----	21.2	-----	Peak
4 934.02	H	41.9	2.6		-----	44.5	-----	54.0	-----	9.5	Average
4 933.91	V	49.4	2.6		52.0	-----	74.0	-----	22.0	-----	Peak
4 934.02	V	39.9	2.6		-----	42.5	-----	54.0	-----	11.5	Average
7 402.56	H	46.6	8.1		54.7	-----	74.0	-----	19.3	-----	Peak
7 400.15	H	33.9	8.1		-----	42.0	-----	54.0	-----	12.0	Average
7 402.30	V	46.8	8.1		54.9	-----	74.0	-----	19.1	-----	Peak
7 400.03	V	36.5	8.1		-----	44.6	-----	54.0	-----	9.4	Average

Highest channel 2 (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 485.76	H	63.9	-5.1	-----	58.8	-----	74.0	-----	15.2	-----	Peak
2 485.81	H	56.9	-5.1	0.0	-----	51.8	-----	54.0	-----	2.2	Average
2 485.86	V	61.0	-5.1	-----	55.9	-----	74.0	-----	18.1	-----	Peak
2 485.77	V	51.5	-5.1	0.0	-----	46.4	-----	54.0	-----	7.6	Average
4 943.52	H	46.9	2.6	-----	49.5	-----	74.0	-----	24.5	-----	Peak
4 944.02	H	36.4	2.6	0.0	-----	39.0	-----	54.0	-----	15.0	Average
4 944.24	V	47.0	2.6	-----	49.6	-----	74.0	-----	24.4	-----	Peak
4 943.89	V	35.7	2.6	0.0	-----	38.3	-----	54.0	-----	15.7	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11g, ANT0)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.58	H	74.3	-5.9	-----	68.4	-----	74.0	-----	5.6	-----	Peak
2 389.58	H	49.6	-5.9	0.1	-----	43.8	-----	54.0	-----	10.2	Average
2 389.57	V	68.3	-5.9	-----	62.4	-----	74.0	-----	11.6	-----	Peak
2 389.92	V	45.2	-5.9	0.1	-----	39.4	-----	54.0	-----	14.6	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz have no peak data.											

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.03	H	71.9	-5.1	-----	66.8	-----	74.0	-----	7.2	-----	Peak
2 484.36	H	56.0	-5.1	0.1	-----	51.0	-----	54.0	-----	3.0	Average
2 483.77	V	66.0	-5.1	-----	60.9	-----	74.0	-----	13.1	-----	Peak
2 484.20	V	47.9	-5.1	0.1	-----	42.9	-----	54.0	-----	11.1	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11g, ANT1)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.93	H	62.8	-5.9	-----	56.9	-----	74.0	-----	17.1	-----	Peak
2 389.44	H	46.3	-5.9	0.1	-----	40.5	-----	54.0	-----	13.5	Average
2 384.32	V	58.4	-5.9	-----	52.5	-----	74.0	-----	21.5	-----	Peak
2 389.54	V	40.8	-5.9	0.1	-----	35.0	-----	54.0	-----	19.0	Average
4 822.01	H	46.3	2.0	-----	48.3	-----	74.0	-----	25.7	-----	Peak
4 826.09	H	33.8	2.0	0.1	-----	35.9	-----	54.0	-----	18.1	Average
4 822.87	V	47.7	2.0	-----	49.7	-----	74.0	-----	24.3	-----	Peak
4 820.27	V	34.3	2.0	0.1	-----	36.4	-----	54.0	-----	17.6	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
4 884.15	H	47.5	2.1	-----	49.6	-----	74.0	-----	24.4	-----	Peak
4 882.38	H	33.5	2.1	0.1	-----	35.7	-----	54.0	-----	18.3	Average
4 880.26	V	46.2	2.1	-----	48.3	-----	74.0	-----	25.7	-----	Peak
4 880.46	V	34.2	2.1	0.1	-----	36.4	-----	54.0	-----	17.6	Average

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.54	H	65.6	-5.3	-----	60.3	-----	74.0	-----	13.7	-----	Peak
2 484.48	H	51.7	-5.3	0.1	-----	46.5	-----	54.0	-----	7.5	Average
2 483.51	V	63.1	-5.3	-----	57.8	-----	74.0	-----	16.2	-----	Peak
2 484.29	V	46.8	-5.3	0.1	-----	41.6	-----	54.0	-----	12.4	Average
4 941.60	H	46.2	2.7	-----	48.9	-----	74.0	-----	25.1	-----	Peak
4 949.08	H	32.9	2.8	0.1	-----	35.8	-----	54.0	-----	18.2	Average
4 943.23	V	46.3	2.7	-----	49.0	-----	74.0	-----	25.0	-----	Peak
4 947.83	V	33.5	2.8	0.1	-----	36.4	-----	54.0	-----	17.6	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11n_HT20)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 388.79	H	70.6	-5.9	-----	64.7	-----	74.0	-----	9.3	-----	Peak
2 389.77	H	46.1	-5.9	0.1	-----	40.3	-----	54.0	-----	13.7	Average
2 388.91	V	72.3	-5.9	-----	66.4	-----	74.0	-----	7.6	-----	Peak
2 389.99	V	50.7	-5.9	0.1	-----	44.9	-----	54.0	-----	9.1	Average
4 829.52	H	47.4	2.0	-----	49.4	-----	74.0	-----	24.6	-----	Peak
4 824.41	H	34.3	2.0	0.1	-----	36.4	-----	54.0	-----	17.6	Average
4 819.93	V	45.9	2.0	-----	47.9	-----	74.0	-----	26.1	-----	Peak
4 830.56	V	33.8	2.0	0.1	-----	35.9	-----	54.0	-----	18.1	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
4 882.13	H	46.8	2.1	-----	48.9	-----	74.0	-----	25.1	-----	Peak
4 884.63	H	33.7	2.1	0.1	-----	35.9	-----	54.0	-----	18.1	Average
4 892.49	V	45.7	2.2	-----	47.9	-----	74.0	-----	26.1	-----	Peak
4 881.19	V	33.4	2.1	0.1	-----	35.6	-----	54.0	-----	18.4	Average

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.51	H	73.5	-5.1	-----	68.4	-----	74.0	-----	5.6	-----	Peak
2 483.59	H	53.5	-5.1	0.1	-----	48.5	-----	54.0	-----	5.5	Average
2 484.59	V	71.5	-5.1	-----	66.4	-----	74.0	-----	7.6	-----	Peak
2 483.50	V	55.5	-5.1	0.1	-----	50.5	-----	54.0	-----	3.5	Average
4 942.21	H	48.1	2.7	-----	50.8	-----	74.0	-----	23.2	-----	Peak
4 939.79	H	33.6	2.7	0.1	-----	36.4	-----	54.0	-----	17.6	Average
4 934.55	V	45.2	2.7	-----	47.9	-----	74.0	-----	26.1	-----	Peak
4 950.21	V	33.1	2.8	0.1	-----	36.0	-----	54.0	-----	18.0	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11n_HT40)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 388.53	H	67.2	-5.7	-----	61.5	-----	74.0	-----	12.5	-----	Peak
2 389.86	H	47.2	-5.7	0.3	-----	41.8	-----	54.0	-----	12.2	Average
2 388.49	V	70.4	-5.7	-----	64.7	-----	74.0	-----	9.3	-----	Peak
2 389.43	V	51.5	-5.7	0.3	-----	46.1	-----	54.0	-----	7.9	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz have no peak data.											

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.56	H	73.9	-5.1	-----	68.8	-----	74.0	-----	5.2	-----	Peak
2 483.53	H	52.5	-5.1	0.3	-----	47.7	-----	54.0	-----	6.3	Average
2 483.54	V	73.0	-5.1	-----	67.9	-----	74.0	-----	6.1	-----	Peak
2 484.26	V	54.3	-5.1	0.3	-----	49.5	-----	54.0	-----	4.5	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE20_26T)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 369.17	H	77.6	-5.8	-----	71.8	-----	74.0	-----	2.2	-----	Peak
2 385.68	H	52.6	-5.8	0.2	-----	47.0	-----	54.0	-----	7.0	Average
2 368.93	V	67.4	-5.8	-----	61.6	-----	74.0	-----	12.4	-----	Peak
2 381.04	V	49.1	-5.8	0.2	-----	43.5	-----	54.0	-----	10.5	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.62	H	77.7	-5.1	-----	72.6	-----	74.0	-----	1.4	-----	Peak
2 483.51	H	47.1	-5.1	0.2	-----	42.2	-----	54.0	-----	11.8	Average
2 483.52	V	77.5	-5.1	-----	72.4	-----	74.0	-----	1.6	-----	Peak
2 483.57	V	47.1	-5.1	0.2	-----	42.2	-----	54.0	-----	11.8	Average
4 927.21	H	48.6	2.6	-----	51.2	-----	74.0	-----	22.8	-----	Peak
4 926.71	H	33.1	2.6	0.2	-----	35.9	-----	54.0	-----	18.1	Average
4 927.66	V	45.1	2.6	-----	47.7	-----	74.0	-----	26.3	-----	Peak
4 926.67	V	32.7	2.6	0.2	-----	35.5	-----	54.0	-----	18.5	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE20_52T)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 372.92	H	75.9	-5.8	-----	70.1	-----	74.0	-----	3.9	-----	Peak
2 389.27	H	52.6	-5.8	0.2	-----	47.0	-----	54.0	-----	7.0	Average
2 375.43	V	70.1	-5.8	-----	64.3	-----	74.0	-----	9.7	-----	Peak
2 375.05	V	49.2	-5.8	0.2	-----	43.6	-----	54.0	-----	10.4	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.64	H	78.3	-5.3	-----	73.0	-----	74.0	-----	1.0	-----	Peak
2 483.56	H	52.4	-5.3	0.2	-----	47.3	-----	54.0	-----	6.7	Average
2 483.53	V	73.5	-5.3	-----	68.2	-----	74.0	-----	5.8	-----	Peak
2 483.60	V	49.1	-5.3	0.2	-----	44.0	-----	54.0	-----	10.0	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE20_106T)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 387.96	H	74.3	-5.8	-----	68.5	-----	74.0	-----	5.5	-----	Peak
2 387.41	H	52.8	-5.8	0.2	-----	47.2	-----	54.0	-----	6.8	Average
2 389.45	V	67.4	-5.8	-----	61.6	-----	74.0	-----	12.4	-----	Peak
2 380.21	V	49.2	-5.8	0.2	-----	43.6	-----	54.0	-----	10.4	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.53	H	76.3	-5.3	-----	71.0	-----	74.0	-----	3.0	-----	Peak
2 483.57	H	53.2	-5.3	0.2	-----	48.1	-----	54.0	-----	5.9	Average
2 483.64	V	74.5	-5.3	-----	69.2	-----	74.0	-----	4.8	-----	Peak
2 483.54	V	49.8	-5.3	0.2	-----	44.7	-----	54.0	-----	9.3	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE20_242T)

Lowest channel (2 412 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.56	H	78.7	-5.9	-----	72.8	-----	74.0	-----	1.2	-----	Peak
2 389.98	H	42.5	-5.9	0.3	-----	36.9	-----	54.0	-----	17.1	Average
2 371.83	V	79.1	-6.0	-----	73.1	-----	74.0	-----	0.9	-----	Peak
2 389.01	V	45.9	-5.9	0.3	-----	40.3	-----	54.0	-----	13.7	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 472 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.20	H	69.8	-5.2	-----	64.6	-----	74.0	-----	9.4	-----	Peak
2 483.59	H	52.6	-5.3	0.3	-----	47.6	-----	54.0	-----	6.4	Average
2 484.09	V	64.4	-5.2	-----	59.2	-----	74.0	-----	14.8	-----	Peak
2 483.51	V	49.7	-5.3	0.3	-----	44.7	-----	54.0	-----	9.3	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE40_26T)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 330.68	H	75.0	-5.8	-----	69.2	-----	74.0	-----	4.8	-----	Peak
2 332.04	H	48.1	-5.8	0.2	-----	42.5	-----	54.0	-----	11.5	Average
2 331.11	V	78.4	-5.8	-----	72.6	-----	74.0	-----	1.4	-----	Peak
2 331.45	V	50.5	-5.8	0.2	-----	44.9	-----	54.0	-----	9.1	Average
2 388.83	H	70.5	-5.7	-----	64.8	-----	74.0	-----	9.2	-----	Peak
2 386.33	H	49.0	-5.7	0.2	-----	43.5	-----	54.0	-----	10.5	Average
2 388.40	V	73.0	-5.7	-----	67.3	-----	74.0	-----	6.7	-----	Peak
2 385.81	V	52.4	-5.7	0.2	-----	46.9	-----	54.0	-----	7.1	Average
4 808.45	H	51.6	2.1	-----	53.7	-----	74.0	-----	20.3	-----	Peak
4 807.71	H	37.1	2.1	0.2	-----	39.4	-----	54.0	-----	14.6	Average
4 807.71	V	48.8	2.1	-----	50.9	-----	74.0	-----	23.1	-----	Peak
4 808.63	V	34.3	2.1	0.2	-----	36.6	-----	54.0	-----	17.4	Average
7 212.35	H	56.2	7.8	-----	64.0	-----	74.0	-----	10.0	-----	Peak
7 211.91	H	34.0	7.8	0.2	-----	42.0	-----	54.0	-----	12.0	Average
7 211.52	V	47.4	7.8	-----	55.2	-----	74.0	-----	18.8	-----	Peak
7 211.97	V	33.0	7.8	0.2	-----	41.0	-----	54.0	-----	13.0	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
4 848.26	H	53.6	1.9	-----	55.5	-----	74.0	-----	18.5	-----	Peak
4 847.88	H	37.0	1.9	0.2	-----	39.1	-----	54.0	-----	14.9	Average
4 847.67	V	48.5	1.9	-----	50.4	-----	74.0	-----	23.6	-----	Peak
4 847.64	V	34.0	1.9	0.2	-----	36.1	-----	54.0	-----	17.9	Average
7 271.83	H	56.4	8.0	-----	64.4	-----	74.0	-----	9.6	-----	Peak
7 271.90	H	34.1	8.0	0.2	-----	42.3	-----	54.0	-----	11.7	Average
7 271.70	V	47.4	8.0	-----	55.4	-----	74.0	-----	18.6	-----	Peak
7 271.64	V	33.3	8.0	0.2	-----	41.5	-----	54.0	-----	12.5	Average

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.27	H	76.5	-5.3	-----	71.2	-----	74.0	-----	2.8	-----	Peak
2 484.01	H	48.2	-5.3	0.2	-----	43.1	-----	54.0	-----	10.9	Average
2 484.12	V	76.0	-5.3	-----	70.7	-----	74.0	-----	3.3	-----	Peak
2 484.62	V	49.7	-5.3	0.2	-----	44.6	-----	54.0	-----	9.4	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE40_52T)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 334.549	H	72.7	-5.9	-----	66.8	-----	74.0	-----	7.2	-----	Peak
2 386.626	H	51.2	-5.8	0.2	-----	45.6	-----	54.0	-----	8.4	Average
2 334.568	V	68.5	-5.9	-----	62.6	-----	74.0	-----	11.4	-----	Peak
2 389.146	V	49.0	-5.8	0.2	-----	43.4	-----	54.0	-----	10.6	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.169	H	76.3	-5.2	-----	71.1	-----	74.0	-----	2.9	-----	Peak
2 484.359	H	51.4	-5.2	0.2	-----	46.4	-----	54.0	-----	7.6	Average
2 484.193	V	71.3	-5.2	-----	66.1	-----	74.0	-----	7.9	-----	Peak
2 484.041	V	49.1	-5.2	0.2	-----	44.1	-----	54.0	-----	9.9	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE40_106T)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 389.48	H	71.1	-5.8	-----	65.3	-----	74.0	-----	8.7	-----	Peak
2 389.81	H	50.4	-5.8	0.2	-----	44.8	-----	54.0	-----	9.2	Average
2 388.78	V	68.9	-5.8	-----	63.1	-----	74.0	-----	10.9	-----	Peak
2 333.25	V	49.1	-5.9	0.2	-----	43.4	-----	54.0	-----	10.6	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 484.11	H	75.7	-5.2	-----	70.5	-----	74.0	-----	3.5	-----	Peak
2 483.56	H	50.3	-5.3	0.2	-----	45.2	-----	54.0	-----	8.8	Average
2 484.26	V	71.8	-5.2	-----	66.6	-----	74.0	-----	7.4	-----	Peak
2 484.52	V	48.7	-5.2	0.2	-----	43.7	-----	54.0	-----	10.3	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE40_242T)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 388.49	H	76.7	-5.8	-----	70.9	-----	74.0	-----	3.1	-----	Peak
2 389.99	H	53.5	-5.8	0.3	-----	48.0	-----	54.0	-----	6.0	Average
2 389.61	V	71.9	-5.8	-----	66.1	-----	74.0	-----	7.9	-----	Peak
2 389.49	V	50.8	-5.8	0.3	-----	45.3	-----	54.0	-----	8.7	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 483.54	H	75.1	-5.3	-----	69.8	-----	74.0	-----	4.2	-----	Peak
2 487.01	H	53.9	-5.2	0.3	-----	49.0	-----	54.0	-----	5.0	Average
2 493.83	V	69.2	-5.2	-----	64.0	-----	74.0	-----	10.0	-----	Peak
2 486.53	V	49.8	-5.2	0.3	-----	44.9	-----	54.0	-----	9.1	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

Test mode : Transmitter (802.11ax_HE40_484T)

Lowest channel (2 422 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 380.86	H	72.8	-5.9	-----	66.9	-----	74.0	-----	7.1	-----	Peak
2 389.60	H	50.8	-5.9	0.3	-----	45.2	-----	54.0	-----	8.8	Average
2 386.40	V	78.1	-5.9	-----	72.2	-----	74.0	-----	1.8	-----	Peak
2 389.18	V	53.1	-5.9	0.3	-----	47.5	-----	54.0	-----	6.5	Average

Middle channel (2 442 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
The emissions above 1 GHz were 20 dB lower than the limit.											

Highest channel (2 462 MHz)

Frequency [MHz]	(P)	Reading [dBuV]	c.f [dB(1/m)]	Duty Cycle Factor [dB]	Level PK [dB(uV/m)]	Level AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Margin PK [dB]	Margin AV [dB]	Note
2 487.46	H	76.4	-5.2	-----	71.2	-----	74.0	-----	2.8	-----	Peak
2 483.54	H	55.8	-5.3	0.3	-----	50.8	-----	54.0	-----	3.2	Average
2 486.27	V	71.7	-5.2	-----	66.5	-----	74.0	-----	7.5	-----	Peak
2 483.80	V	50.5	-5.3	0.3	-----	45.5	-----	54.0	-----	8.5	Average

Remarks

1. The unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(X axis) and the worst case was recorded.
2. Peak Result = Reading + c.f(Correction factor)
   Average Result = Reading + c.f(Correction factor) + Duty Cycle Factor
3. Correction factor = Antenna factor + Cable loss - Amp Gain

4.6 AC Conducted Emissions

Frequency Range of Measurement
150 kHz to 30 MHz

Instrument Settings
IF Band Width: 9 kHz

Test Procedures

ANSI C63.10-2013 - Section 6.2

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.
Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit
- **15.207(a)**

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average**
0.15 ~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50

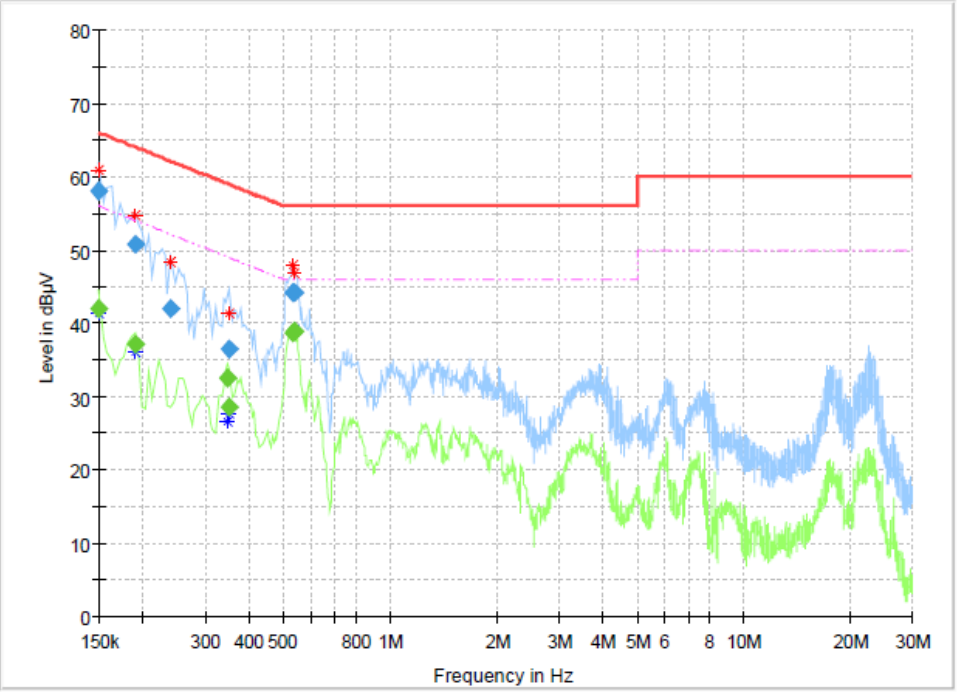
* The level decreases linearly with the logarithm of the frequency.
** A linear average detector is required.

Test Results

The requirements are:
☒ Complies

Test Data

[LINE]
Full Spectrum

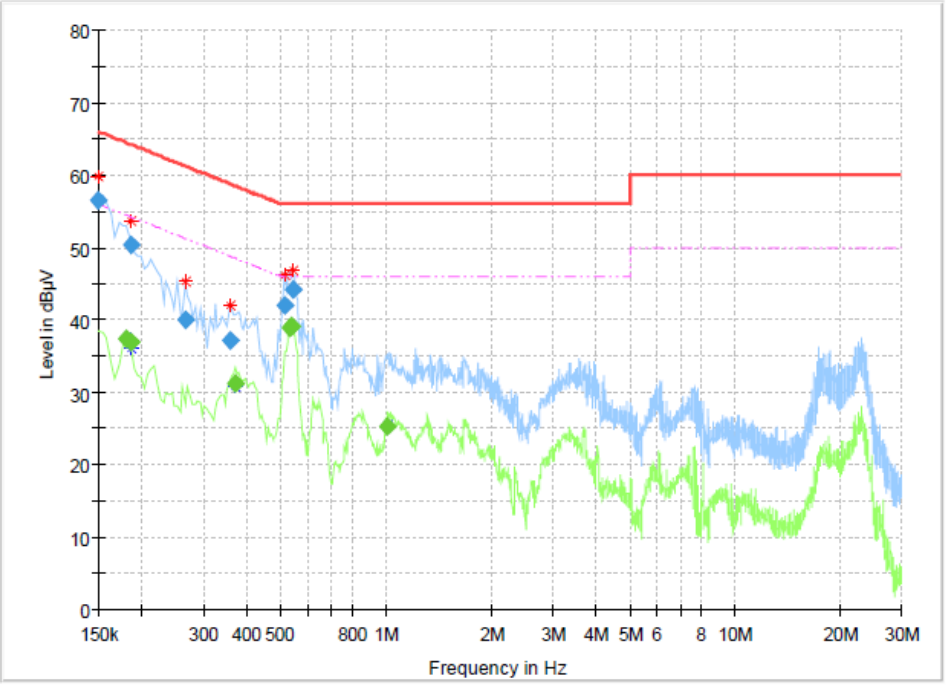


Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	---	41.91	56.00	14.09	15000.0	9.000	L1	ON	9.7
0.150000	58.11	---	66.00	7.89	15000.0	9.000	L1	ON	9.7
0.190500	---	37.11	54.02	16.91	15000.0	9.000	L1	ON	9.9
0.190500	50.75	---	64.02	13.27	15000.0	9.000	L1	ON	9.9
0.240000	41.99	---	62.10	20.10	15000.0	9.000	L1	ON	9.7
0.348000	---	32.57	49.01	16.44	15000.0	9.000	L1	ON	9.8
0.352500	36.58	---	58.90	22.33	15000.0	9.000	L1	ON	9.8
0.352500	---	28.57	48.90	20.33	15000.0	9.000	L1	ON	9.8
0.532500	44.27	---	56.00	11.73	15000.0	9.000	L1	ON	10.0
0.532500	---	38.70	46.00	7.30	15000.0	9.000	L1	ON	10.0
0.537000	---	38.90	46.00	7.10	15000.0	9.000	L1	ON	10.0
0.537000	44.23	---	56.00	11.77	15000.0	9.000	L1	ON	10.0

[NEUTRAL]

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	56.38	---	66.00	9.62	15000.0	9.000	N	ON	9.8
0.181500	---	37.46	54.42	16.96	15000.0	9.000	N	ON	10.0
0.186000	---	36.90	54.21	17.31	15000.0	9.000	N	ON	10.0
0.186000	50.23	---	64.21	13.98	15000.0	9.000	N	ON	10.0
0.267000	40.07	---	61.21	21.14	15000.0	9.000	N	ON	9.8
0.357000	37.04	---	58.80	21.76	15000.0	9.000	N	ON	9.9
0.370500	---	31.25	48.49	17.24	15000.0	9.000	N	ON	9.9
0.514500	42.00	---	56.00	14.00	15000.0	9.000	N	ON	10.0
0.532500	---	38.91	46.00	7.09	15000.0	9.000	N	ON	10.0
0.537000	---	39.10	46.00	6.90	15000.0	9.000	N	ON	10.0
0.541500	44.21	---	56.00	11.79	15000.0	9.000	N	ON	10.0
1.014000	---	25.33	46.00	20.67	15000.0	9.000	N	ON	9.9

APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date
1	Signal Analyzer	Agilent	N9020A	MY49101016	2022-10-07	2023-10-07
2	Signal Analyzer	Agilent	N9020A	MY46471102	2023-01-11	2024-01-11
3	Signal Generator	Rohde & Schwarz	SMB100A	175528	2023-03-22	2024-03-22
4	Power Meter	Anritsu	ML2488B	0924006	2022-10-13	2023-10-13
5	Wide Bandwidth Sensor	Anritsu	MA2491A	0845498	2022-10-14	2023-10-14
6	EMI TEST RECEIVER	Rohde & Schwarz	ESW44	102039	2022-05-04	2023-05-04
					2023-05-03	2024-05-03
7	BILOG ANTENNA	TESEQ	CBL6111D	60654	2021-09-03	2023-09-03
8	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-125	2022-04-15	2024-04-15
9	6dB Attenuator	PASTERNACK	PE7AP006-06	L2021050400002	2022-08-10	2023-08-10
10	AMPLIFIER	SONOMA INSTRUMENT	310N	411011	2022-08-10	2023-08-10
11	Spectrum Analyzer	R&S	FSV40	101574	2023-01-11	2024-01-11
12	PRE AMPLIFIER	HP	8449B	3008A00620	2022-05-10	2023-05-10
					2023-04-21	2024-04-21
13	Double Ridged Guide Antenna	ETS-Lindgren	3115	00078895	2022-04-14	2023-04-14
					2023-04-13	2024-04-13
14	HORN ANTENNA	SCHWARZBECK	BBHA9170	1153	2022-10-31	2023-10-31
15	LOW NOISE AMPLIFIER	TESTEK	TK-PA1840H	210124-L	2022-11-09	2023-11-09
16	Band Reject Filter	Micro Tronics	BRM50702	G233	2023-01-03	2024-01-03
17	EMI Test Receiver	R&S	ESR3	102826	2022-05-04	2023-05-04
					2023-05-03	2024-05-03
18	LISN	R&S	ENV216	102698	2022-05-13	2023-05-13
					2023-05-03	2024-05-03

	Cable	Manufacturer	Model No.	Serial No.	Check Date
1	RF Cable (Conducted)	Junkosha Inc.	MWX221	1512S151	2023-03-21
2	RF Cable (Conducted)	Junkosha Inc.	MWX221	1512S148	2023-03-21
3	RF Cable (Line Conducted)	Canare Corporation	L-5D2W	N/A	2023-03-06
4	RF Cable (9 kHz - 1 GHz Radiated)	HUBER+SUHNER	SUCOFLEX 104	MY27558/4	2023-03-06
5	RF Cable (9 kHz - 1 GHz Radiated)	HUBER+SUHNER	L-5D2W	N/A	2023-03-06
6	RF Cable (1 GHz - 18 GHz Radiated)	Junkosha Inc.	MWX221	2008S246	2022-04-14 2023-04-03
7	RF Cable (1 GHz - 18 GHz Radiated)	Rosenberger	NONE	1520.9927.00	2022-04-14
8	RF Cable (1 GHz - 18 GHz Radiated)	Junkosha Inc.	MWX221	J0970749	2023-04-03
9	RF Cable (1 GHz - 18 GHz Radiated)	Sensorview Co., LTD	13A26	TPC2204060007	2022-04-14 2023-04-03
10	RF Cable (18 GHz - 40 GHz Radiated)	Sensorview Co., LTD	9S40	TPC2204060009	2022-04-14
11	RF Cable (18 GHz - 40 GHz Radiated)	Sensorview Co., LTD	9A40	TP210713-001	2022-04-14

-END-