

FCC RADIO TEST REPORT

Applicant..... :Feit Electric Company

Address..... :4901 Gregg Road Pico Rivera, California, United States 90660

Manufacturer/Factory 1..... :National State Industries Ltd.

Address..... :XinXing Group, WuLian Village, FengGang Town, DONGGUAN CITY, Guangdong Province 523695

Factory 2 :National State Industries Company Limited

Address..... :Lot D, Vu Thu Town Industrial Cluster, Vu Thu Commune, Hung Yen Province, Vietnam

Factory 3..... :National State Industries Vina Company Limited

Address..... :Kim Binh Industrial Cluster, Phu Van Ward, Ninh Binh Province, Vietnam

Product Name.....:SMART DUAL LENS PANORAMIC FLOODLIGHT CAMERA

Brand Name..... :Feit Electric, Nasbil

Model No. :SEC5000/CAM2/RP

(For addational model and model differences refer to section 2)

FCC ID..... :SYW-SEC5000CAML

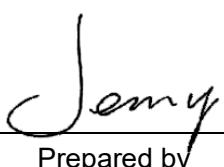
Measurement Standard..... :47 CFR FCC Part 15, Subpart C (Section 15.247)

Receipt Date of Samples..... :April 29, 2025

Date of Tested..... :April 29, 2025 to May 27, 2025

Date of Report..... :July 29, 2025

This report shows that above equipment is technically compliant with the requirements of the standards above. All test results in this report apply only to the tested sample(s). Without prior written approval of Dongguan Nore Testing Center Co., Ltd, this report shall not be reproduced except in full.



Prepared by

Jenny Liu / Project Engineer



Jori Fan / Authorized Signatory

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Revision History

1. Summary of Test Result

FCC Rules	Description of Test	Result	Remarks
§15.207 (a)	AC Power Conducted Emission	PASS	---
§15.247(b)(3)	Maximum Conducted Output Power	PASS	---
§15.247(a)(2)	6dB Bandwidth	PASS	---
§15.247(e)	Power Spectral Density	PASS	---
§15.247(d)	Band Edge and Conducted Spurious Emissions	PASS	---
§15.247(d), §15.209, §15.205	Radiated Spurious Emissions and Restricted Bands	PASS	---
§15.203	Antenna Requirement	PASS	---

2. General Description of EUT

Product Information	
Product Name:	SMART DUAL LENS PANORAMIC FLOODLIGHT CAMERA
Main Model Name:	SEC5000/CAM2/RP
Additional Model Name:	USF001/5000/WFBLE/850LEDF/180CAMDM/270PIRG3-WT, SEC5000/CAM2, USF001/5000/WFBLE/YZZZLEDF/180CAMDM/270PIRG3-XXXX ("Y" represents CRI color rendering index, "ZZZZ" represents CCT color temperature, "XXXX" represents the color of the luminaire)
Model difference:	These models have the same circuit schematic, construction, PCB Layout and critical components. Their differences are model name, CRI, CCT color parameters and brand name due to trading purpose.
S/N:	2404-2934
Brand Name:	Feit Electric, Naspl
Hardware Version:	Main board: RC0240_V3.0 SENSOR board: RC0240_SENSOR_V3.0
Software Version:	V202.305.03
Rating:	AC 120V 60Hz
Typical Arrangement:	Table-top
I/O Port:	Refer to the user manual
Accessories Information	
Adapter:	N/A
Cable:	N/A
Other:	N/A
Additional Information	
Note:	According to the model differences and manufacturer's requirement, all tests were performed on model SEC5000/CAM2/RP.
Remark:	All the information above are provided by the manufacturer. More detailed feature of the EUT please refers to the user manual.

Technical Specification	
Frequency Range:	2412-2462MHz for IEEE 802.11b/g/n(HT20)/ax(HE20) 2422-2452MHz for IEEE 802.11n(HT40)/ax(HE40) (802.11ax Only support full RU Mode) Note: According to the RU & RB configurations can not set, and all the test base on the Full RU & RB configuration status.
Modulation Technology:	DSSS, OFDM, OFDMA
Modulation Type:	CCK, DQPSK, DBPSK, QPSK, BPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM
Number of Channel:	11 for IEEE 802.11b/g/n(HT20)/ax(HE20) 7 for IEEE 802.11n(HT40)/ax(HE40)
Channel Space:	5MHz
Antenna Type:	FPC antenna
Number of Antenna	1
Antenna Gain:	3.88 dBi (Declared by the manufacturer)
Note: This report only applies to 2.4GHz WLAN feature of the EUT.	

Channel List			
IEEE 802.11b/ g/ n(HT20)/ax(HE20)		IEEE 802.11n(HT40)/ax(HE40)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	---	---
2	2417	---	---
3	2422	3	2422
4	2427	4	2427
5	2432	5	2432
6	2437	6	2437
7	2442	7	2442
8	2447	8	2447
9	2452	9	2452
10	2457	----	----
11	2462	----	----

3. Test Channels and Modes Detail

Mode		Channel	Frequency (MHz)	Remark
1	TX	1	2412	IEEE 802.11b/ g/ n(HT20)/ax(HE20)
		3	2422	IEEE 802.11n(HT40)/ax(HE40)
		6	2437	IEEE 802.11b/ g/ n(HT20)/ n(HT40)/ ax(HE20)/ ax(HE40)
		9	2452	IEEE 802.11n(HT40) / ax(HE40)
		11	2462	IEEE 802.11b/ g/ n(HT20)/ ax(HE20)
2.	Normal	---	---	---

Note: TX mode means that the EUT was programmed to be in continuously transmitting mode.

4. Configuration of EUT



5. Modification of EUT

No modifications are made to the EUT during all test items.

6. Description of Support Device

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.

No.	Equipment	Brand	M/N	S/N	Cable Specification	Remarks
1.	Laptop	DELL	VOSTR0 3400	H3K2XA01	I/P: AC 100-240V 50-60Hz, 1.3A O/P: DC 19.5V 2.31A 45W Power cord: 1.13m unshielded DC Line: 1.15m unshielded with a core	Provided by the Lab
2.	Adapter (For Laptop)	DELL	HA45NM 140	ZBH18436		Provided by the Lab
3.	Test fixture	---	---	---	----	Provide by the manufacturer

Software	Power Setting	
	Mode	Setting
SecureCRT	IEEE 802.11b	Default
	IEEE 802.11g	Default
	IEEE 802.11n(HT20)	Default
	IEEE 802.11n(HT40)	Default
	IEEE 802.11ax(HE20)	Default
	IEEE 802.11ax(HE40)	Default

7. Test Facility and Location

Test Site	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Accreditations and Authorizations	:	<p>The Laboratory has been assessed and proved to be in compliance with CNAS/CL01</p> <p>Listed by CNAS, August 13, 2018</p> <p>The Certificate Registration Number is L5795.</p> <p>The Certificate is valid until August 13, 2030</p> <p>The Laboratory has been assessed and proved to be in compliance with ISO17025</p> <p>Listed by A2LA, November 01, 2017</p> <p>The Certificate Registration Number is 4429.01</p> <p>The Certificate is valid until December 31, 2025</p> <p>Listed by FCC, November 06, 2017</p> <p>Test Firm Registration Number: 907417</p> <p>Listed by ISED, June 08, 2017</p> <p>The Certificate Registration Number. Is 46405-9743A</p> <p>The CAB identifier number: CN0015</p>
Test Site Location	:	Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China

8. Applicable Standards and References

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

Test Standards:

47 CFR Part 15, Subpart C, 15.247

ANSI C63.10-2013

References Test Guidance:

DTS KDB 558074 D01 15.247 Meas Guidance v05r02

9. Deviations and Abnormalities from Standard Conditions

No additions, deviations and exclusions from the standard.

10. Test Conditions

No.	Test Item	Test Mode	Test Voltage	Tested by	Remarks
1.	AC Power Conducted Emission	1-2	AC 120V 60Hz	Sean	See note 1
2.	Max. Conducted Output Power	1	AC 120V 60Hz	Sean	See note 1
3.	6dB Bandwidth	1	AC 120V 60Hz	Sean	See note 1
4.	Power Spectral Density	1	AC 120V 60Hz	Sean	See note 1
5.	Band Edge and Conducted Spurious Emissions	1	AC 120V 60Hz	Sean	See note 1
6.	Radiated Spurious Emissions and Restricted Bands	1-2	AC 120V 60Hz	Sean	See note 1
7.	Antenna Requirement	---	---	---	---

Note:

1. The testing climatic conditions for temperature, humidity, and atmospheric pressure are within: 15~35°C, 30~70%, 86~106kPa
2. Only the worst case was recorded in the report.

11. Measurement Uncertainty

No.	Test Item	Frequency	Uncertainty	Remarks
1.	Conducted Emission	150KHz ~ 30MHz	±2.52 dB	---
2.	Radiated Emission Test	9kHz ~ 30MHz	±5.60 dB	---
		30MHz ~ 1GHz	±5.60 dB	---
		1GHz ~ 18GHz	±5.22 dB	---
		18GHz ~ 40GHz	±5.22 dB	---
3.	Conducted Spurious Emissions	10Hz ~ 40GHz	±1.02 dB	---
4.	RF Output Power	10Hz ~ 40GHz	±1.08 dB	
5.	Power Spectral Density	10Hz ~ 40GHz	±1.08 dB	
6.	Occupied Channel Bandwidth	---	±1.05%	---

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The measurement uncertainty levels above are estimated and calculated according to CISPR 16-4-2.
3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

12. Sample Calculations

Conducted Emission						
Freq. (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector
0.1620	17.64	20.56	38.20	55.36	-17.16	QP

Where,

Freq. = Emission frequency in MHz
 Reading Level = Spectrum Analyzer/Receiver reading
 Corrector Factor = Insertion loss of LISN + Cable Loss + RF Switching Unit attenuation
 Measurement = Reading + Corrector Factor
 Limit = Limit stated in standard
 Margin = Measurement - Limit
 Detector = Reading for Quasi-Peak / Average / Peak

Radiated Spurious Emissions and Restricted Bands						
Freq. (MHz)	Reading Level (dBuV)	Correct Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector
186.1700	39.33	-8.63	30.70	43.50	-12.80	QP

Where,

Freq. = Emission frequency in MHz
 Reading Level = Spectrum Analyzer/Receiver reading
 Corrector Factor = Antenna Factor + Cable Loss - Pre-amplifier
 Measurement = Reading + Corrector Factor
 Limit = Limit stated in standard
 Over = Margin, which calculated by Measurement - Limit
 Detector = Reading for Quasi-Peak / Average / Peak

Note: For all conducted test items, the spectrum analyzer offset or transducer is derived from RF cable loss and attenuator factor. The offset or transducer is equal to the RF cable loss plus attenuator factor.

13. Test Items and Results

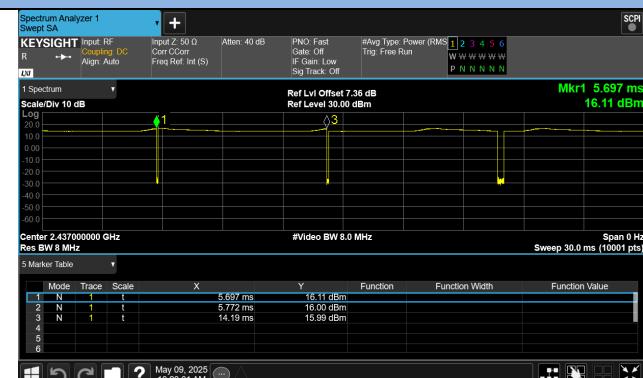
13.1 Duty cycle

Mode	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	1/T minimum VBW (kHz)	Duty Cycle Factor (dB)
802.11b	8.418	8.493	99.12%	0.12	0.04
802.11g	/	/	100.00%	0	0
802.11n(HT20)	/	/	100.00%	0	0
802.11n(HT40)	/	/	100.00%	0	0
802.11ax(HE20)	/	/	100.00%	0	0
802.11ax(HE40)	/	/	100.00%	0	0

Remark: Duty Cycle= (Ton/ Ton+off)*100%
 Duty Cycle factor=10*log(1/ Duty cycle)

U-NII-1 Band

IEEE 802.11b



IEEE 802.11g



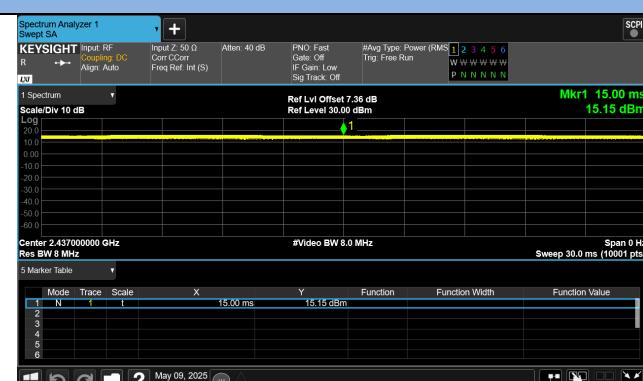
IEEE 802.11n(HT20)



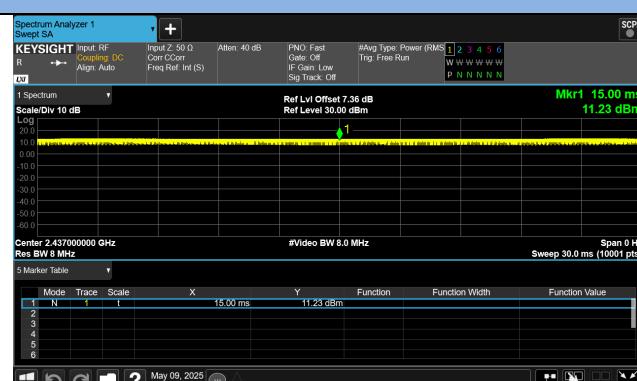
IEEE 802.11n(HT20)



IEEE 802.11ax(HE20)



IEEE 802.11 ax(HE40)



13.2 Conducted Emissions Measurement

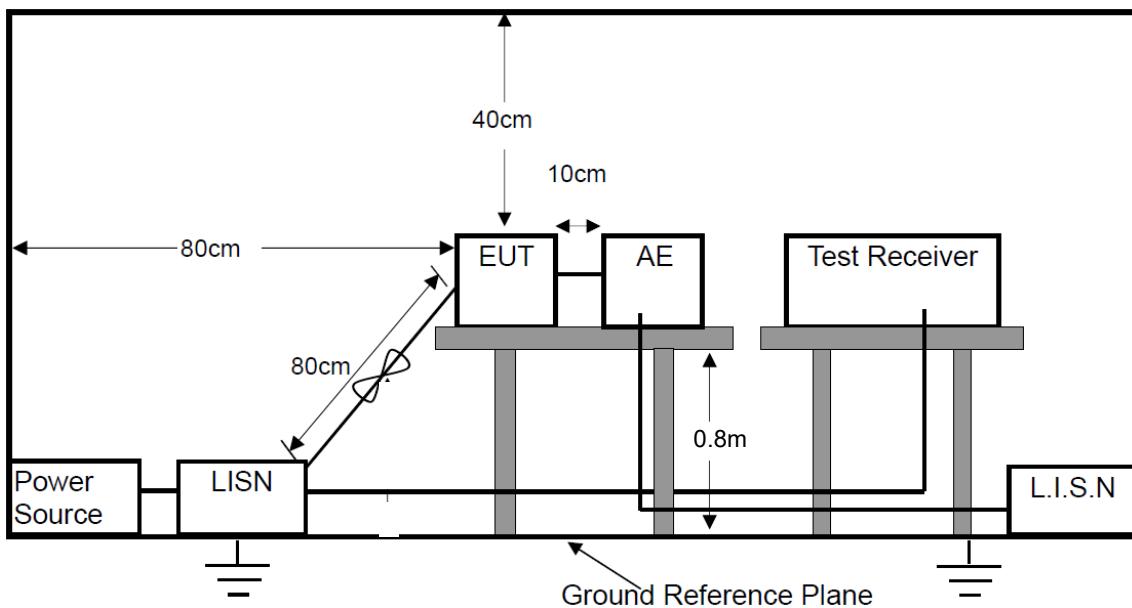
LIMITS

According to the requirements of FCC PART 15.207, the limits are as follows:

Frequency (MHz)	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

Note: 1. If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.
 2. The lower limit shall apply at the transition frequencies.
 3. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

- a. The EUT was placed on a wooden table 0.8m height from the metal ground plan and 0.4m from the conducting wall of the shielding room and it was kept at 0.8m from any other grounded conducting surface.
- b. All I/O cables and support devices were positioned as per ANSI C63.10.
- c. Connect mains power port of the EUT to a line impedance stabilization network (LISN).
- d. Connect all support devices to the other LISN and AAN, if needed.
- e. Scan the frequency range from 150KHz to 30MHz at both sides of AC line for maximum conducted interference checking and record the test data.

TEST RESULTS

PASS

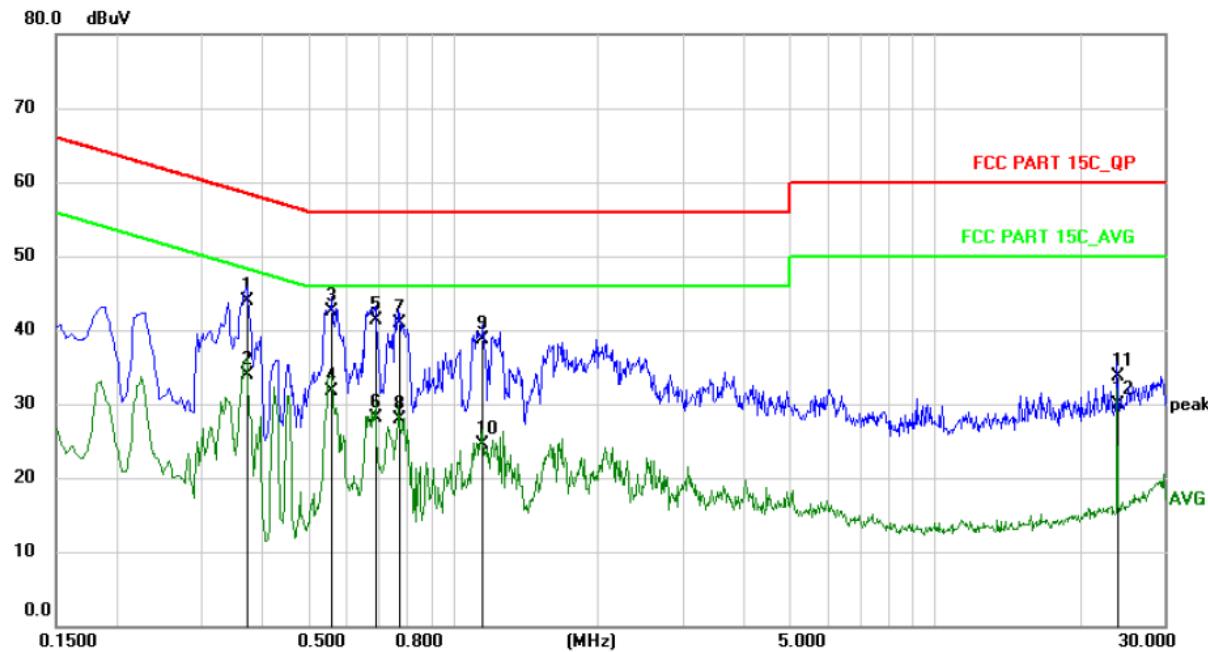
Please refer to the following pages.

M/N: SEC5000/CAM2/RP	Testing Voltage: AC 120V/60Hz
Phase: L1	Detector: QP & AVG
Test Mode: 2	

Conducted Emission Measurement

Date: 2025/5/12

Time: 17:58:47



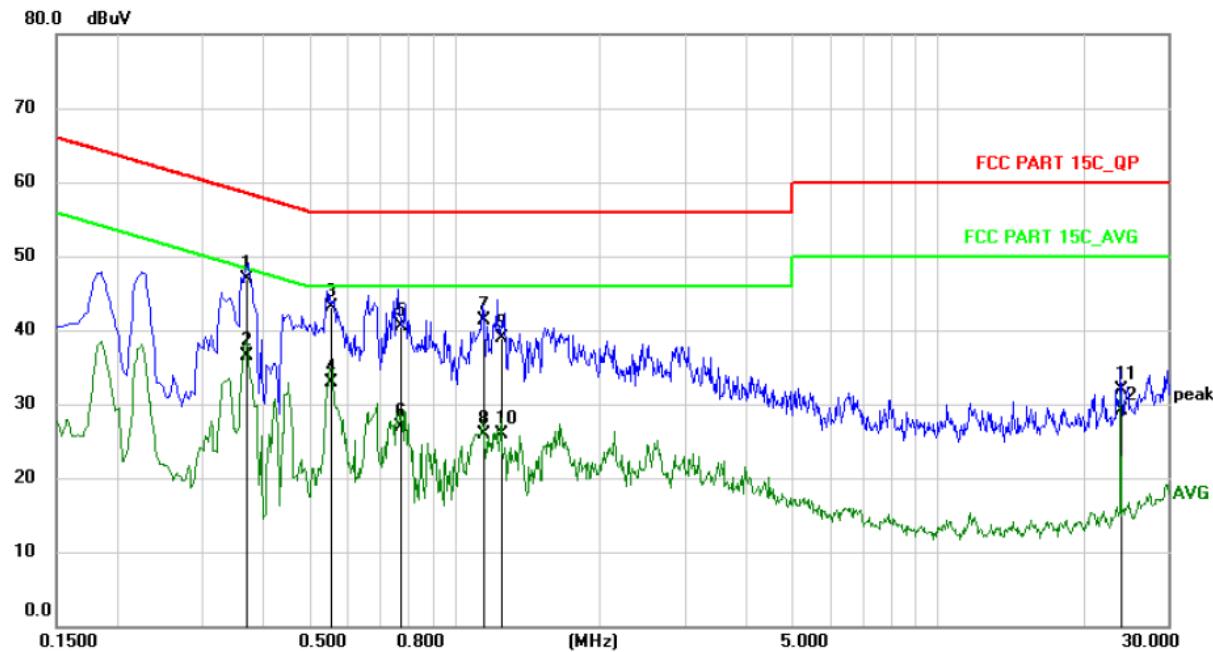
No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.3740	22.74	21.16	43.90	58.41	-14.51	QP	
2	0.3740	12.84	21.16	34.00	48.41	-14.41	AVG	
3 *	0.5580	21.35	21.15	42.50	56.00	-13.50	QP	
4	0.5580	10.55	21.15	31.70	46.00	-14.30	AVG	
5	0.6900	20.14	21.16	41.30	56.00	-14.70	QP	
6	0.6900	7.04	21.16	28.20	46.00	-17.80	AVG	
7	0.7740	19.74	21.16	40.90	56.00	-15.10	QP	
8	0.7740	6.74	21.16	27.90	46.00	-18.10	AVG	
9	1.1500	17.56	21.14	38.70	56.00	-17.30	QP	
10	1.1500	3.36	21.14	24.50	46.00	-21.50	AVG	
11	23.9980	13.20	20.50	33.70	60.00	-26.30	QP	
12	23.9980	9.50	20.50	30.00	50.00	-20.00	AVG	

M/N: SEC5000/CAM2/RP	Testing Voltage: AC 120V/60Hz
Phase: N	Detector: QP & AVG
Test Mode: 2	

Conducted Emission Measurement

Date: 2025/5/12

Time: 18:03:50



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.3700	25.87	21.13	47.00	58.50	-11.50	QP	
2	0.3700	15.37	21.13	36.50	48.50	-12.00	AVG	
3	0.5540	22.08	21.12	43.20	56.00	-12.80	QP	
4	0.5540	11.78	21.12	32.90	46.00	-13.10	AVG	
5	0.7740	19.38	21.12	40.50	56.00	-15.50	QP	
6	0.7740	5.88	21.12	27.00	46.00	-19.00	AVG	
7	1.1460	20.30	21.10	41.40	56.00	-14.60	QP	
8	1.1460	4.80	21.10	25.90	46.00	-20.10	AVG	
9	1.2540	17.92	21.08	39.00	56.00	-17.00	QP	
10	1.2540	4.92	21.08	26.00	46.00	-20.00	AVG	
11	23.9980	11.55	20.45	32.00	60.00	-28.00	QP	
12	23.9980	8.75	20.45	29.20	50.00	-20.80	AVG	

13.3 Maximum Conducted Output Power Measurement

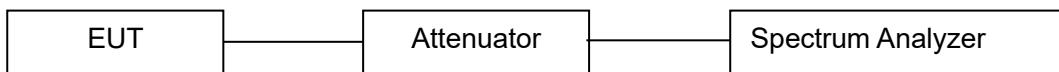
LIMITS

For system using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1 Watt.

If the transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6dBi.

In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of Antenna exceeds 6dBi.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

ANSI C63.10 - 2013, Section 11.9.2.2.4

TEST RESULTS

PASS

Please refer to the following tables.

Channel	Frequency (MHz)	Data Rate (Mbps)	AVG Output Power (dBm)	Duty Cycle Factor (dB)	AVG Power (dBm)	Limit (dBm)	Result
IEEE 802.11b							
1	2412	1	9.26	0.04	9.30	≤30	PASS
6	2437	1	10.75	0.04	10.79	≤30	PASS
11	2462	1	10.54	0.04	10.58	≤30	PASS
IEEE 802.11g							
1	2412	6	10.54	0	10.54	≤30	PASS
6	2437	6	12.00	0	12.00	≤30	PASS
11	2462	6	11.53	0	11.53	≤30	PASS
IEEE 802.11n(HT20)							
1	2412	MCS0	10.96	0	10.96	≤30	PASS
6	2437	MCS0	11.99	0	11.99	≤30	PASS
11	2462	MCS0	11.51	0	11.51	≤30	PASS
IEEE 802.11n(HT40)							
3	2422	MCS0	10.62	0	10.62	≤30	PASS
6	2437	MCS0	12.07	0	12.07	≤30	PASS
9	2452	MCS0	11.72	0	11.72	≤30	PASS
IEEE 802.11ax(HE20)							
1	2412	MCS0	10.50	0	10.50	≤30	PASS
6	2437	MCS0	12.01	0	12.01	≤30	PASS
11	2462	MCS0	11.52	0	11.52	≤30	PASS
IEEE 802.11ax(HE40)							
3	2422	MCS0	10.79	0	10.79	≤30	PASS
6	2437	MCS0	12.20	0	12.20	≤30	PASS
9	2452	MCS0	11.79	0	11.79	≤30	PASS

Test Plots

IEEE 802.11b - 2412MHz



IEEE 802.11b - 2437MHz



IEEE 802.11b - 2462MHz



IEEE 802.11g - 2412MHz



IEEE 802.11g - 2437MHz



IEEE 802.11g - 2462MHz



Test Plots

IEEE 802.11n(HT20) - 2412MHz



IEEE 802.11n(HT20) - 2437MHz



IEEE 802.11n(HT20) - 2462MHz



IEEE 802.11n(HT40) - 2422MHz



IEEE 802.11n(HT40) - 2437MHz



IEEE 802.11n(HT40) - 2452MHz

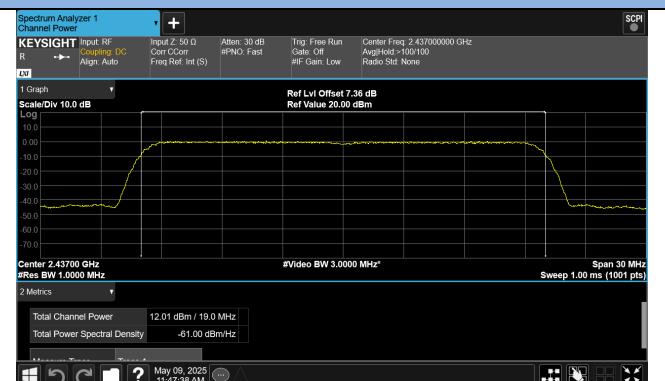


Test Plots

IEEE 802.11ax(HE20) - 2412MHz



IEEE 802.11ax(HE20) - 2437MHz



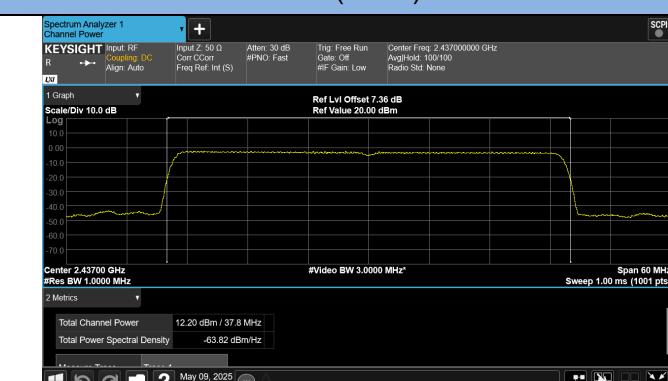
IEEE 802.11ax(HE20) - 2462MHz



IEEE 802.11ax(HE40) - 2422MHz



IEEE 802.11ax(HE40) - 2437MHz



IEEE 802.11ax(HE40) - 2452MHz

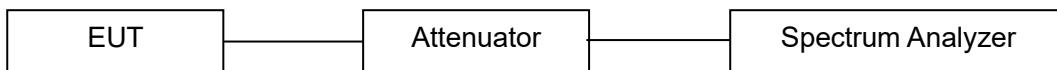


13.4 6dB Bandwidth Measurement

LIMITS

The minimum 6dB bandwidth shall be at least 500 kHz

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer was set as below according to DTS KDB 558074 D01 15.247 Meas Guidance v05r02:

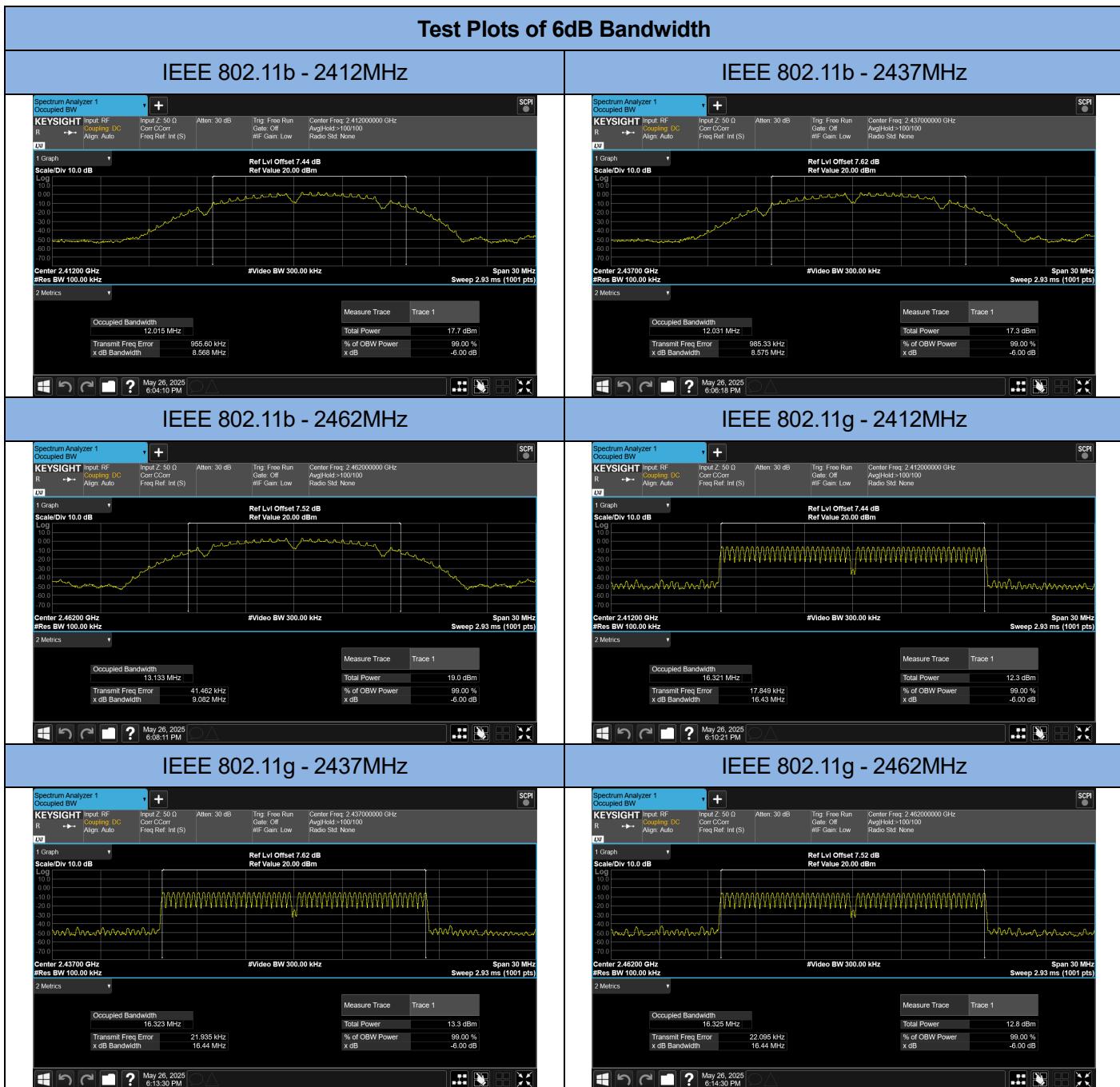
- a. Set the RBW = 100KHz.
- b. Set the VBW $\geq 3 \times$ RBW
- c. Set the Detector = peak.
- d. Set the Sweep time = auto couple.
- e. Set the Trace mode = max hold.
- f. Allow trace to fully stabilize.
- g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST RESULTS

PASS

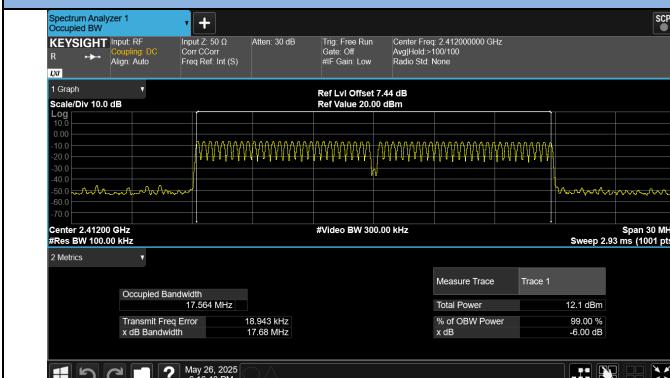
Please refer to the following tables.

Channel	Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b						
1	2412	1	8.568	---	>0.5	PASS
6	2437	1	8.575	---	>0.5	PASS
11	2462	1	9.082	---	>0.5	PASS
IEEE 802.11g						
1	2412	6	16.43	---	>0.5	PASS
6	2437	6	16.44	---	>0.5	PASS
11	2462	6	16.44	---	>0.5	PASS
IEEE 802.11n(HT20)						
1	2412	MCS0	17.68	---	>0.5	PASS
6	2437	MCS0	17.69	---	>0.5	PASS
11	2462	MCS0	17.69	---	>0.5	PASS
IEEE 802.11n(HT40)						
3	2422	MCS0	36.46	---	>0.5	PASS
6	2437	MCS0	36.47	---	>0.5	PASS
9	2452	MCS0	36.47	---	>0.5	PASS
IEEE 802.11ax(HE20)						
1	2412	MCS0	19.17	---	>0.5	PASS
6	2437	MCS0	19.17	---	>0.5	PASS
11	2462	MCS0	19.17	---	>0.5	PASS
IEEE 802.11ax(HE40)						
3	2422	MCS0	38.25	---	>0.5	PASS
6	2437	MCS0	38.26	---	>0.5	PASS
9	2452	MCS0	38.26	---	>0.5	PASS

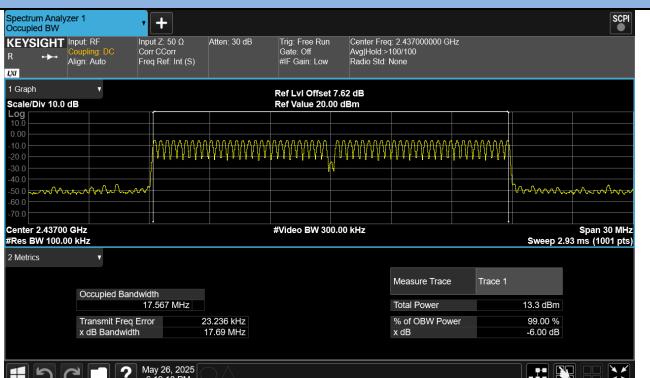


Test Plots of 6dB Bandwidth

IEEE 802.11n(HT20) - 2412MHz



IEEE 802.11n(HT20) - 2437MHz



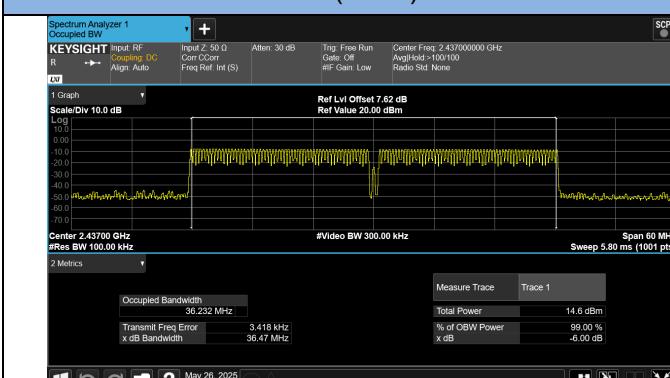
IEEE 802.11n(HT20) - 2462MHz



IEEE 802.11n(HT40) - 2422MHz



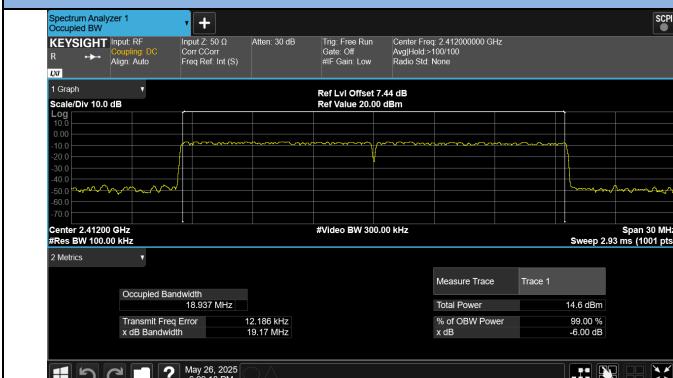
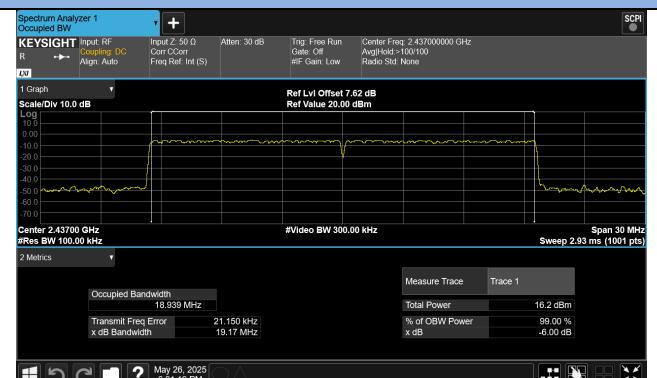
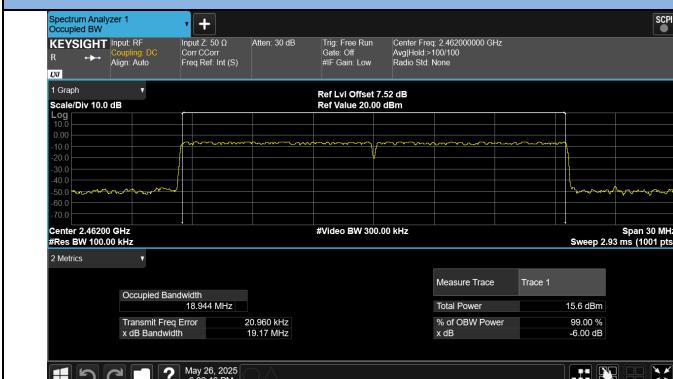
IEEE 802.11n(HT40) - 2437MHz

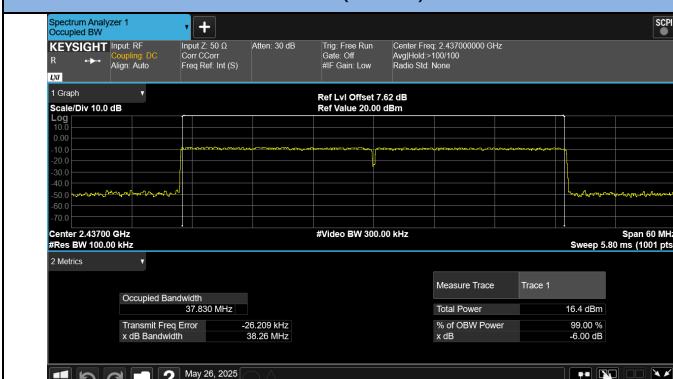


IEEE 802.11n(HT40) - 2452MHz



Test Plots of 6dB Bandwidth

IEEE 802.11ax(HE20) - 2412MHz

IEEE 802.11ax(HE20) - 2437MHz

IEEE 802.11ax(HE20) - 2462MHz

IEEE 802.11ax(HE40) - 2422MHz

IEEE 802.11ax(HE40) - 2437MHz

IEEE 802.11ax(HE40) - 2452MHz
