FCC Test Report

Test report
On Behalf of
Shenzhen Haimeilan Technology Co., LTD.
For
Smart Phone
Model No.: I16 Pro max, AE01, AE02, AE03, AE04, AE05, AE06, AE07, AE08, AE09, AE10, AE11, AE12, AE13, AE14, AE15, AE16, AE17, AE18, AE19, AE20, FA01, FA02, FA03, FA04, FA05, FA06, FA07, FA08, FA09, FA10, FA11, FA12, FA13, FA14, FA15, FA16, FA17, FA18, FA19, FA20, Viral11, Alpha10 Pro, Zero 5 neo, Echo8 Se, S26 Ultra, Pixel 9, SP30 Pro, MT Ultimate, M15 pro

FCC ID: 2BDI3-V

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 HUAK Testing Technology Co., Ltd.** **1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China**
Date of Test:	**Feb. 20, 2025 ~ Apr. 18, 2025**
Date of Report:	**Apr. 18, 2025**
Report Number:	**HK2502080444-1E**

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

Product description

Trade Mark:	N/A
Product name..... :	Smart Phone
Model and/or type reference .:	I16 Pro max, AE01, AE02, AE03, AE04, AE05, AE06, AE07, AE08, AE09, AE10, AE11, AE12, AE13, AE14, AE15, AE16, AE17, AE18, AE19, AE20, FA01, FA02, FA03, FA04, FA05, FA06, FA07, FA08, FA09, FA10, FA11, FA12, FA13, FA14, FA15, FA16, FA17, FA18, FA19, FA20, Viral11, Alpha10 Pro, Zero 5 neo, Echo8 Se, S26 Ultra, Pixel 9, SP30 Pro, MT Ultimate, M15 pro
Standards ..... :	FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.10: 2013

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Date of Test ..... :

Date (s) of performance of tests ..... :	**Feb. 20, 2025 ~ Apr. 18, 2025**
Date of Issue..... :	**Apr. 18, 2025**
Test Result..... :	**Pass**

Testing Engineer Len Liao

Len Liao

Technical Manager Sliver Wan

Sliver Wan

Authorized Signatory Jason Zhou

Jason Zhou

REPORT CERTIFICATION HUAK TESTING HUAK TESTING APPROVAL

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** Modified History **

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Apr. 18, 2025	Jason Zhou

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1. Test Result Summary

1.1. Test Procedures and Results

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203/§15.247(b)(4)	PASS
AC Power Line Conducted Emission	§15.207	PASS
Conducted Peak Output Power	§15.247(b)(3)	PASS
6dB Emission Bandwidth	§15.247(a)(2)	PASS
Power Spectral Density	§15.247(e)	PASS
Band Edge	§15.247(d)	PASS
Spurious Emission	§15.205/§15.209	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 HUAK 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.

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1.3. Measurement Uncertainty

The reported uncertainty of measurement y ± U, where expended 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	±2.71dB
2	RF power, conducted	±0.37dB
3	Spurious emissions, conducted	±0.11dB
4	All emissions, radiated(<1G)	±3.90dB
5	All emissions, radiated(>1G)	±4.28dB
6	Temperature	±0.1°C
7	Humidity	±1.0%

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2. EUT Description

2.1. General Description of EUT

Equipment:	Smart Phone
Model Name:	I16 Pro max
Series Models:	AE01, AE02, AE03, AE04, AE05, AE06, AE07, AE08, AE09, AE10, AE11, AE12, AE13, AE14, AE15, AE16, AE17, AE18, AE19, AE20, FA01, FA02, FA03, FA04, FA05, FA06, FA07, FA08, FA09, FA10, FA11, FA12, FA13, FA14, FA15, FA16, FA17, FA18, FA19, FA20, Viral11, Alpha10 Pro, Zero 5 neo, Echo8 Se, S26 Ultra, Pixel 9, SP30 Pro, MT Ultimate, M15 pro
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: I16 Pro max.
Trade Mark:	N/A
FCC ID:	2BDI3-V
Antenna Type:	FPC Antenna
Antenna Gain:	-1.52dBi
Operation frequency:	802.11b/g/n (HT20):2412~2462 MHz 802.11n (HT40): 2422~2452MHz
Number of Channels:	802.11b/g/n(HT20): 11CH 802.11n (HT40): 7CH
Modulation Type:	DSSS, OFDM
Power Source:	DC 5V From Type-C or DC 3.85V From Battery
Power Rating:	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.	

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2.2. Carrier Frequency of Channels

Channel List For 802.11b/802.11g/802.11n (HT20)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452	--	--

Channel List For 802.11n (HT40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
--	--	04	2427	07	2442	--	--
--	--	05	2432	08	2447	--	--
03	2422	06	2437	09	2452	--	--

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

Operating Mode

The mode is used: Transmitting mode for 802.11b/802.11g/802.11n (HT20)

Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

The mode is used: Transmitting mode for 802.11n (HT40)

Low Channel: 2422MHz
Middle Channel: 2437MHz
High Channel: 2452MHz

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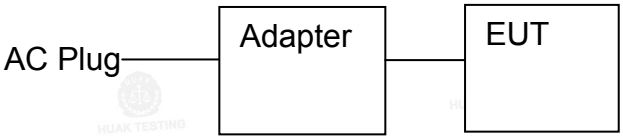
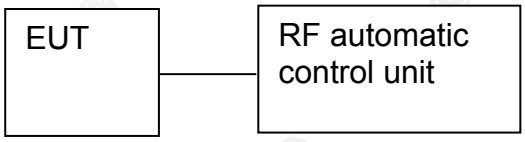
2.4. Description of Test Setup

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



Operation of EUT during above1GHz radiation testing:

Operation of EUT during RF conducted 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

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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	I16 Pro max	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.

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3. Genera 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
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
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)	6.5Mbps
802.11n(HT40)	13.5Mbps

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Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation

1. For WIFI function, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

2.According to ANSI C63.10 standards, the test results are both the “worst case” and “worst setup” 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n(HT20), 13.5Mbps for 802.11n(HT40).

3. Mode Test Duty Cycle

Mode	Duty Cycle
802.11b	0.99
802.11g	0.97
802.11n(HT20)	0.97
802.11n(HT40)	0.94

Test plots as follows:

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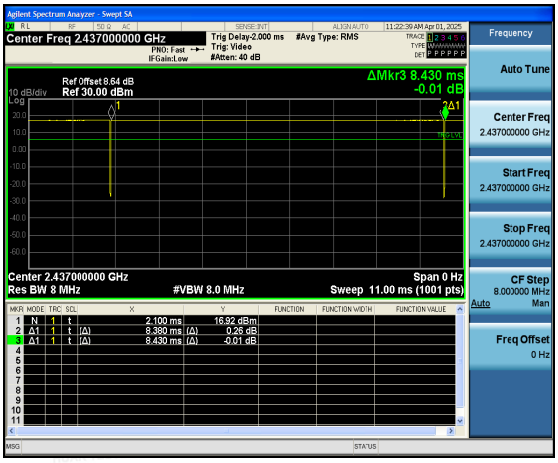
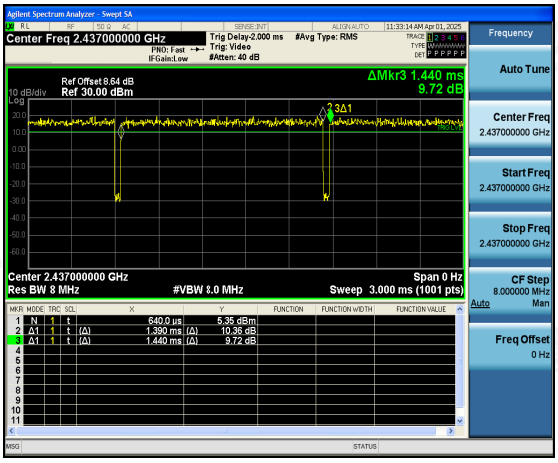
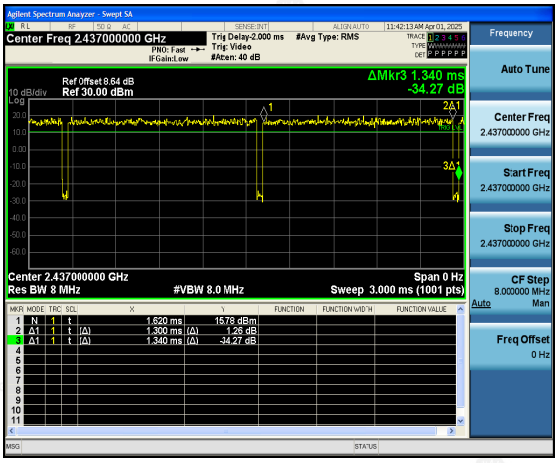
802.11b



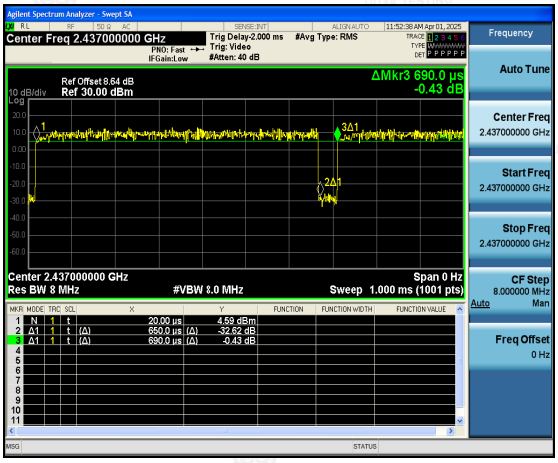
802.11g



802.11n(HT20)



802.11n(HT40)



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4. Test Results and Measurement Data

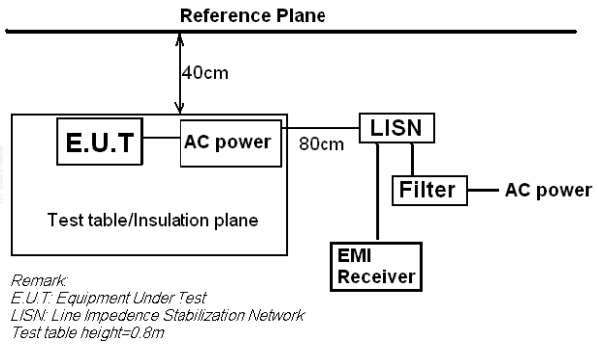
4.1. AC Power Line Conducted Emission

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:	

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:



Test Mode:	transmitting with modulation
Test Procedure:	1. The E.U.T is 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

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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. 19, 2025	Feb. 18, 2026
LISN	R&S	ENV216	HKE-002	Feb. 19, 2025	Feb. 18, 2026
LISN	R&S	ENV216	HKE-059	Feb. 19, 2025	Feb. 18, 2026
Coax cable (9KHz-30MHz)	Times	381806-002	N/A	Feb. 19, 2025	Feb. 18, 2026
EMI Test Software	Tonscend	JS32-CE 2.5.0.6	HKE-081	N/A	N/A
10dB Attenuator	Schwarzbeck	VTSD9561F	HKE-153	Feb. 19, 2025	Feb. 18, 2026

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

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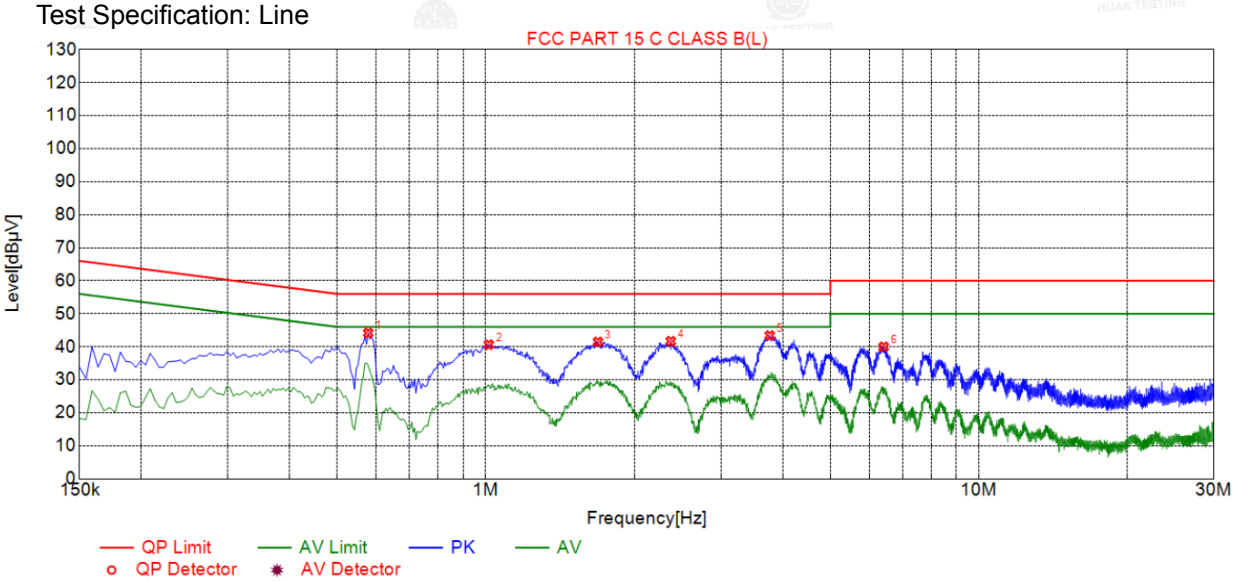
4.2. Test Result

Remark: All the test modes completed for test. only the worst result

Of was reported as below:
Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)

Test Model No.: I16 Pro max
Test Specification: Line



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.5775	44.17	19.86	56.00	11.83	24.31	PK	L
2	1.0140	40.65	19.87	56.00	15.35	20.78	PK	L
3	1.6890	41.48	19.95	56.00	14.52	21.53	PK	L
4	2.3730	41.68	20.00	56.00	14.32	21.68	PK	L
5	3.7680	43.42	20.09	56.00	12.58	23.33	PK	L
6	6.4140	39.99	20.08	60.00	20.01	19.91	PK	L

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

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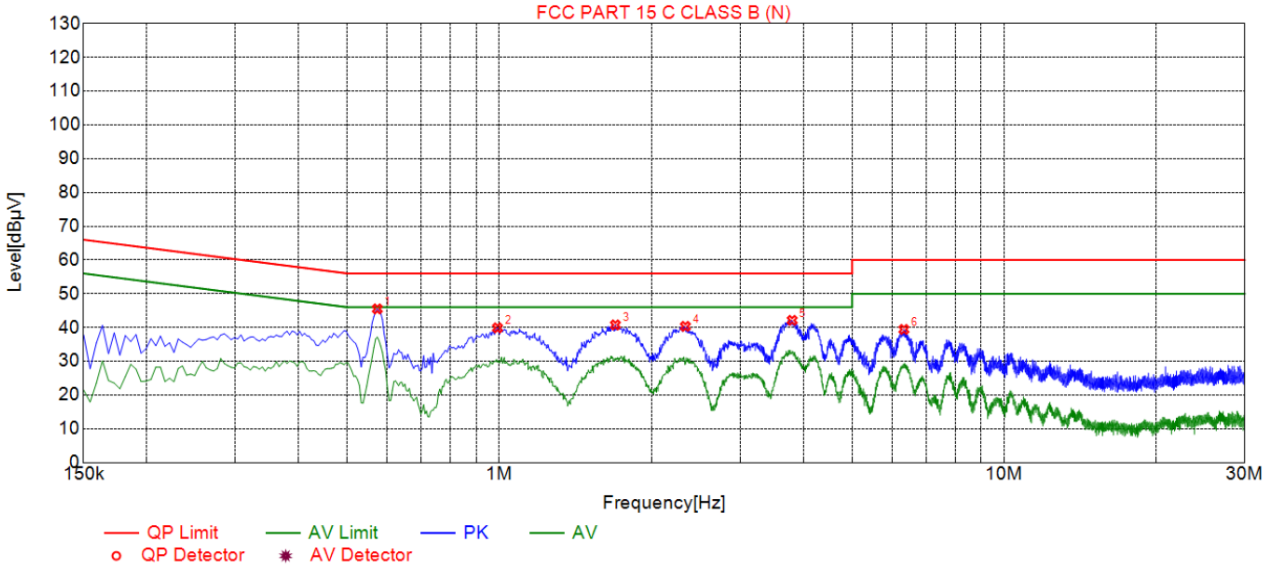
Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.5730	45.51	19.74	56.00	10.49	25.77	PK	N
2	0.9915	39.88	19.74	56.00	16.12	20.14	PK	N
3	1.6980	40.76	19.82	56.00	15.24	20.94	PK	N
4	2.3370	40.33	19.88	56.00	15.67	20.45	PK	N
5	3.8040	42.12	19.97	56.00	13.88	22.15	PK	N
6	6.3330	39.42	19.98	60.00	20.58	19.44	PK	N

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

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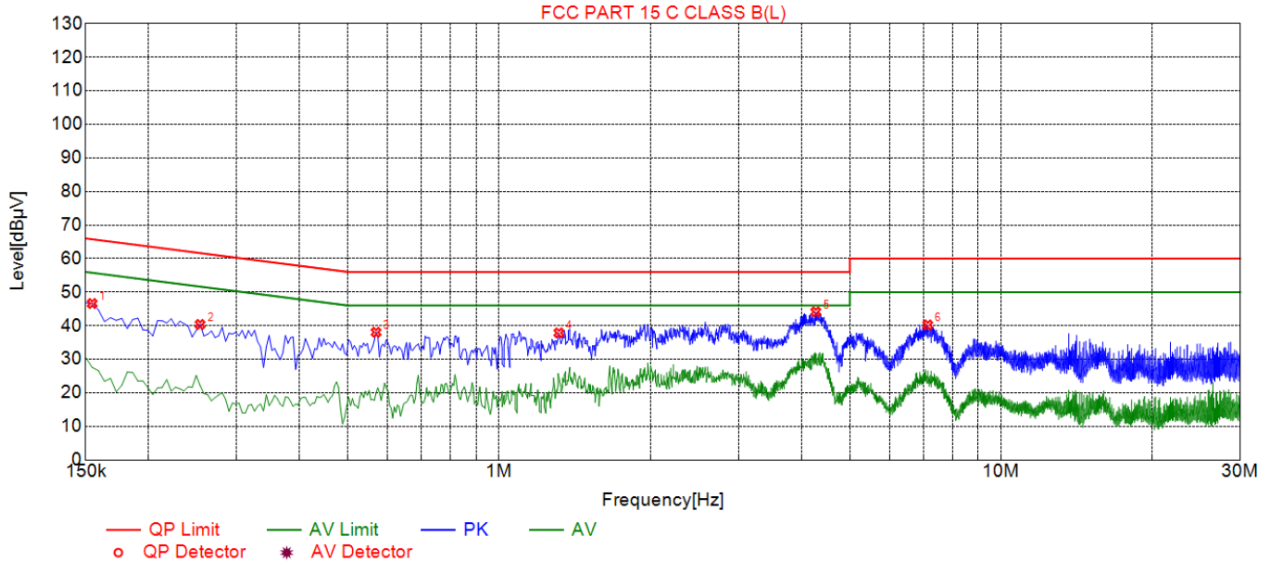
Series Model No.: S26 Ultra
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1545	46.61	19.83	65.75	19.14	26.78	PK	L
2	0.2535	40.36	19.84	61.64	21.28	20.52	PK	L
3	0.5685	38.05	19.86	56.00	17.95	18.19	PK	L
4	1.3155	37.86	19.91	56.00	18.14	17.95	PK	L
5	4.2765	44.14	20.09	56.00	11.86	24.05	PK	L
6	7.1475	40.22	20.06	60.00	19.78	20.16	PK	L

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

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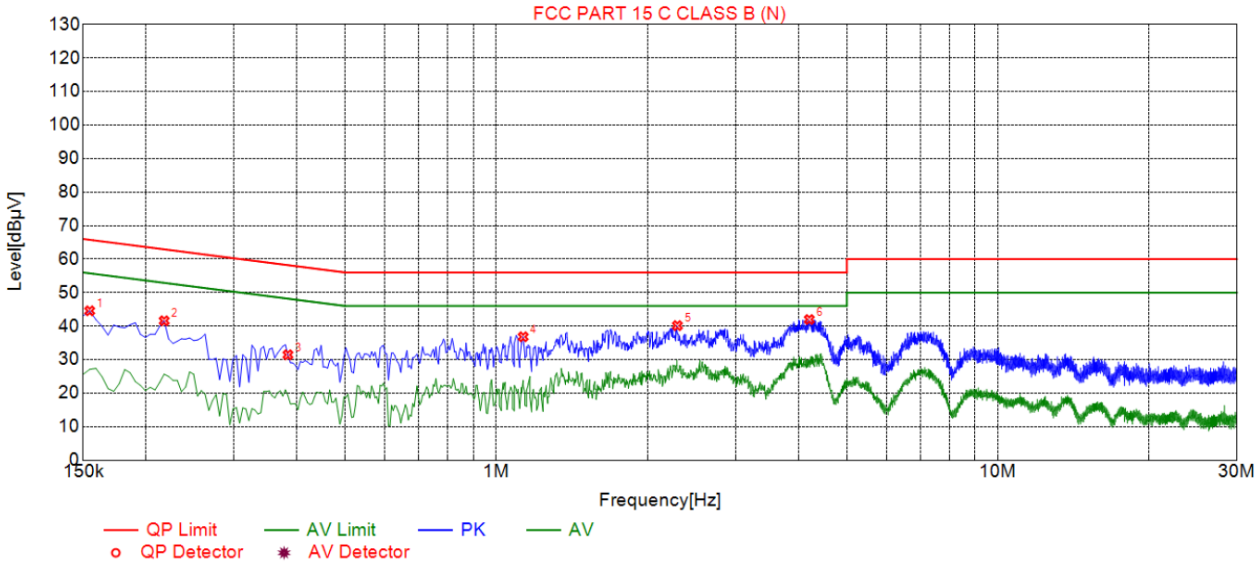
Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1545	44.56	19.73	65.75	21.19	24.83	PK	N
2	0.2175	41.58	19.75	62.91	21.33	21.83	PK	N
3	0.3840	31.45	19.74	58.19	26.74	11.71	PK	N
4	1.1310	36.82	19.77	56.00	19.18	17.05	PK	N
5	2.2965	40.15	19.88	56.00	15.85	20.27	PK	N
6	4.2090	41.97	19.98	56.00	14.03	21.99	PK	N

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

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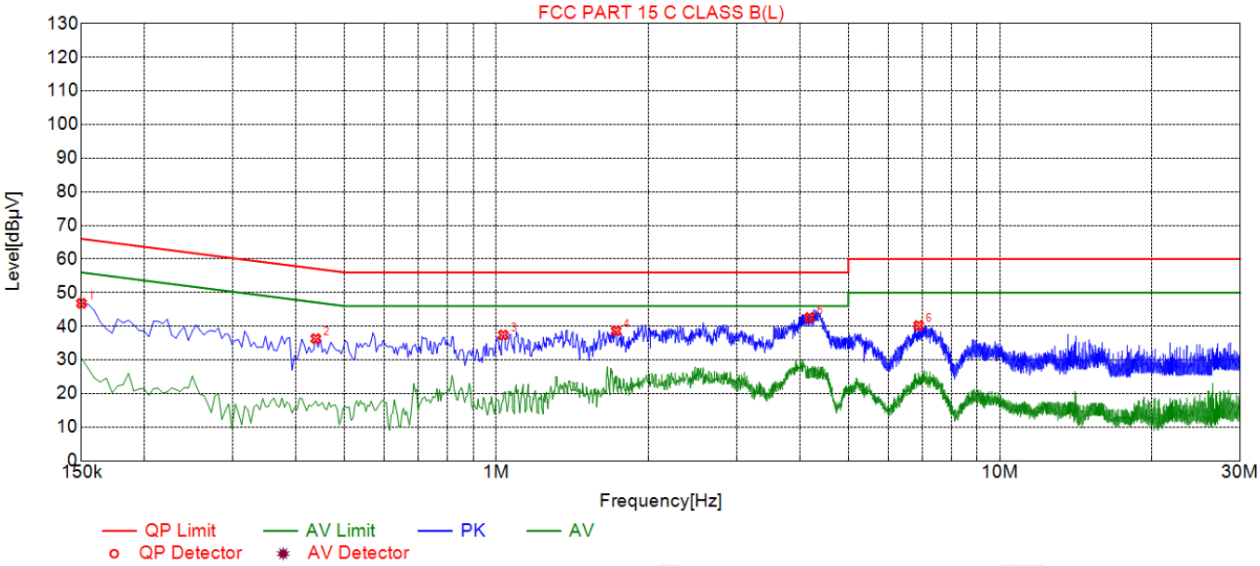
Series Model No.: Pixel 9
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.1500	46.82	19.83	66.00	19.18	26.99	PK	L
2	0.4380	36.34	19.85	57.10	20.76	16.49	PK	L
3	1.0320	37.43	19.88	56.00	18.57	17.55	PK	L
4	1.7295	38.65	19.95	56.00	17.35	18.70	PK	L
5	4.1865	42.61	20.09	56.00	13.39	22.52	PK	L
6	6.8955	40.22	20.07	60.00	19.78	20.15	PK	L

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

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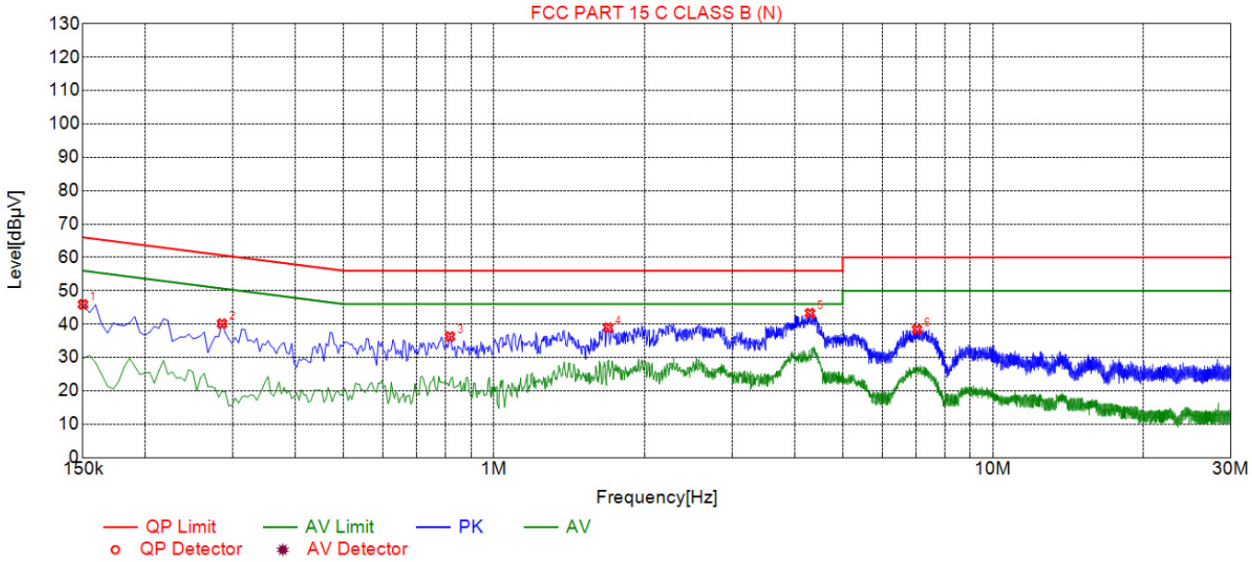
Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	45.92	19.73	66.00	20.08	26.19	PK	N
2	0.2850	40.14	19.73	60.67	20.53	20.41	PK	N
3	0.8160	36.30	19.74	56.00	19.70	16.56	PK	N
4	1.6935	38.94	19.82	56.00	17.06	19.12	PK	N
5	4.2990	43.29	19.98	56.00	12.71	23.31	PK	N
6	7.0440	38.40	19.96	60.00	21.60	18.44	PK	N

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

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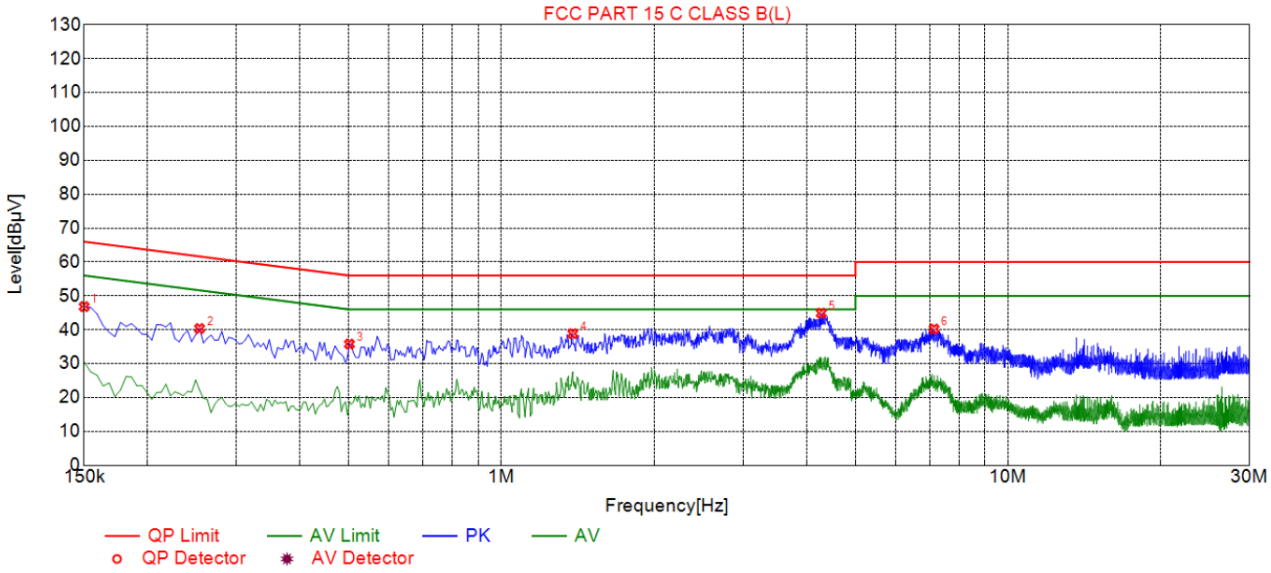
Series Model No.: SP30 Pro
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	46.82	19.83	66.00	19.18	26.99	PK	L
2	0.2535	40.36	19.84	61.64	21.28	20.52	PK	L
3	0.5010	35.78	19.84	56.00	20.22	15.94	PK	L
4	1.3830	38.85	19.92	56.00	17.15	18.93	PK	L
5	4.2810	44.89	20.09	56.00	11.11	24.80	PK	L
6	7.1475	40.22	20.06	60.00	19.78	20.16	PK	L

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

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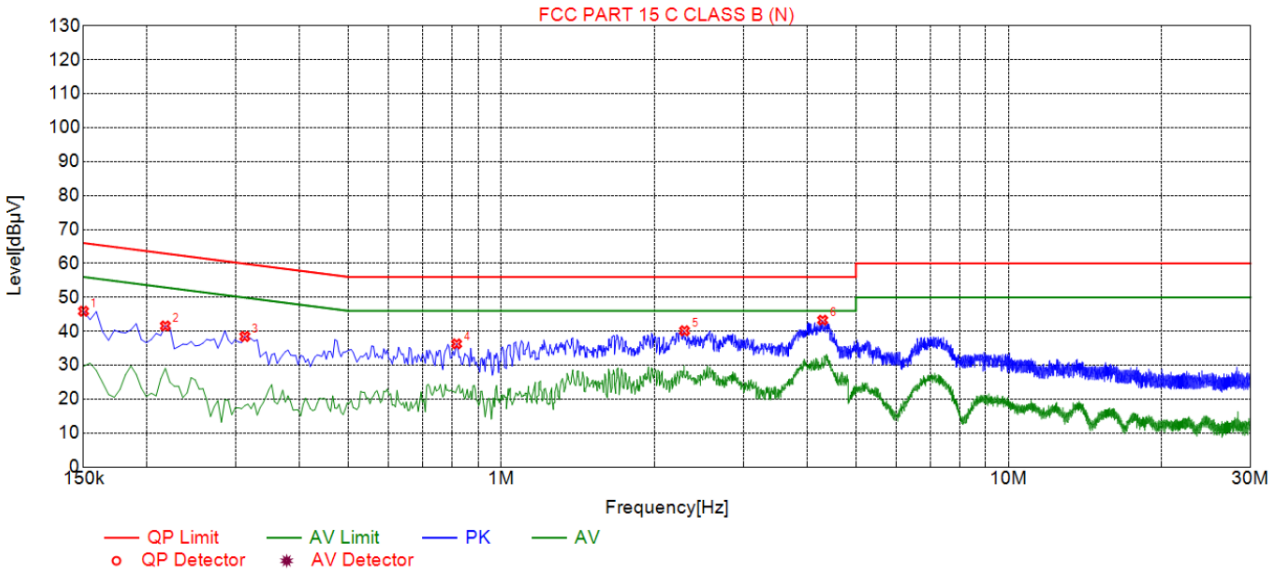
Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	45.92	19.73	66.00	20.08	26.19	PK	N
2	0.2175	41.58	19.75	62.91	21.33	21.83	PK	N
3	0.3120	38.47	19.75	59.92	21.45	18.72	PK	N
4	0.8160	36.30	19.74	56.00	19.70	16.56	PK	N
5	2.2965	40.15	19.88	56.00	15.85	20.27	PK	N
6	4.2990	43.29	19.98	56.00	12.71	23.31	PK	N

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

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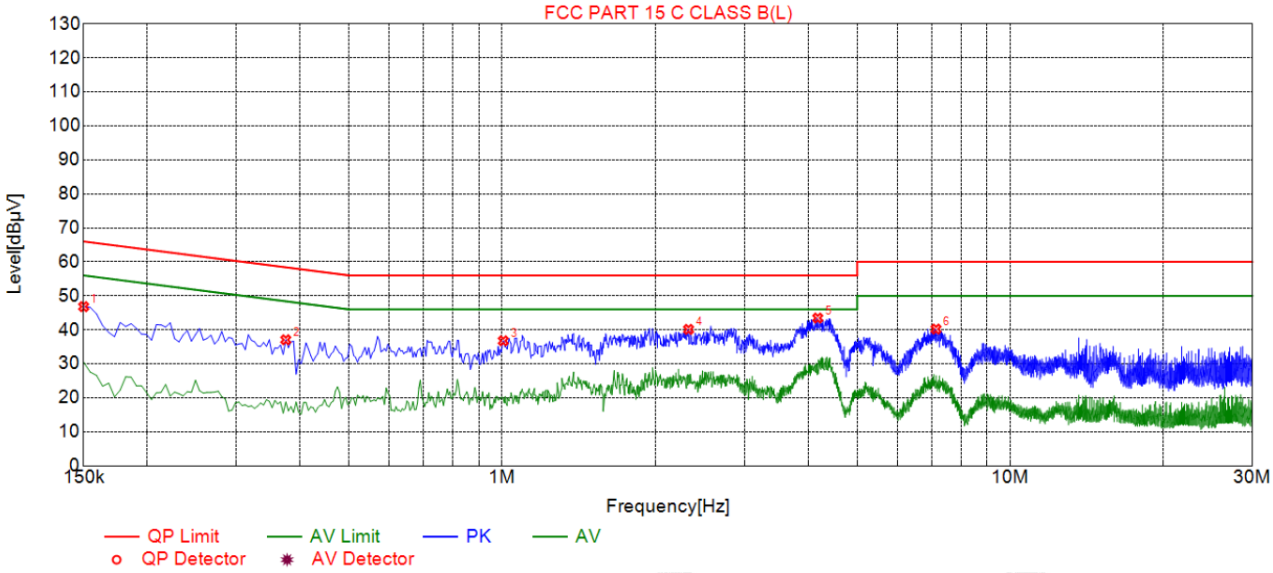
Series Model No.: MT Ultimate
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	46.82	19.83	66.00	19.18	26.99	PK	L
2	0.3750	37.08	19.85	58.39	21.31	17.23	PK	L
3	1.0050	36.77	19.87	56.00	19.23	16.90	PK	L
4	2.3280	40.13	20.00	56.00	15.87	20.13	PK	L
5	4.1820	43.47	20.09	56.00	12.53	23.38	PK	L
6	7.1475	40.22	20.06	60.00	19.78	20.16	PK	L

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

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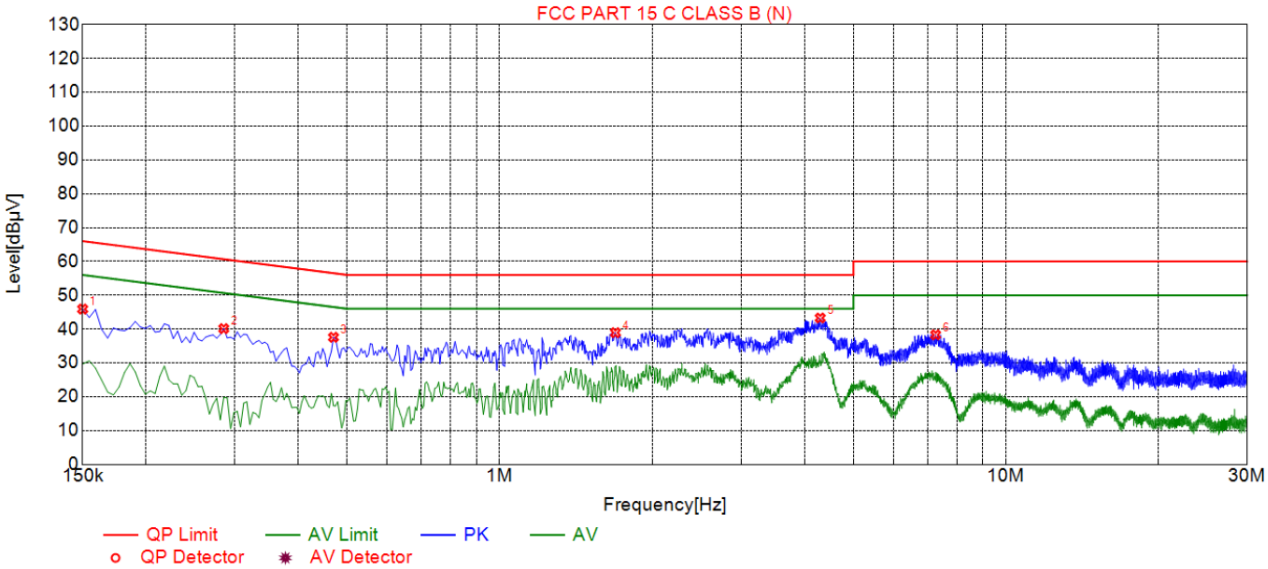
Test Specification: Neutral



Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	45.92	19.73	66.00	20.08	26.19	PK	N
2	0.2850	40.14	19.73	60.67	20.53	20.41	PK	N
3	0.4695	37.58	19.73	56.52	18.94	17.85	PK	N
4	1.6935	38.94	19.82	56.00	17.06	19.12	PK	N
5	4.2990	43.29	19.98	56.00	12.71	23.31	PK	N
6	7.2690	38.31	19.95	60.00	21.69	18.36	PK	N

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

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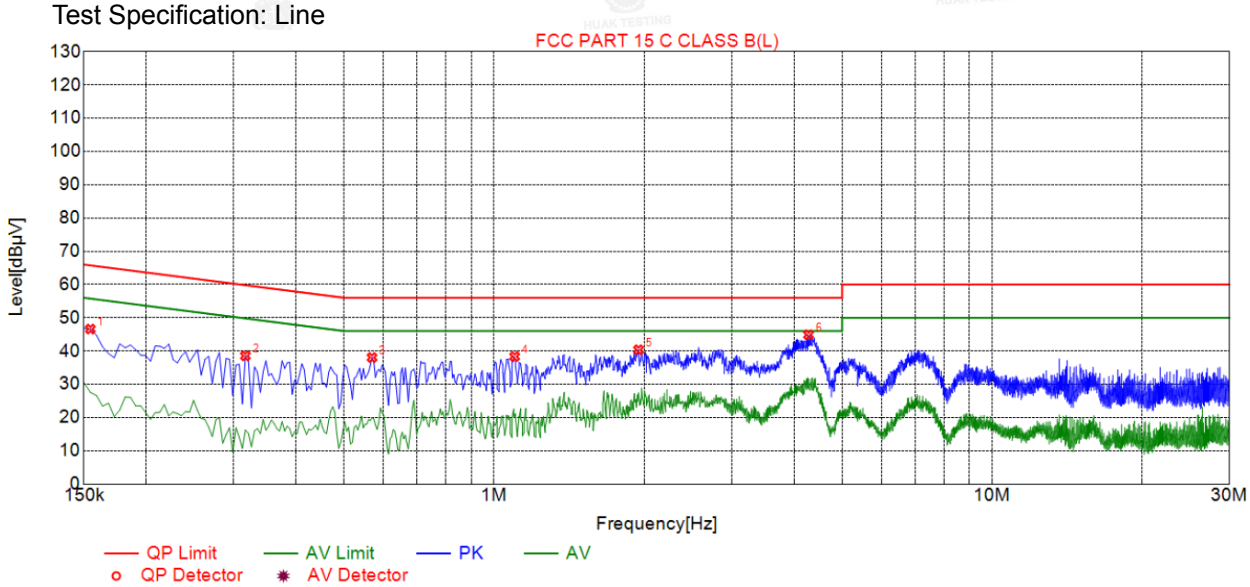
Series Model No.: M15 pro
Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1545	46.61	19.83	65.75	19.14	26.78	PK	L
2	0.3165	38.55	19.85	59.80	21.25	18.70	PK	L
3	0.5685	38.05	19.86	56.00	17.95	18.19	PK	L
4	1.0995	38.35	19.88	56.00	17.65	18.47	PK	L
5	1.9500	40.38	19.96	56.00	15.62	20.42	PK	L
6	4.2810	44.89	20.09	56.00	11.11	24.80	PK	L

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

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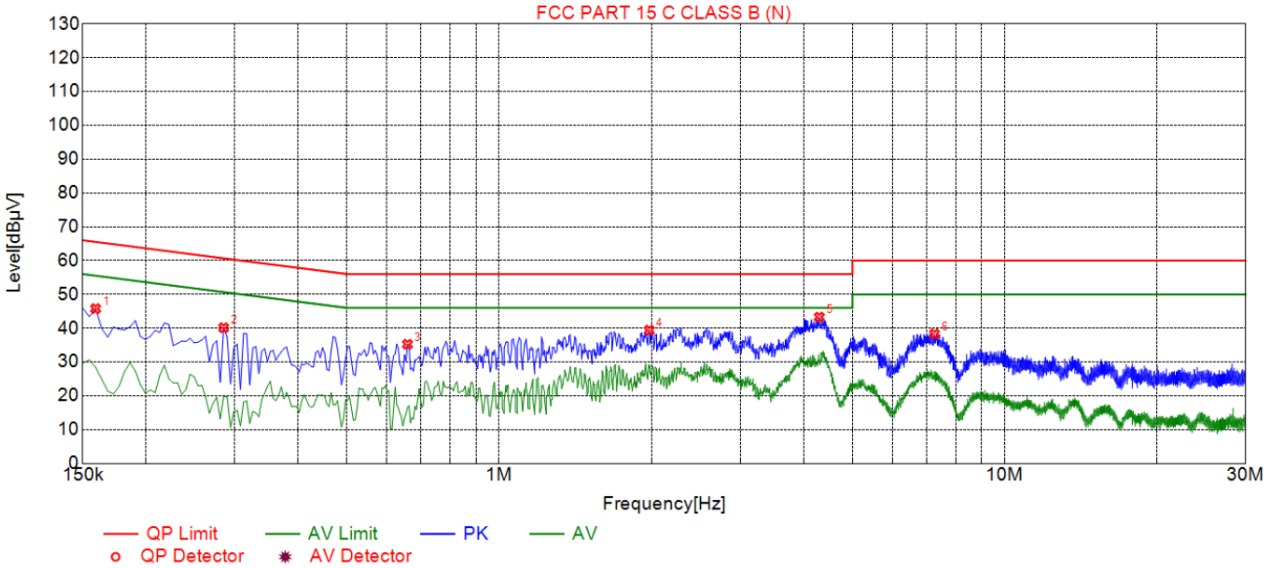
Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1590	45.78	19.70	65.52	19.74	26.08	PK	N
2	0.2850	40.14	19.73	60.67	20.53	20.41	PK	N
3	0.6585	35.25	19.74	56.00	20.75	15.51	PK	N
4	1.9815	39.42	19.84	56.00	16.58	19.58	PK	N
5	4.2990	43.29	19.98	56.00	12.71	23.31	PK	N
6	7.2690	38.31	19.95	60.00	21.69	18.36	PK	N

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

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4.3. Maximum Peak Conducted Output Power

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 15.247 Meas Guidance v05r02. 2. The RF output of EUT was connected to the RF automatic control unit by RF cable. 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 Peak output power and record the results in the test report.
Test Result:	PASS

Test Instruments

RF Test Room					
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
Power meter	Agilent	E4419B	HKE-085	Feb. 19, 2025	Feb. 18, 2026
Power Sensor	Agilent	E9300A	HKE-086	Feb. 19, 2025	Feb. 18, 2026
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026
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).*

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Test Data

Mode	Test Channel	Frequency	Maximum Peak Conducted Output Power	LIMIT
		(MHz)	(dBm)	dBm
802.11b	CH01	2412	13.75	30
802.11b	CH06	2437	13.38	30
802.11b	CH11	2462	12.53	30
802.11g	CH01	2412	12.44	30
802.11g	CH06	2437	13.71	30
802.11g	CH11	2462	12.81	30
802.11n(HT20)	CH01	2412	12.73	30
802.11n(HT20)	CH06	2437	13.52	30
802.11n(HT20)	CH11	2462	12.58	30
802.11n(HT40)	CH03	2422	13.05	30
802.11n(HT40)	CH06	2437	12.30	30
802.11n(HT40)	CH09	2452	12.02	30

Note: 1.The test results including the cable lose.

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4.4. Emission Bandwidth

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02
Limit:	>500kHz
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02. 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

Test Instruments

RF Test Room					
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026
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).*

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Test data

Test channel	6dB Emission Bandwidth (MHz)			
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)
Lowest	8.08	14.80	11.04	22.40
Middle	7.60	15.76	16.36	23.20
Highest	7.56	12.56	11.36	20.00
Limit:	>500kHz			
Test Result:	PASS			

Test plots as follows:

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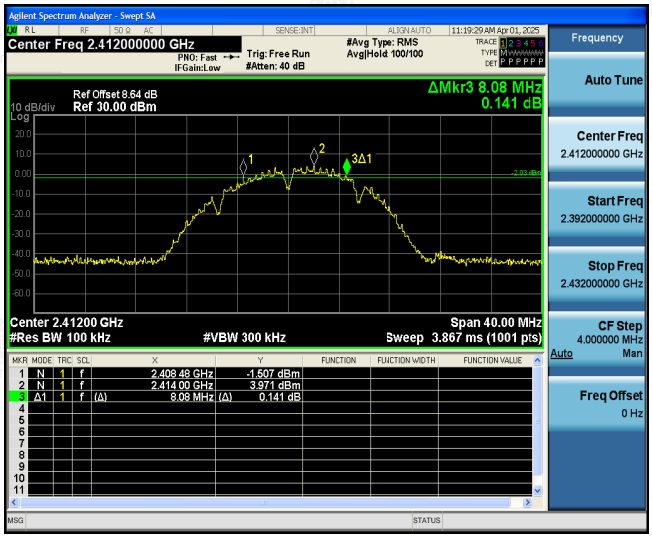
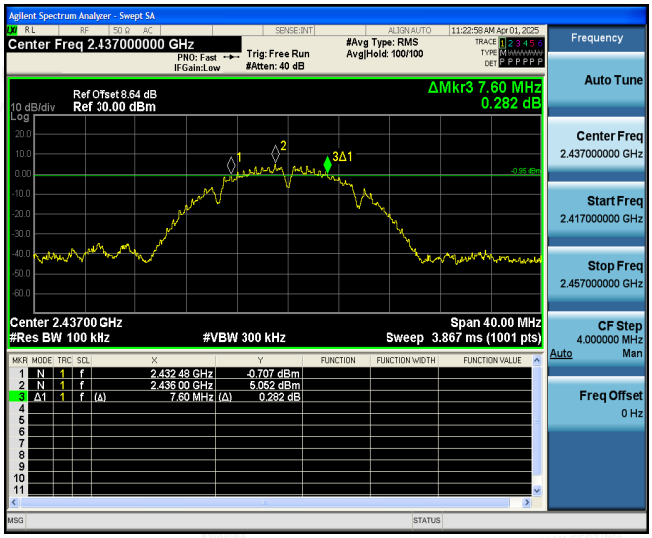
802.11b Modulation

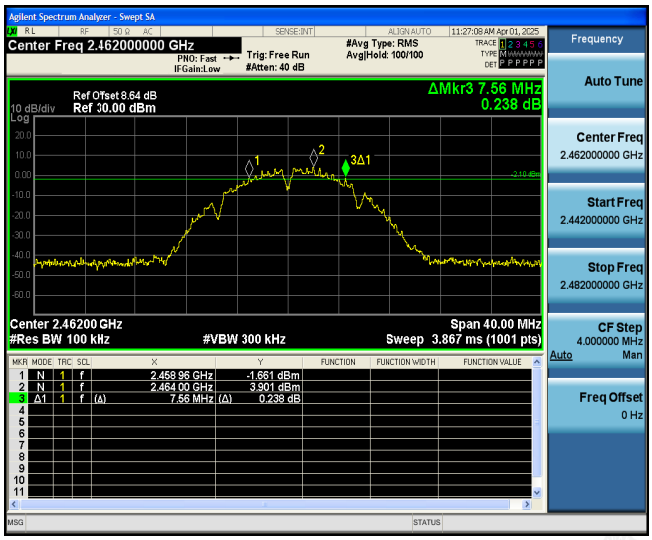
Lowest channel



Middle channel



Highest channel



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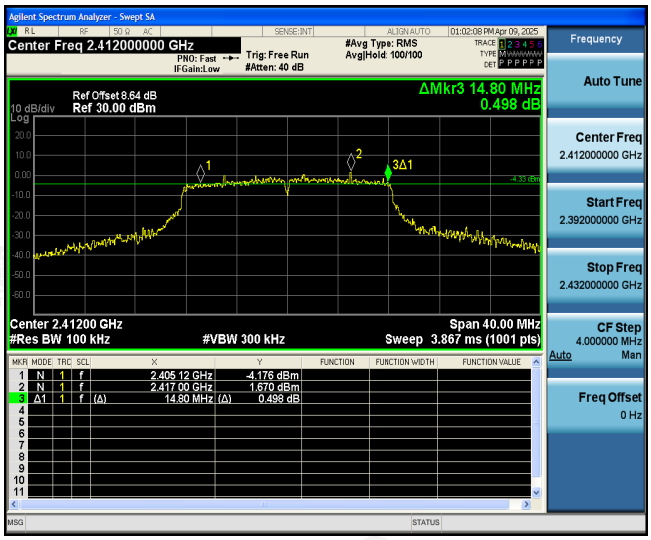
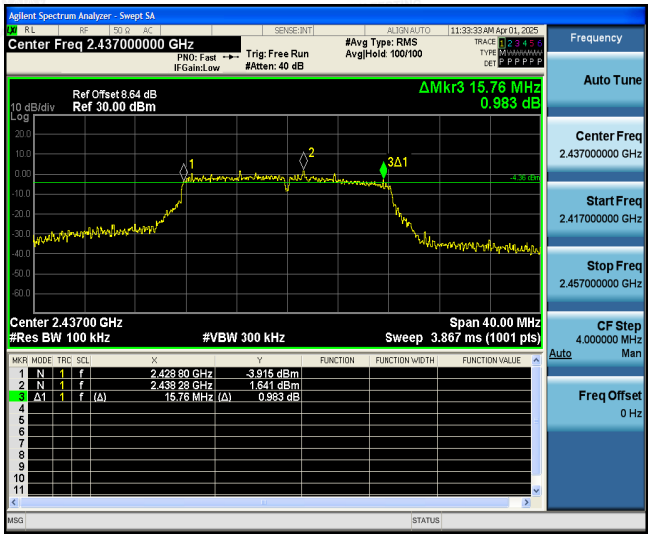
802.11g Modulation

Lowest channel



Middle channel



Highest channel

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802.11n (HT20) Modulation

Lowest channel

Middle channel

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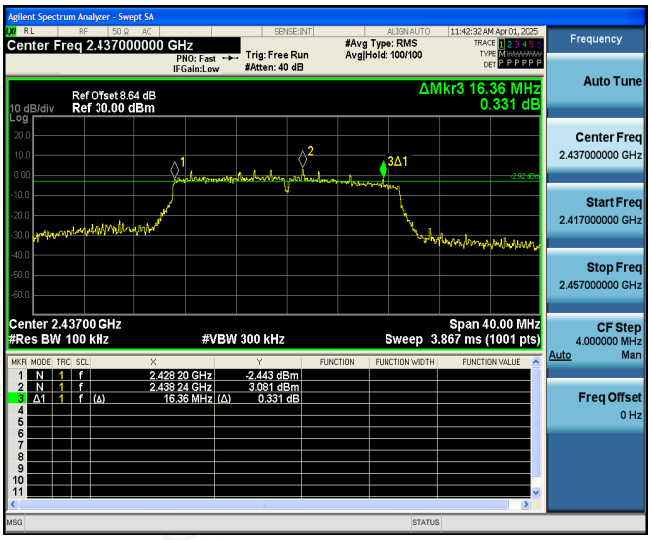
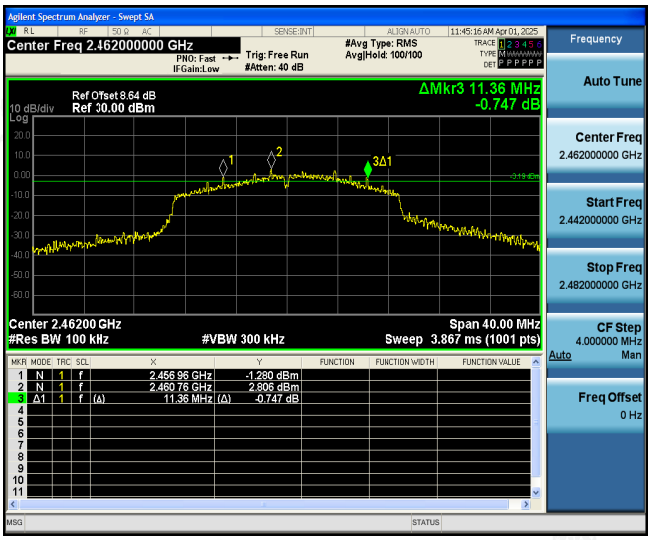


Highest channel



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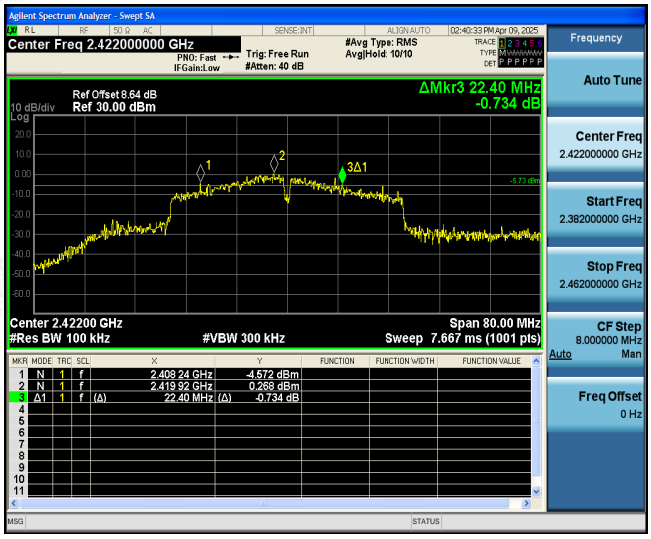
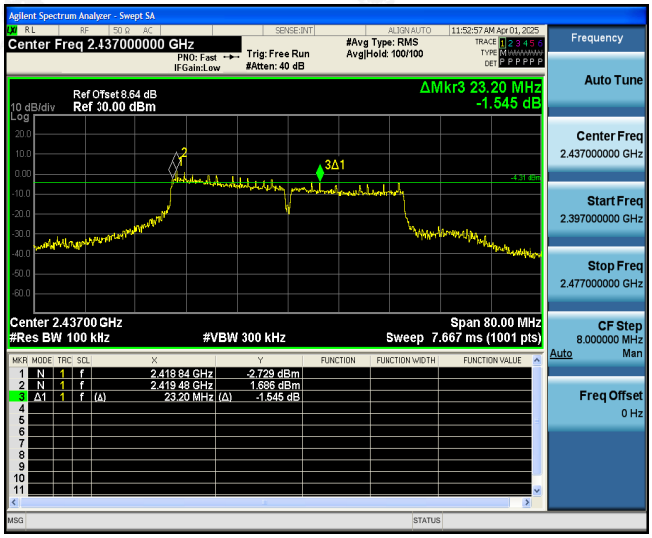
802.11n (HT40) Modulation

Lowest channel



Middle channel



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Highest channel

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4.5. Power Spectral Density

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02
Limit:	The average power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows Measurement procedure 10.2 method PKPSD of FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02. 2. The RF output of EUT was connected to the spectrum analyzer by RF cable. 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. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): 3 kHz ≤ RBW ≤ 100 kHz. Video bandwidth VBW ≥ 3 x RBW. Set the span to at least 1.5 times the OBW. 5. Detector = Peak, Sweep time = auto couple. 6. Employ trace averaging (Peak) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level. 7. Measure and record the results in the test report.
Test Result:	PASS

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Test Instruments

RF Test Room					
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026
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).*

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Test data

EUT Set Mode	Channel	Test Result (dBm/30kHz)	Result (dBm/3kHz)
802.11b	Lowest	-0.53	-10.53
	Middle	0.69	-9.31
	Highest	0.99	-9.01
802.11g	Lowest	-3.14	-13.14
	Middle	-2.68	-12.68
	Highest	-1.83	-11.83
802.11n(HT20)	Lowest	-0.79	-10.79
	Middle	-0.77	-10.77
	Highest	-0.91	-10.91
802.11n(HT40)	Lowest	-0.48	-10.48
	Middle	-3.46	-13.46
	Highest	-2.89	-12.89
PSD test result (dBm/3kHz)= PSD test result (dBm/30kHz)-10			
Limit: 8dBm/3kHz			
Test Result:	PASS		

Test plots as follows:

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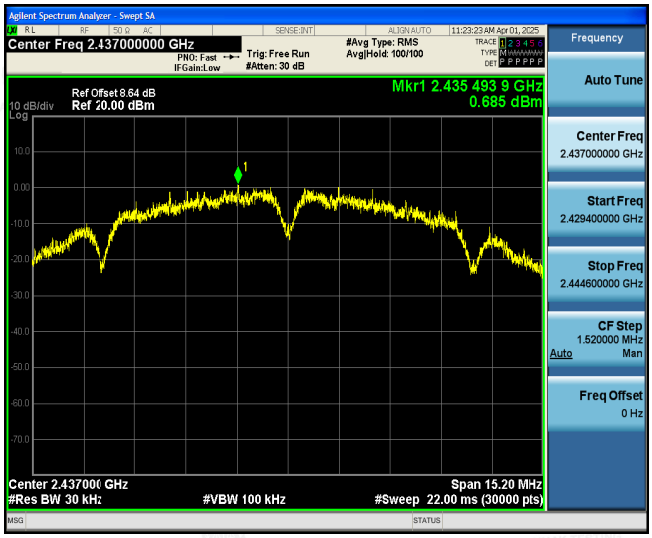
802.11b Modulation

Lowest channel

Middle channel



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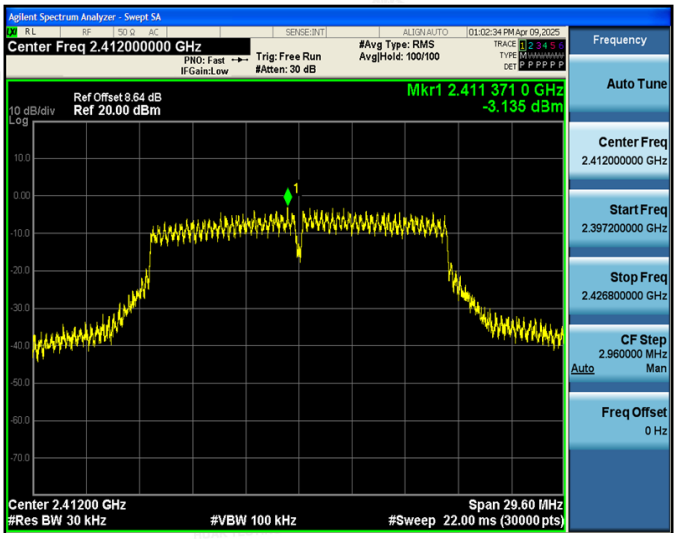
Highest channel

802.11g Modulation

Lowest channel



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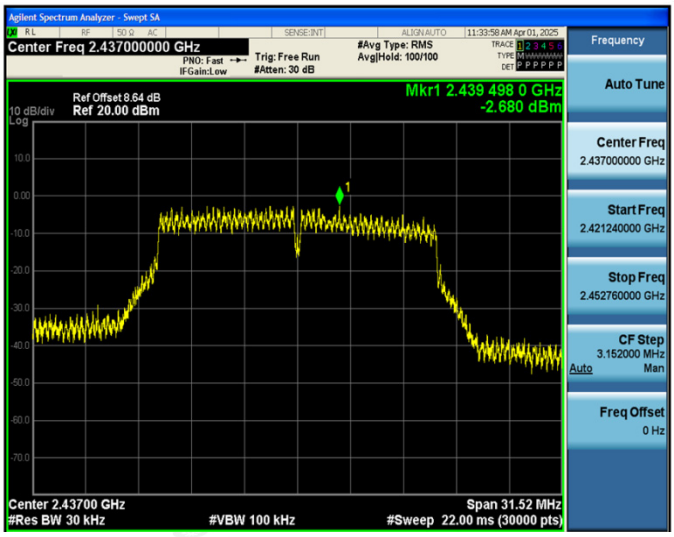
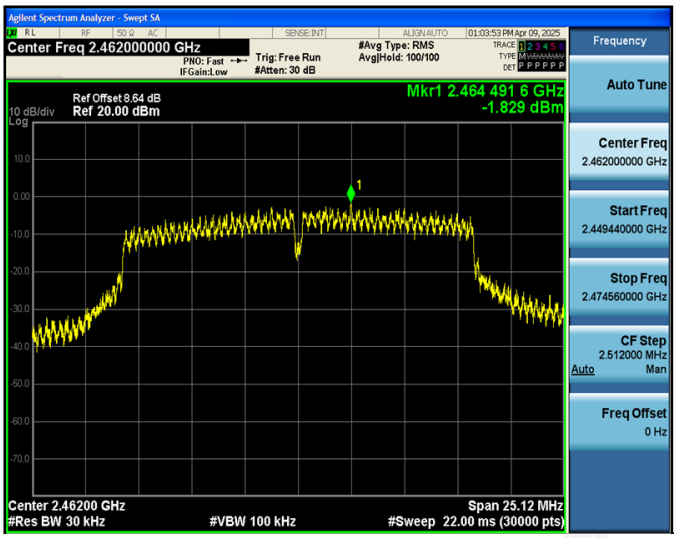
Middle channel



Highest channel



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