



FCC Part 15C Test Report

FCC ID: 2AI5T-FLL-018-W5

Applicant: Shenzhen Bling Lighting Technologies CO.,LTD
Address: West of 3rd Floor, Building A of CNNC, Qiyu Road, East of Baishixia, Fuyong,Bao'an, Shenzhen, Guangdong, 518100, China
Manufacturer: Shenzhen Bling Lighting Technologies CO.,LTD
Address: West of 3rd Floor, Building A of CNNC, Qiyu Road, East of Baishixia, Fuyong,Bao'an, Shenzhen, Guangdong, 518100, China
Product Name: LED Floor Lamp
Trade Mark: N/A
Model Number: FLL-018-W5, FLL-018-F7, FLL-018-73, FLQ-018-F2, FLL-018-XR, FLQ-018-F1, FLL-018-R5, FLL-018-X5, FLQ-018-R5, FLQ-018-X5, FLL-018-WR
Date of Receipt: Jul. 16, 2026
Test Date: Jul. 16, 2026 ~Aug. 12, 2026
Date of Report: Aug. 12, 2026
Prepared By: Shenzhen DL Testing Technology Co., Ltd.
Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
Applicable Standards: FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.10: 2020
Test Result: Pass
Report Number: DLE-260812002R

Prepared by(Engineer): Ken Tan
Reviewer(Supervisor): Jack Bu
Approved(Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



Table of Contents

1. Summary	4
1.1 Test Procedures and Results.....	4
1.2 Information of the Test Laboratory	4
1.3 Measurement Uncertainty	5
2. EUT Description.....	6
2.1 General Description of EUT	6
2.2 Carrier Frequency of Channels.....	7
2.3 Operation of EUT during Testing.....	7
2.4 Description of Test Setup.....	8
2.5 Description of Support Units	9
2.6 The Worse Case Power Setting Parameter	9
3. Equipments List for All Test Items	10
4. General Information.....	11
4.1 Test Environment and Mode	11
5. Test Results and Measurement Data	13
5.1 AC Conducted Emission	13
5.2 Maximum Peak Conducted Output Power.....	16
5.3 Emission Bandwidth	18
5.4 Power Spectral Density	22
5.5 Conducted Band Edge and Spurious Emission Measurement	27
5.6 Radiated Spurious Emission Measurement.....	35
5.7 Antenna Requirement.....	44
6. Test Setup Photos of the EUT	45
7. Photos of the EUT.....	47



**** Issued History ****

Revision	Description	Issued Date	Remark
Revision 1.0	Initial Test Report Release	Aug. 12, 2026	



1. 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 DL Testing Technology Co., Ltd.

Add: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China



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	Uncertainty
1	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power, conducted	$\pm 0.42\text{dB}$
3	Spurious emissions, conducted	$\pm 2.76\text{dB}$
4	All emissions, radiated(<1G)	$\pm 3.65\text{dB}$
5	All emissions, radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$
8	6dB Bandwidth	$\pm 0.2\text{MHz}$
9	Power Spectral Density	$\pm 0.3\text{dBm}$



2. EUT Description

2.1 General Description of EUT

Equipment:	LED Floor Lamp
Model Name:	FLL-018-W5
Series Model(s):	FLL-018-F7, FLL-018-73, FLQ-018-F2, FLL-018-XR, FLQ-018-F1, FLL-018-R5, FLL-018-X5, FLQ-018-R5, FLQ-018-X5, FLL-018-WR
Model Difference:	All model's the function, software and electric circuit are the same, only product model named different. Test sample model: FLL-018-W5.
Antenna Type:	PCB Antenna
Antenna Gain:	2.21dBi
Operation Frequency:	802.11b/g/n(HT20):2412~2462 MHz
Number of Channels:	802.11b/g/n(HT20): 11CH
Modulation Type:	DSSS, OFDM
Power Source:	DC24V 0.75A from adapter with AC100-240V, 50/60Hz 0.8A
Power Rating:	DC24V 0.75A from adapter with AC100-240V, 50/60Hz 0.8A
Hardware Version:	V1.0
Firmware 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 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	--	--

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

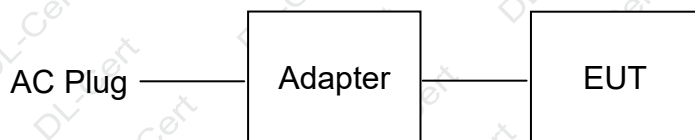
Middle Channel: 2437MHz

High Channel: 2462MHz



2.4 Description of Test Setup

Operation of EUT during AC Conducted and Radiation testing:



Operation of EUT during RF Conducted testing:



The sample was placed (0.1m below 1GHz, 0.1m 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	LED Floor Lamp	N/A	FLL-018-W5	N/A	EUT
2	Adapter	N/A	BI18G-240075-AdU	Input: AC100-240V, 50/60Hz, 0.8A Output: DC24V 0.75A	

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.

2.6 The Worse Case Power Setting Parameter

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the end product.

Test Software Version	Wifi_Test_Tool_V1.8.0
Modulation Type	DSSS, OFDM
Transmit Antenna Number	1
Test Software setting value	75



3. Equipments List for All Test Items

Radiation test, Band-edge test and 6db bandwidth test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Oct. 25, 2025	Oct. 24, 2026
2	Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Oct. 25, 2025	Oct. 24, 2026
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Oct. 25, 2025	Oct. 24, 2026
4	Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Oct. 25, 2025	Oct. 24, 2026
5	Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Oct. 25, 2025	Oct. 24, 2026
6	Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Oct. 25, 2025	Oct. 24, 2026
7	Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Oct. 25, 2025	Oct. 24, 2026
8	Amplifier (18GHz-40GHz)	Quanjuda	DLE-161	97	Oct. 25, 2025	Oct. 24, 2026
9	Loop Antenna (9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Oct. 25, 2025	Oct. 24, 2026
10	RF cables1 (9kHz-1GHz)	ChengYu	966	004	Oct. 25, 2025	Oct. 24, 2026
11	RF cables2 (1GHz-40GHz)	ChengYu	966	003	Oct. 25, 2025	Oct. 24, 2026
12	Antenna connector	Florida RF Labs	N/A	RF 01#	Oct. 25, 2025	Oct. 24, 2026
13	Power probe	KEYSIGHT	U2021XA	MY55210018	Oct. 25, 2025	Oct. 24, 2026
14	Signal Analyzer 9kHz-26.5GHz	Agilent	N9020A	MY55370280	Oct. 25, 2025	Oct. 24, 2026
15	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	Oct. 25, 2025	Oct. 24, 2026
16	D.C. Power Supply	LongWei	PS-305D	010964729	Oct. 25, 2025	Oct. 24, 2026
17	Filter	COM-MW	K6-2400-2500-100S455-007	6DS2302367	Oct. 25, 2025	Oct. 24, 2026
18	Attenuator	COM-MW	5W 6DB 6G	DC-6GHz	Oct. 25, 2025	Oct. 24, 2026

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	843 Shielded Room	ChengYu	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
2	EMI Receiver	R&S	ESR	101421	Oct. 25, 2025	Oct. 24, 2026
3	LISN	R&S	ENV216	102417	Oct. 25, 2025	Oct. 24, 2026
4	843 Cable 1#	ChengYu	CE Cable	001	Oct. 25, 2025	Oct. 24, 2026

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ EMC	EMC-CON 3A1.1
2	EMC radiation test system	FALA	EZ EMC	FA-03A2
3	RF test system	MAIWEI	MTS8310	2.0.0.0
4	RF communication test system	MAIWEI	MTS8200	2.0.0.0



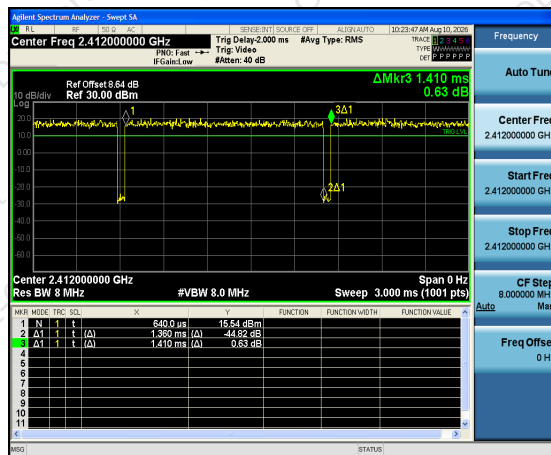
4. General Information

4.1 Test Environment and Mode

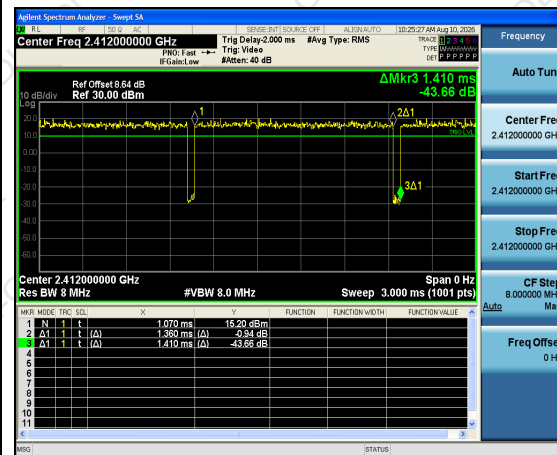
Operating Environment:									
Temperature:	25.0 °C								
Humidity:	56 % RH								
Atmospheric Pressure:	1010 mbar								
Test Mode:									
Engineering Mode:	Keep the EUT in continuous transmitting by select channel and modulations								
We have verified the construction and function in typical 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								
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). 3. Mode Test Duty Cycle <table><tr><th>Mode</th><th>Duty Cycle</th></tr><tr><td>802.11b</td><td>0.9645</td></tr><tr><td>802.11g</td><td>0.9645</td></tr><tr><td>802.11n(HT20)</td><td>0.9621</td></tr></table>		Mode	Duty Cycle	802.11b	0.9645	802.11g	0.9645	802.11n(HT20)	0.9621
Mode	Duty Cycle								
802.11b	0.9645								
802.11g	0.9645								
802.11n(HT20)	0.9621								
Test plots as follows:									



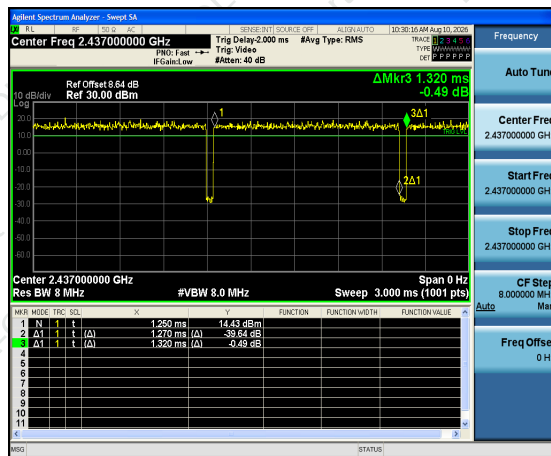
802.11b



802.11g



802.11n(HT20)





5. Test Results and Measurement Data

5.1 AC Conducted Emission

Test Specification

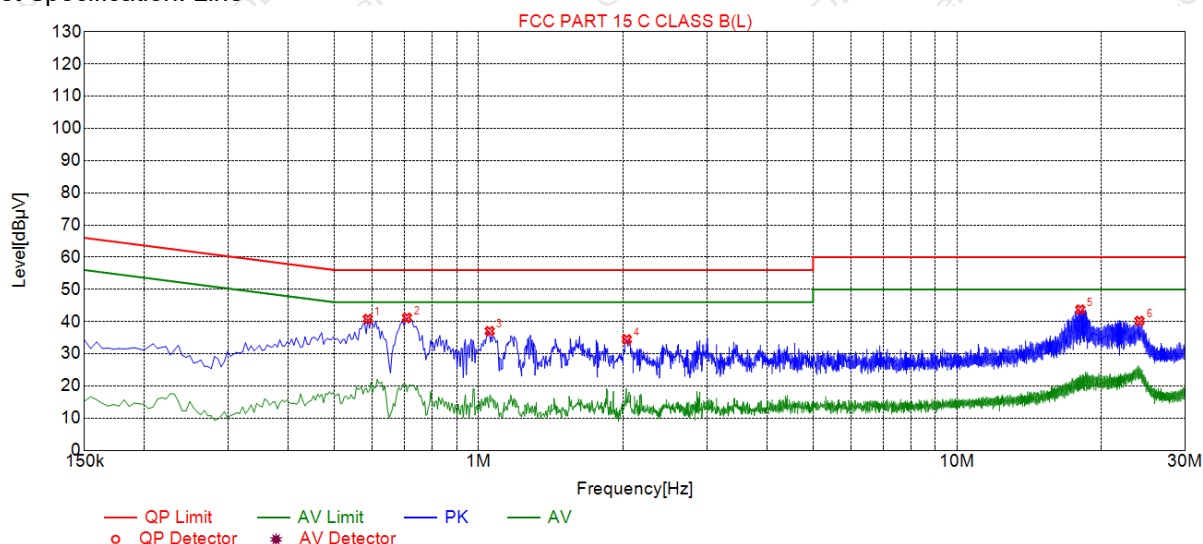
Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.10: 2020		
Frequency Range:	150 kHz to 30 MHz		
Receiver Setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto		
Limits:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
Test Setup:	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=0.1m		
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: 2020 on conducted measurement.		
Test Result:	PASS		



Test Result

All modes have been tested, only the worst result was reported as below:

Test Specification: Line



Suspected List

NO.	Freq. [MHz]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Reading [dBμV]	Detector	Type
1	0.5865	40.81	19.89	56.00	15.19	20.92	PK	L
2	0.7080	41.22	19.95	56.00	14.78	21.27	PK	L
3	1.0545	37.04	19.88	56.00	18.96	17.16	PK	L
4	2.0400	34.47	20.07	56.00	21.53	14.40	PK	L
5	18.0960	43.75	22.68	60.00	16.25	21.07	PK	L
6	24.0585	40.21	24.04	60.00	19.79	16.17	PK	L

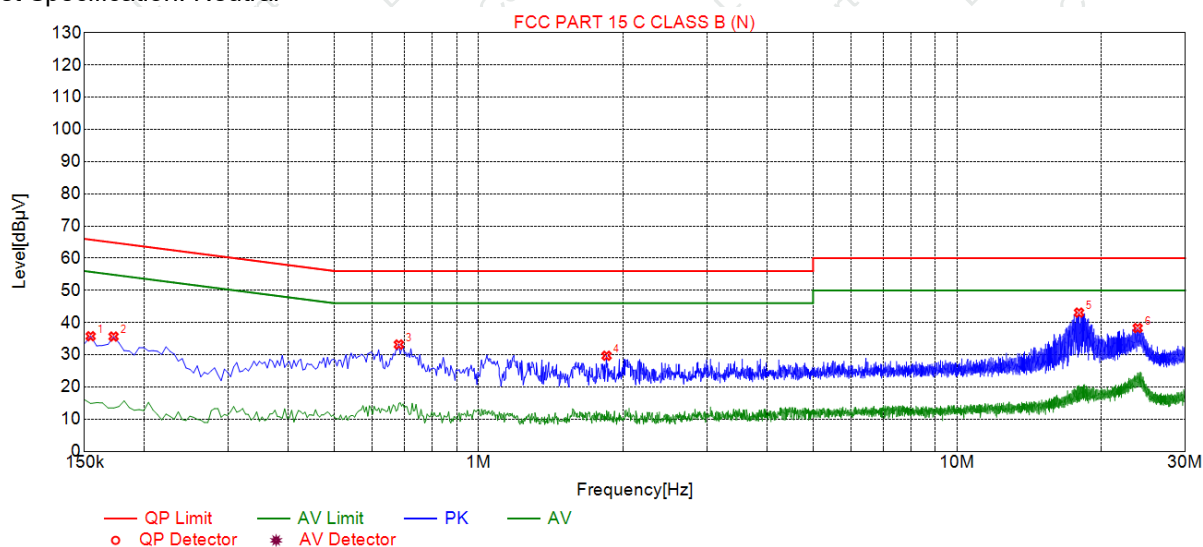
Remark: Margin = Limit – Level

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	35.76	19.93	65.75	29.99	15.83	PK	N
2	0.1725	35.66	19.86	64.84	29.18	15.80	PK	N
3	0.6810	33.18	19.95	56.00	22.82	13.23	PK	N
4	1.8510	29.69	20.14	56.00	26.31	9.55	PK	N
5	17.9880	43.09	22.61	60.00	16.91	20.48	PK	N
6	23.8515	38.29	23.92	60.00	21.71	14.37	PK	N

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor



5.2 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:	 RF automatic control unit EUT
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 Data**

Mode	Test Channel	Frequency	Maximum Peak Conducted Output Power	Limit
		(MHz)	(dBm)	dBm
802.11b	CH01	2412	13.27	30
802.11b	CH06	2437	13.51	30
802.11b	CH11	2462	13.75	30
802.11g	CH01	2412	14.81	30
802.11g	CH06	2437	13.96	30
802.11g	CH11	2462	14.36	30
802.11n(HT20)	CH01	2412	13.32	30
802.11n(HT20)	CH06	2437	13.01	30
802.11n(HT20)	CH11	2462	13.91	30

Note: The test results including the cable loss.



5.3 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:	 Spectrum Analyzer EUT
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) = 1%~5%OBW. Set the video bandwidth (VBW) ≥ 3 RBW. In order to make an accurate measurement. The 6dB bandwidth must be at least 500 kHz. 4. Measure and record the results in the test report.
Test Result:	PASS

Test Data

Test Channel	6dB Emission Bandwidth (MHz)		
	802.11b	802.11g	802.11n(HT20)
Lowest	8.600	16.240	15.560
Middle	8.640	13.040	15.960
Highest	9.080	16.080	15.600
Limit:	≥500kHz		
Test Result:	PASS		

Test plots as follows:



802.11b Modulation

Lowest Channel



Middle Channel



Highest Channel





802.11g Modulation

Lowest Channel



Middle Channel



Highest Channel





802.11n (HT20) Modulation

Lowest Channel



Middle Channel



Highest Channel





5.4 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:	 Spectrum Analyzer EUT
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): $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$. Video bandwidth $\text{VBW} \geq 3 \times \text{RBW}$. 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

**Test Data**

EUT Set Mode	Channel	Result (dBm/30KHz)	Result (dBm/3kHz)
802.11b	Lowest	-2.05	-12.05
	Middle	-1.71	-11.71
	Highest	-1.65	-11.65
802.11g	Lowest	-3.16	-13.16
	Middle	-3.29	-13.29
	Highest	-3.34	-13.34
802.11n(HT20)	Lowest	-3.39	-13.39
	Middle	-4.25	-14.25
	Highest	-2.92	-12.92
PSD Test Result (dBm/3kHz)= PSD Test Result (dBm/30kHz)-10			
Limit: 8dBm/3kHz			
Test Result:	PASS		

Test plots as follows:



802.11b Modulation

Lowest Channel



Middle Channel



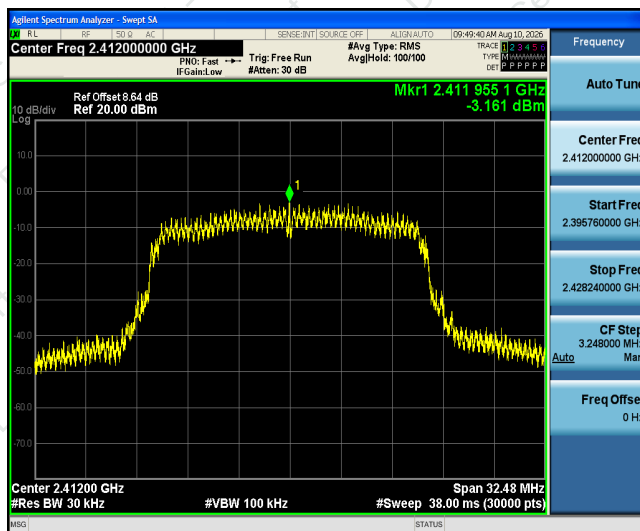
Highest Channel



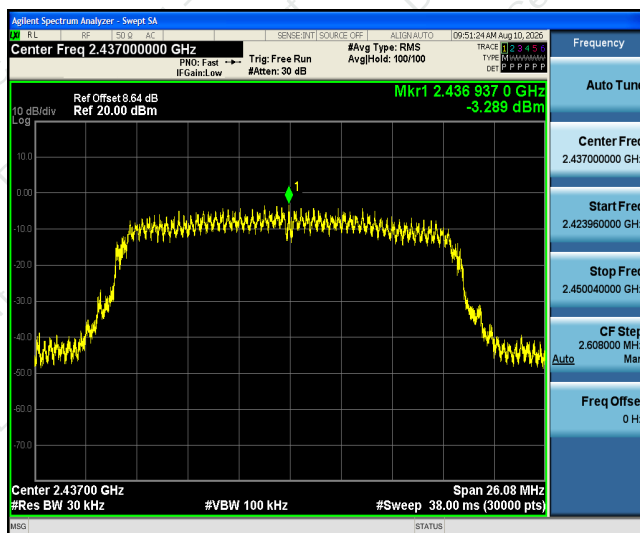


802.11g Modulation

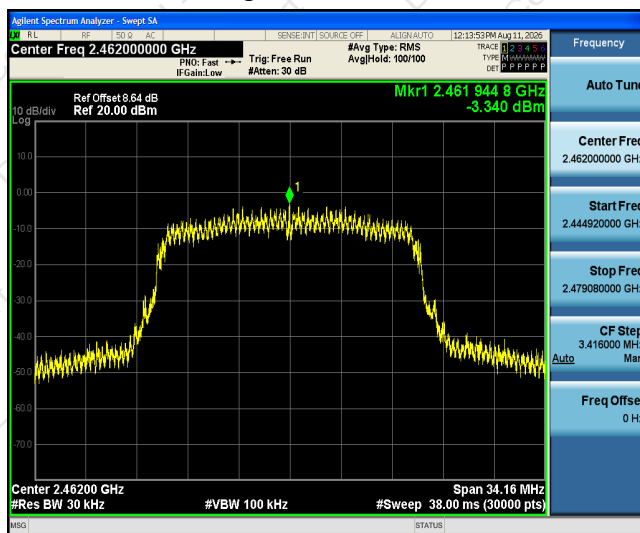
Lowest Channel



Middle Channel



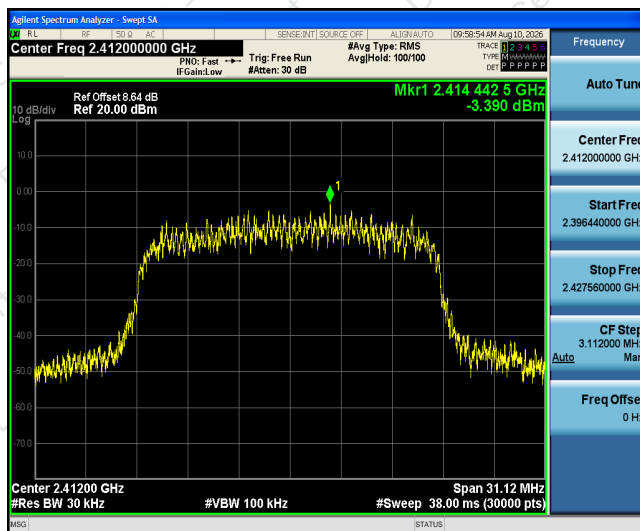
Highest Channel



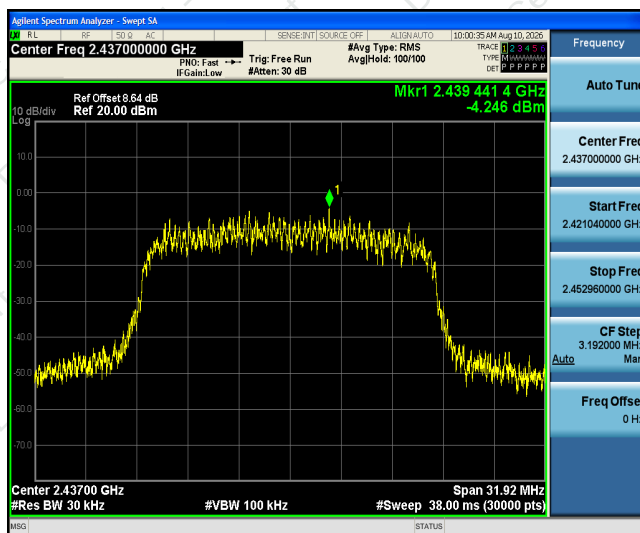


802.11n (HT20) Modulation

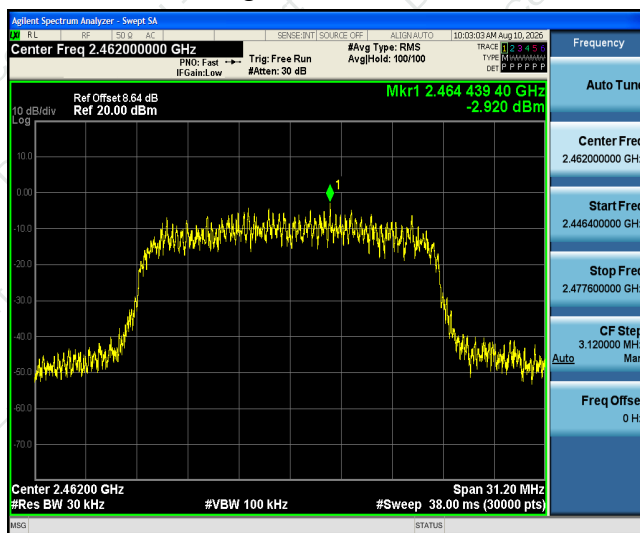
Lowest Channel



Middle Channel



Highest Channel





5.5 Conducted Band Edge and Spurious Emission Measurement

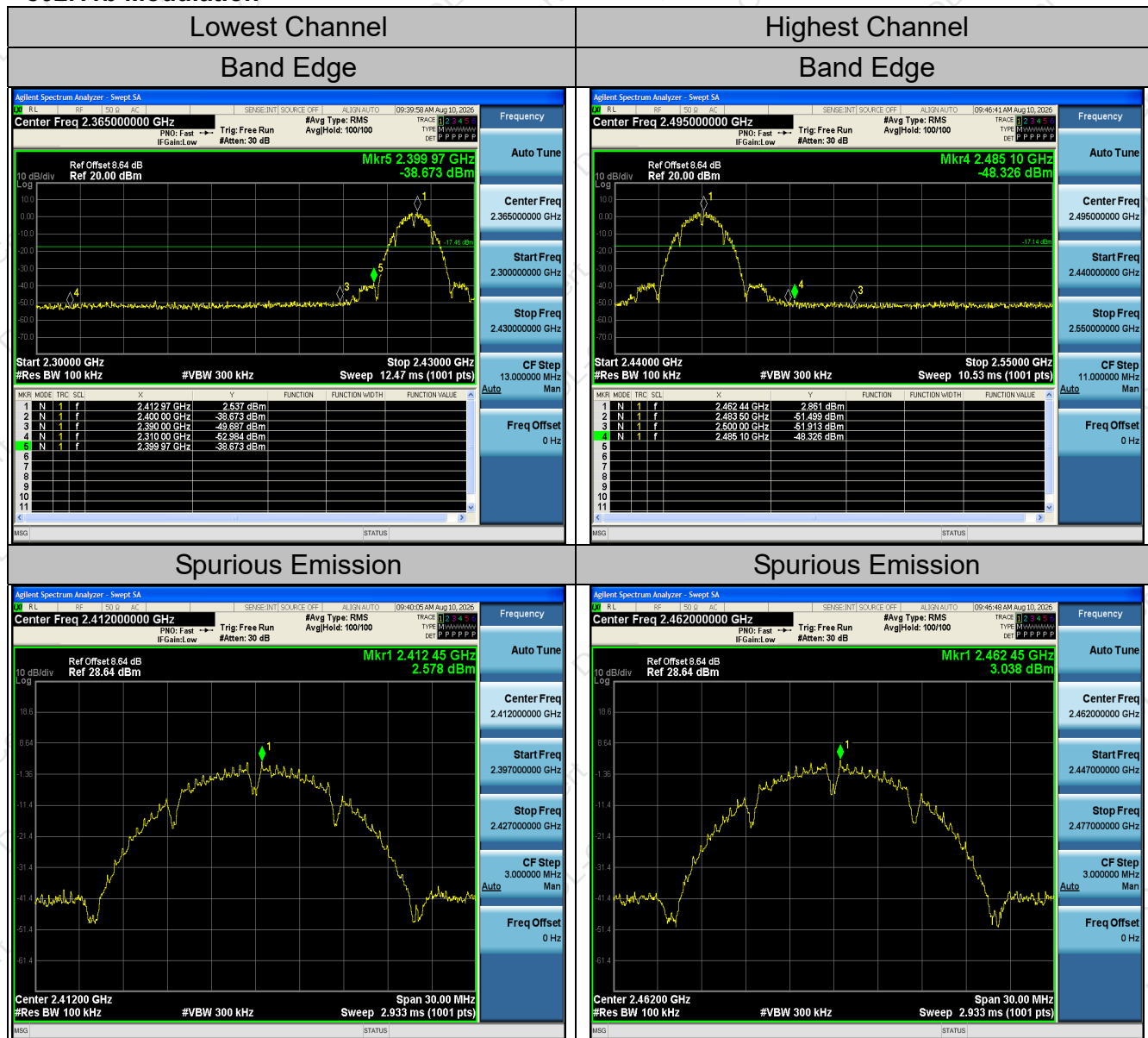
Test Specification

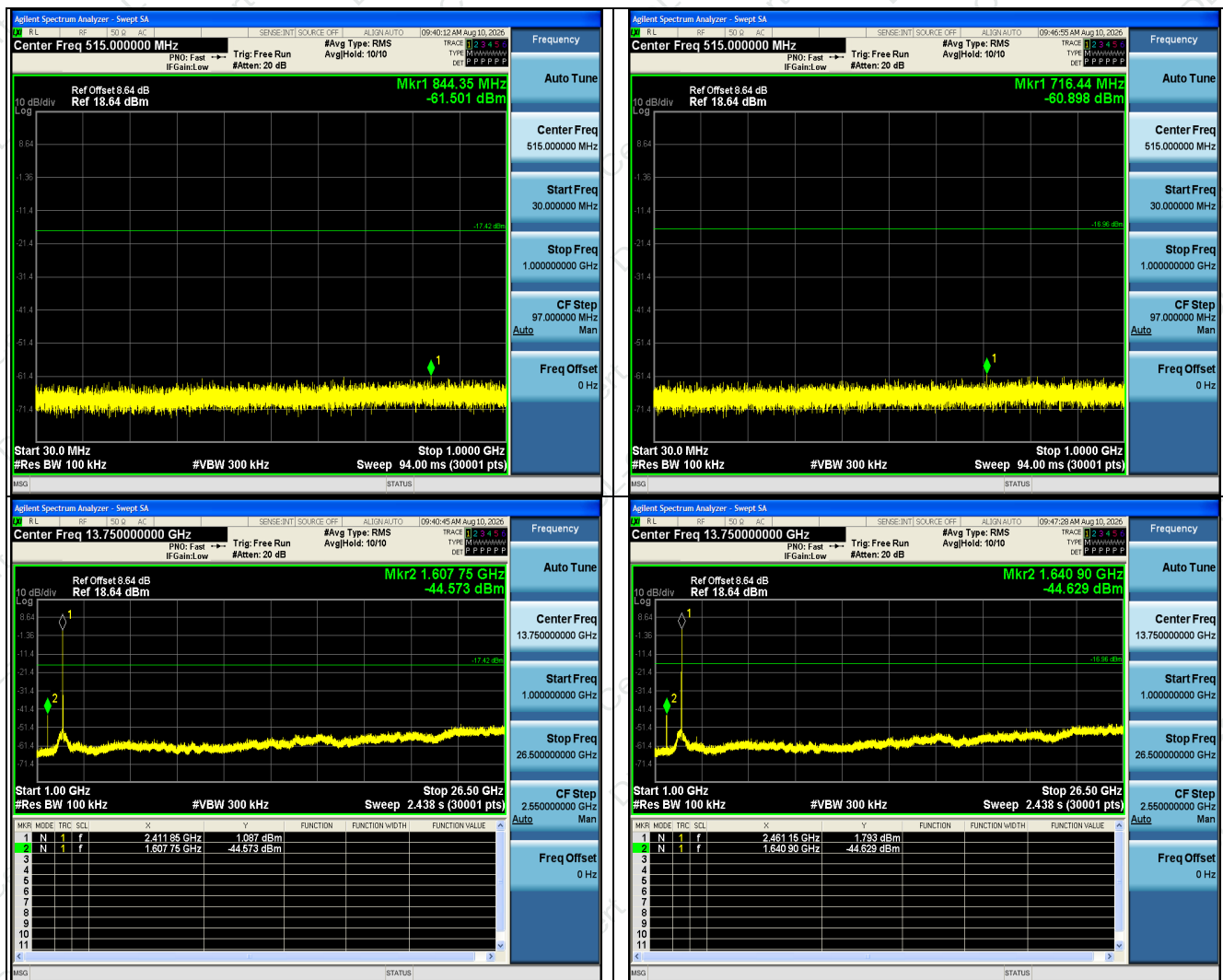
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02
Limit:	In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows 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. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d). 5. Measure and record the results in the test report. 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Test Result:	PASS



Test Data

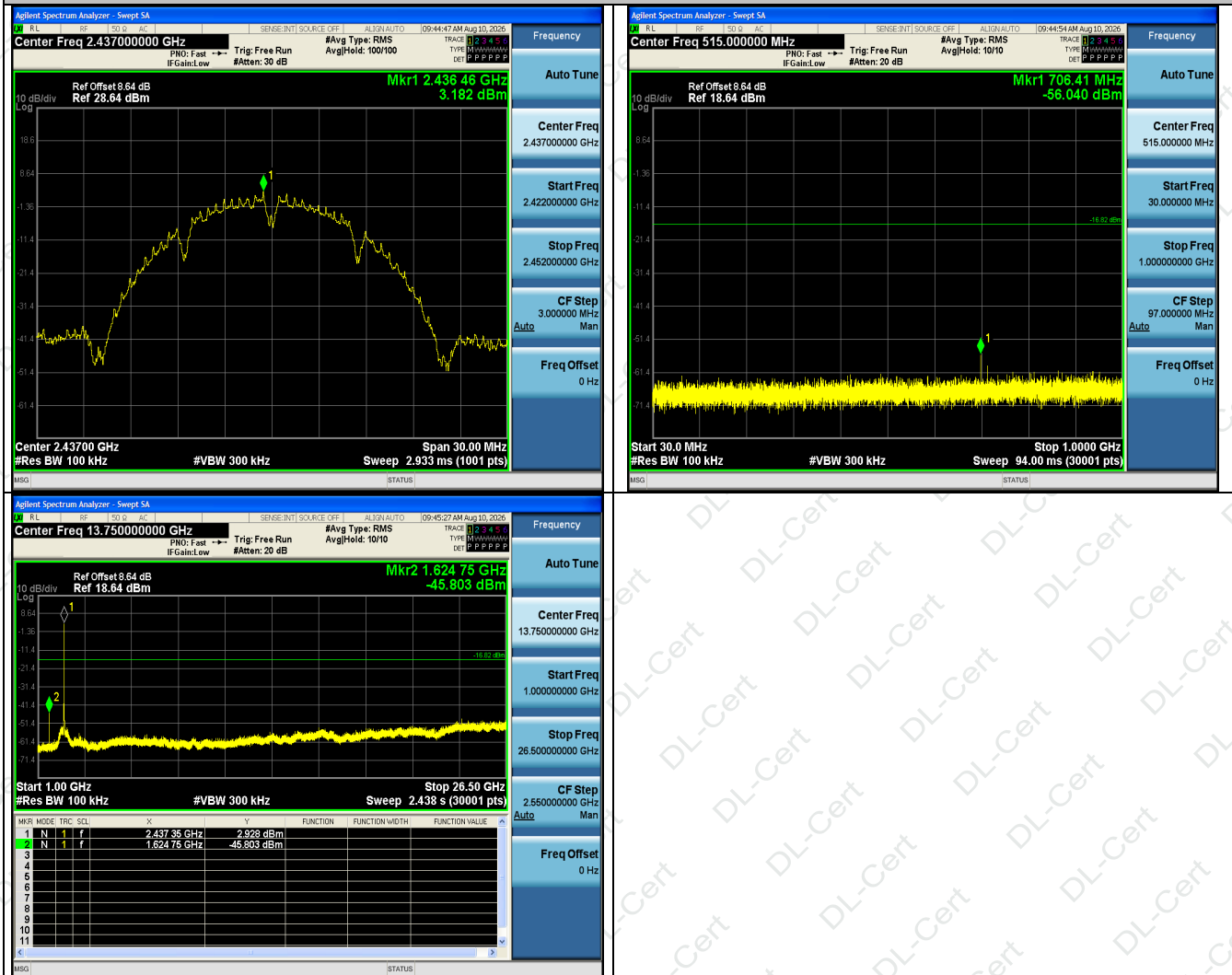
802.11b Modulation





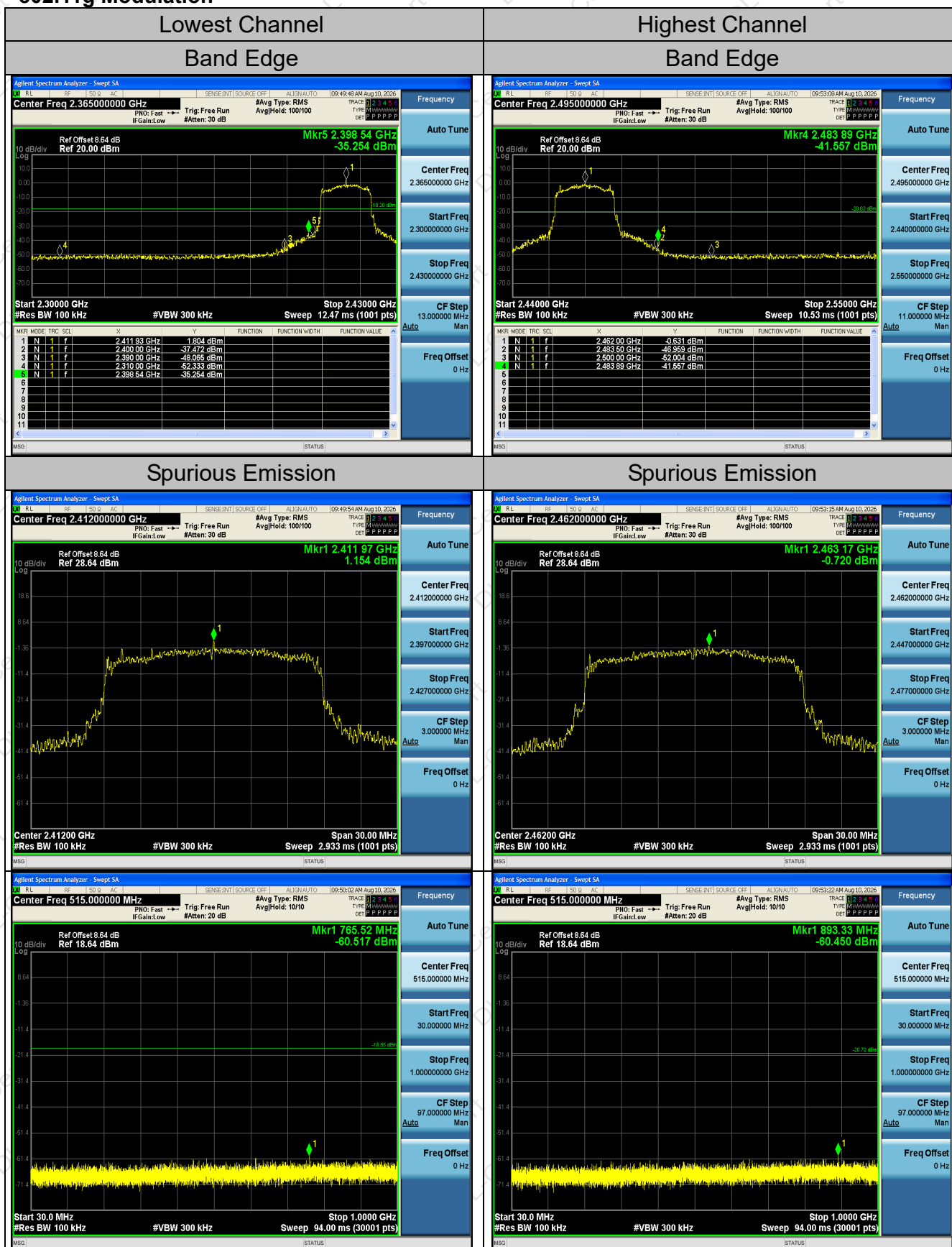


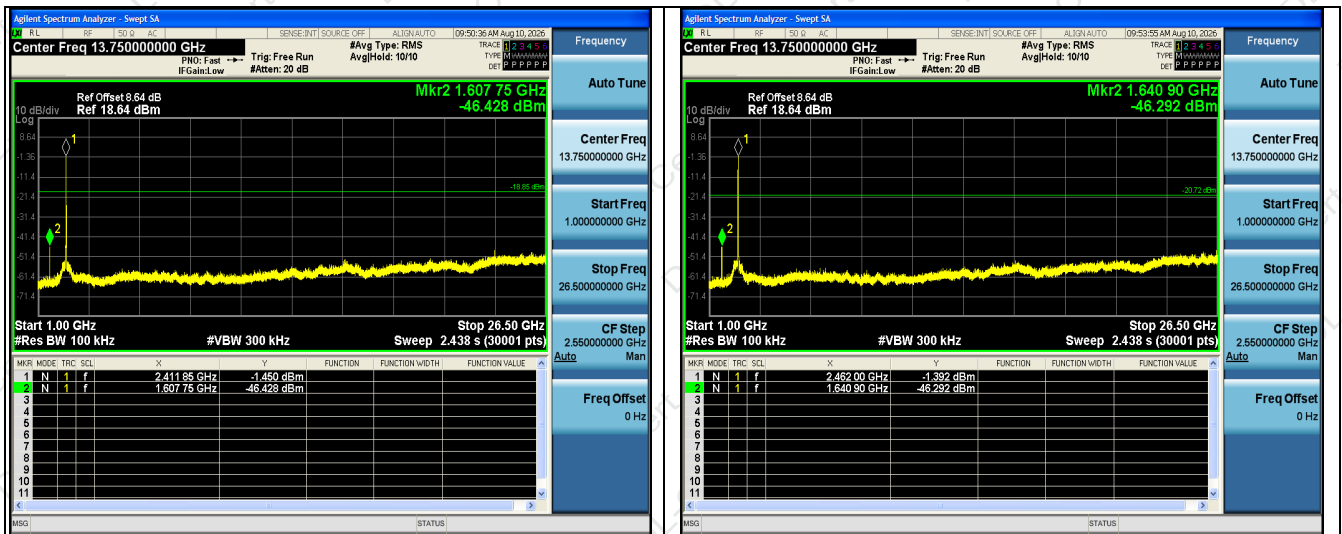
Middle Channel Spurious Emission



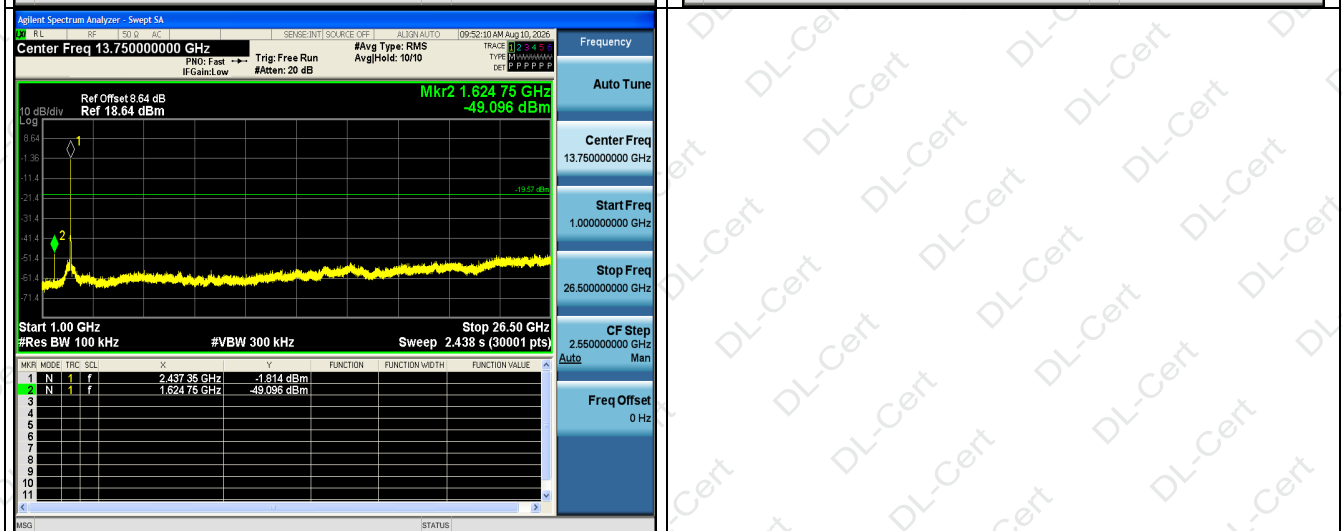
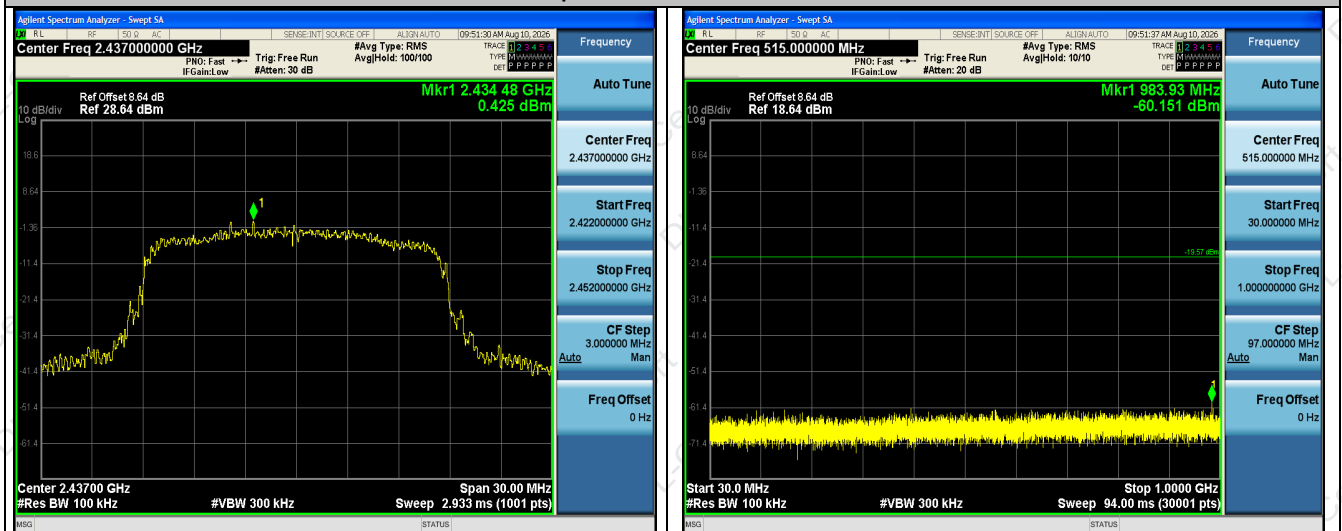


802.11g Modulation





Middle Channel Spurious Emission





802.11n (HT20) Modulation



