

Dynascan Technology Corp.

TEST REPORT

Model:

FBP205

REPORT NUMBER

240500144THC-001

ISSUE DATE

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Radio Spectrum TEST REPORT

Applicant:	Dynascan Technology Corp. 6F., No. 88, Wenmao Rd., Guishan Dist., Taoyuan City 333001, Taiwan
Product:	Digital Transmission Systems
Model No.:	FBP205
FCC ID:	2AKWYFBP205
Test Method/ Standard:	47 CFR FCC Part 15.247 & ANSI C63.10 2013 KDB 558074 D01 v05r02
Test By:	Intertek Testing Services Taiwan Ltd., Hsinchu Laboratory No. 17, Ln. 246, Niupu S. Rd., Xiangshan Dist, Hsinchu City 300075, Taiwan



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TEST REPORT

Revision History

Report No.	Issue Date	Revision Summary
240500144THC-001	Jul. 17, 2024	1. This case is to add different Host(Product Name: 65" Display, Model No.: 67901), so the FCC C2PC (Conducted Output Power, Spurious Emission, Band Edge, and AC Conducted Emissions) is exeuted. 2. FCC Original Grant Date: 07/01/2022, FCC ID: 2AKWYFBP205

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Summary of Test Data

Test Requirement	Applicable Rule (Section 15.247)	Result
Maximum Peak Conducted Output Power	15.247(b)(3)	Pass
Emissions In Restricted Frequency Bands (Radiated emission measurements)	15.247(d), 15.205, 15.209	Pass
Emission On The Band Edge	15.247(d), 15.205	Pass
AC Power Line Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass

Note: Please note that the test results with statement of conformity, the decision rules which are based on: Safety Testing: the specification, standard or IEC Guide 115.

Other Testing: the specification, standard and not taking into account the measurement uncertainty.

1. General Information

1.1 Identification of the EUT

Product:	Digital Transmission System
Model No.:	FBP205
Operating Frequency:	1. 2412MHz ~ 2462MHz for 802.11b/g/n HT20 2. 2422MHz ~ 2452MHz for 802.11n HT40
Channel Number:	1. 11 channels for 2412MHz ~ 2462MHz 2. 7 channels for 2422MHz ~ 2452MHz
Access scheme:	DSSS, OFDM
Power Cord:	N/A
Sample receiving date:	2024/05/22
Sample condition:	Workable
Test Date(s):	2024/06/25 ~ 2024/07/10

1.2 Description of the EUT

Modulation mode	Transmit path	
	Chain 0	Chain 1
802.11b	V	V
802.11g	V	V
802.11 n (HT20)	V	V
802.11 n (HT40)	V	V

Item	Product name	Model No.	Rated Power
Host	65" Display	67901	100-240V~ 50/60Hz 6A

1.3 Antenna description

For antenna 0 (Chain 0)

Antenna Gain : -3.04 dBi
Antenna Type : PIFA antenna
Connector Type : I-pex

For antenna 1 (Chain 1)

Antenna Gain : -3.04 dBi
Antenna Type : PIFA antenna
Connector Type : I-pex

1.4 Operation mode

Power on, executing “WLAN Test Tool v2.8.0” to select different frequency and modulation.

With individual verifying, the maximum output power were found out 1 Mbps data rate for 802.11b mode, 6 Mbps data rate for 802.11g mode, 6.5 Mbps data rate for 802.11n(HT20) mode, 13.5 Mbps data rate for 802.11n(HT40) mode the final tests were executed under these conditions recorded in this report individually.

Mode	Channel	Frequency (MHz)	Data rate	Signal on time(ms)	Signal transmit on+off time(ms)	Duty cycle	Duty Cycle factor
802.11b	1	2412	1	12.200	12.700	0.961	0.174
802.11g	1	2412	6	2.005	2.500	0.802	0.958
802.11n (HT20)	1	2412	6.5	1.885	2.395	0.787	1.040
802.11n (HT40)	3	2422	13.5	0.925	1.425	0.649	1.877

1.5 Peripherals equipment

Peripherals	Brand	Model No.	Description of Data Cable
IR Extension sensor kit	Dynascan	ESK302	N/A
Power cord	I-SHENG	IS-14	2.0m

2. Maximum Peak Conducted Output Power

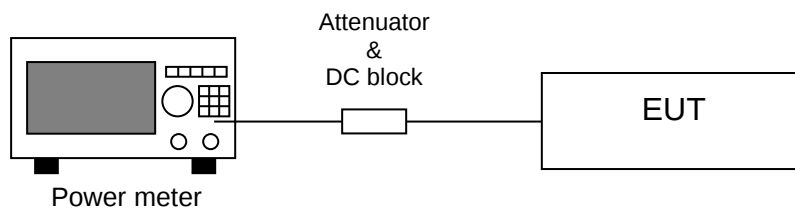
2.1 Instrument Setting

Power Meter Parameter	Setting
Bandwidth	65MHz bandwidth is greater than the EUT emission bandwidth
Detector	Peak & Average

2.2 Test Procedure

The preferred methodology is to use integrated average power measurements, as described in 11.9.2 and 11.13.3 of ANSI C63.10. The peak integrated band power methods of 11.9.1.2 and 11.13.3.2 of ANSI C63.10 are not applicable for FCC compliance testing purposes.

2.3 Test Diagram



2.4 Limit

For systems using digital modulation in the 2400-2483.5 MHz: 1 Watt (30dBm)

2.5 Test Results

Temperature (°C) :	25
Relative Humidity (%) :	66
Test date :	2024/06/25
Host :	67901

Mode	Ch	Frequency (MHz)	Output Power (dBm)				Output Power (mW)				Total Power (dBm)				Limit (dBm)	Margin (dB)
			Chain 0		Chain 1		Chain 0		Chain 1		AV		PK			
			AV	PK	AV	PK	AV	PK	AV	PK	0+1 (mW)	0+1 (dBm)	0+1 (mW)	0+1 (dBm)		
802.11b (Chain0+1)	1	2412	21.50	23.40	19.40	21.40	141.25	218.78	87.10	138.04	228.35	23.59	356.81	25.52	30.00	-4.48
	6	2437	20.86	22.90	18.50	20.88	121.90	194.98	70.79	122.46	192.69	22.85	317.45	25.02	30.00	-4.98
	11	2462	22.70	24.60	20.90	22.47	186.21	288.40	123.03	176.60	309.24	24.90	465.01	26.67	30.00	-3.33

Mode	Ch	Frequency (MHz)	Output Power (dBm)				Output Power (mW)				Total Power (dBm)				Limit (dBm)	Margin (dB)
			Chain 0		Chain 1		Chain 0		Chain 1		AV		PK			
			AV	PK	AV	PK	AV	PK	AV	PK	0+1 (mW)	0+1 (dBm)	0+1 (mW)	0+1 (dBm)		
802.11g (Chain0+1)	1	2412	17.50	25.00	14.80	22.50	56.23	316.23	30.20	177.83	86.43	19.37	494.06	26.94	30.00	-3.06
	6	2437	18.00	25.50	15.90	24.20	63.10	354.81	38.90	263.03	102.00	20.09	617.84	27.91	30.00	-2.09
	11	2462	18.00	25.70	16.30	24.50	63.10	371.54	42.66	281.84	105.75	20.24	653.37	28.15	30.00	-1.85

Mode	Ch	Frequency (MHz)	Output Power (dBm)				Output Power (mW)				Total Power (dBm)				Limit (dBm)	Margin (dB)
			Chain 0		Chain 1		Chain 0		Chain 1		AV		PK			
			AV	PK	AV	PK	AV	PK	AV	PK	0+1 (mW)	0+1 (dBm)	0+1 (mW)	0+1 (dBm)		
802.11n (HT20) (Chain0+1)	1	2412	17.40	24.60	15.70	22.80	54.95	288.40	37.15	190.55	92.11	19.64	478.95	26.80	30.00	-3.20
	6	2437	16.40	23.40	16.40	23.50	43.65	218.78	43.65	223.87	87.30	19.41	442.65	26.46	30.00	-3.54
	11	2462	17.30	24.30	13.70	21.40	53.70	269.15	23.44	138.04	77.15	18.87	407.19	26.10	30.00	-3.90

Mode	Ch	Frequency (MHz)	Output Power (dBm)				Output Power (mW)				Total Power (dBm)				Limit (dBm)	Margin (dB)
			Chain 0		Chain 1		Chain 0		Chain 1		AV		PK			
			AV	PK	AV	PK	AV	PK	AV	PK	0+1 (mW)	0+1 (dBm)	0+1 (mW)	0+1 (dBm)		
802.11n (HT40) (Chain0+1)	3	2422	15.80	23.00	14.30	21.80	38.02	199.53	26.92	151.36	64.93	18.12	350.88	25.45	30.00	-4.55
	6	2437	15.40	22.90	14.20	22.20	34.67	194.98	26.30	165.96	60.98	17.85	360.94	25.57	30.00	-4.43
	9	2452	16.30	23.30	15.30	22.10	42.66	213.80	33.88	162.18	76.54	18.84	375.98	25.75	30.00	-4.25

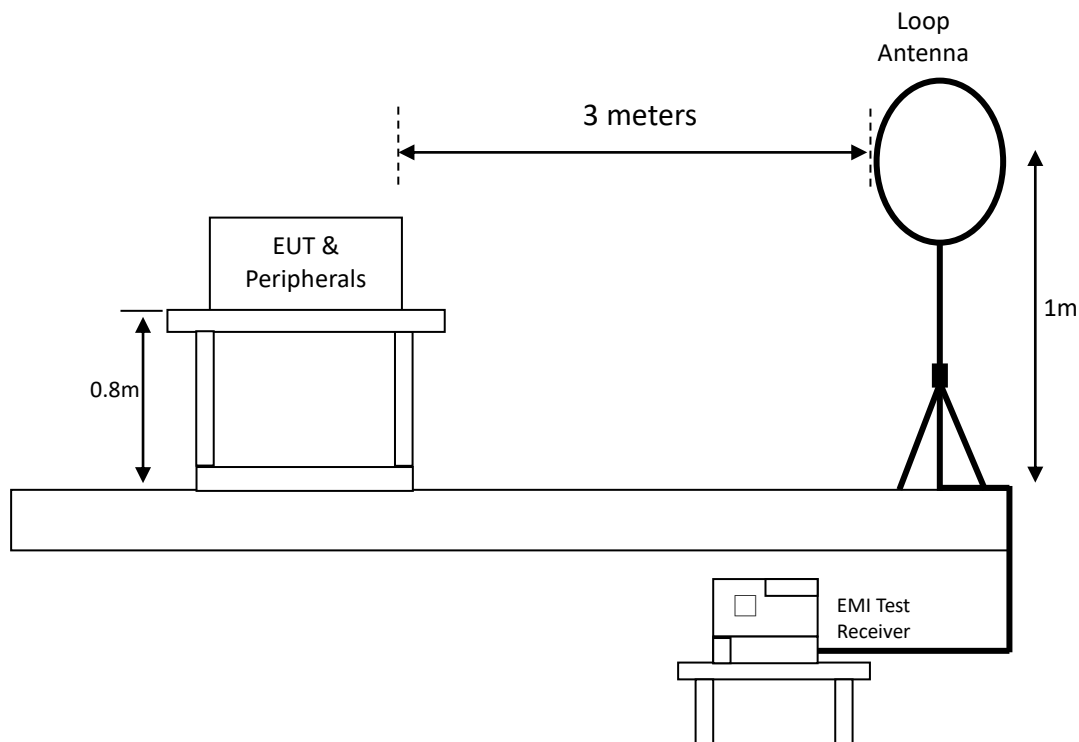
3. Emissions in Restricted Frequency Bands (Radiated emission measurements)

3.1 Instrument Setting

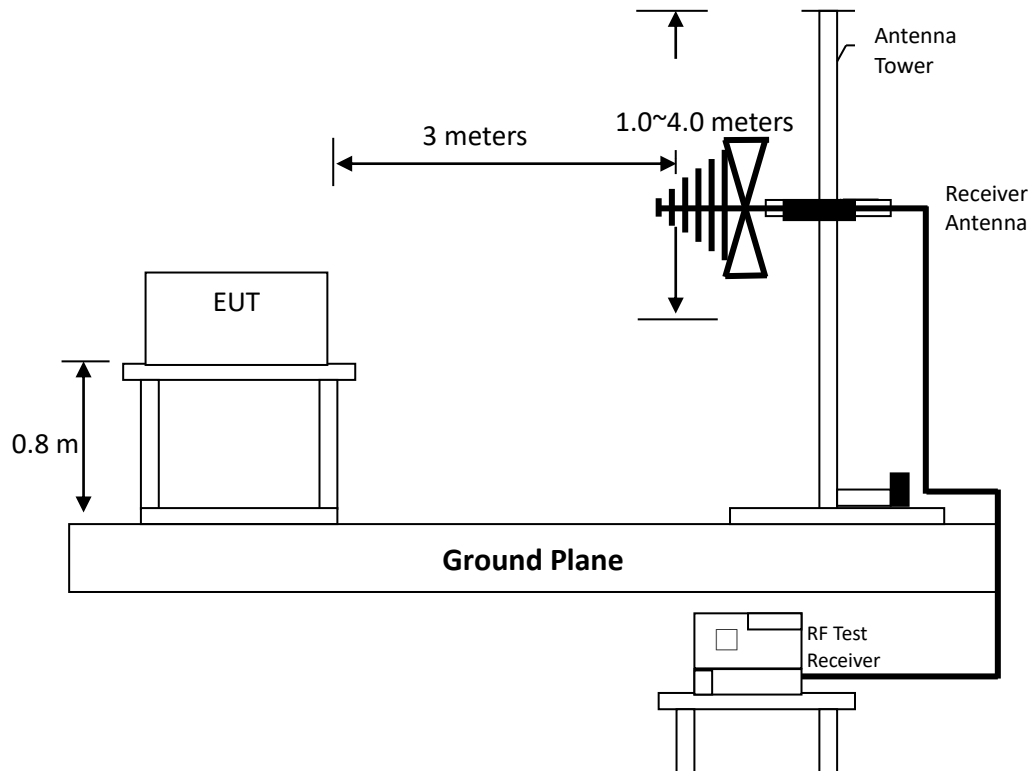
Receiver Function	Setting (Below 1GHz)	Setting (Above 1GHz)
Detector	QP	Peak and Average
RBW	9-150 kHz; 200-300 Hz 0.15-30 MHz; 9-10 kHz 30-1000 MHz; 100-120 kHz	1MHz
VBW	$\geq 3 \times \text{RBW}$	3MHz & 1/T minimum kHz
Sweep	Auto couple	Auto couple
Start Frequency	9 kHz	1GHz
Stop Frequency	1 GHz	Tenth harmonic
Attenuation	Auto	Auto

3.2 Test setup & procedure

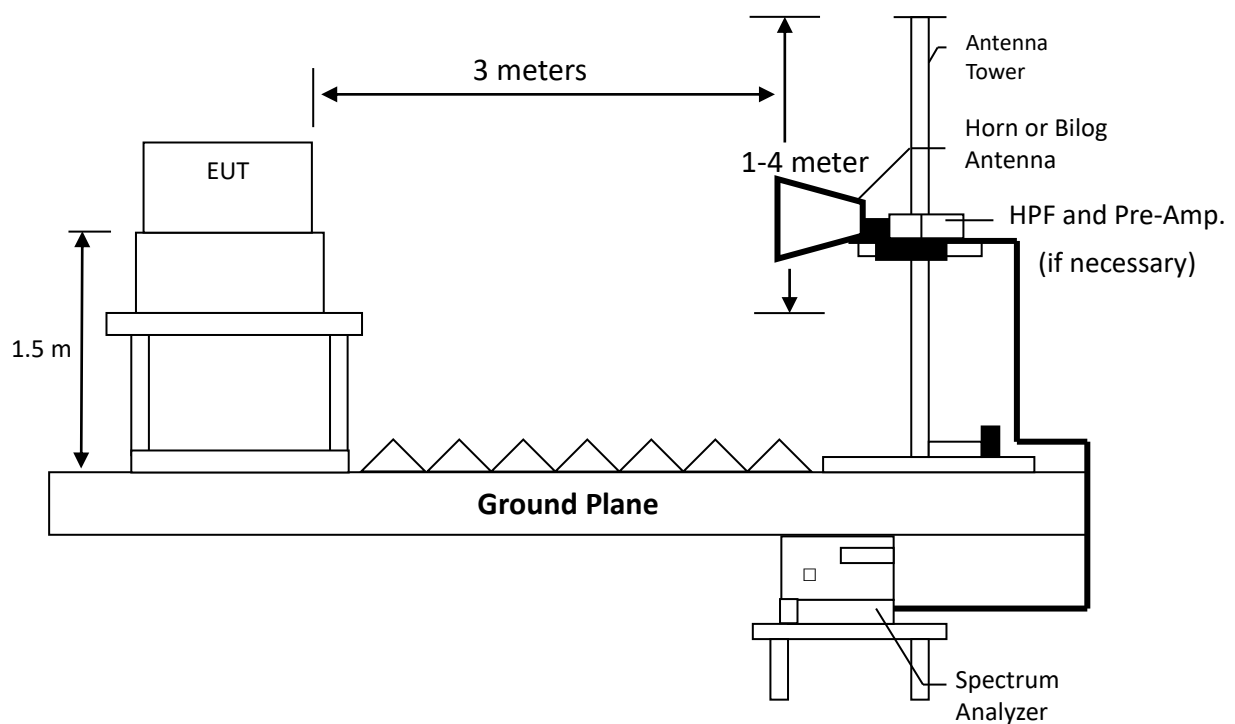
Radiated emission from 9kHz to 30MHz uses Loop Antenna:



Radiated emission below 1GHz using Bilog Antenna



Radiated emission above 1GHz using Horn Antenna



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Radiated emissions were investigated cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 1/T minimum kHz VBW record Average reading. (15.209 paragraph), the Peak reading (1 MHz RBW/ 3 MHz VBW) recorded also on the report.

The EUT for testing is arranged on a turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

3.3 Limit

Frequency(MHz)	Field Strength(uV/m)	Measurement distance(m)
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

Remark:

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

3.4 Test Result

3.4.1 Measurement results from 9kHz to 30MHz

Temperature (°C) :	26
Relative Humidity (%) :	77
Test date :	2024/07/01
Host :	67901

The test was performed on EUT under continuously transmitting mode. The worst case occurred at 802.11g Chain0+1 Channel 11.

Antenna Polarity	Frequency (MHz)	Spectrum Analyzer Detector	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
Perpendicular	0.279	PK	17.80	50.57	68.37	98.69	-30.32
Perpendicular	0.549	PK	17.95	36.33	54.28	72.81	-18.53
Perpendicular	0.819	PK	18.02	43.99	62.01	69.34	-7.33
Perpendicular	1.359	PK	17.96	37.03	54.99	64.94	-9.95
Perpendicular	1.629	PK	17.94	35.75	53.69	63.37	-9.68
Perpendicular	2.168	PK	17.92	34.09	52.01	69.54	-17.53

Remark: Corr. Factor = Antenna Factor + Cable Loss

Antenna Polarity	Frequency (MHz)	Spectrum Analyzer Detector	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
Parallel	0.279	PK	17.80	45.69	63.49	98.69	-35.20
Parallel	0.549	PK	17.95	31.26	49.21	72.81	-23.60
Parallel	0.819	PK	18.02	38.83	56.85	69.34	-12.49
Parallel	1.089	PK	17.99	29.16	47.15	66.86	-19.71
Parallel	1.359	PK	17.96	31.96	49.92	64.94	-15.02
Parallel	1.629	PK	17.94	30.40	48.34	63.37	-15.03

Remark: Corr. Factor = Antenna Factor + Cable Loss

Antenna Polarity	Frequency (MHz)	Spectrum Analyzer Detector	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
Ground-parallel	0.279	PK	17.80	37.57	55.37	98.69	-43.32
Ground-parallel	0.549	PK	17.95	25.45	43.40	72.81	-29.41
Ground-parallel	0.819	PK	18.02	33.01	51.03	69.34	-18.31
Ground-parallel	1.359	PK	17.96	25.12	43.08	64.94	-21.86
Ground-parallel	1.629	PK	17.94	23.25	41.19	63.37	-22.18
Ground-parallel	2.168	PK	17.92	23.82	41.74	69.54	-27.80

Remark: Corr. Factor = Antenna Factor + Cable Loss

3.4.2 Measurement results from 30 MHz to 1 GHz

Temperature (°C) :	26
Relative Humidity (%) :	77
Test date :	2024/07/01
Host :	67901

The test was performed on EUT under continuously transmitting mode. The worst case occurred at 802.11g Chain0+1 Channel 11.

Antenna Polarity	Frequency (MHz)	Spectrum Analyzer Detector	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
Horizontal	147.37	PK	20.90	8.54	29.44	43.50	-14.06
Horizontal	445.16	PK	25.80	11.89	37.69	46.00	-8.31
Horizontal	576.11	PK	28.34	8.50	36.84	46.00	-9.16
Horizontal	593.57	PK	28.98	14.01	42.99	46.00	-3.01
Horizontal	666.32	PK	30.08	9.92	40.00	46.00	-6.00
Horizontal	891.36	PK	33.14	5.86	39.00	46.00	-7.00

Antenna Polarity	Frequency (MHz)	Spectrum Analyzer Detector	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
Vertical	31.94	PK	19.14	11.02	30.16	40.00	-9.84
Vertical	74.62	PK	17.50	13.80	31.30	40.00	-8.70
Vertical	167.74	PK	20.76	10.39	31.15	43.50	-12.35
Vertical	249.22	PK	19.86	8.62	28.48	46.00	-17.52
Vertical	756.53	PK	31.84	4.61	36.45	46.00	-9.55
Vertical	853.53	PK	32.80	4.32	37.12	46.00	-8.88

Remark: Corr. Factor = Antenna Factor + Cable Loss

3.4.3 Measurement results from 1 GHz to 25 GHz

Temperature (°C) :	26
Relative Humidity (%) :	77
Test date :	2024/07/01
Host :	67901

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11g_Ch11 Chain0+1	5310	PK	H	-4.01	59.89	55.88	74	-18.12
	5310	AV	H	-4.01	48.09	44.08	54	-9.92
	5940	PK	H	-1.30	53.04	51.74	74	-22.26
	7386	PK	H	3.26	44.46	47.72	74	-26.28
	7995	PK	H	4.36	45.23	49.59	74	-24.41
	4924	PK	V	-5.35	46.84	41.49	74	-32.51
	7386	PK	V	3.26	44.59	47.85	74	-26.15

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

4. Emission on Band Edge

4.1 Instrument Setting

Spectrum Function	Setting
Detector	Peak and Average
RBW	1MHz
VBW	3MHz & 1/T minimum kHz
Sweep	Auto couple
Restrict bands	2310 MHz ~ 2390 MHz 2483.5 MHz ~ 2500 MHz
Attenuation	Auto

4.2 Test Procedure

The test procedure is the same as Emissions in Restricted Frequency Bands (Radiated emission measurements).

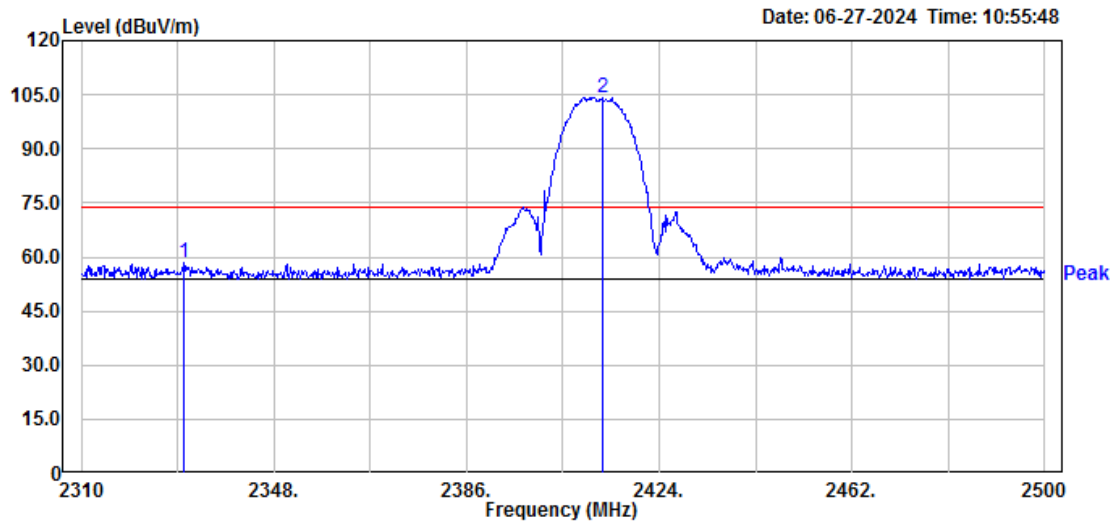
4.3 Test Results

Temperature (°C) :	28
Relative Humidity (%) :	75
Test date :	2024/06/27
Host :	67901

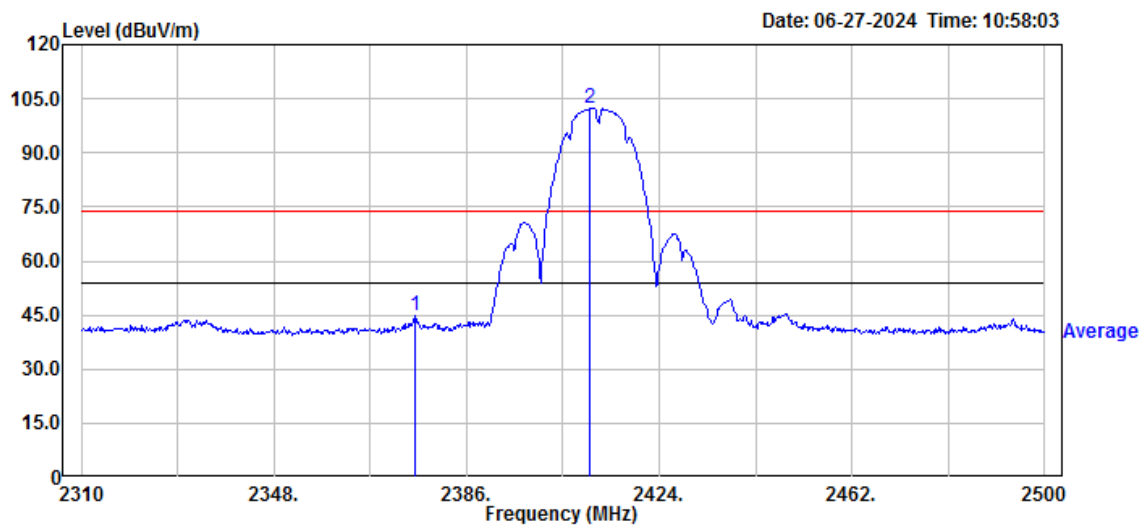
Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)	Restricted band (MHz)
802.11b Chain0+1	2330.14	PK	H	34.41	23.78	58.19	74	-15.81	2310~2390
	2375.93	AV	H	34.41	10.44	44.85	54	-9.15	
	2497.34	PK	H	34.58	24.24	58.82	74	-15.18	2483.5~2500
	2483.50	AV	H	34.56	11.13	45.69	54	-8.31	
802.11g Chain0+1	2389.23	PK	H	34.49	33.42	67.91	74	-6.09	2310~2390
	2389.99	AV	H	34.49	18.32	52.81	54	-1.19	
	2484.61	PK	H	34.56	30.53	65.09	74	-8.91	2483.5~2500
	2483.50	AV	H	34.56	17.50	52.06	54	-1.94	
802.11n (HT20) Chain0+1	2389.23	PK	H	34.49	32.81	67.30	74	-6.70	2310~2390
	2389.99	AV	H	34.49	18.90	53.39	54	-0.61	
	2483.50	PK	H	34.56	33.49	68.05	74	-5.95	2483.5~2500
	2483.50	AV	H	34.56	17.66	52.22	54	-1.78	
802.11n (HT40) Chain0+1	2389.23	PK	H	34.49	34.92	69.41	74	-4.59	2310~2390
	2390.00	AV	H	34.49	19.06	53.55	54	-0.45	
	2489.93	PK	H	34.57	32.16	66.73	74	-7.27	2483.5~2500
	2483.50	AV	H	34.56	18.68	53.24	54	-0.76	

Remark: Correction Factor = Antenna Factor + Cable Loss

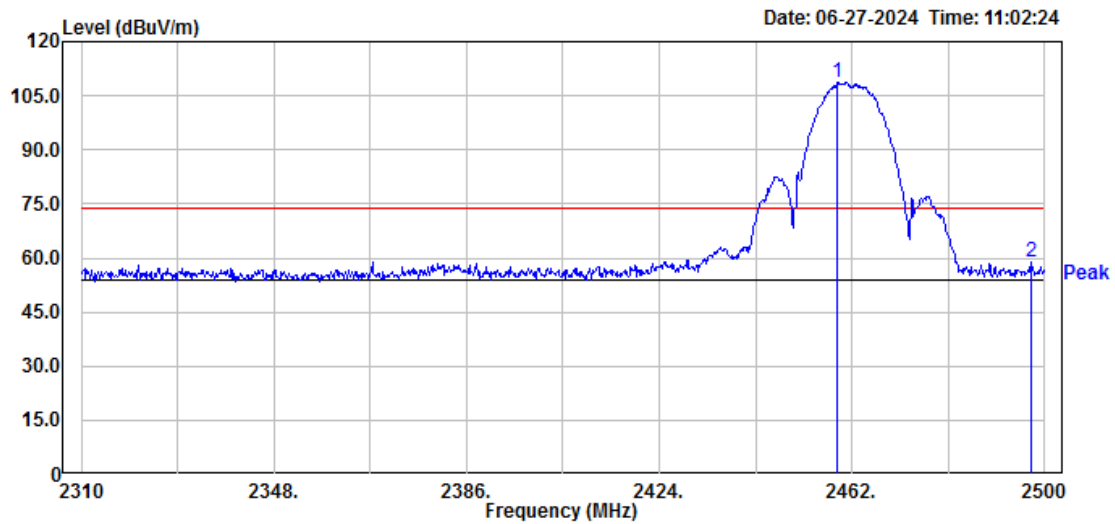
Chain0+1 : Restricted Band Bandedge @ 802.11b Mode Ch1 PK



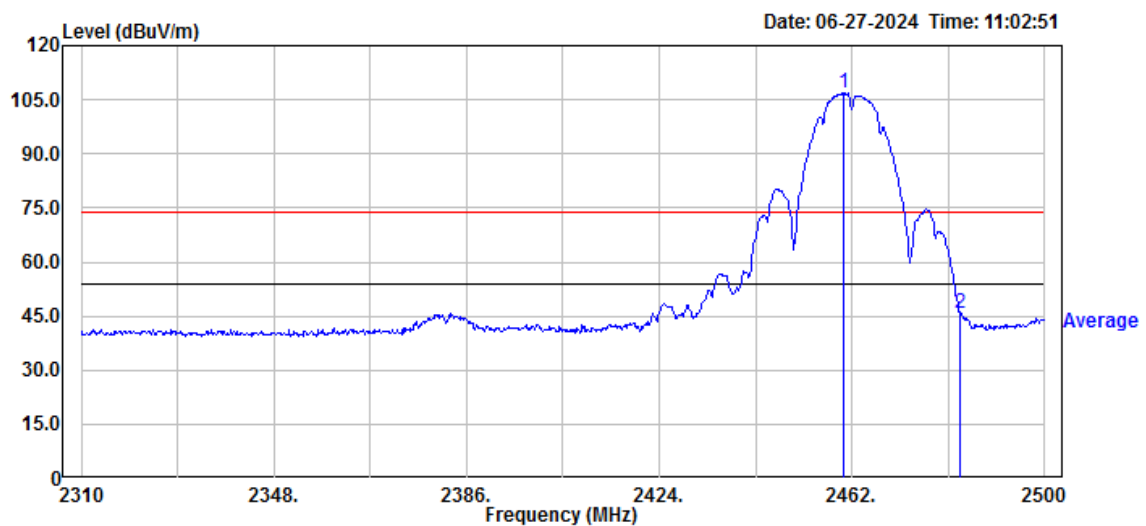
Chain0+1 : Restricted Band Bandedge @ 802.11b Mode Ch1 AV



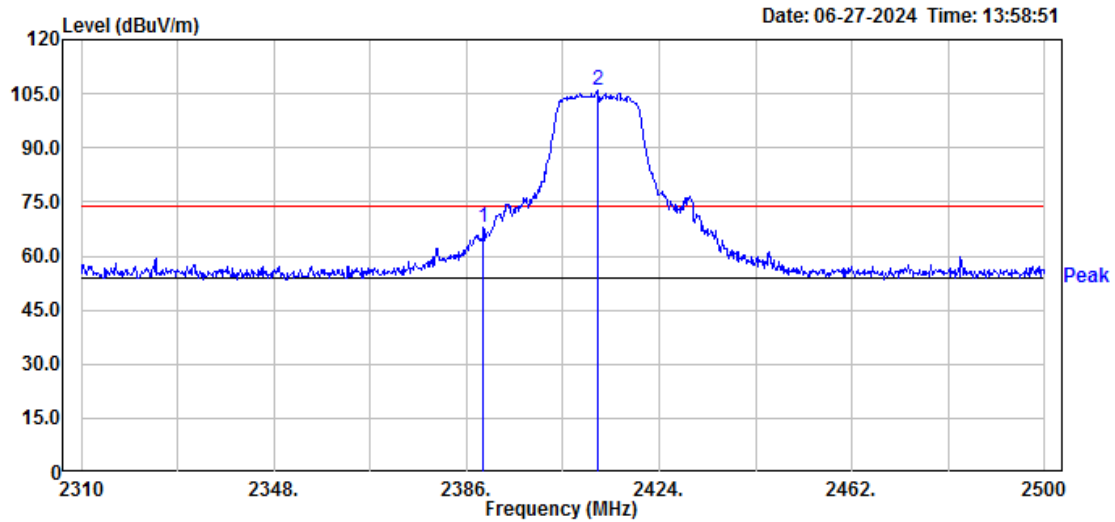
Chain0+1 : Restricted Band Bandedge @ 802.11b Mode Ch11 PK



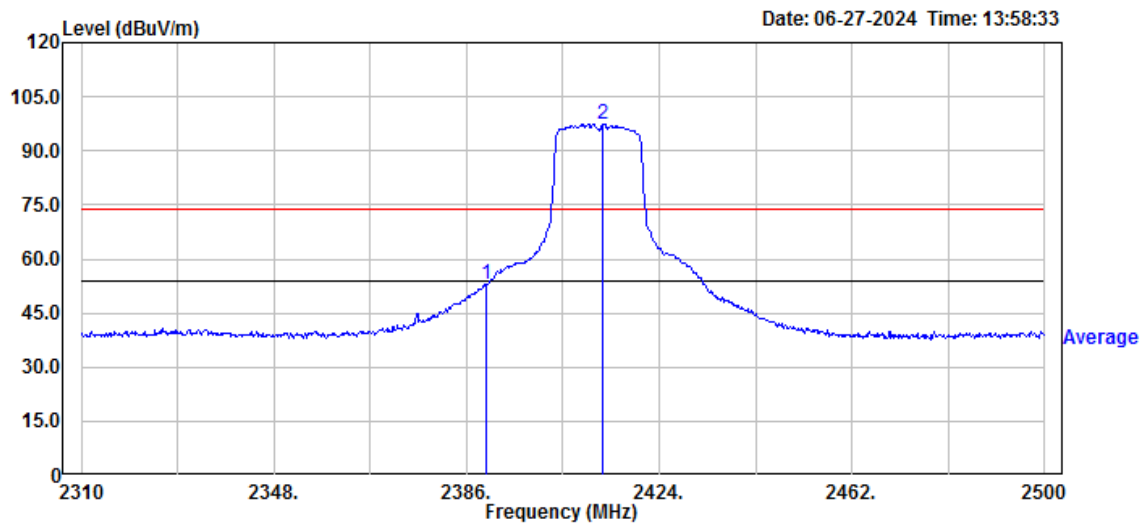
Chain0+1 : Restricted Band Bandedge @ 802.11b Mode Ch11 AV



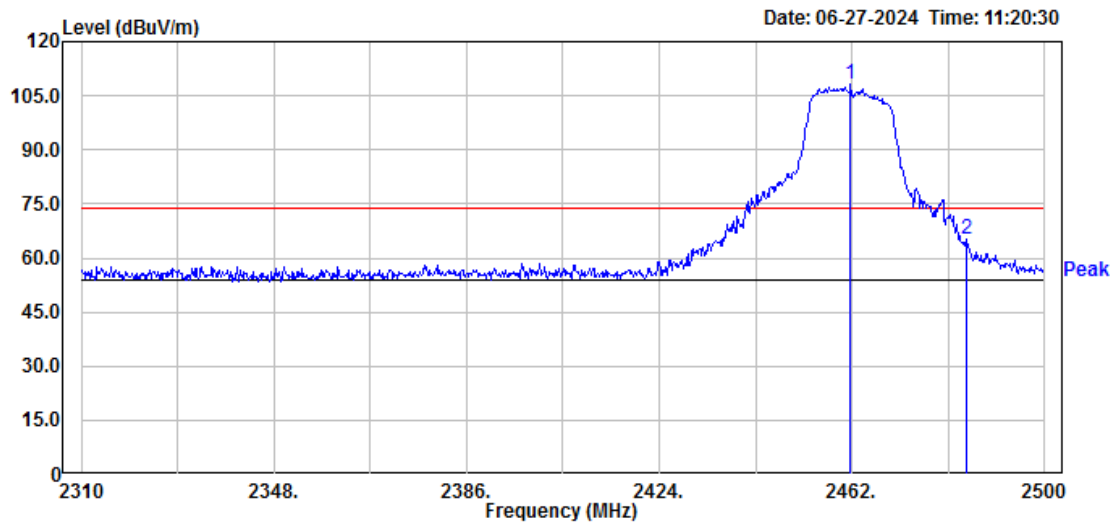
Chain0+1 : Restricted Band Bandedge @ 802.11g Mode Ch1 PK



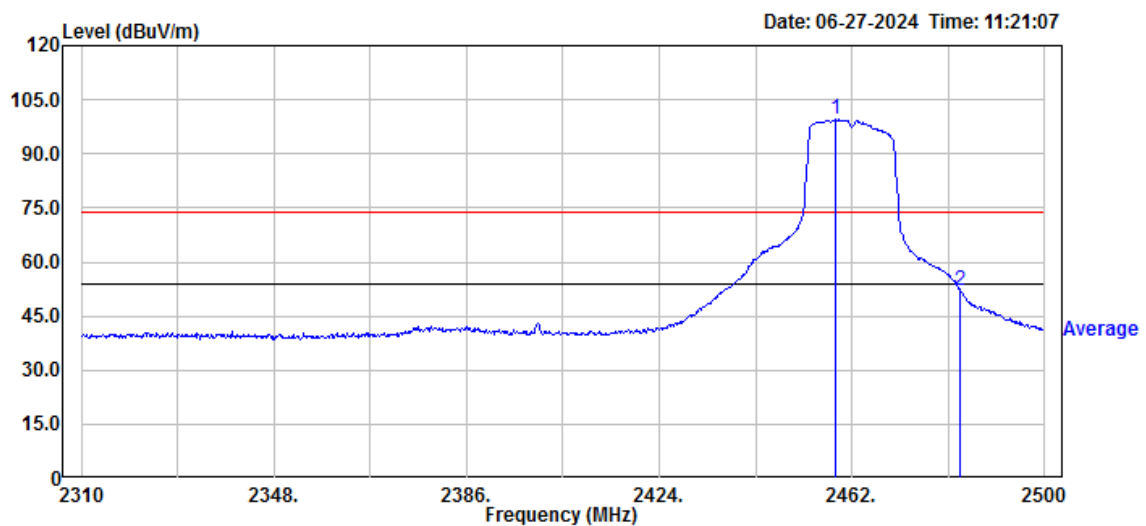
Chain0+1 : Restricted Band Bandedge @ 802.11g Mode Ch1 AV



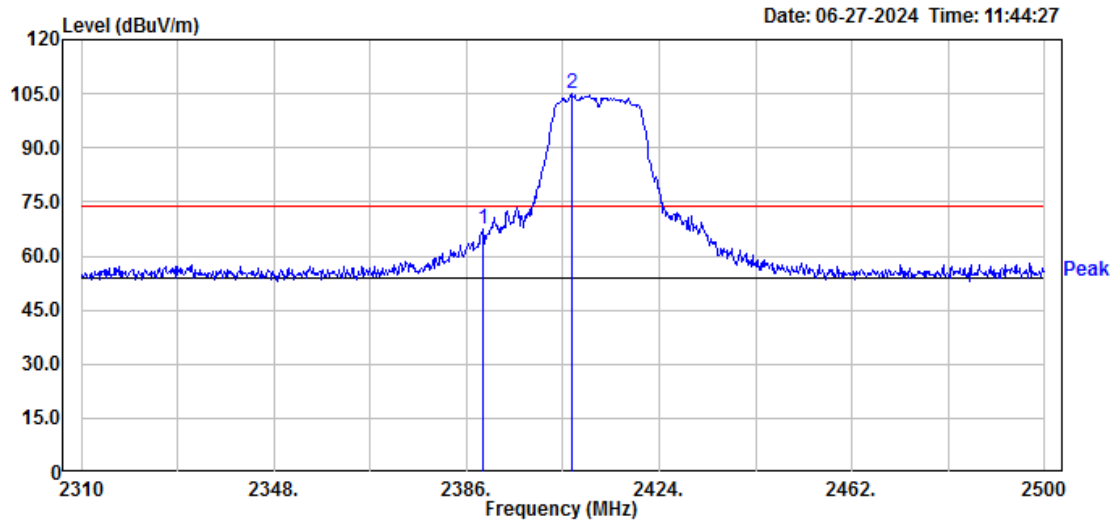
Chain0+1 : Restricted Band Bandedge @ 802.11g Mode Ch11 PK



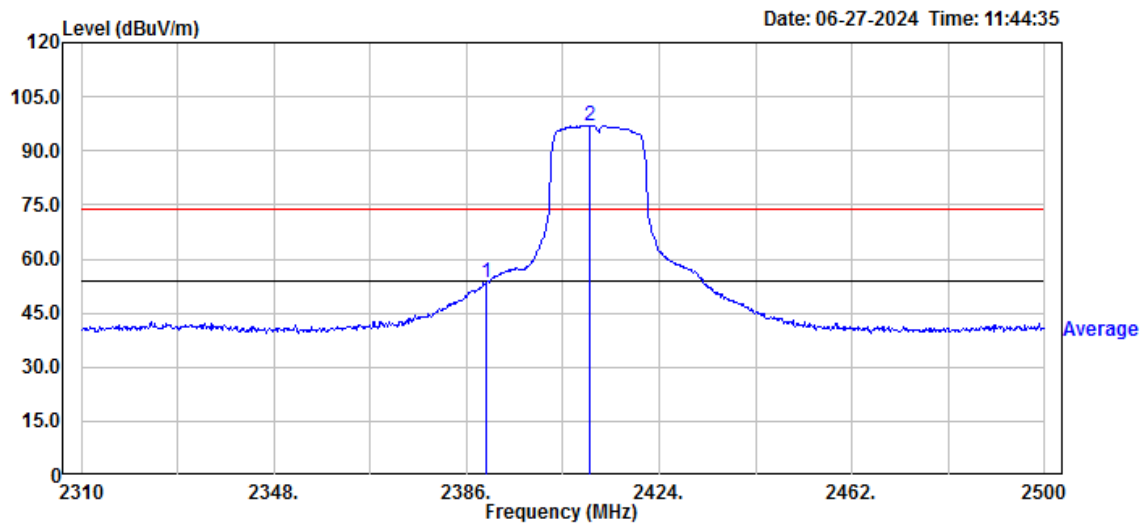
Chain0+1 : Restricted Band Bandedge @ 802.11g Mode Ch11 AV



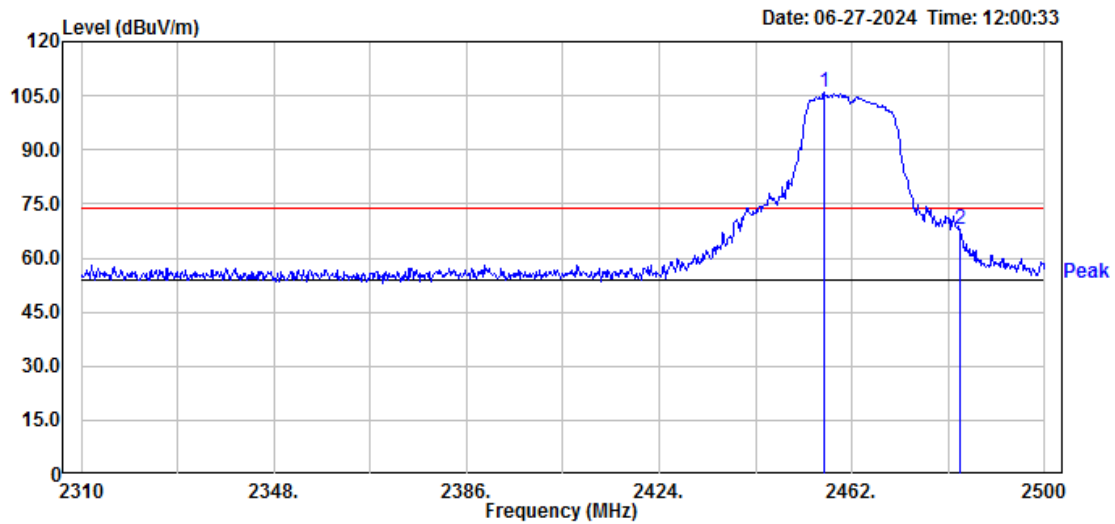
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 PK



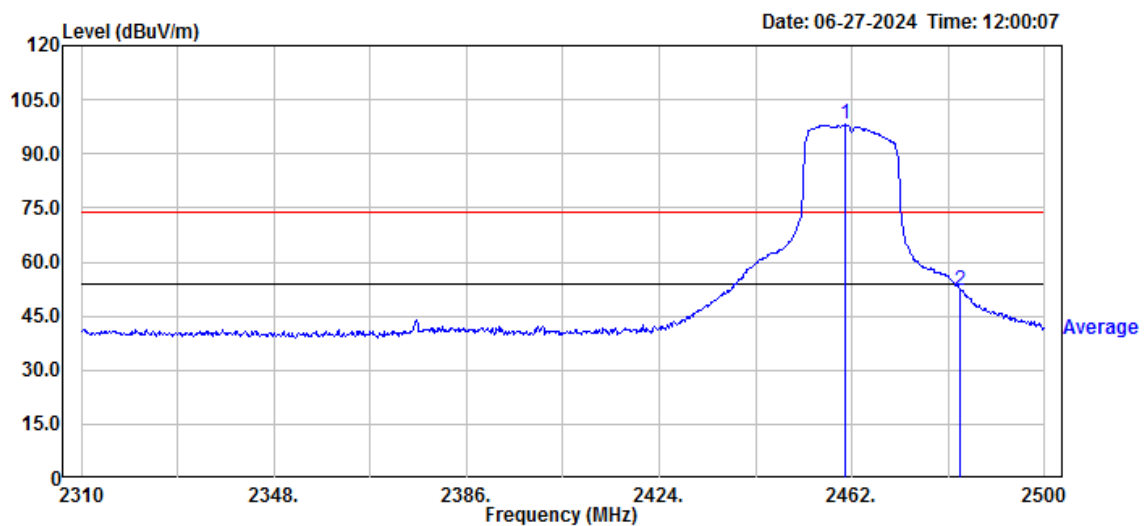
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch1 AV



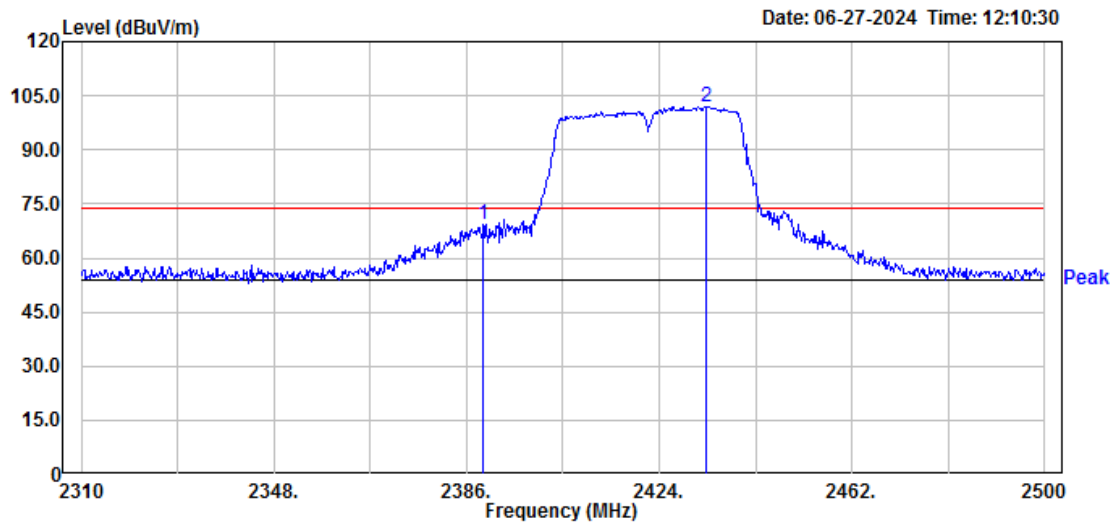
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 PK



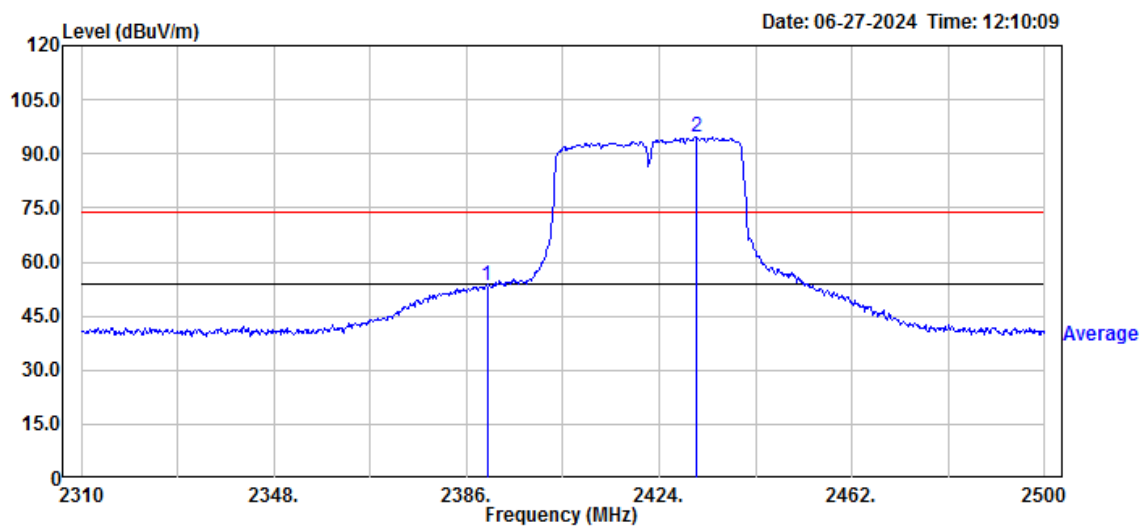
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT20) Mode Ch11 AV



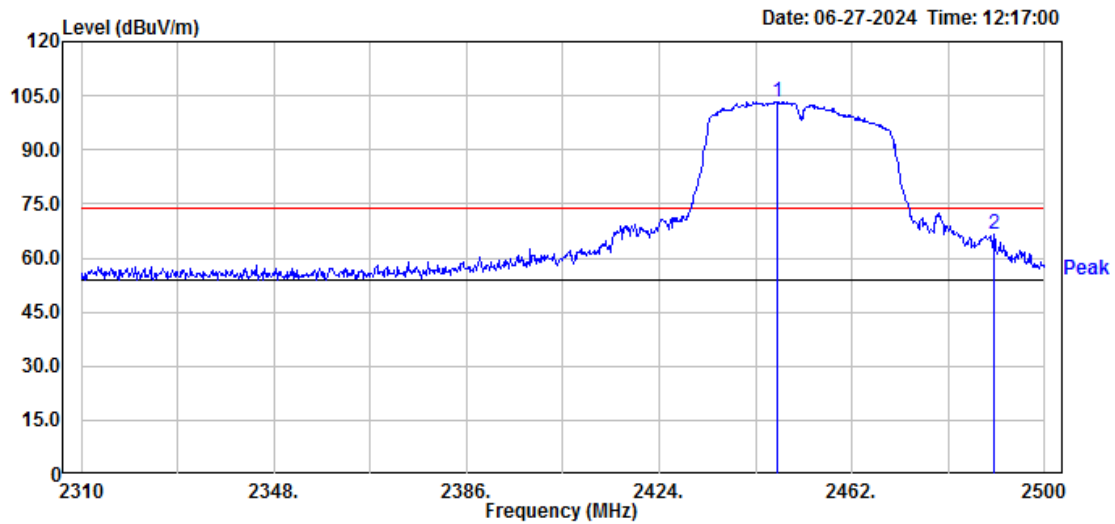
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch3 PK



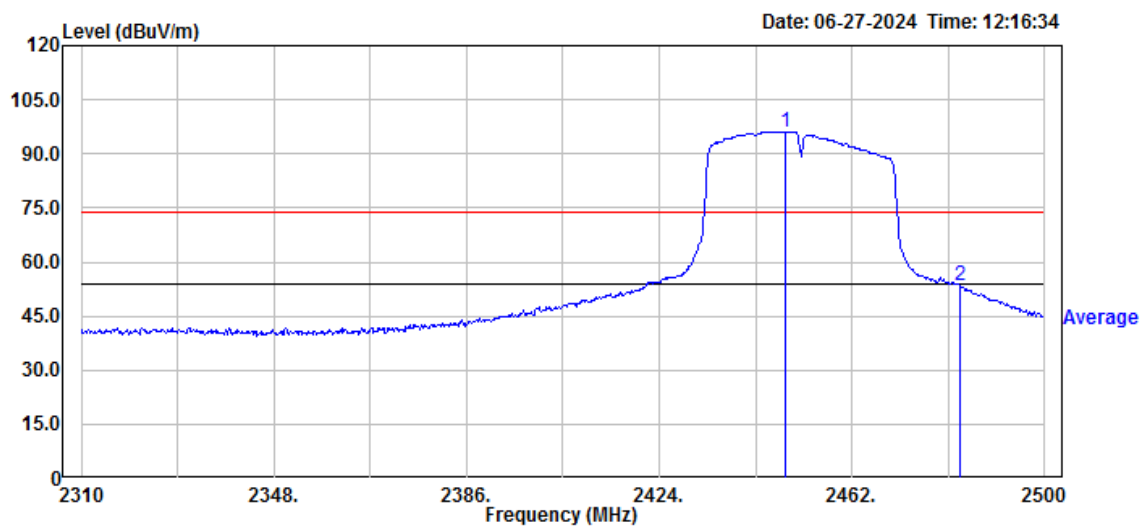
Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch3 AV



Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch9 PK



Chain0+1 : Restricted Band Bandedge @ 802.11n(HT40) Mode Ch9 AV



5. AC Power Line Conducted Emission

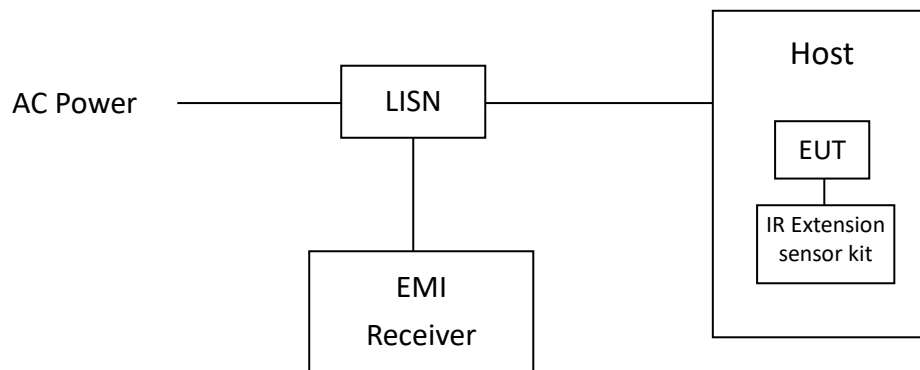
5.1 Measuring instrument setting

Receiver Function	Setting
Detector	QP
Start frequency	0.15MHz
Stop frequency	30MHz
IF bandwidth	9 kHz
Attenuation	10dB

5.2 Test Procedure

Step 1	Configure the EUT according to ANSI C63.10:2013. The EUT or host of EHT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
Step 2	Connect EUT or host of EUT to the power mains through a line impedance stabilization network.
Step 3	All the companion devices are connected to the other LISN. The LISN should provide 50Uh/50ohms coupling impedance.
Step 4	The frequency range from 150 kHz to 30MHz was searched.
Step 5	Set the test-receiver system to peak detector and specified bandwidth with maximum hold mode.
Step 6	The measurement has to be done between each power line and ground at the power terminal.

5.3 Test Diagram



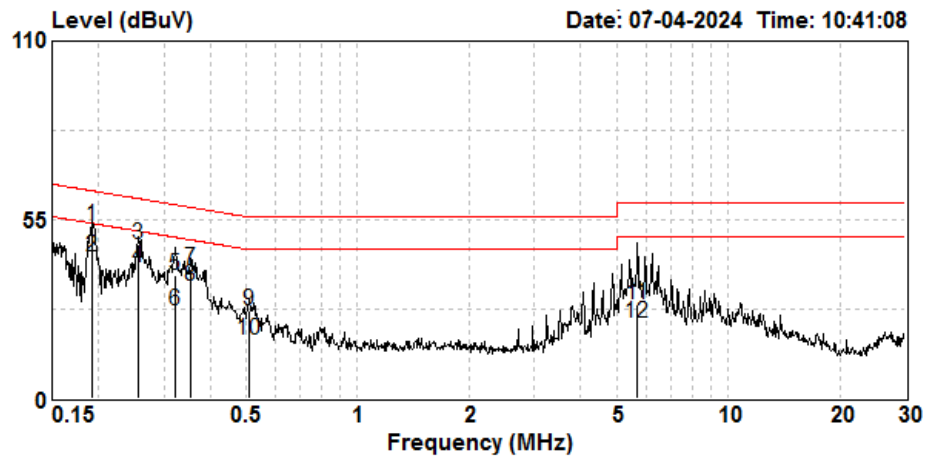
5.4 Limit

Frequency (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56	56 – 46
0.50~5.00	56	46
5.00~30.0	60	50

TEST REPORT

5.5 Test Results

Model No.:	FBP205
Host :	67901

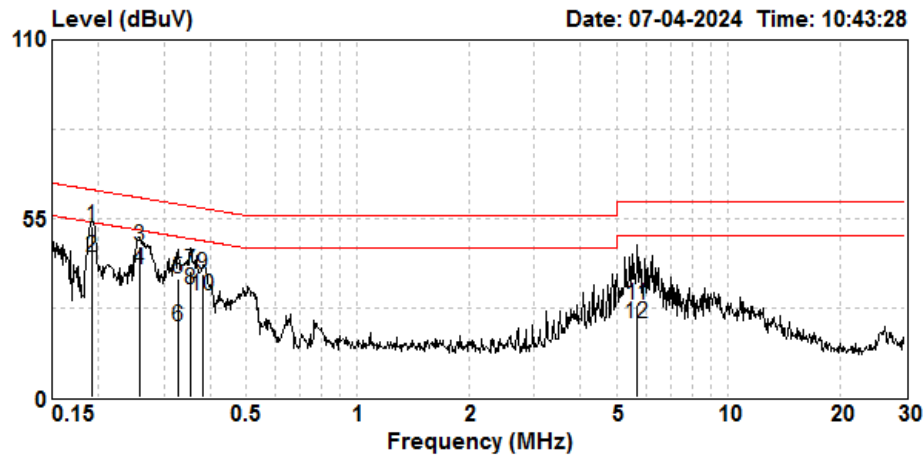


Test voltage : AC 120V / 60Hz
Temp \ Relative Humidity: 25 °C \ 70 %RH
Atmospheric pressure : 1008 hPa

Phase	Frequency (MHz)	Corr. Factor (dB)	Reading QP (dBuV)	Level QP (dBuV)	Limit QP (dBuV)	Reading AV (dBuV)	Level AV (dBuV)	Limit AV (dBuV)	Margin (dB)	
									QP	AV
LINE	0.192	9.61	43.61	53.22	63.93	34.11	43.72	53.93	-10.72	-10.21
LINE	0.256	9.61	37.78	47.39	61.56	30.66	40.27	51.56	-14.17	-11.29
LINE	0.323	9.61	28.55	38.16	59.62	17.24	26.85	49.62	-21.46	-22.77
LINE	0.356	9.61	30.25	39.86	58.83	25.19	34.80	48.83	-18.97	-14.03
LINE	0.510	9.62	17.23	26.84	56.00	8.32	17.94	46.00	-29.16	-28.06
LINE	5.683	9.68	19.12	28.81	60.00	13.37	23.05	50.00	-31.19	-26.95

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBuV) = Corr. Factor (dB) + Reading (dBuV)
3. Margin (dB) = Level (dBuV) – Limit (dBuV)



Test voltage : AC 120V / 60Hz
 Temp \ Relative Humidity: 25 °C \ 70 %RH
 Atmospheric pressure : 1008 hPa

Phase	Frequency (MHz)	Corr. Factor (dB)	Reading QP (dBuV)	Level QP (dBuV)	Limit QP (dBuV)	Reading AV (dBuV)	Level AV (dBuV)	Limit AV (dBuV)	Margin (dB)	
									QP	AV
NEUTRAL	0.191	9.61	42.85	52.46	63.98	33.62	43.23	53.98	-11.51	-10.75
NEUTRAL	0.258	9.61	36.79	46.40	61.51	29.62	39.23	51.51	-15.11	-12.29
NEUTRAL	0.329	9.61	27.09	36.70	59.49	12.44	22.05	49.49	-22.79	-27.44
NEUTRAL	0.356	9.61	29.40	39.01	58.83	23.50	33.11	48.83	-19.82	-15.71
NEUTRAL	0.383	9.61	28.40	38.01	58.21	21.62	31.23	48.21	-20.20	-16.98
NEUTRAL	5.683	9.67	19.00	28.67	60.00	13.33	23.00	50.00	-31.33	-27.00

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBuV) = Corr. Factor (dB) + Reading (dBuV)
3. Margin (dB) = Level (dBuV) – Limit (dBuV)

Appendix A: Test equipment list

Test Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMI Test Receiver	KEYSIGHT	N9038B	MY63060107	2024/03/06	2025/03/05
Spectrum analyzer	KEYSIGHT	N9020B	MY63450146	2024/03/05	2025/03/04
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-067	2024/01/16	2025/01/15
Bilog Antenna	SCHWARZBECK	VULB 9168 & N-6-06	1382 & AT-06012	2023/12/14	2024/12/13
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-456	2023/12/27	2024/12/26
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170159	2023/09/01	2024/08/31
Pre-Amplifier	SGH	SGH118(45dB)	20220105-1	2024/01/23	2025/01/22
Pre-amplifier	SGH	SGH184	20201124-1	2023/10/31	2024/10/30
Cable	SUHNER	SUCOFLEX 104	295105/4	2024/03/02	2025/03/02
Cable	SUHNER	SUCOFLEX 104P	CB0005	2024/06/14	2025/06/13
RF Cable	SUHNER	SUCOFLEX 104P	9403 / 4P	2023/11/24	2024/11/23
High Pass Filter	Reactel	7HS-3G/18G-S11	N/A	2024/05/23	2025/05/23
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2063XA	MY58000469	2024/03/06	2025/03/05
20dB Attenuator	PE	PE7001-20	N/A	2024/05/23	2025/05/23
966-2_3m Semi-Anechoic Chamber	CHANCE MOST	CEM-966_2	N/A	2023/08/01	2024/07/31
Test software	Audix	e3	V9	NCR	NCR

Note: No Calibration Required (NCR).

Test Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMI Test Receiver	R&S	ESCI	100059	2023/09/08	2024/09/07
LISN	R&S	ENV216	101159	2024/05/07	2025/05/06
Cable	SUHNER	SUCOFLEX 106	27222 /6	2024/01/12	2025/01/11
Cable	SUHNER	SUCOFLEX 106	27221 /6	2024/01/10	2025/01/09
Test software	Audix	e3	V4.20040112L	NCR	NCR
Test site	Intertek	Con-1	N/A	NCR	NCR

Note: No Calibration Required (NCR).

Appendix B: Measurement Uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of $k=2$.

Item	Uncertainty
Radiated disturbances from 9kHz~30MHz in a semi-anechoic chamber at a distance of 3m	2.73 dB
Vertically polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	3.91 dB
Horizontally polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	3.49 dB
Vertically polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	3.71 dB
Horizontally polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	3.71 dB
Vertically polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	3.26 dB
Horizontally polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	3.26 dB
Conducted Measurement	0.69 dB
AC Power Line Conducted Emission	1.31 dB