



FCC Test Report

Test report

On Behalf of

Shenzhen Haimeilan Technology Co., LTD.

For

Smart Phone

Model No.: S25 Ultra, S24 Ultra, S23 Ultra, C25 Ultra, C24 Ultra, C23 Ultra, X23 Ultra, X24 Ultra, X25 Ultra, Z23 Ultra, Z24 Ultra, Z25 Ultra, C10 Plus, C30 Plus, G50 Plus, G60 Plus, C73, C7 Ultra, Polaris7 Pro, C3 Luxury, G37 Ultra, M13 Pro, Polaris7, Rise77 Luxury, Opus33 Luxury, Acro77 Luxury, Sirius40 Ultra, H50 Ultra, G3 Luxury, Rise30 Ultra, G7 Ultra, E-on33 Ultra, Vista16 Ultra, I24 Ultra, I25 Ultra, X24, S01, C25, S10, S11, S08, S25 MAX, I15 Ultra, S24 Pro Max

FCC ID: 2BDI3-S

Prepared For : Shenzhen Haimeilan Technology Co., LTD.

9V777, East 9th Floor, Building 2, SEG Science Park, Huaqiang North Street, Futian District, Shenzhen, 518000 China

Prepared By : Shenzhen HUAKE Testing Technology Co., Ltd.

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Date of Test: Dec. 18, 2024 ~ Feb. 17, 2025

Date of Report: Feb. 17, 2025

Report Number: HK2412187831-3E



Test Result Certification

Applicant's name : Shenzhen Haimeilan Technology Co., LTD.
Address..... : 9V777, East 9th Floor, Building 2, SEG Science Park,
Huaqiang North Street, Futian District, Shenzhen, 518000
China

Manufacturer's Name..... : Shenzhen Yinma Intelligent Technology Co., Ltd
Address..... : 2nd Floor, Building 2, Donglongxing Science and Technology
Park, Dalang Street, Longhua District, Shenzhen, 518000
China

Product description

Trade Mark: N/A

Product name..... : Smart Phone

Series Models : S25 Ultra, S24 Ultra, S23 Ultra, C25 Ultra, C24 Ultra, C23
Ultra, X23 Ultra, X24 Ultra, X25 Ultra, Z23 Ultra, Z24 Ultra, Z25
Ultra, C10 Plus, C30 Plus, G50 Plus, G60 Plus, C73, C7 Ultra,
Polaris7 Pro, C3 Luxury, G37 Ultra, M13 Pro, Polaris7, Rise77
Luxury, Opus33 Luxury, Acro77 Luxury, Sirius40 Ultra, H50
Ultra, G3 Luxury, Rise30 Ultra, G7 Ultra, E-on33 Ultra, Vista16
Ultra, I24 Ultra, I25 Ultra, X24, S01, C25, S10, S11, S08, S25
MAX, I15 Ultra, S24 Pro Max

Standards..... : FCC Rules and Regulations Part 15 Subpart E Section 15.407
ANSI C63.10: 2013

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Date of Test :
Date (s) of performance of tests..... : Dec. 18, 2024 ~ Feb. 17, 2025
Date of Issue : Feb. 17, 2025
Test Result..... : Pass

Testing Engineer :

(Len Liao)

Technical Manager :

(Sliver Wan)

Authorized Signatory :

(Jason Zhou)



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**** Modified History ****

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Feb. 17, 2025	Jason Zhou



1. Test Result Summary

1.1. Test Procedures and Results

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Maximum Conducted Output Power	§15.407(a)	PASS
6dB Emission Bandwidth	§15.407(e)	PASS
26dB Emission Bandwidth & 99% Occupied Bandwidth	§15.407(a)	N/A
Power Spectral Density	§15.407(a)	PASS
Band edge	§15.407(b)/15.209/15.205	PASS
Radiated Emission	§15.407(b)/15.209/15.205	PASS
Frequency Stability	§15.407(g)	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

1.2. Information of the Test Laboratory

Shenzhen HUAKE Testing Technology Co., Ltd.

Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization:

A2LA Accreditation Code is 4781.01.

FCC Designation Number is CN1229.

Canada IC CAB identifier is CN0045.

CNAS Registration Number is L9589.



1.3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	$\pm 0.37\text{dB}$
2	RF power, conducted	$\pm 3.35\text{dB}$
3	Spurious emissions, conducted	$\pm 2.20\text{dB}$
4	All emissions, radiated(<1G)	$\pm 3.90\text{dB}$
5	All emissions, radiated(>1G)	$\pm 4.28\text{dB}$
6	Temperature	$\pm 0.1^{\circ}\text{C}$
7	Humidity	$\pm 1.0\%$



2. EUT Description

2.1. General Description of EUT

Equipment:	Smart Phone
Model Name:	S25 Ultra
Serial Models:	S24 Ultra, S23 Ultra, C25 Ultra, C24 Ultra, C23 Ultra, X23 Ultra, X24 Ultra, X25 Ultra, Z23 Ultra, Z24 Ultra, Z25 Ultra, C10 Plus, C30 Plus, G50 Plus, G60 Plus, C73, C7 Ultra, Polaris7 Pro, C3 Luxury, G37 Ultra, M13 Pro, Polaris7, Rise77 Luxury, Opus33 Luxury, Acro77 Luxury, Sirius40 Ultra, H50 Ultra, G3 Luxury, Rise30 Ultra, G7 Ultra, E-on33 Ultra, Vista16 Ultra, I24 Ultra, I25 Ultra, X24, S01, C25, S10, S11, S08, S25 MAX, I15 Ultra, S24 Pro Max
Model Difference:	All model's the function, software and electric circuit are the same, only with a product appearance, color and model named different. Test sample mode: S25 Ultra.
Trade Mark:	N/A
FCC ID:	2BDI3-S
Operation Frequency:	IEEE 802.11a/n/ac (HT20)5.745GHz-5.825GHz IEEE 802.11n/ac (HT40)5.755GHz-5.795GHz IEEE 802.11ac (HT80) 5.775GHz
Modulation Technology:	IEEE 802.11a/n/ac
Modulation Type:	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Antenna Type:	FPC Antenna
Antenna Gain:	1.2dBi
Power Source:	DC 5V From Type-C or DC 3.85V From Battery
Power Supply:	DC 5V From Type-C or DC 3.85V From Battery
Hardware Version:	V1.0
Software Version:	V1.0
Note: 1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. Antenna gain Refer to the antenna specifications. 3. The cable loss data is obtained from the supplier. 4. The test results in the report only apply to the tested sample.	



2.2. Operation Frequency Each of Channel

802.11a/802.11n(HT20) 802.11ac(HT20)		802.11n(HT40) 802.11ac(HT40)		802.11ac(HT80)	
Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

2.3. Operation of EUT During Testing

Band IV (5725 - 5850 MHz)		
For 802.11a/n (HT20)/ac(HT20)		
Channel Number	Channel	Frequency (MHz)
149	Low	5745
157	Mid	5785
165	High	5825

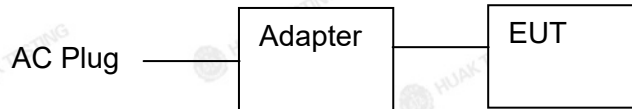
For 802.11n (HT40)/ ac(HT40)		
Channel Number	Channel	Frequency (MHz)
151	Low	5755
159	High	5795

For 802.11ac(HT80)		
Channel Number	Channel	Frequency (MHz)
155	/	5775

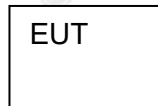


2.4. Description of Test Setup

Operation of EUT during conducted testing and below 1GHz radiation testing:



Operation of EUT during above 1GHz radiation testing:



The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. The worst case is X position.



2.5. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Trade Mark	Model/Type No.	Specification	Remark
1	Smart Phone	N/A	S25 Ultra	N/A	EUT
2	USB Cable	N/A	N/A	Length:0.82m	Accessory
3	Adapter	N/A	APD5-2	Input: AC 100-240V, 50/60Hz, 0.5A Output: DC 5V, 2A	Accessory

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 6db Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.



3. General Information

3.1. Test Environment and Mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
Test Mode:	
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations
The sample was placed 0.8m/1.5m for blow/above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:	
Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.	
Mode	Data rate
802.11a	6 Mbps
802.11n(HT20)	MCS0
802.11n(HT40)	MCS0
802.11ac(HT20)/ac(HT40)/ac(HT80)	MCS0
Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation

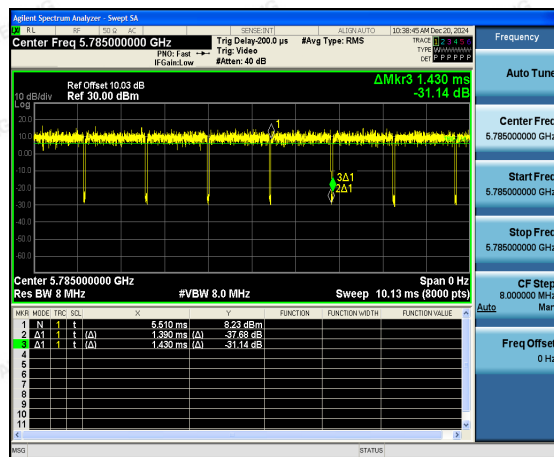


Mode Test Duty Cycle:

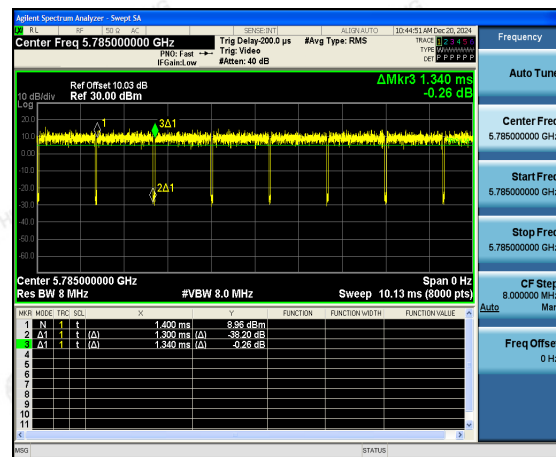
Mode	Duty Cycle	Duty Cycle Factor (dB)
802.11a	0.97	-0.13
802.11n(HT20)	0.97	-0.13
802.11n(HT40)	0.94	-0.27
802.11ac(HT20)	0.97	-0.13
802.11ac(HT40)	0.94	-0.27
802.11ac(HT80)	0.86	-0.66

Test plots as follows:

802.11a

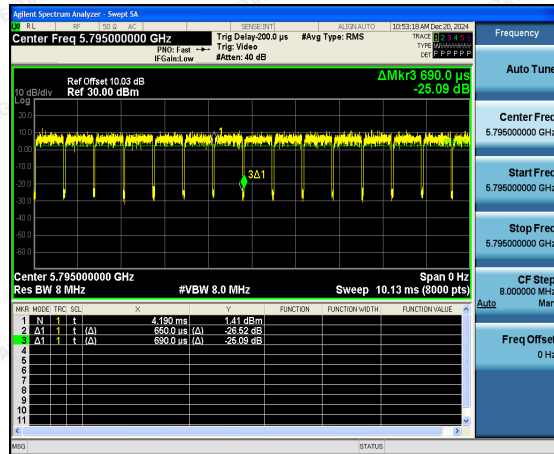


802.11n(HT20)

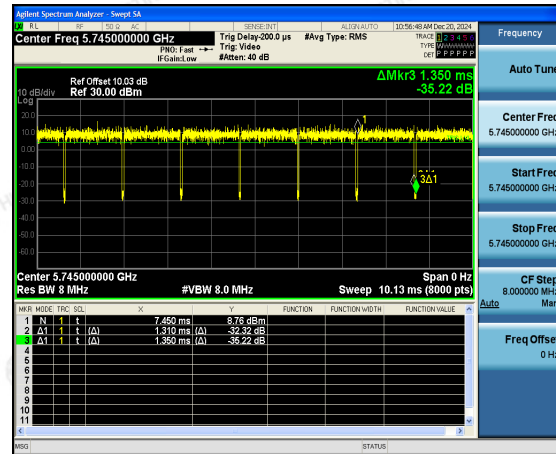




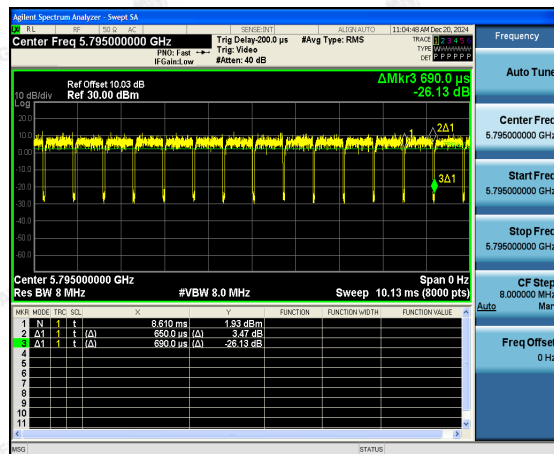
802.11n(HT40)



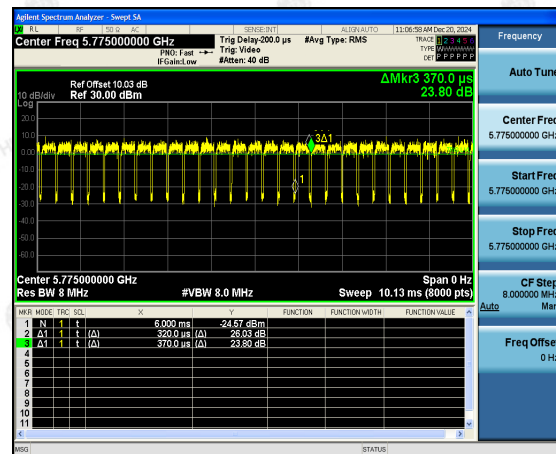
802.11ac(HT20)



802.11ac(HT40)



802.11ac(HT80)





4. Test Results and Measurement Data

4.1. Conducted Emission

4.1.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2013														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	Reference Plane 40cm E.U.T AC power 80cm LISN Filter AC power EMI Receiver Test table/Insulation plane Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Tx Mode														
Test Procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.														
Test Result:	Pass														



4.1.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	R&S	ESR	HKE-005	Feb. 20, 2024	Feb. 19, 2025
LISN	R&S	ENV216	HKE-002	Feb. 20, 2024	Feb. 19, 2025
LISN	R&S	ENV216	HKE-059	Feb. 20, 2024	Feb. 19, 2025
Coax cable (9KHz-30MHz)	Times	381806-002	N/A	Feb. 20, 2024	Feb. 19, 2025
EMI Test Software	Tonscend	JS32-CE 2.5.0.6	HKE-081	N/A	N/A
10dB Attenuator	Schwarzbeck	VTSD9561F	HKE-153	Feb. 20, 2024	Feb. 19, 2025

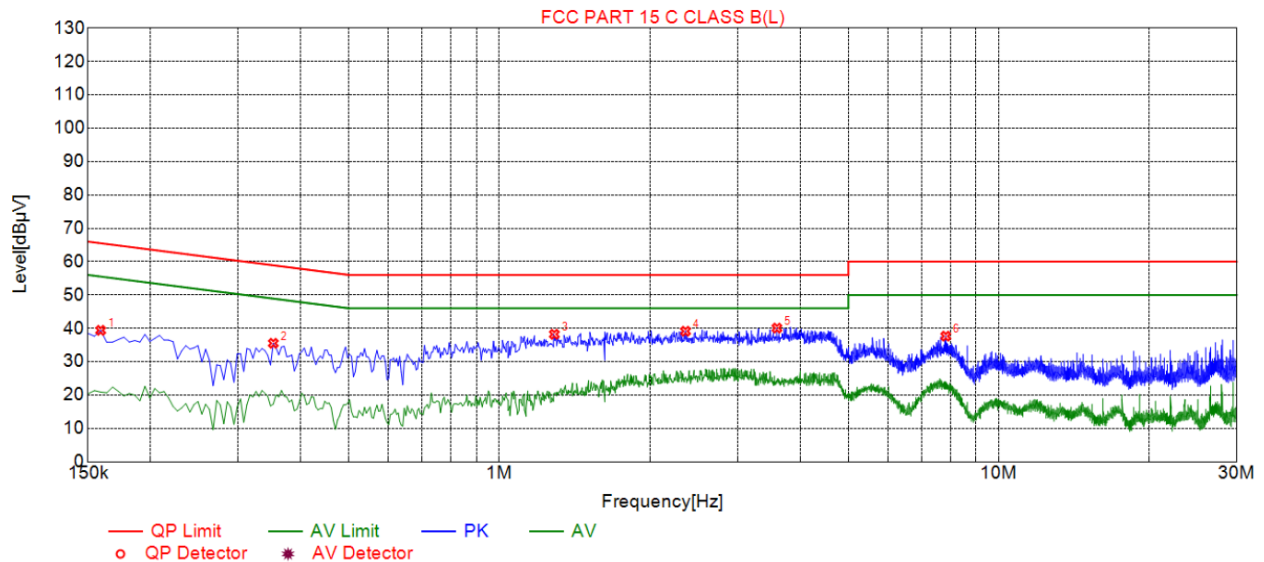
Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.1.3. Test data

Test Model No.: S25 Ultra

Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1590	39.40	19.81	65.52	26.12	19.59	PK	L
2	0.3525	35.52	19.83	58.90	23.38	15.69	PK	L
3	1.2885	38.23	19.91	56.00	17.77	18.32	PK	L
4	2.3595	39.13	20.00	56.00	16.87	19.13	PK	L
5	3.5970	40.08	20.09	56.00	15.92	19.99	PK	L
6	7.8360	37.66	20.04	60.00	22.34	17.62	PK	L

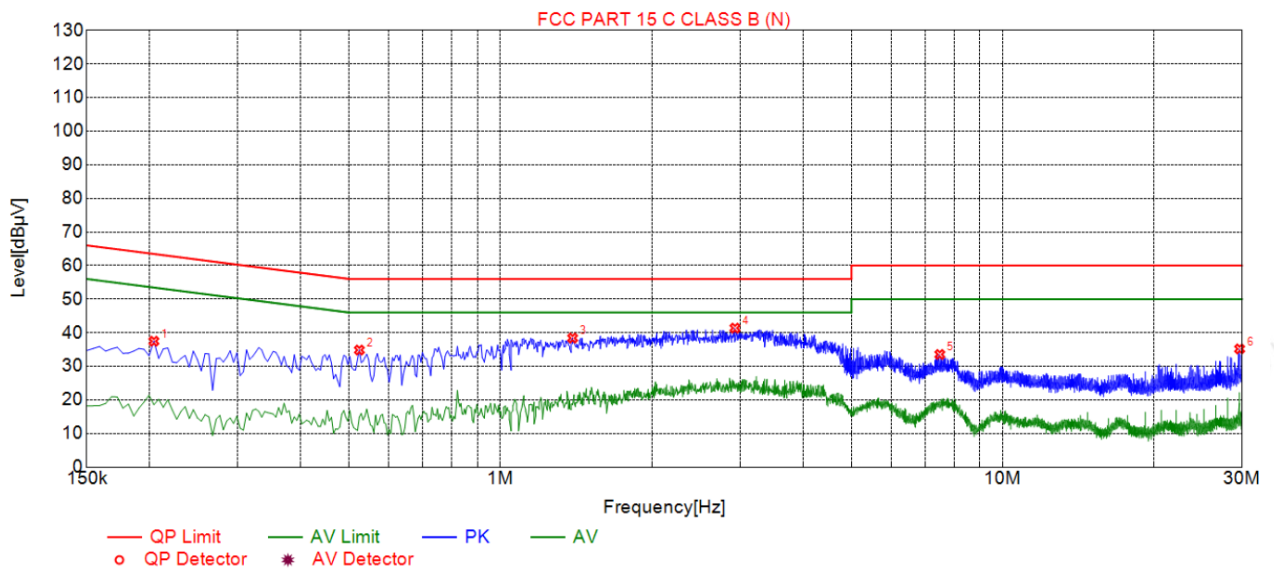
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.2040	37.48	19.73	63.45	25.97	17.75	PK	N
2	0.5235	34.84	19.73	56.00	21.16	15.11	PK	N
3	1.3920	38.41	19.80	56.00	17.59	18.61	PK	N
4	2.9310	41.38	19.92	56.00	14.62	21.46	PK	N
5	7.4985	33.54	19.95	60.00	26.46	13.59	PK	N
6	29.6565	35.18	20.36	60.00	24.82	14.82	PK	N

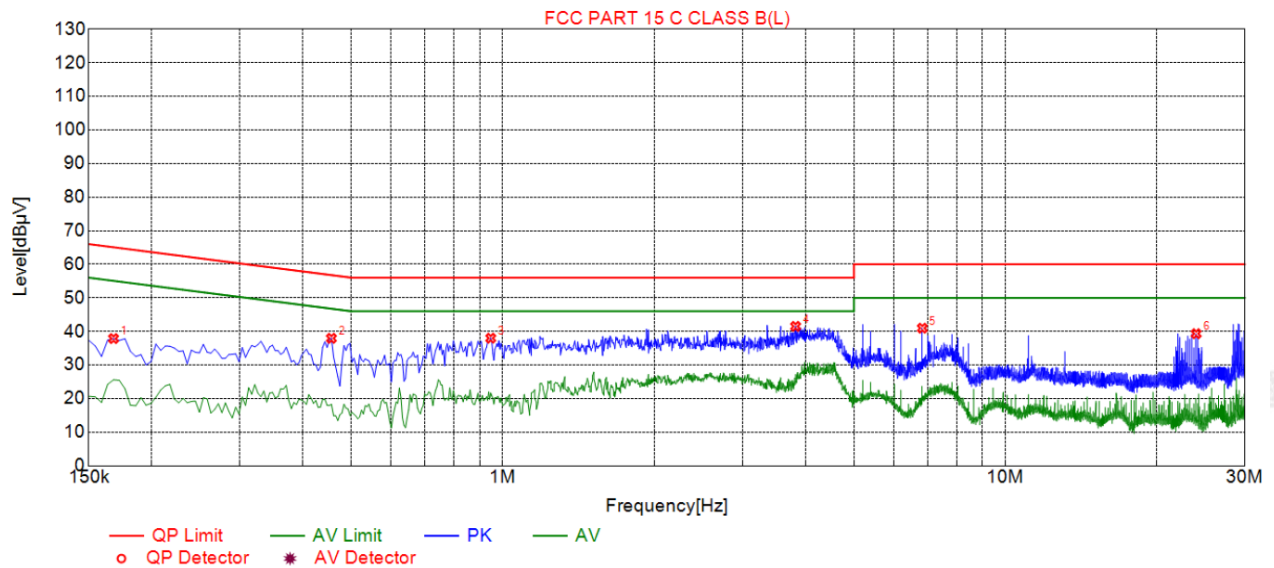
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: X24 Ultra
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1680	37.88	19.81	65.06	27.18	18.07	PK	L
2	0.4560	37.96	19.84	56.77	18.81	18.12	PK	L
3	0.9465	38.00	19.87	56.00	18.00	18.13	PK	L
4	3.8265	41.50	20.09	56.00	14.50	21.41	PK	L
5	6.8415	40.96	20.07	60.00	19.04	20.89	PK	L
6	23.9955	39.33	20.10	60.00	20.67	19.23	PK	L

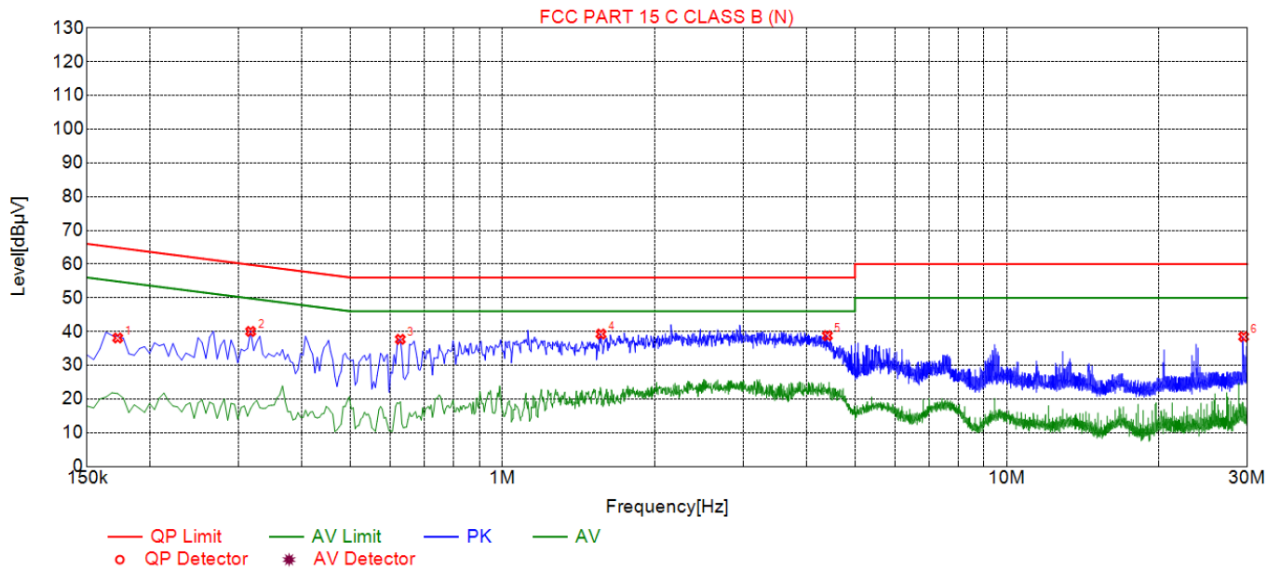
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level = Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1725	38.10	19.73	64.84	26.74	18.37	PK	N
2	0.3165	40.03	19.75	59.80	19.77	20.28	PK	N
3	0.6270	37.70	19.74	56.00	18.30	17.96	PK	N
4	1.5675	39.27	19.80	56.00	16.73	19.47	PK	N
5	4.4070	38.79	19.98	56.00	17.21	18.81	PK	N
6	29.4900	38.47	20.36	60.00	21.53	18.11	PK	N

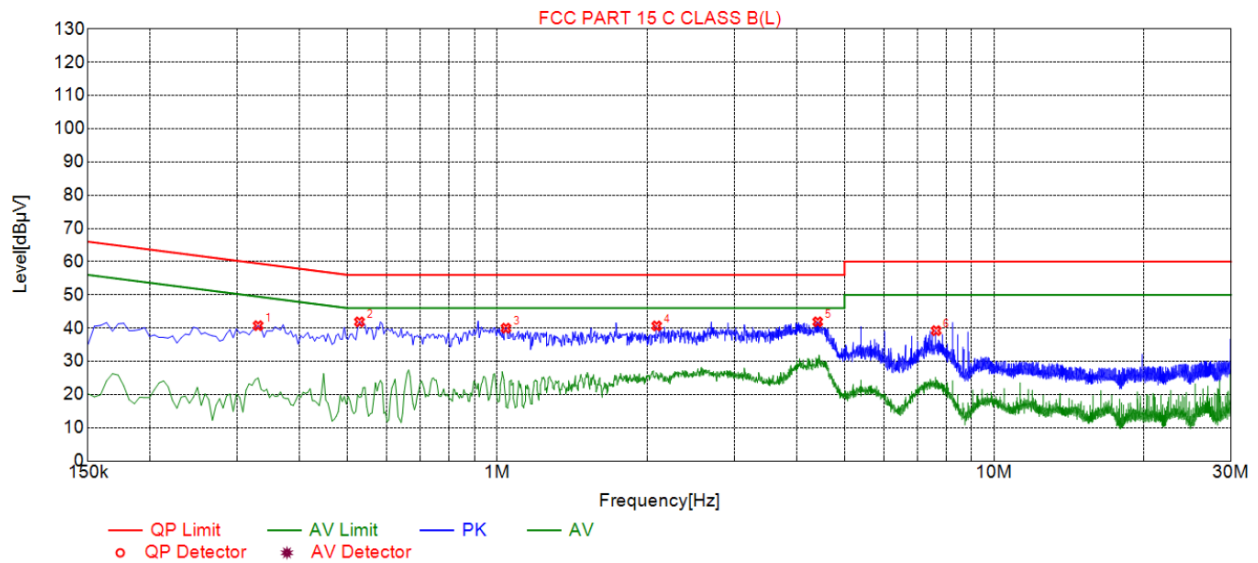
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: C24 Ultra
Test Specification: Line



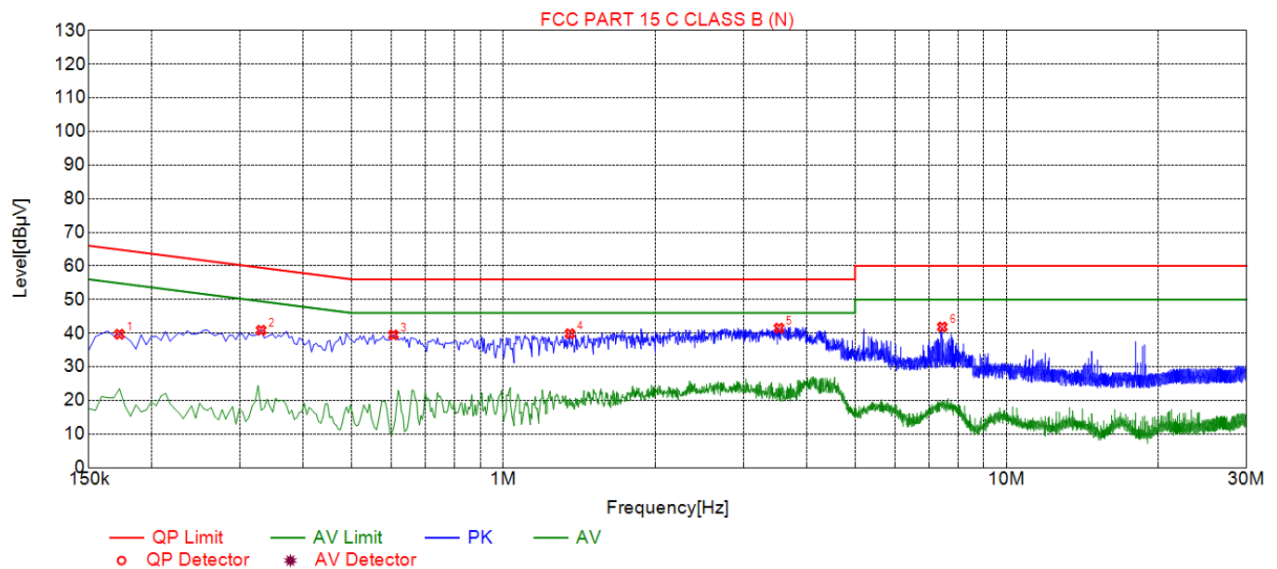
Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.3300	40.73	19.84	59.45	18.72	20.89	PK	L
2	0.5280	41.87	19.85	56.00	14.13	22.02	PK	L
3	1.0410	39.98	19.88	56.00	16.02	20.10	PK	L
4	2.0940	40.66	19.97	56.00	15.34	20.69	PK	L
5	4.4160	41.89	20.09	56.00	14.11	21.80	PK	L
6	7.6470	39.23	20.05	60.00	20.77	19.18	PK	L

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1725	39.68	19.73	64.84	25.16	19.95	PK	N
2	0.3300	40.87	19.74	59.45	18.58	21.13	PK	N
3	0.6045	39.47	19.74	56.00	16.53	19.73	PK	N
4	1.3560	39.85	19.79	56.00	16.15	20.06	PK	N
5	3.5295	41.52	19.97	56.00	14.48	21.55	PK	N
6	7.4535	41.86	19.95	60.00	18.14	21.91	PK	N

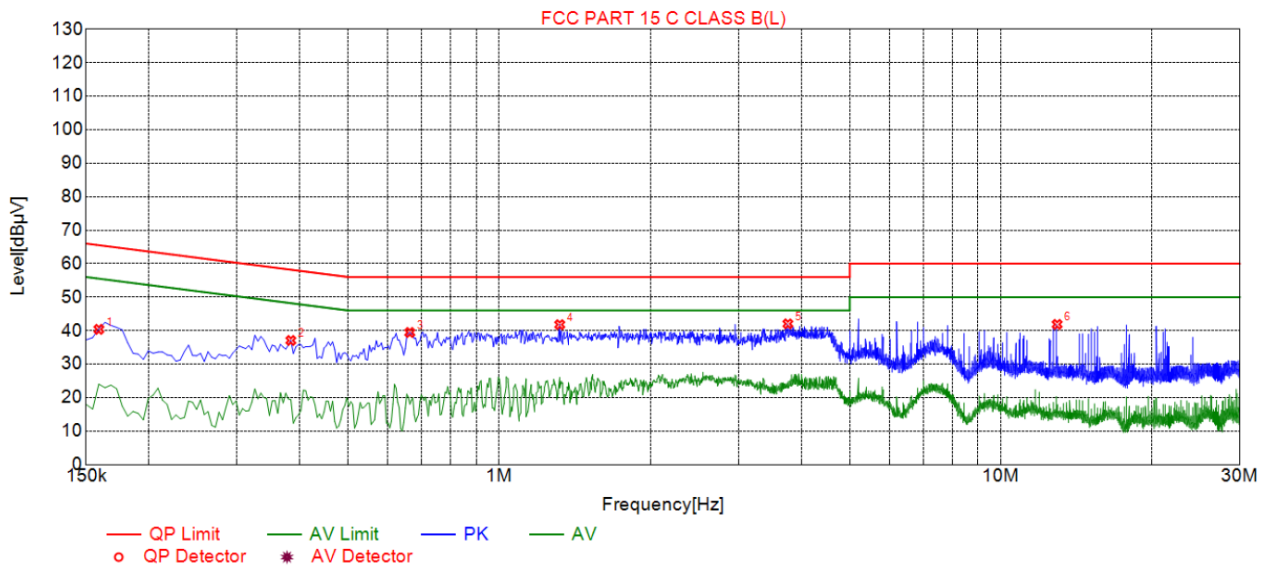
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: C25
Test Specification: Line



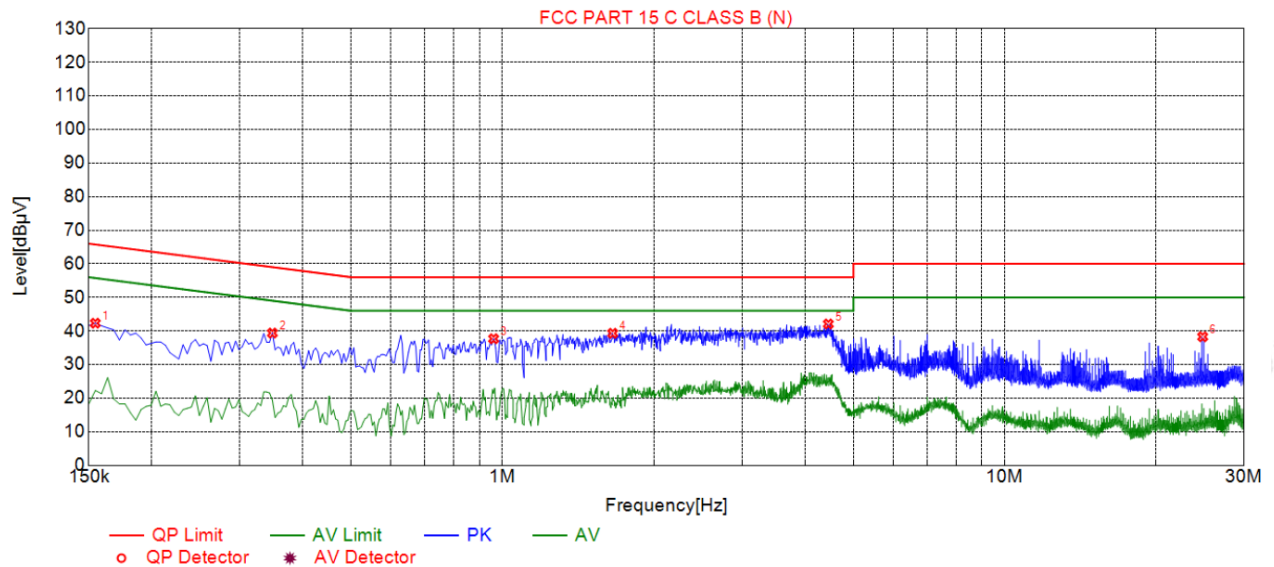
Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1590	40.38	19.81	65.52	25.14	20.57	PK	L
2	0.3840	37.07	19.85	58.19	21.12	17.22	PK	L
3	0.6630	39.45	19.86	56.00	16.55	19.59	PK	L
4	1.3200	41.78	19.91	56.00	14.22	21.87	PK	L
5	3.7635	42.03	20.09	56.00	13.97	21.94	PK	L
6	12.9570	41.87	19.84	60.00	18.13	22.03	PK	L

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1545	42.32	19.73	65.75	23.43	22.59	PK	N
2	0.3480	39.38	19.72	59.01	19.63	19.66	PK	N
3	0.9600	37.69	19.74	56.00	18.31	17.95	PK	N
4	1.6575	39.31	19.81	56.00	16.69	19.50	PK	N
5	4.4565	42.09	19.98	56.00	13.91	22.11	PK	N
6	24.8100	38.28	20.23	60.00	21.72	18.05	PK	N

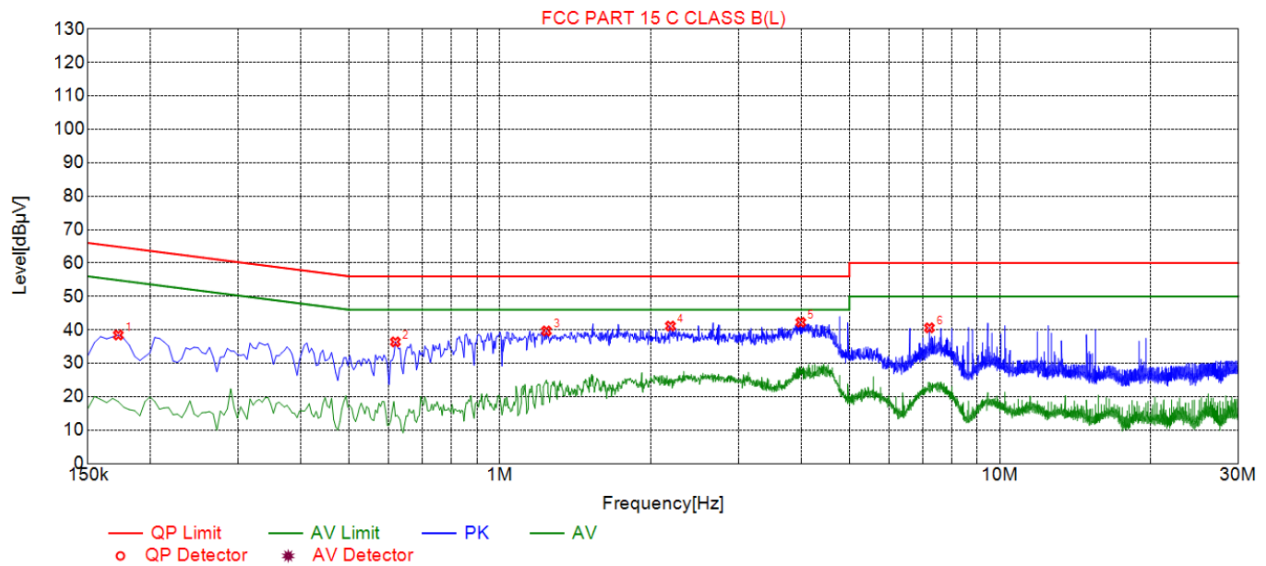
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: I15 Ultra
Test Specification: Line



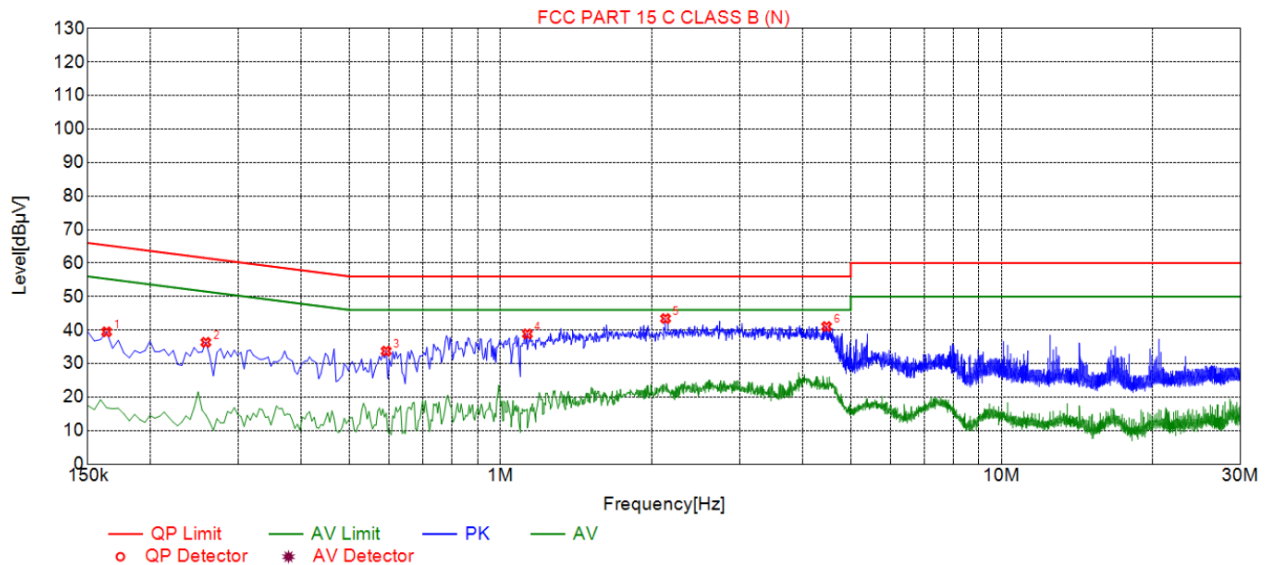
Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1725	38.45	19.84	64.84	26.39	18.61	PK	L
2	0.6180	36.40	19.86	56.00	19.60	16.54	PK	L
3	1.2390	39.66	19.90	56.00	16.34	19.76	PK	L
4	2.1930	41.14	19.99	56.00	14.86	21.15	PK	L
5	3.9975	42.25	20.09	56.00	13.75	22.16	PK	L
6	7.2285	40.60	20.06	60.00	19.40	20.54	PK	L

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1635	39.47	19.68	65.28	25.81	19.79	PK	N
2	0.2580	36.35	19.73	61.50	25.15	16.62	PK	N
3	0.5910	33.72	19.74	56.00	22.28	13.98	PK	N
4	1.1310	38.87	19.77	56.00	17.13	19.10	PK	N
5	2.1345	43.44	19.85	56.00	12.56	23.59	PK	N
6	4.4745	41.05	19.98	56.00	14.95	21.07	PK	N

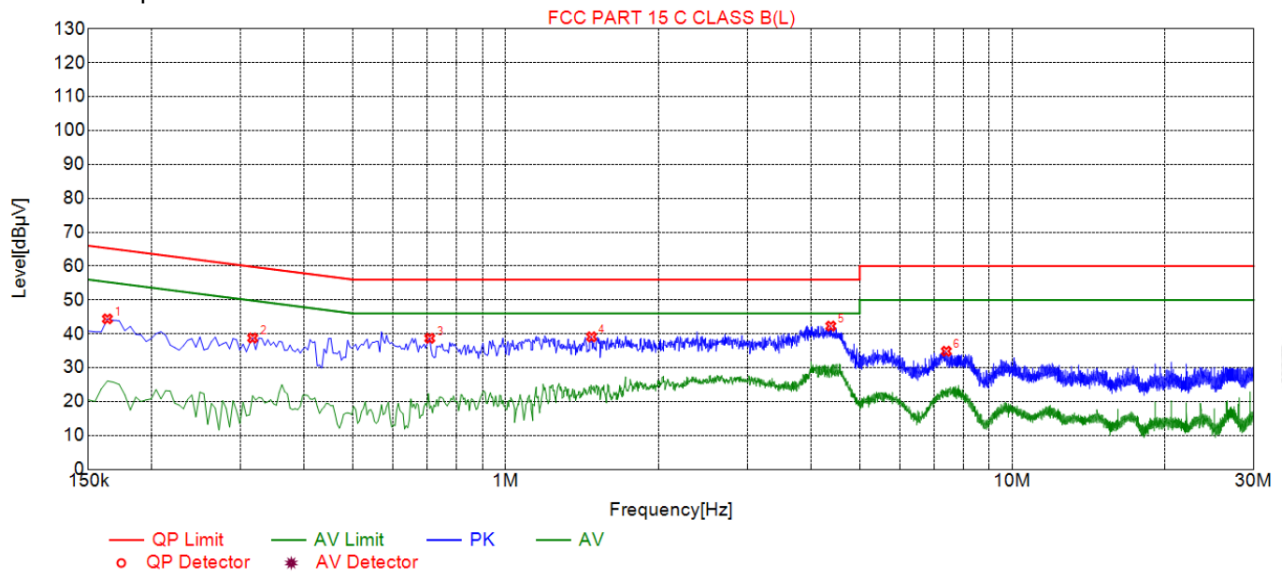
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: C7 Ultra
Test Specification: Line



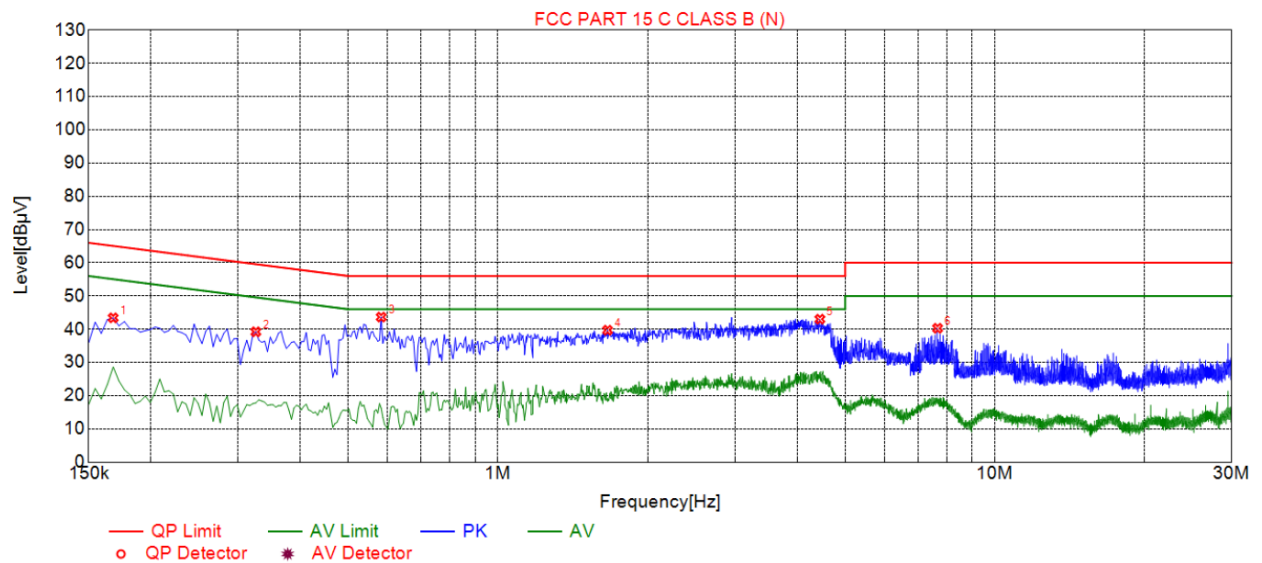
Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1635	44.42	19.78	65.28	20.86	24.64	PK	L
2	0.3165	38.78	19.85	59.80	21.02	18.93	PK	L
3	0.7080	38.69	19.86	56.00	17.31	18.83	PK	L
4	1.4775	39.12	19.92	56.00	16.88	19.20	PK	L
5	4.3845	42.30	20.09	56.00	13.70	22.21	PK	L
6	7.4130	34.87	20.05	60.00	25.13	14.82	PK	L

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1680	43.41	19.71	65.06	21.65	23.70	PK	N
2	0.3255	39.22	19.74	59.57	20.35	19.48	PK	N
3	0.5820	43.65	19.74	56.00	12.35	23.91	PK	N
4	1.6620	39.70	19.81	56.00	16.30	19.89	PK	N
5	4.4475	43.02	19.98	56.00	12.98	23.04	PK	N
6	7.6740	40.28	19.95	60.00	19.72	20.33	PK	N

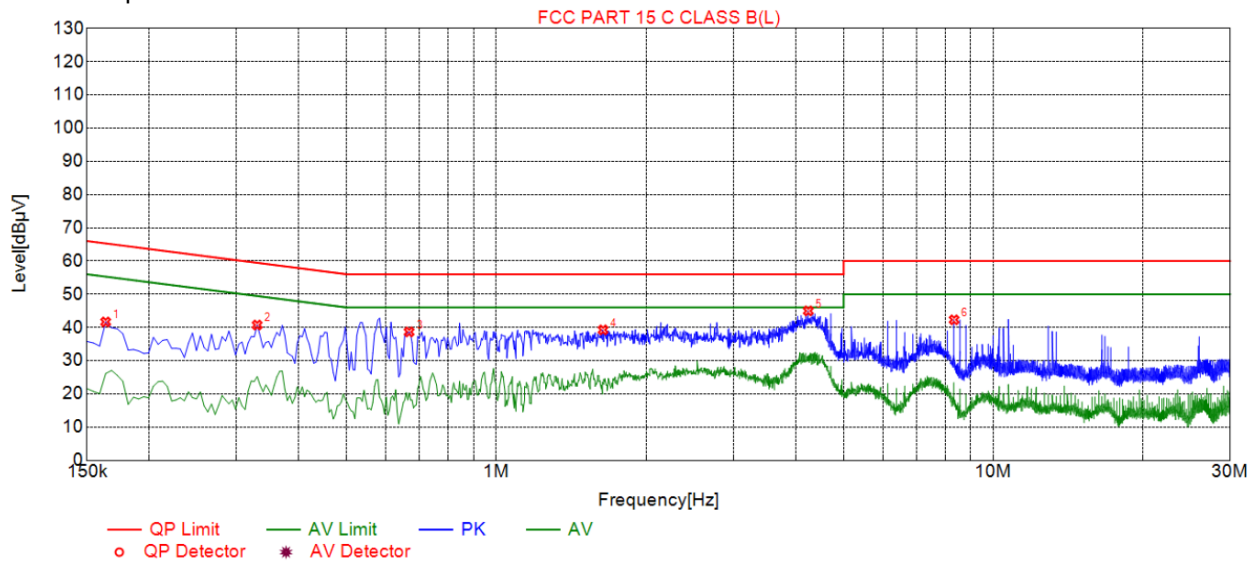
Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



Series Model No.: S24 Ultra
Test Specification: Line



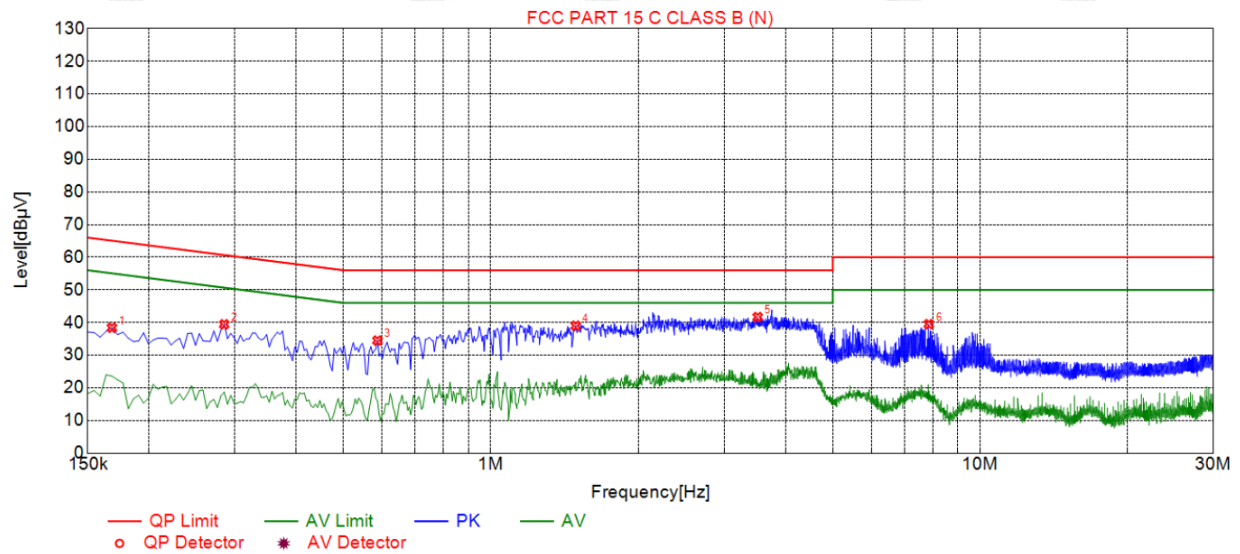
Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1635	41.66	19.78	65.28	23.62	21.88	PK	L
2	0.3300	40.72	19.84	59.45	18.73	20.88	PK	L
3	0.6675	38.65	19.86	56.00	17.35	18.79	PK	L
4	1.6395	39.26	19.93	56.00	16.74	19.33	PK	L
5	4.2450	44.99	20.09	56.00	11.01	24.90	PK	L
6	8.3445	42.30	20.02	60.00	17.70	22.28	PK	L

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor



Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1680	38.40	19.71	65.06	26.66	18.69	PK	N
2	0.2850	39.44	19.73	60.67	21.23	19.71	PK	N
3	0.5865	34.48	19.74	56.00	21.52	14.74	PK	N
4	1.4910	39.01	19.79	56.00	16.99	19.22	PK	N
5	3.5115	41.68	19.97	56.00	14.32	21.71	PK	N
6	7.8585	39.51	19.94	60.00	20.49	19.57	PK	N

Remark: Margin = Limit – Level

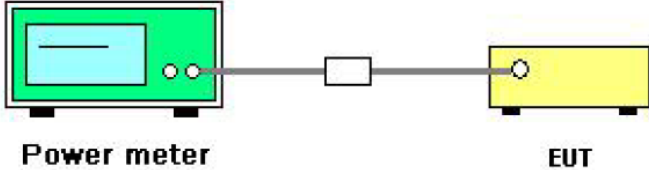
Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



4.2. Maximum Conducted Output Power

4.2.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407(a)		
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02.r01 Section E		
Limit:	Frequency (MHz)	Band	Limit
	5725-5850		1 W
Test Setup:	 Power meter EUT		
Test Mode:	Transmitting mode with modulation		
Test Procedure:	1. The testing follows the Measurement Procedure of KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E, 3, a. 2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Measure the conducted output power and record the results in the test report.		
Test Result:	PASS		
Remark:	Conducted output power= measurement power +10log(1/x) X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power		



4.2.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
Power meter	Agilent	E4419B	HKE-085	Feb. 20, 2024	Feb. 19, 2025
Power Sensor	Agilent	E9300A	HKE-086	Feb. 20, 2024	Feb. 19, 2025
RF cable	Times	1-40G	HKE-034	Feb. 20, 2024	Feb. 19, 2025
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 20, 2024	Feb. 19, 2025
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	HKE-083	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



Test Data

Configuration Band IV (5725 - 5850 MHz)				
Mode	Test channel	Maximum Conducted Output Power (dBm)	FCC Limit (dBm)	Result
802.11a	CH149	6.31	30	PASS
802.11a	CH157	8.61	30	PASS
802.11a	CH165	7.05	30	PASS
802.11n(HT20)	CH149	7.76	30	PASS
802.11n(HT20)	CH157	6.20	30	PASS
802.11n(HT20)	CH165	6.72	30	PASS
802.11n(HT40)	CH151	7.60	30	PASS
802.11n(HT40)	CH159	6.66	30	PASS
802.11ac(HT20)	CH149	8.16	30	PASS
802.11ac(HT20)	CH157	6.43	30	PASS
802.11ac(HT20)	CH165	7.90	30	PASS
802.11ac(HT40)	CH151	7.61	30	PASS
802.11ac(HT40)	CH159	6.76	30	PASS
802.11ac(HT80)	CH155	6.99	30	PASS
Note: 1.The test results including the cable lose.				



4.3. 6db Emission Bandwidth

4.3.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407(e)
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v01r04 Section C
Limit:	>500kHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz. 4. Measure and record the results in the test report.
Test Result:	PASS

4.3.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
RF cable	Times	1-40G	HKE-034	Feb. 20, 2024	Feb. 19, 2025
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 20, 2024	Feb. 19, 2025
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	HKE-083	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



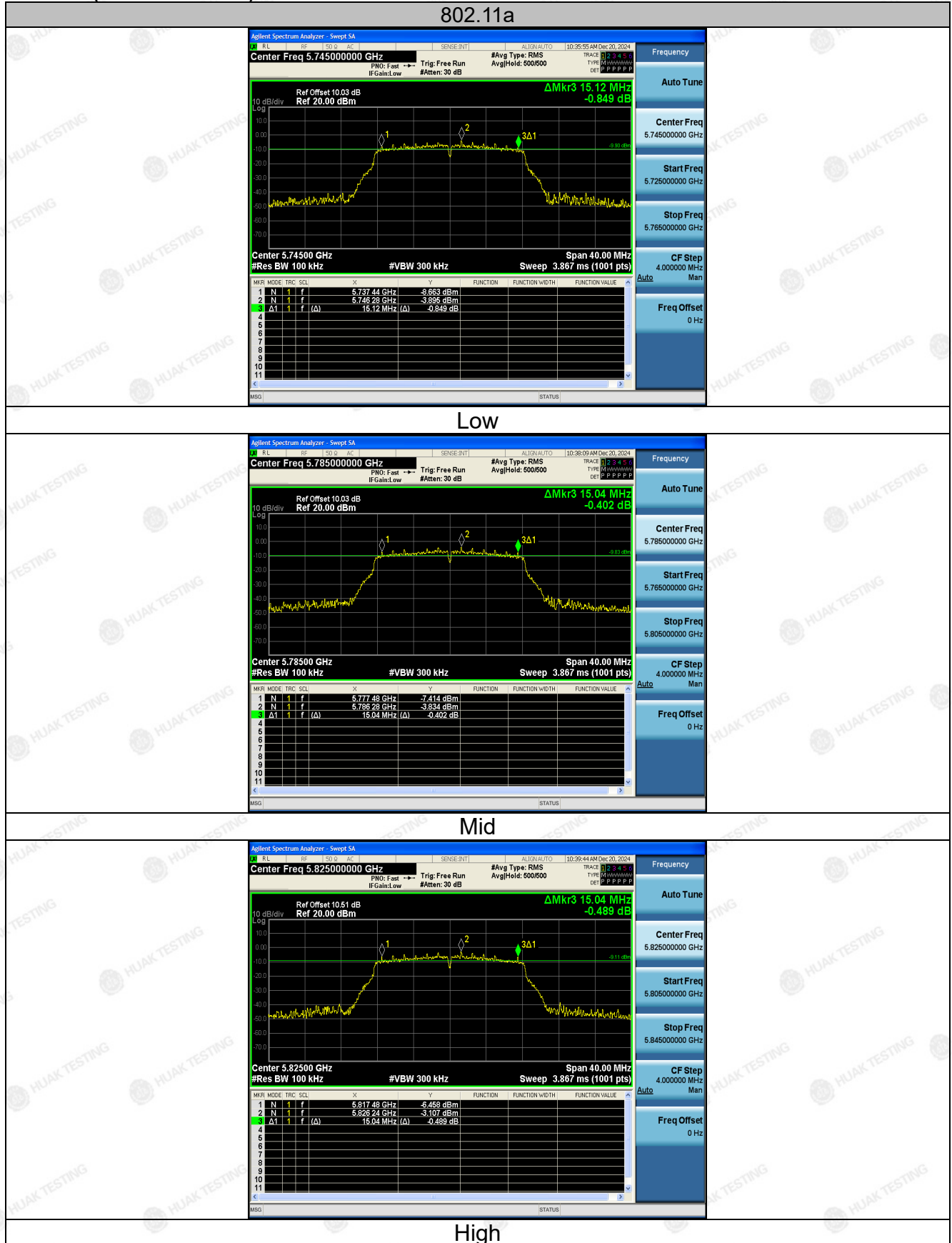
4.3.3. Test data

Band IV (5725 - 5850 MHz)					
Mode	Test Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
802.11a	CH149	5745	15.12	0.5	PASS
802.11a	CH157	5785	15.04	0.5	PASS
802.11a	CH165	5825	15.04	0.5	PASS
802.11n(HT20)	CH149	5745	15.04	0.5	PASS
802.11n(HT20)	CH157	5785	15.08	0.5	PASS
802.11n(HT20)	CH165	5825	15.40	0.5	PASS
802.11n(HT40)	CH151	5755	35.12	0.5	PASS
802.11n(HT40)	CH159	5795	35.12	0.5	PASS
802.11ac(HT20)	CH149	5745	15.12	0.5	PASS
802.11ac(HT20)	CH157	5785	15.12	0.5	PASS
802.11ac(HT20)	CH165	5825	15.08	0.5	PASS
802.11ac(HT40)	CH151	5755	35.12	0.5	PASS
802.11ac(HT40)	CH159	5795	35.12	0.5	PASS
802.11ac(HT80)	CH155	5775	75.20	0.5	PASS

Test plots as follows:



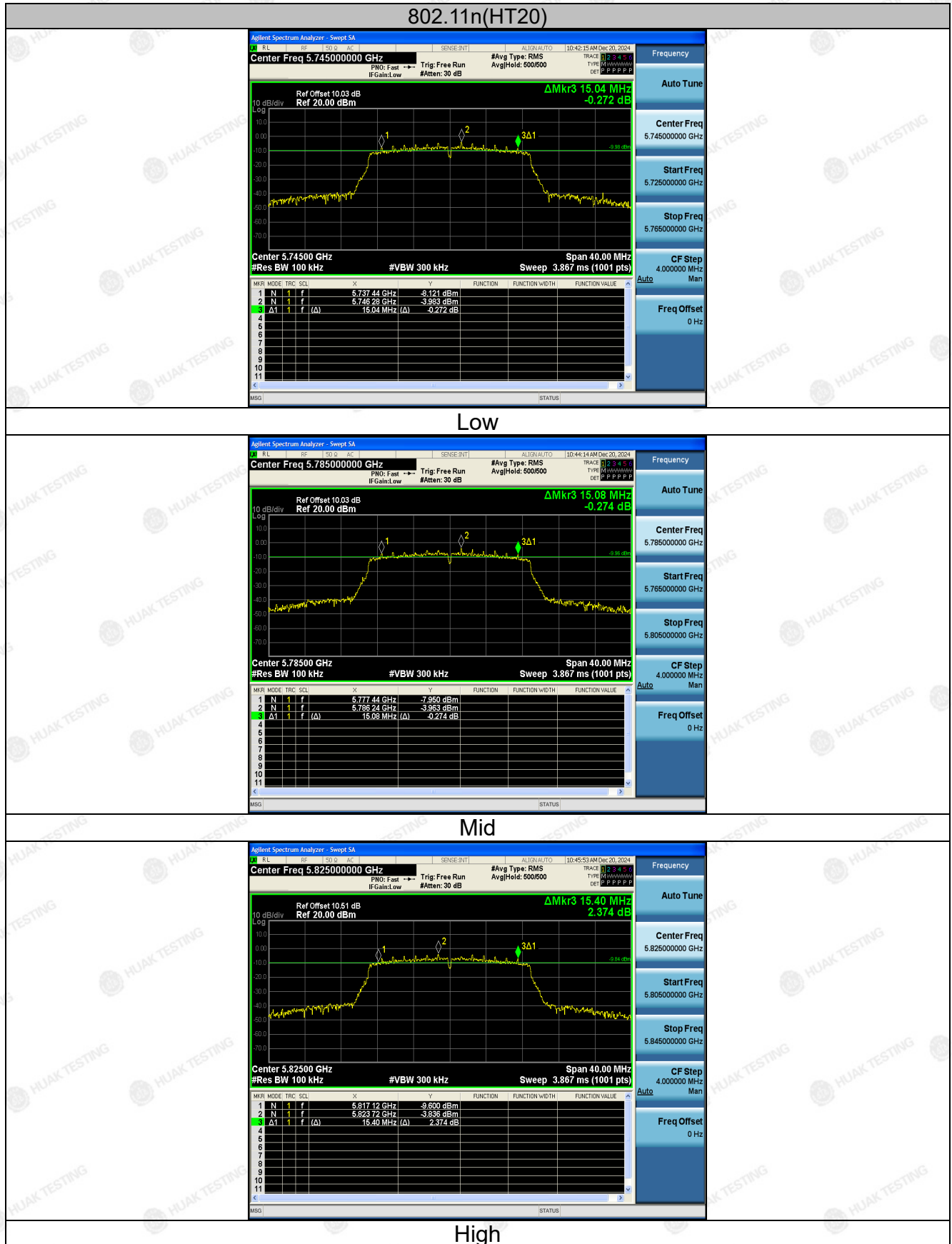
Band IV (5725 – 5850 MHz)



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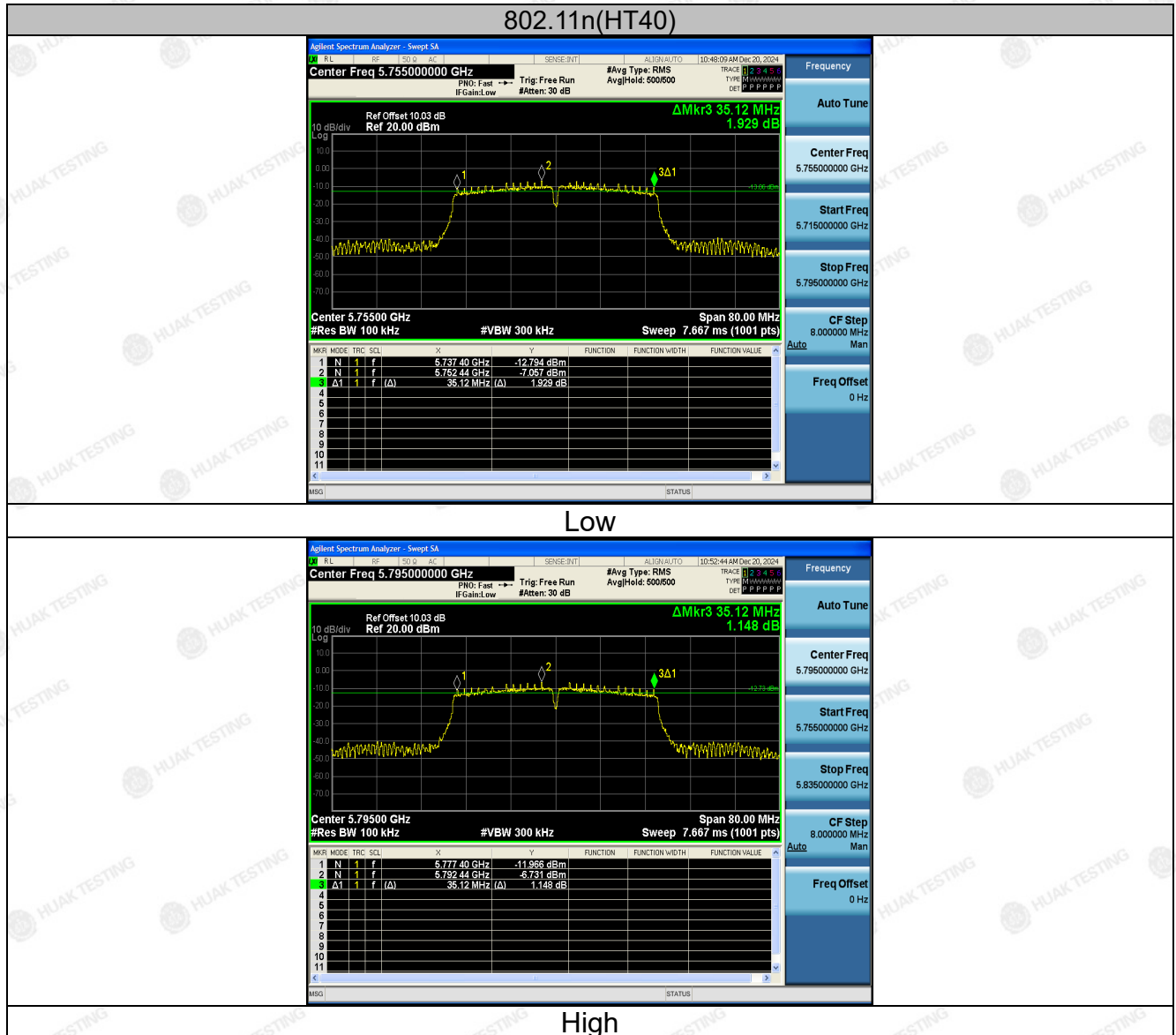
Add: 1-2F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



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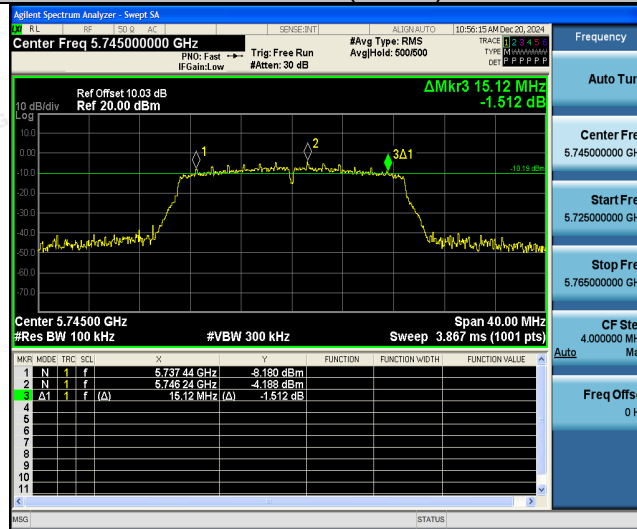
TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

Add: 1-2F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

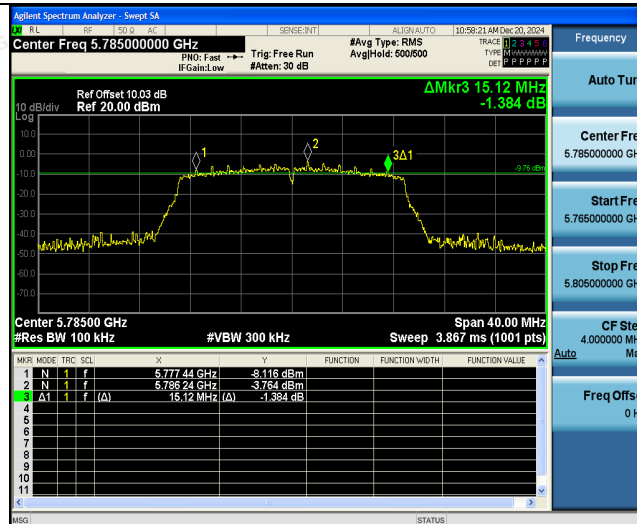




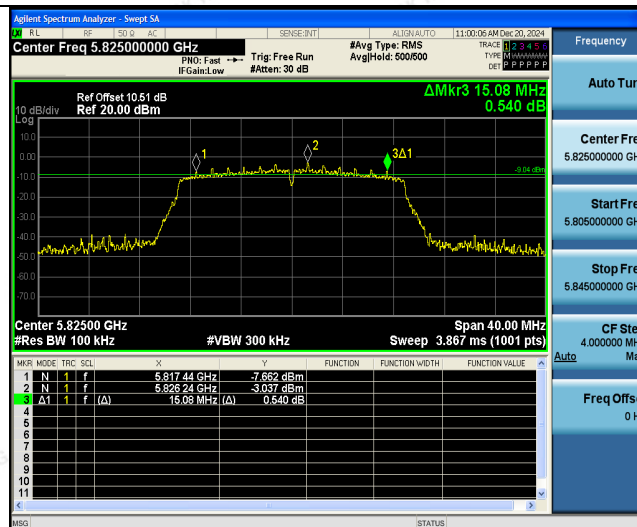
802.11ac(HT20)



Low



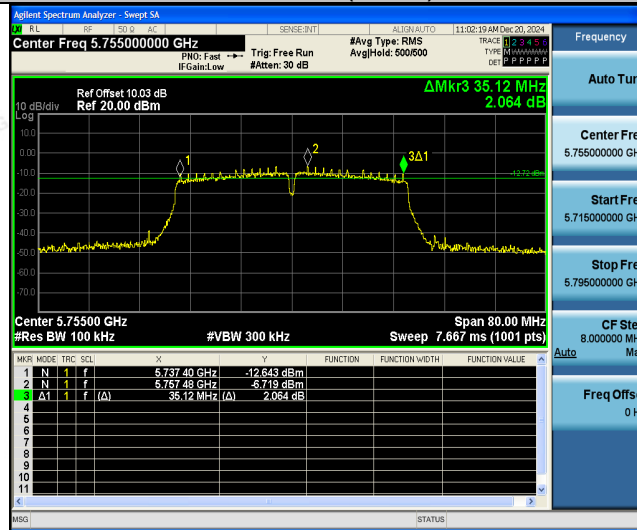
Mid



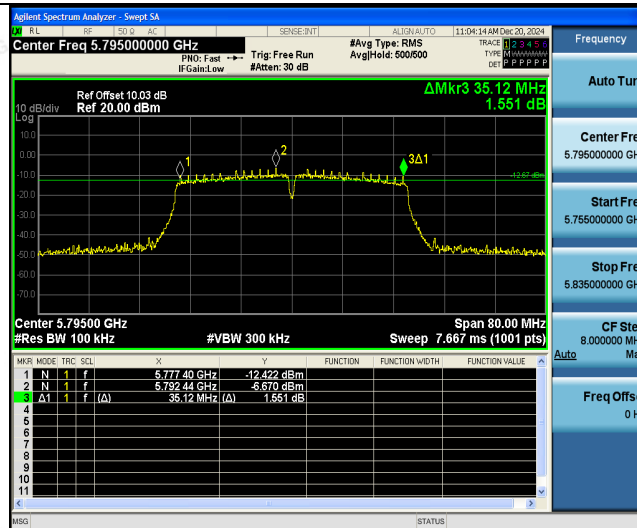
High



802.11ac(HT40)



Low



High

802.11ac(HT80)





4.4. 26db Bandwidth and 99% Occupied Bandwidth

4.4.1. Test Specification

Test Requirement:	47 CFR Part 15C Section 15.407 (a)
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C
Limit:	No restriction limits
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Make the measurement with the spectrum analyzer's resolution bandwidth $RBW = 1\% \text{ EBW}$, $VBW \geq 3RBW$, In order to make an accurate measurement. 4. Measure and record the results in the test report.
Test Result:	N/A

4.4.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
RF cable	Times	1-40G	HKE-034	Feb. 20, 2024	Feb. 19, 2025
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 20, 2024	Feb. 19, 2025
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	HKE-083	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

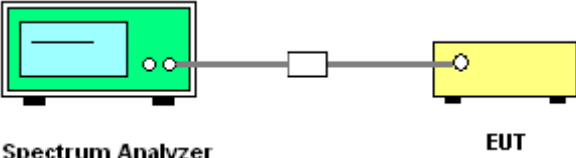
4.4.3. Test Result

N/A



4.5. Power Spectral Density

4.5.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407 (a)
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section F
Limit:	$\leq 30.00\text{dBm}/500\text{KHz}$ for Band IV 5725MHz-5850MHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth. 2. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times \text{RBW}$, Sweep time = Auto, Detector = RMS. 3. Allow the sweeps to continue until the trace stabilizes. 4. Use the peak marker function to determine the maximum amplitude level. 5. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.
Test Result:	PASS

4.5.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
RF cable	Times	1-40G	HKE-034	Feb. 20, 2024	Feb. 19, 2025
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 20, 2024	Feb. 19, 2025
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	HKE-083	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



4.5.3. Test data

Configuration Band IV (5725 - 5850 MHz)						
Mode	Test Channel	Level [dBm/510kHz]	10log(500/510)	Power Spectral Density	Limit (dBm/500kHz)	Result
802.11a	CH149	-0.52	-0.086	-0.606	30	PASS
802.11a	CH157	0.96	-0.086	0.874	30	PASS
802.11a	CH165	0.79	-0.086	0.704	30	PASS
802.11n(HT20)	CH149	-1.06	-0.086	-1.146	30	PASS
802.11n(HT20)	CH157	-0.31	-0.086	-0.396	30	PASS
802.11n(HT20)	CH165	0.03	-0.086	-0.056	30	PASS
802.11n(HT40)	CH151	-3.11	-0.086	-3.196	30	PASS
802.11n(HT40)	CH159	-2.15	-0.086	-2.236	30	PASS
802.11ac(HT20)	CH149	-0.79	-0.086	-0.876	30	PASS
802.11ac(HT20)	CH157	-0.46	-0.086	-0.546	30	PASS
802.11ac(HT20)	CH165	0.31	-0.086	0.224	30	PASS
802.11ac(HT40)	CH151	-3.20	-0.086	-3.286	30	PASS
802.11ac(HT40)	CH159	-2.83	-0.086	-2.916	30	PASS
802.11ac(HT80)	CH155	-5.38	-0.086	-5.466	30	PASS

Note: Power Spectral Density= Level [dBm/510kHz]+ (10log(Limit RBW/Test RBW))

Test plots as follows:

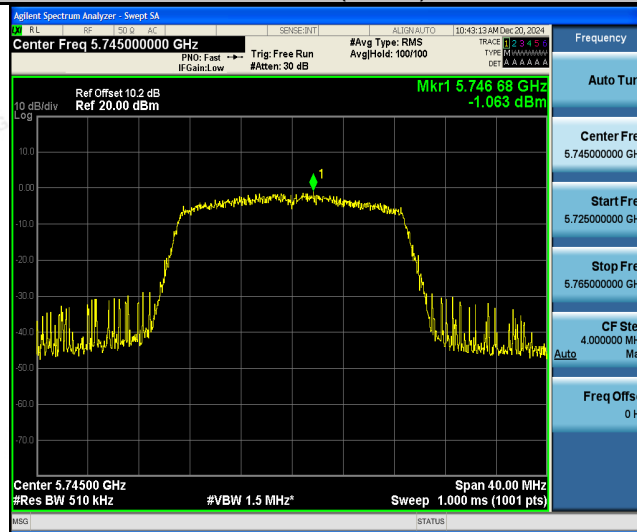


Band IV (5725-5850 MHz)

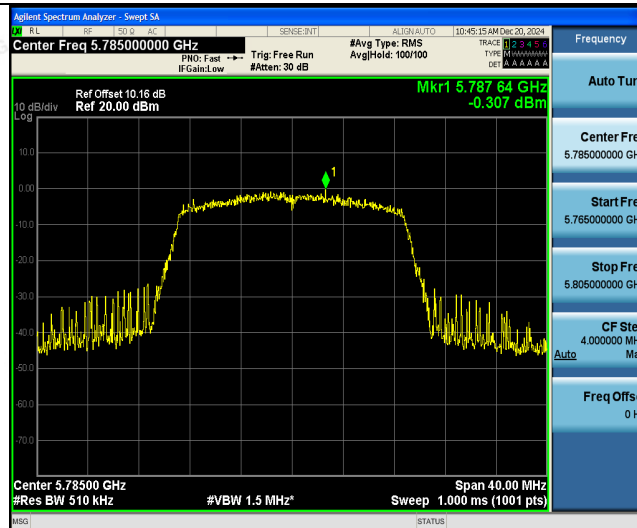




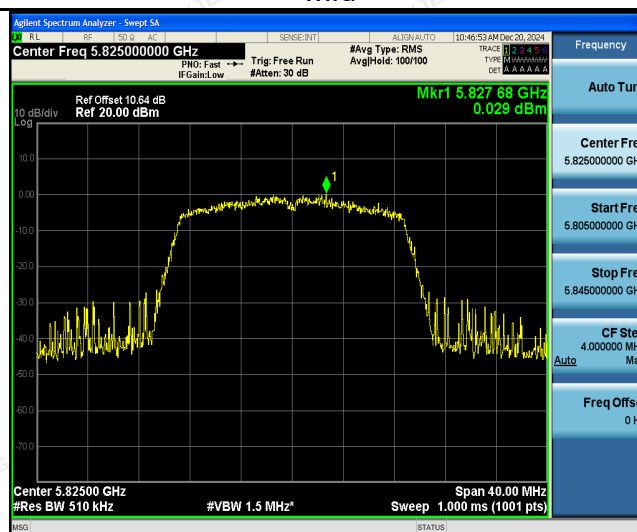
802.11n(HT20)



Low



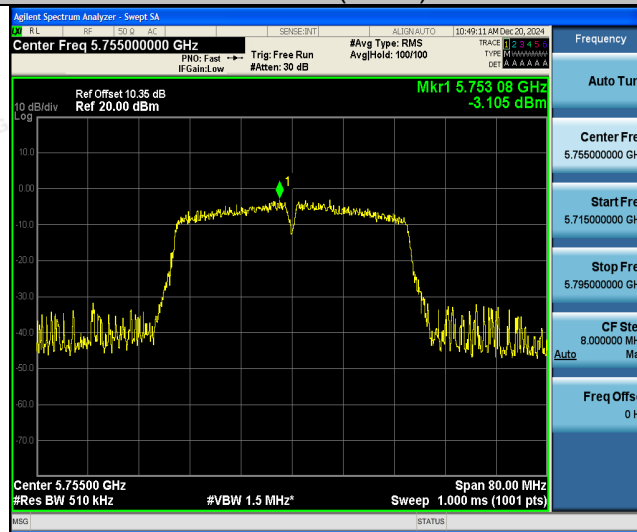
Mid



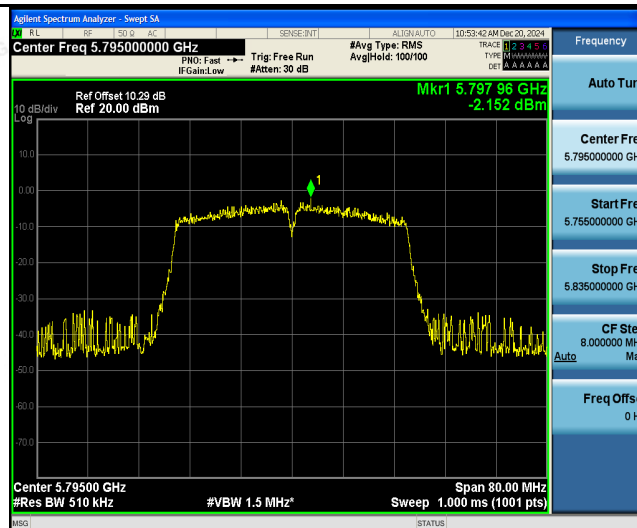
High



802.11n(HT40)

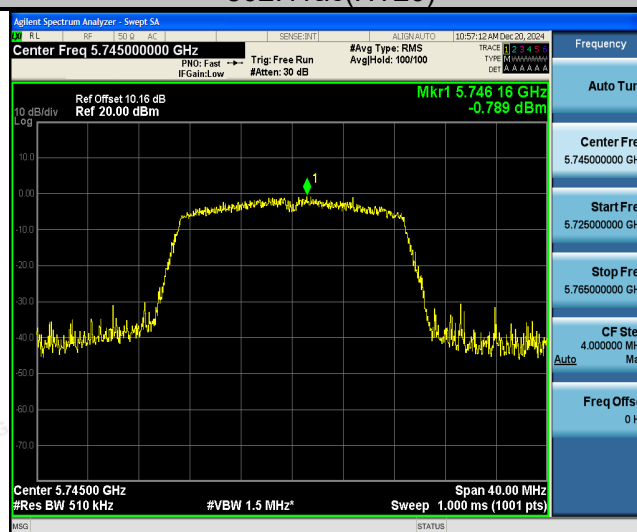


Low

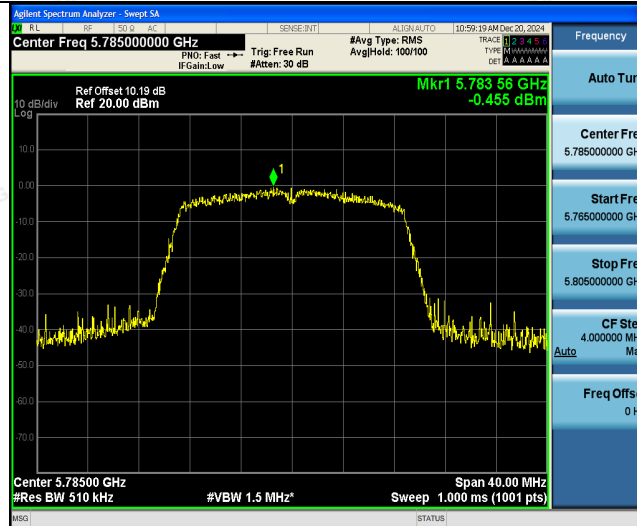


High

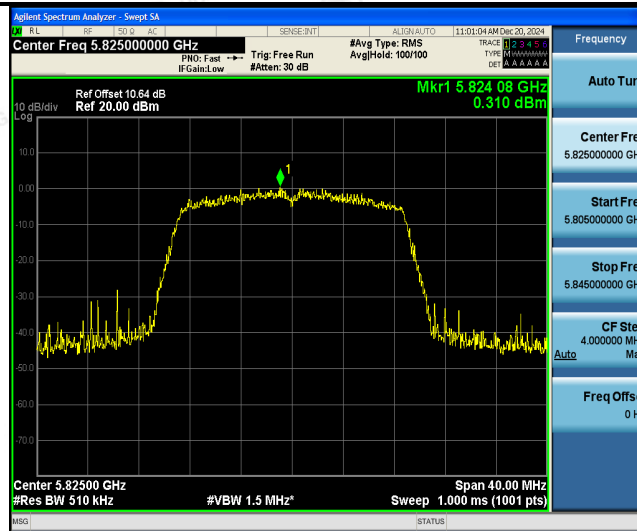
802.11ac(HT20)



Low

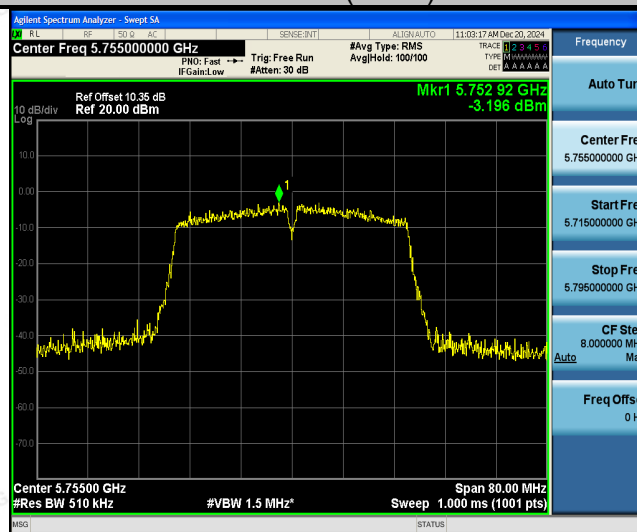


Mid

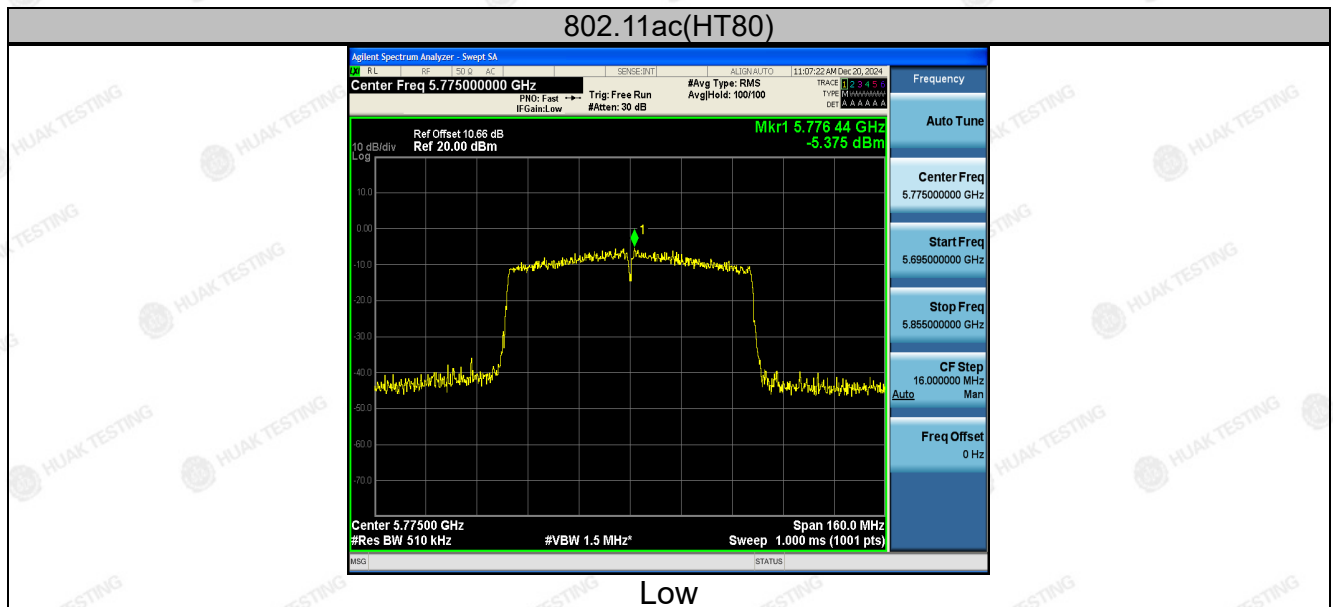
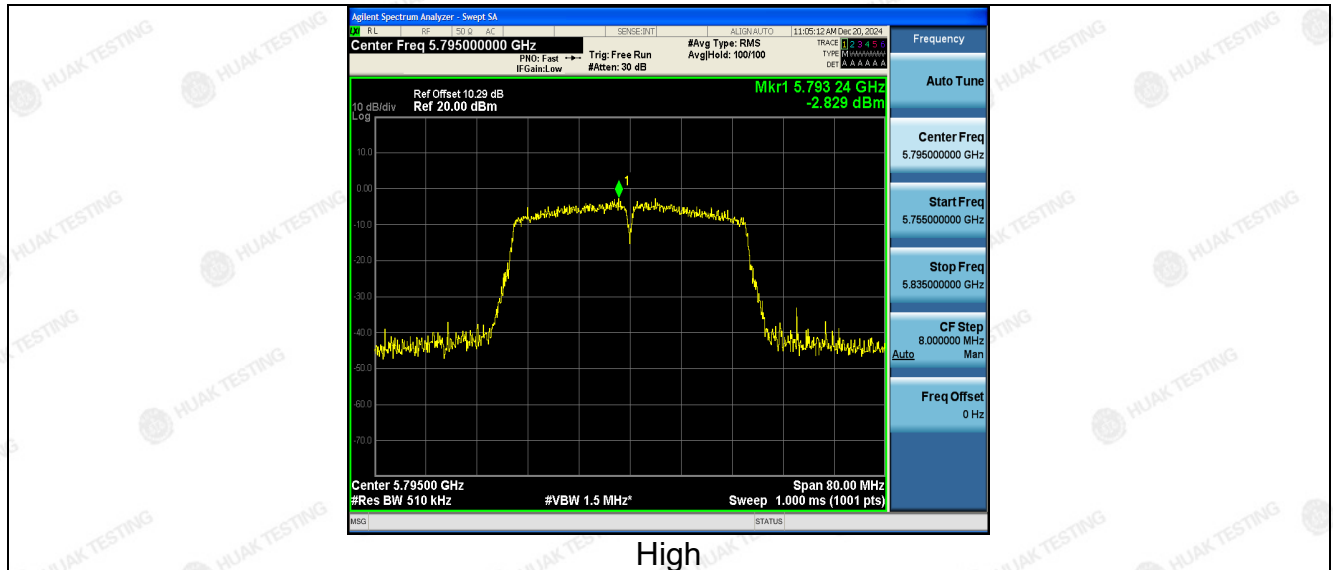


High

802.11ac(HT40)



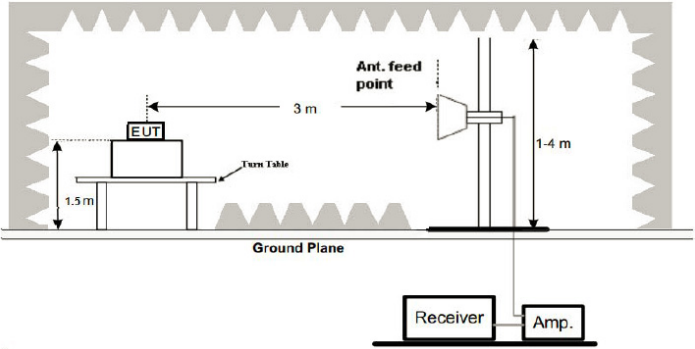
Low





4.6. Band Edge

4.6.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407
Test Method:	ANSI C63.10 2013
Limit:	(1)For transmitters operating in the 5.725-5.85 GHz band: (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. The limit of frequency below 1GHz and which fall in restricted bands should comply 15.209.
Test Setup:	 The diagram illustrates the test setup. An EUT (Equipment Under Test) is placed on a turn table at a height of 1.5 m. The turn table is 3 m away from the antenna feed point. The antenna is mounted on a variable-height antenna tower, with the feed point at a height of 1-4 m. The receiver and amplifier are connected to the antenna feed point. The entire setup is on a ground plane.
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi peak or average method as specified and then reported in a data sheet.
Test Result:	PASS



4.6.2. Test Instruments

Radiated Emission Test Site (966)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
Spectrum analyzer	R&S	FSV3044	HKE-126	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	EMCI	EMC051845S	HKE-006	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	Schwarzbeck	BBV 9743	HKE-016	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	A.H. Systems	SAS-574	HKE-182	Feb. 20, 2024	Feb. 19, 2025
6dB Attenuator	Pasternack	6db	HKE-184	Feb. 20, 2024	Feb. 19, 2025
EMI Test Receiver	Rohde & Schwarz	ESR-7	HKE-010	Feb. 20, 2024	Feb. 19, 2025
Broadband Antenna	Schwarzbeck	VULB9168	HKE-167	Feb. 21, 2024	Feb. 20, 2026
Loop Antenna	COM-POWER	AL-130R	HKE-014	Feb. 21, 2024	Feb. 20, 2026
Horn Antenna	Schwarzbeck	9120D	HKE-013	Feb. 21, 2024	Feb. 20, 2026
EMI Test Software	Tonscend	JS32-RE 5.0.0	HKE-082	N/A	N/A
RSE Test Software	Tonscend	JS36-RSE 5.0.0	HKE-184	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

**4.6.3. Test Data**

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	50.16	-2.06	48.1	68.2	-20.1	peak
5700	82.13	-1.96	80.17	105.2	-25.03	peak
5720	86.71	-2.87	83.84	110.8	-26.96	peak
5725	100.77	-2.14	98.63	122.2	-23.57	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.37	-2.06	49.31	68.2	-18.89	peak
5700	78.22	-1.96	76.26	105.2	-28.94	peak
5720	85.97	-2.87	83.1	110.8	-27.7	peak
5725	101.01	-2.14	98.87	122.2	-23.33	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.32	-1.97	100.35	122.2	-21.85	peak
5855	84.08	-2.13	81.95	110.8	-28.85	peak
5875	83.51	-2.65	80.86	105.2	-24.34	peak
5925	51.44	-2.28	49.16	68.2	-19.04	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	95.49	-1.97	93.52	122.2	-28.68	peak
5855	87.47	-2.13	85.34	110.8	-25.46	peak
5875	77.92	-2.65	75.27	105.2	-29.93	peak
5925	53.06	-2.28	50.78	68.2	-17.42	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	51.38	-2.06	49.32	68.2	-18.88	
5700	81.33	-1.96	79.37	105.2	-25.83	peak
5720	92.34	-2.87	89.47	110.8	-21.33	peak
5725	106.08	-2.14	103.94	122.2	-18.26	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	52.35	-2.06	50.29	68.2	-17.91	
5700	88.73	-1.96	86.77	105.2	-18.43	peak
5720	93.06	-2.87	90.19	110.8	-20.61	peak
5725	104.85	-2.14	102.71	122.2	-19.49	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.78	-1.97	100.81	122.2	-21.39	peak
5855	88.69	-2.13	86.56	110.8	-24.24	peak
5875	85.05	-2.65	82.4	105.2	-22.8	peak
5925	51.81	-2.28	49.53	68.2	-18.67	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	98.88	-1.97	96.91	122.2	-25.29	peak
5855	86.65	-2.13	84.52	110.8	-26.28	peak
5875	82.43	-2.65	79.78	105.2	-25.42	peak
5925	51.28	-2.28	49	68.2	-19.2	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.12	-2.06	51.06	68.2	-17.14	peak
5700	89.25	-1.96	87.29	105.2	-17.91	peak
5720	84.37	-2.87	81.5	110.8	-29.3	peak
5725	105.65	-2.14	103.51	122.2	-18.69	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.14	-2.06	49.08	68.2	-19.12	peak
5700	88.82	-1.96	86.86	105.2	-18.34	peak
5720	84.66	-2.87	81.79	110.8	-29.01	peak
5725	102.66	-2.14	100.52	122.2	-21.68	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	99.47	-1.97	97.5	122.2	-24.7	peak
5855	86.49	-2.13	84.36	110.8	-26.44	peak
5875	84.37	-2.65	81.72	105.2	-23.48	peak
5925	50.11	-2.28	47.83	68.2	-20.37	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.83	-1.97	100.86	122.2	-21.34	peak
5855	91.03	-2.13	88.9	110.8	-21.9	peak
5875	83.72	-2.65	81.07	105.2	-24.13	peak
5925	50.63	-2.28	48.35	68.2	-19.85	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.82	-2.06	50.76	68.2	-17.44	peak
5700	78.44	-1.96	76.48	105.2	-28.72	peak
5720	88.13	-2.87	85.26	110.8	-25.54	peak
5725	101.61	-2.14	99.47	122.2	-22.73	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.06	-2.06	49	68.2	-19.2	peak
5700	84.28	-1.96	82.32	105.2	-22.88	peak
5720	88.86	-2.87	85.99	110.8	-24.81	peak
5725	101.79	-2.14	99.65	122.2	-22.55	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	100.28	-1.97	98.31	122.2	-23.89	peak
5855	86.72	-2.13	84.59	110.8	-26.21	peak
5875	78.43	-2.65	75.78	105.2	-29.42	peak
5925	51.87	-2.28	49.59	68.2	-18.61	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.67	-1.97	99.7	122.2	-22.5	peak
5855	87.54	-2.13	85.41	110.8	-25.39	peak
5875	77.11	-2.65	74.46	105.2	-30.74	peak
5925	51.83	-2.28	49.55	68.2	-18.65	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.26	-2.06	49.2	68.2	-19	peak
5700	78.56	-1.96	76.6	105.2	-28.6	peak
5720	89.61	-2.87	86.74	110.8	-24.06	peak
5725	101.17	-2.14	99.03	122.2	-23.17	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.14	-2.06	49.08	68.2	-19.12	peak
5700	84.42	-1.96	82.46	105.2	-22.74	peak
5720	91.38	-2.87	88.51	110.8	-22.29	peak
5725	102.73	-2.14	100.59	122.2	-21.61	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	99.87	-1.97	97.9	122.2	-24.3	peak
5855	86.35	-2.13	84.22	110.8	-26.58	peak
5875	81.51	-2.65	78.86	105.2	-26.34	peak
5925	50.24	-2.28	47.96	68.2	-20.24	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	110.32	-1.97	108.35	122.2	-13.85	peak
5855	87.62	-2.13	85.49	110.8	-25.31	peak
5875	82.16	-2.65	79.51	105.2	-25.69	peak
5925	52.84	-2.28	50.56	68.2	-17.64	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT80 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.94	-2.06	50.88	68.2	-17.32	peak
5700	82.13	-1.96	80.17	105.2	-25.03	peak
5720	88.07	-2.87	85.2	110.8	-25.6	peak
5725	103.01	-2.14	100.87	122.2	-21.33	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.58	-2.06	50.52	68.2	-17.68	peak
5700	83.72	-1.96	81.76	105.2	-23.44	peak
5720	86.22	-2.87	83.35	110.8	-27.45	peak
5725	103.72	-2.14	101.58	122.2	-20.62	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	106.09	-1.97	104.12	122.2	-18.08	peak
5855	85.87	-2.13	83.74	110.8	-27.06	peak
5875	83.06	-2.65	80.41	105.2	-24.79	peak
5925	50.96	-2.28	48.68	68.2	-19.52	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.73	-1.97	99.76	122.2	-22.44	peak
5855	89.71	-2.13	87.58	110.8	-23.22	peak
5875	83.87	-2.65	81.22	105.2	-23.98	peak
5925	52.22	-2.28	49.94	68.2	-18.26	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



All the test modes completed for test. only the worst result of Mode 1(802.11a Mode)

Series Model No.: X24 Ultra

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	48.96	-2.06	46.9	68.2	-21.3	peak
5700	81.95	-1.96	79.99	105.2	-25.21	peak
5720	86.97	-2.87	84.1	110.8	-26.7	peak
5725	99.23	-2.14	97.09	122.2	-25.11	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	50.93	-2.06	48.87	68.2	-19.33	peak
5700	77.95	-1.96	75.99	105.2	-29.21	peak
5720	84.68	-2.87	81.81	110.8	-28.99	peak
5725	99.63	-2.14	97.49	122.2	-24.71	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.37	-1.97	100.4	122.2	-21.8	peak
5855	83.19	-2.13	81.06	110.8	-29.74	peak
5875	82.69	-2.65	80.04	105.2	-25.16	peak
5925	50.84	-2.28	48.56	68.2	-19.64	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	94.13	-1.97	92.16	122.2	-30.04	peak
5855	86.98	-2.13	84.85	110.8	-25.95	peak
5875	77.97	-2.65	75.32	105.2	-29.88	peak
5925	52.76	-2.28	50.48	68.2	-17.72	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Series Model No.: C24 Ultra

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	49.26	-2.06	47.2	68.2	-21	
5700	81.47	-1.96	79.51	105.2	-25.69	peak
5720	86.74	-2.87	83.87	110.8	-26.93	peak
5725	100.85	-2.14	98.71	122.2	-23.49	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	51.16	-2.06	49.1	68.2	-19.1	
5700	76.84	-1.96	74.88	105.2	-30.32	peak
5720	86.32	-2.87	83.45	110.8	-27.35	peak
5725	100.91	-2.14	98.77	122.2	-23.43	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						