

Project No: TM-2509000090P
Report No.: TMWK2509003854KR FCC ID: P4Q-N749

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Rev.: 01

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

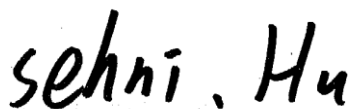
Test Standard	FCC Part 15.247
Product name	Motorcycle Dashcam
Brand Name	Mio / MAGELLAN / NAVMAN
Model No.	N749
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10-2020 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Sehni Hu
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	October 14, 2025	Initial Issue	ALL	Peggy Tsai
01	October 28, 2025	See the following Note Rev. (01)	P.5, 13	Peggy Tsai

Note:

Rev. (01)

1. Modify antenna information in section 1.3.
2. Modify the worst mode of measurement in section 3.2.

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	MiTAC Digital Technology Corporation 4F, No. 1, R&D Road 2, Hsinchu Science Park, Hsinchu, Taiwan
Manufacturer	MiTAC Digital Technology Corporation 4F, No. 1, R&D Road 2, Hsinchu Science Park, Hsinchu, Taiwan
Equipment	Motorcycle Dashcam
Brand Name	Mio / MAGELLAN / NAVMAN
Model No.	N749
Model Discrepancy	Difference of the those brand names (list on this report) are just for marketing purpose only.
Received Date	September 4, 2025
Date of Test	September 17 ~ October 1, 2025
Power Operation	1. Power from USB Type-C (DC 5V) 2. Power from Battery (MiTAC / 433053) Normal Voltage: 3.6Vdc Rated capacity: 3200mAh, 11.52Wh
HW Version	R01
FW Version	VO01

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
3. Disclaimer: The variant trademarks are assessed as identical in hardware and software to each other, hence all variants are fully covered by the test results in this test report without further verification test.
4. Disclaimer: Variant information between/among trademarks is provided by the applicant, test results of this report are applicable to the sample EUT received of main test model name.

1.2 EUT CHANNEL INFORMATION

Frequency Range	802.11b/g/n HT 20: 2412MHz ~ 2462MHz 802.11n HT 40: 2422MHz ~ 2452MHz
Modulation Type	1. IEEE 802.11b mode: CCK 2. IEEE 802.11g mode: OFDM 3. IEEE 802.11n HT 20 MHz mode : OFDM 4. IEEE 802.11n HT 40 MHz mode : OFDM
Number of channel	1. IEEE 802.11b mode: 11 Channels 2. IEEE 802.11g mode: 11 Channels 3. IEEE 802.11n HT 20 MHz mode : 11 Channels 4. IEEE 802.11n HT 40 MHz mode : 7 Channels

Remark:

Refer as ANSI C63.10-2020 for test channels.

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Type	☐ PIFA ☐ PCB ☐ Dipole ☒ Chip antenna
Antenna Gain	Gain: -2.6 dBi

Notes:

1.The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 2.21 dB
Channel Bandwidth	+/- 2.79 dB
RF output power (Power Meter + Power sensor)	+/- 0.24 dB
Power Spectral density	+/- 2.74 dB
Conducted Bandedge	+/- 2.74 dB
Conducted Spurious Emission	+/- 2.74 dB
Radiated Emission_9kHz-30MHz	+/- 3.492 dB
Radiated Emission_30MHz-200MHz	+/- 3.62 dB
Radiated Emission_200MHz-1GHz	+/- 3.899 dB
Radiated Emission_1GHz-6GHz	+/- 5.063 dB
Radiated Emission_6GHz-18GHz	+/- 5.122 dB
Radiated Emission_18GHz-26GHz	+/- 3.032 dB
Radiated Emission_26GHz-40GHz	+/- 3.271 dB

Remark:

- 1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	David Li	-
Radiation	Tony Chao, Ben Yang	-
RF Conducted	Marco Chan	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC pubic Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

1.6 INSTRUMENT CALIBRATION

Conducted FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EXA Signal Analyzer	Keysight	N9010B	MY55460167	2025-06-13	2026-06-12
Power Sensor	Anritsu	MA2411B	1911387	2025-08-21	2026-08-20
Power Sensor	Anritsu	MA2411B	1911386	2025-07-07	2026-07-06
Power Meter	Anritsu	ML2496A	2136002	2025-07-07	2026-07-06
DC Blocks	Marvelous Microwave	MVE6411	MVE-001	2025-08-06	2026-08-05
Attenuator	Marvelous Microwave Inc	MVE2213-10	08	2024-11-07	2025-11-06
Software	Radio Test Software Ver. 21				

966A Radiated					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	KEYSIGHT	N9010A	MY52220817	2025-03-05	2026-03-04
Active Loop Antenna	COM-POWER	AL-130	121051	2025-02-18	2026-02-17
Thermo-Hygro Meter	HTC	HTC-1	HTC-D06	2025-05-26	2026-05-25
Bi-Log Antenna	Sunol Sciences	JB3	A030105&532	2025-06-26	2026-06-25
Preamplifier	EMEC	EM330	060609	2025-02-20	2026-02-19
Cable	Huber+Suhner	104PEA	20995+21000+182330	2025-08-06	2026-08-05
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2024-12-20	2025-12-19
Preamplifier	HP	8449B	3008A00965	2024-12-18	2025-12-17
Cable	EMCI	EMC101G	221012+230205+250412	2025-04-24	2026-04-23
Attenuator	Mini-Circuits	BW-S9W5	BWS9W5-09-966A-01	2025-02-06	2026-02-05
High Pass Filters	Titan Microwave	T04H30001800070S01	22011402-4	2025-06-03	2026-06-02
Pre-Amplifier	EMCI	EMC184045SE	980860	2024-12-02	2025-12-01
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2024-12-06	2025-12-05
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 V9-210616c				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

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AC Mains Conduction					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI	100064	2025-06-02	2026-06-01
LISN	TESEQ	LN2-16N	22012	2025-02-23	2026-02-22
Cable	Woken	RFC-SMA-100-NMR-084SFL402	MFR-2Y194	2025-03-21	2026-03-20
Software	e3 V9-210616c				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

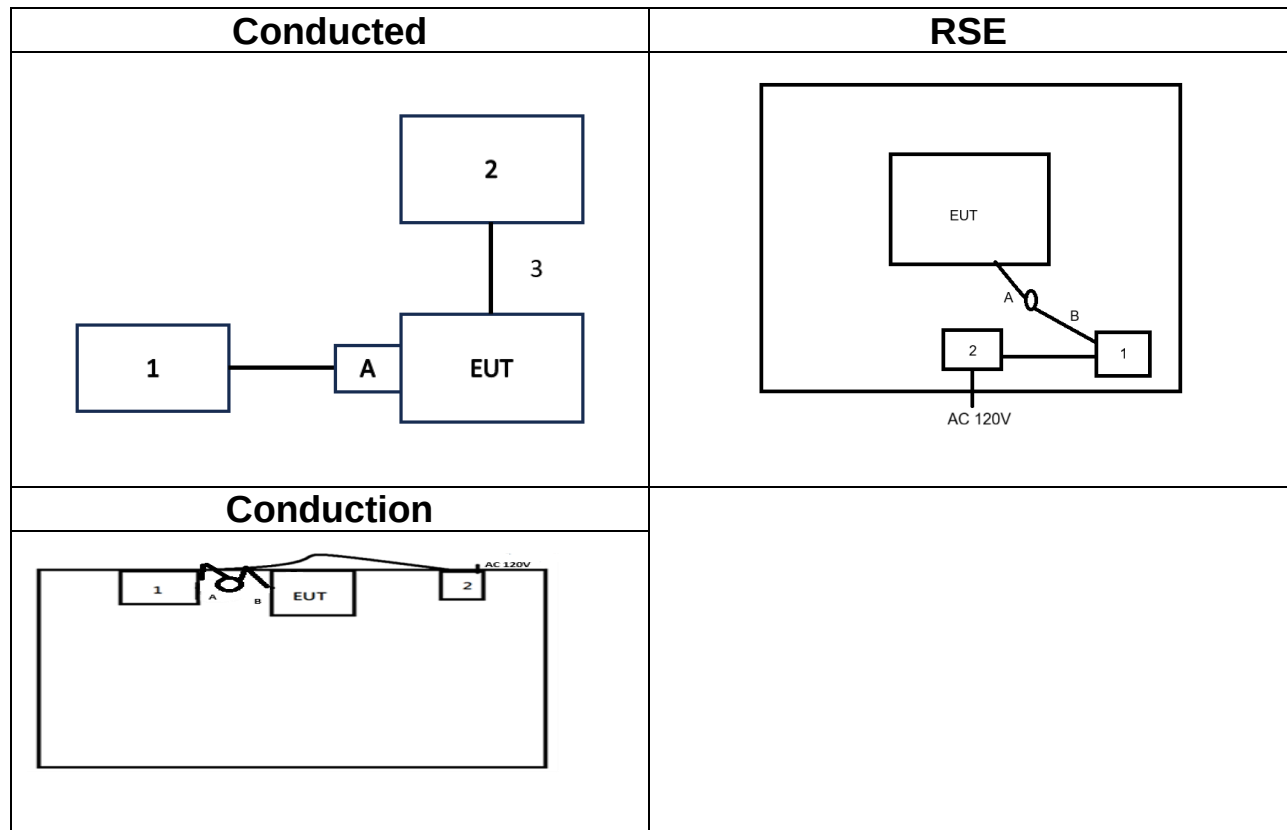
EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

Support Equipment (Conducted)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	NB(D)	Lenovo	ThinkPad X260	N/A	N/A
2	Adapter	Apple	A1385	N/A	N/A
3	USB-A to Type-C	Xiaomi	SJX10ZM	N/A	N/A
A	Test Kit	N/A	N/A	N/A	N/A

Support Equipment (RSE)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	NB(D)	Lenovo	ThinkPad X260	N/A	N/A
2	Adapter	Lenovo	ADLX45DLC3A	N/A	N/A
A	TypeC-Micro USB Cable	N/A	N/A	N/A	N/A
B	Micro USB UART	N/A	N/A	N/A	N/A

Support Equipment (Conduction)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	NB(B)	Lenovo	ThinkPad X260	N/A	N/A
2	Adapter	Lenovo	ADLX45DLC3A	N/A	N/A
A	TypeC-Micro USB Cable	N/A	N/A	N/A	N/A
B	Micro USB UART	N/A	N/A	N/A	N/A

1.8 TEST SET UP DIAGRAM



1.9 TEST PROGRAM

In test mode, connect the EUT to the notebook (NB) via a cable. Then, open Tera Term and enter the corresponding commands to transmit test signals.

1.10 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10-2020, FCC Part 2, FCC Part 15.247, KDB 558074.

2. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207(a)	4.1	AC Conducted Emission	Pass
15.247(a)(2)	4.2	6 dB Bandwidth	Pass
-	4.2	Occupied Bandwidth (99%)	Pass
15.247(b)(3)	4.3	Output Power Measurement	Pass
15.247(e)	4.4	Power Spectral Density	Pass
15.247(d)	4.5	Conducted Band Edge	Pass
15.247(d)	4.5	Conducted Emission	Pass
15.247(d) 15.205, 15.209	4.6	Radiation Band Edge	Pass
15.247(d) 15.205, 15.209	4.6	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	IEEE 802.11b mode :1Mbps IEEE 802.11g mode :6Mbps IEEE 802.11n HT20 mode :MCS0 IEEE 802.11n HT40 mode :MCS0
Test Channel Frequencies	IEEE 802.11b mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11g mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT20 mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT40 mode : 1. Lowest Channel : 2422MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2452MHz
Operation Transmitter	IEEE 802.11b mode :1T1R IEEE 802.11g mode :1T1R IEEE 802.11n HT20 mode : 1T1R IEEE 802.11n HT40 mode : 1T1R

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. Based on FCC Part 15.31(m), the laboratory conducts a comprehensive evaluation of ch low, ch middle, and ch high. Other additional channels only evaluate the radiated restricted bands of operation and powers.

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conduction Emission	
Test Condition	AC Power line conduction emission for line and neutral
Power supply Mode	Mode 1: EUT power by USB Type-C (DC 5V)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by USB Type-C (DC 5V)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by USB Type-C (DC 5V)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. AC power line conducted emission were performed the EUT transmit at the highest output power channel as worse case.
3. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report

3.3 EUT DUTY CYCLE

Temperature: 23 ~ 26.3°C

Test date:

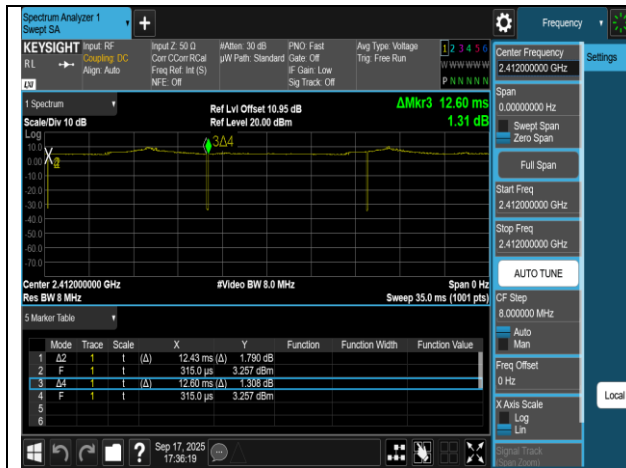
September 17 ~
October 1, 2025

Humidity: 55 ~ 60% RH

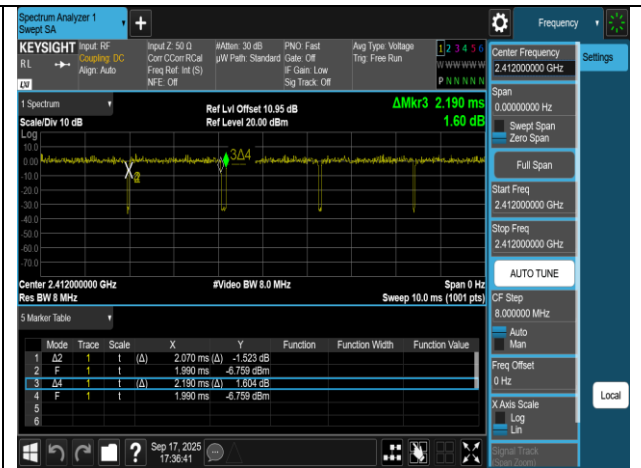
Tested by:

Marco Chan

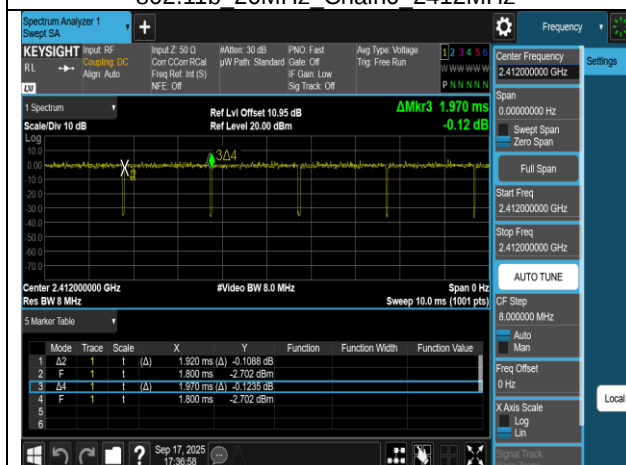
Mode	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11b	98.61	0.06	0.08	0.01
802.11g	94.52	0.24	0.48	1.00
802.11n_20	97.46	0.11	0.52	1.00
802.11n_40	87.04	0.60	1.06	2.00



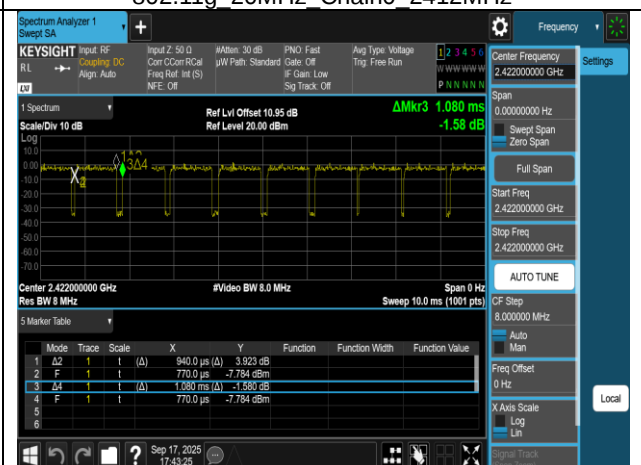
802.11b 20MHz Chain0 2412MHz



802.11g 20MHz Chain0 2412MHz



802.11n 20MHz Chain0 2412MHz



802.11n 40MHz Chain0 2422MHz

4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a)(2),

Frequency Range (MHz)	Limits(dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

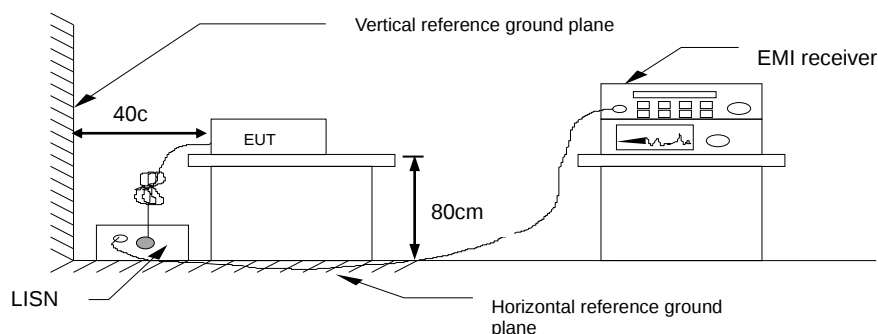
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10-2020,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

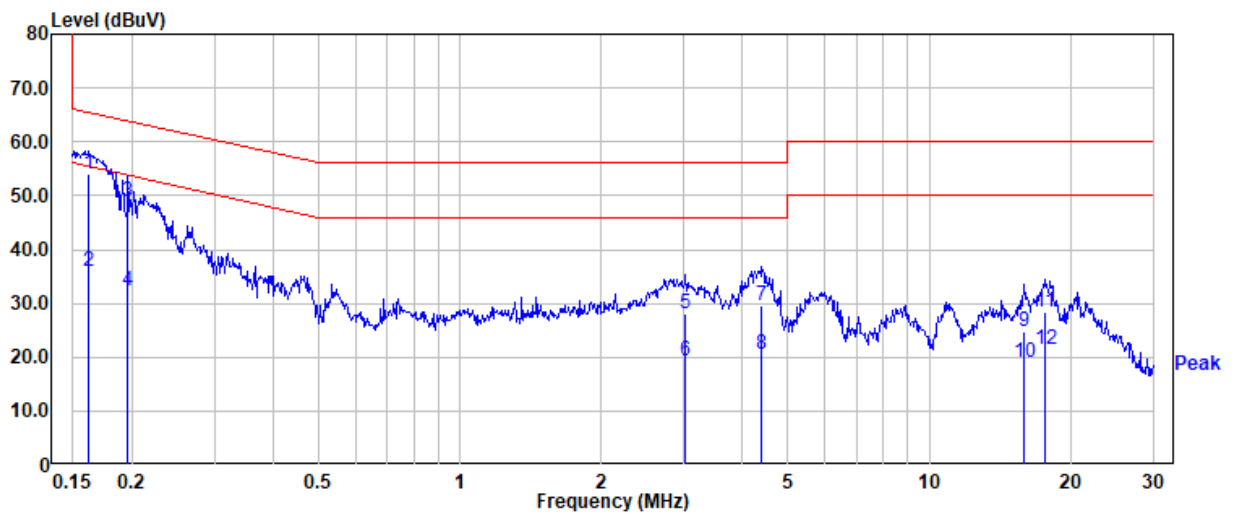
4.1.3 Test Setup



4.1.4 Test Result

Project No : TM-2509000090P
Operation Band : 2.4G
Test Chamber : Conduction
Probe : Line
Note :

Test Date : 2025-10-01
Temp./Humi. : 25°C / 65%
Engineer : David_Li
Test Voltage : AC 120V/60Hz



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.162	53.99	0.09	54.08	65.38	-11.30	QP
0.162	35.86	0.09	35.95	55.38	-19.43	Average
0.196	48.81	0.08	48.89	63.78	-14.89	QP
0.196	32.20	0.08	32.28	53.78	-21.50	Average
3.025	27.90	0.13	28.03	56.00	-27.97	QP
3.025	19.13	0.13	19.26	46.00	-26.74	Average
4.396	29.33	0.14	29.47	56.00	-26.53	QP
4.396	20.47	0.14	20.61	46.00	-25.39	Average
15.974	24.42	0.30	24.72	60.00	-35.28	QP
15.974	18.68	0.30	18.98	50.00	-31.02	Average
17.606	28.13	0.33	28.46	60.00	-31.54	QP
17.606	21.19	0.33	21.52	50.00	-28.48	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

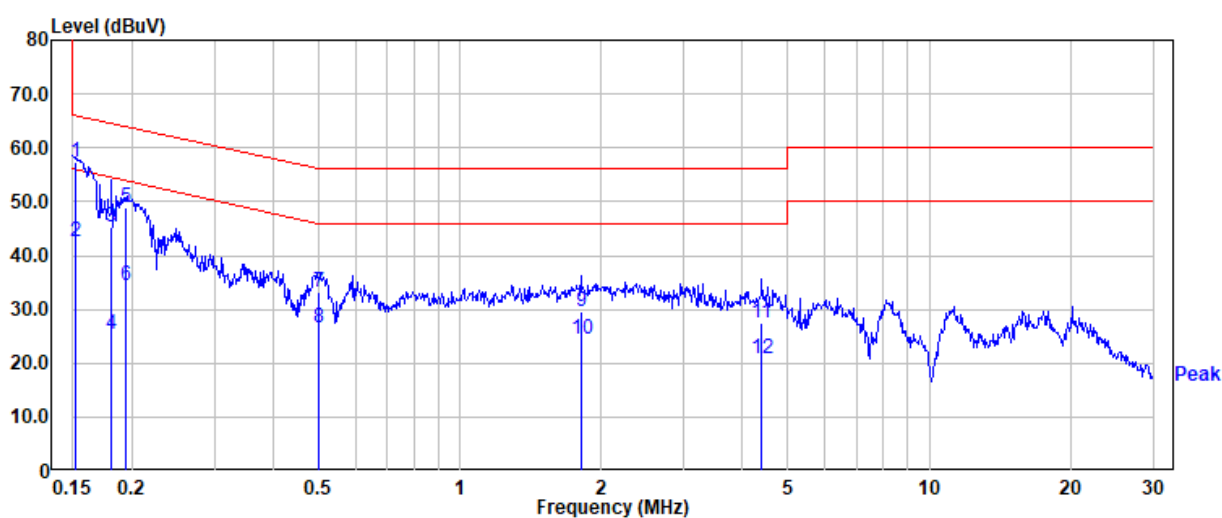
Note: 2. Margin= Actual FS – Limit

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Project No : TM-2509000090P
Operation Band : 2.4G
Test Chamber : Conduction
Probe : Neutral
Note :

Test Date : 2025-10-01
Temp./Humi. : 25°C / 65%
Engineer : David_Li
Test Voltage : AC 120V/60Hz



Freq	Read Level	Factor	Actual FS	Limit	Margin	Detector Mode
-----	-----	-----	-----	-----	-----	-----
MHz	dBuV	dB	dBuV	dBuV	dB	PK/QP/AV
0.152	57.11	0.10	57.21	65.90	-8.69	QP
0.152	42.58	0.10	42.68	55.90	-13.22	Average
0.181	45.29	0.10	45.39	64.46	-19.07	QP
0.181	25.18	0.10	25.28	54.46	-29.18	Average
0.194	48.94	0.10	49.04	63.84	-14.80	QP
0.194	34.19	0.10	34.29	53.84	-19.55	Average
0.501	33.03	0.08	33.11	56.00	-22.89	QP
0.501	26.46	0.08	26.54	46.00	-19.46	Average
1.811	29.53	0.13	29.66	56.00	-26.34	QP
1.811	24.27	0.13	24.40	46.00	-21.60	Average
4.390	27.41	0.16	27.57	56.00	-28.43	QP
4.390	20.72	0.16	20.88	46.00	-25.12	Average

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS – Limit

4.2 6dB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

4.2.1 Test Limit

According to §15.247(a)(2),

6 dB Bandwidth :

Limit	Shall be at least 500kHz
-------	--------------------------

Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as KDB 558074 D01 and ANSI C63.10-2020,

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 6 dB Bandwidth.
4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup

Refer to section 1.8.

4.2.4 Test Result

Temperature: 23 ~ 26.3°C
Humidity: 55 ~ 60% RH

Test date: September 17 ~
October 1, 2025
Tested by: Marco Chan

6dB BANDWIDTH

802.11b Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	9058	≥ 500	PASS
2437	9072	≥ 500	PASS
2462	9058	≥ 500	PASS

802.11g Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	16360	≥ 500	PASS
2437	16360	≥ 500	PASS
2462	16370	≥ 500	PASS

802.11n_HT_20M Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	17410	≥ 500	PASS
2437	17570	≥ 500	PASS
2462	17570	≥ 500	PASS

802.11n_HT_40M Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2422	36110	≥ 500	PASS
2437	36130	≥ 500	PASS
2452	35970	≥ 500	PASS

BANDWIDTH 99%

802.11b Ch0

Freq. (MHz)	99% BW (MHz)
2412	13.862
2437	13.942
2462	13.911

802.11g Ch0

Freq. (MHz)	99% BW (MHz)
2412	17.428
2437	17.231
2462	17.031

802.11n_HT20M Ch0

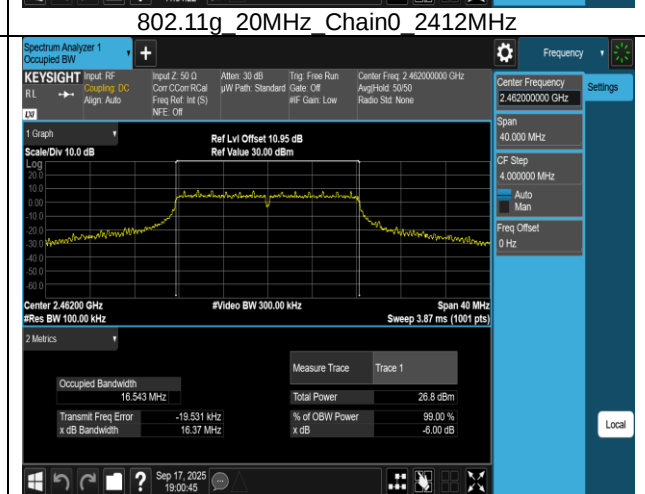
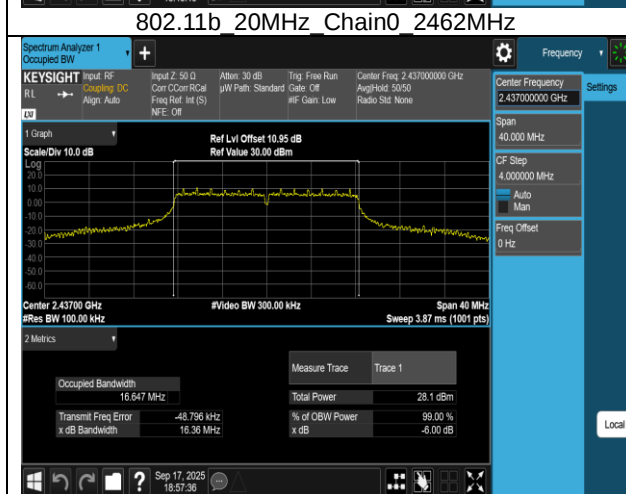
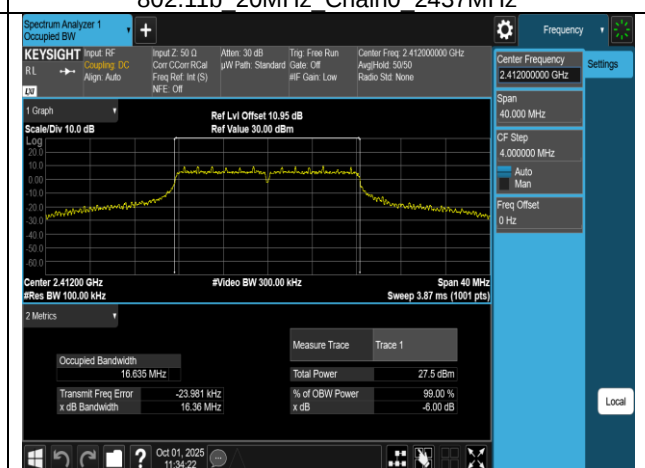
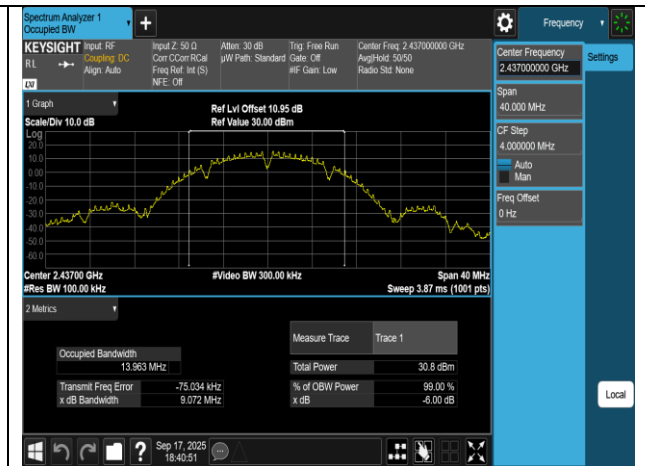
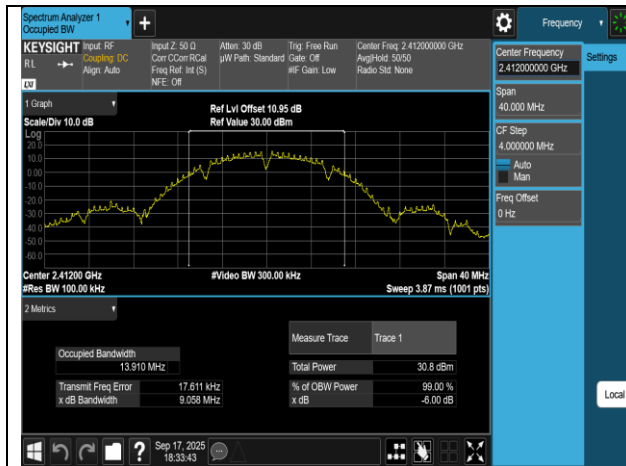
Freq. (MHz)	99% BW (MHz)
2412	18.460
2437	18.158
2462	18.136

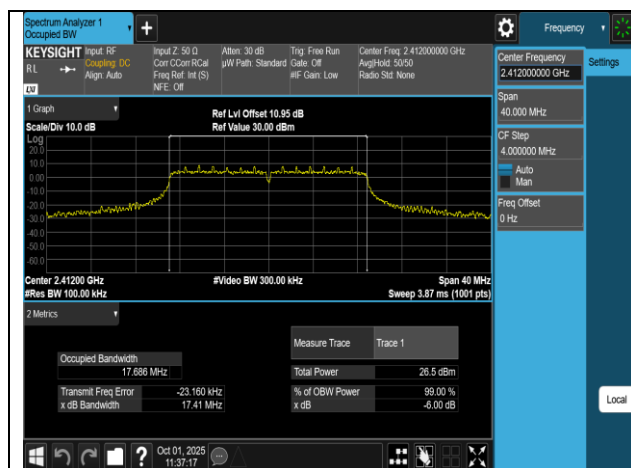
802.11n_HT40M Ch0

Freq. (MHz)	99% BW (MHz)
2422	37.032
2437	36.794
2452	36.828

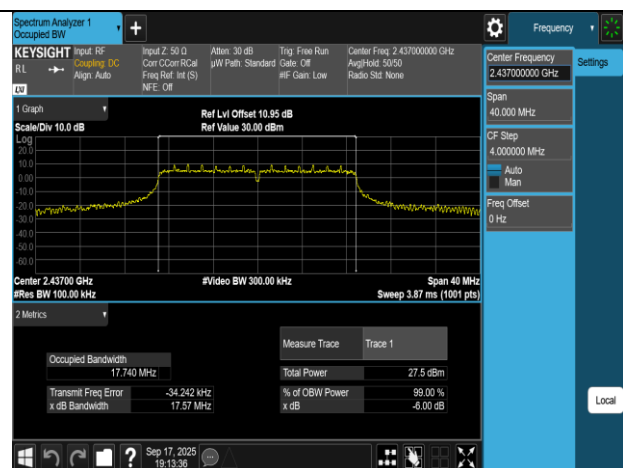
Test Data

6dB BANDWIDTH

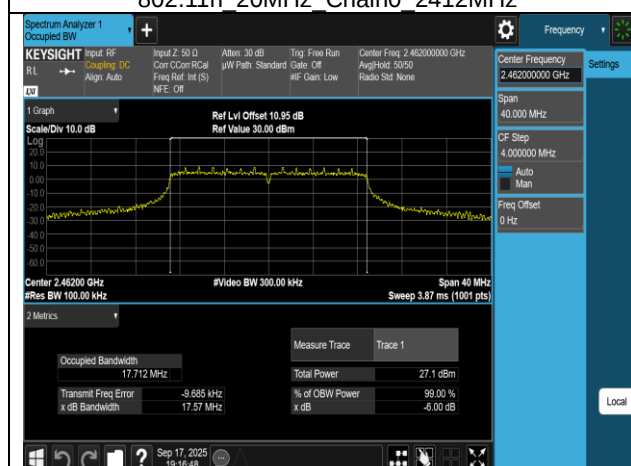




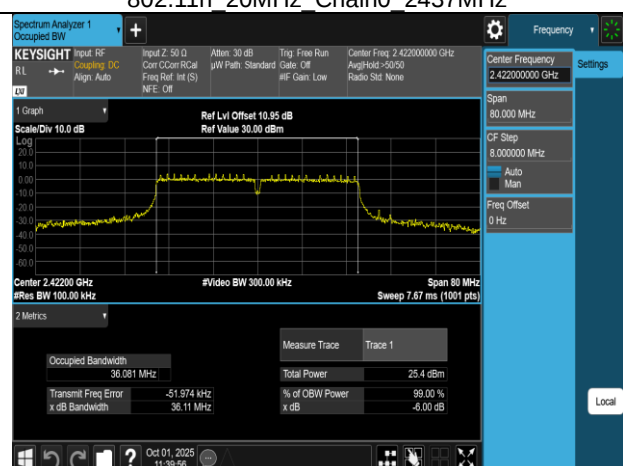
802.11n 20MHz Chain0 2412MHz



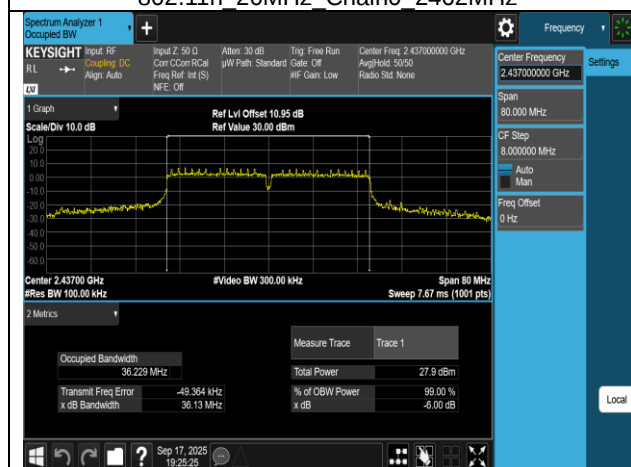
802.11n 20MHz Chain0 2437MHz



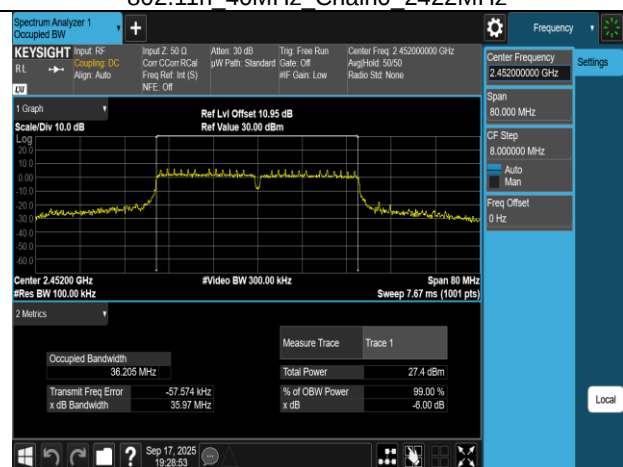
802.11n 20MHz Chain0 2462MHz



802.11n 40MHz Chain0 2422MHz



802.11n 40MHz Chain0 2437MHz



802.11n 40MHz Chain0 2452MHz

BANDWIDTH 99%



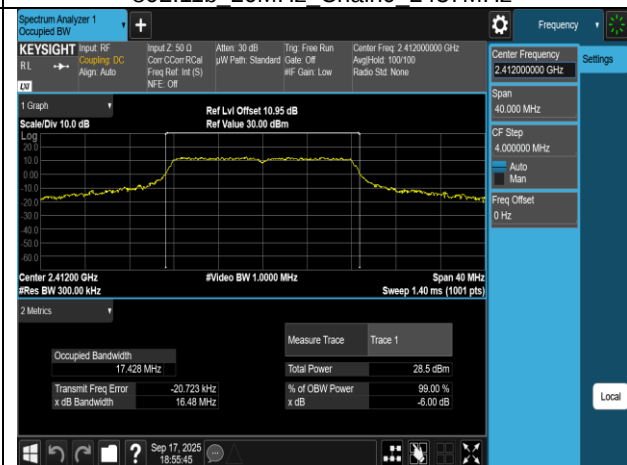
802.11b 20MHz Chain0 2412MHz



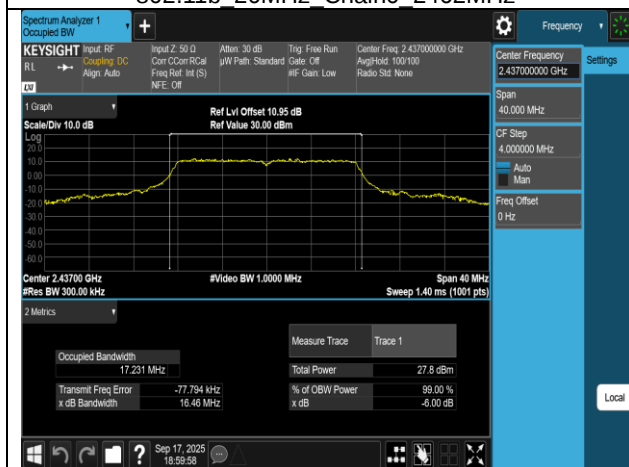
802.11b 20MHz Chain0 2437MHz



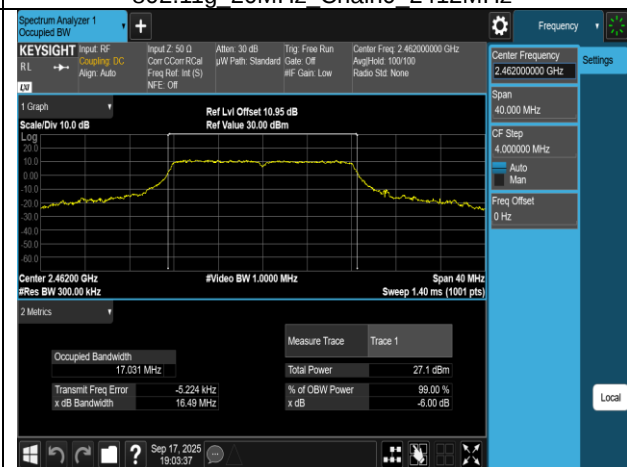
802.11b 20MHz Chain0 2462MHz



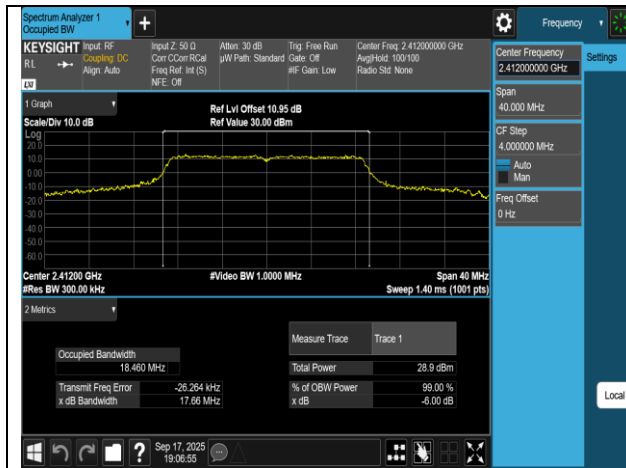
802.11g 20MHz Chain0 2412MHz



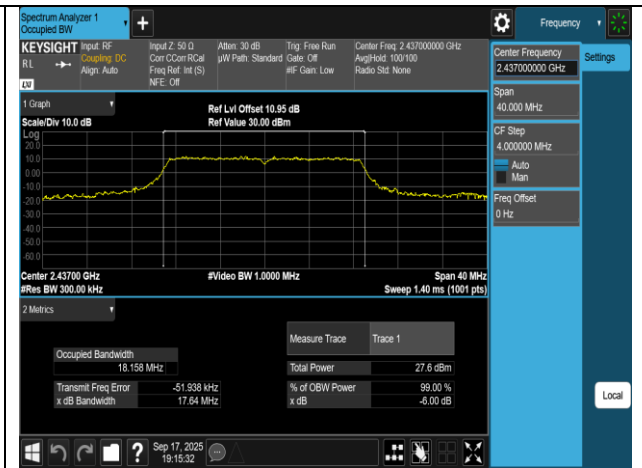
802.11g 20MHz Chain0 2437MHz



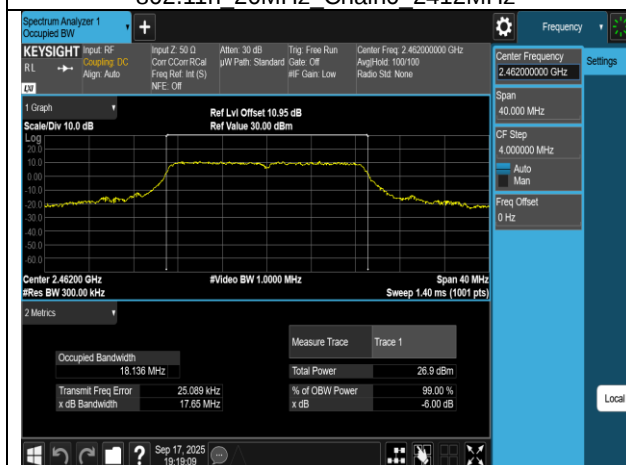
802.11g 20MHz Chain0 2462MHz



802.11n 20MHz Chain0 2412MHz



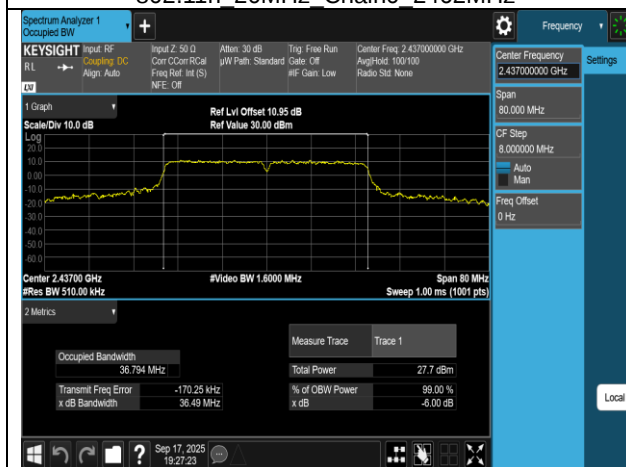
802.11n 20MHz Chain0 2437MHz



802.11n 20MHz Chain0 2462MHz



802.11n 40MHz Chain0 2422MHz



802.11n 40MHz Chain0 2437MHz



802.11n 40MHz Chain0 2452MHz

4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.247(b),

FCC

Peak output power :

For systems using digital modulation in the 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt(30 dBm) and the e.i.r.p. shall not exceed 4Watt(36 dBm), base on the use of antennas with directional gain not exceed 6 dBi If transmitting antennas of directional gain greater than 6dBi are used the peak output power the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)] ☐ Point-to-point operation :
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Average output power : For reporting purposes only.

4.3.2 Test Procedure

Test method Refer as KDB 558074 D01.

1. The EUT RF output connected to the power meter by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Peak output power and Average output power. in the test report.

4.3.3 Test Setup

Refer to section 1.8.

4.3.4 Test Result

Temperature: 23 ~ 26.3°C
Humidity: 55 ~ 60% RH

Test date: September 17 ~
October 1, 2025
Tested by: Marco Chan

Peak & Average output power :

802.11b Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	55	340.41	25.32	30.00	PASS
6	2437	1	57	341.98	25.34	30.00	PASS
11	2462	1	59	331.89	25.21	30.00	PASS
802.11b Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (mW)	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	55	192.34	22.84	30.00	PASS
6	2437	1	57	194.12	22.88	30.00	PASS
11	2462	1	59	198.19	22.97	30.00	PASS
802.11g Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	61	453.94	26.57	30.00	PASS
2	2417	6	62	449.78	26.53	30.00	PASS
6	2437	6	62	487.53	26.88	30.00	PASS
11	2462	6	62	412.10	26.15	30.00	PASS
802.11g Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (mW)	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	61	101.97	20.08	30.00	PASS
2	2417	6	62	108.01	20.33	30.00	PASS
6	2437	6	62	109.26	20.38	30.00	PASS
11	2462	6	62	85.40	19.31	30.00	PASS

802.11n_HT_20M Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	59	429.54	26.33	30.00	PASS
2	2417	MCS0	62	454.99	26.58	30.00	PASS
6	2437	MCS0	62	473.15	26.75	30.00	PASS
11	2462	MCS0	62	427.56	26.31	30.00	PASS

802.11n_HT_20M Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (mW)	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	59	79.83	19.02	30.00	PASS
2	2417	MCS0	62	99.35	19.97	30.00	PASS
6	2437	MCS0	62	103.32	20.14	30.00	PASS
11	2462	MCS0	62	84.56	19.27	30.00	PASS

802.11n_HT_40M Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (mW)	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	56	420.73	26.24	30.00	PASS
4	2427	MCS0	59	435.51	26.39	30.00	PASS
5	2432	MCS0	61	441.57	26.45	30.00	PASS
6	2437	MCS0	62	505.82	27.04	30.00	PASS
9	2452	MCS0	62	466.66	26.69	30.00	PASS

802.11n_HT_40M Ch0							
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (mW)	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	56	64.01	18.06	30.00	PASS
4	2427	MCS0	59	82.85	19.18	30.00	PASS
5	2432	MCS0	61	96.67	19.85	30.00	PASS
6	2437	MCS0	62	121.98	20.86	30.00	PASS
9	2452	MCS0	62	108.71	20.36	30.00	PASS

4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.247(e),

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Limit	☒ Antenna not exceed 6 dBi : 8dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 8 – (DG – 6)] ☐ Point-to-point operation :
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4.4.2 Test Procedure

Test method Refer as KDB 558074 D01

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 10kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss were compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

4.4.3 Test Setup

Refer to section 1.8.

4.4.4 Test Result

Temperature: 23 ~ 26.3°C
Humidity: 55 ~ 60% RH

Test date: September 17 ~
October 1, 2025
Tested by: Marco Chan

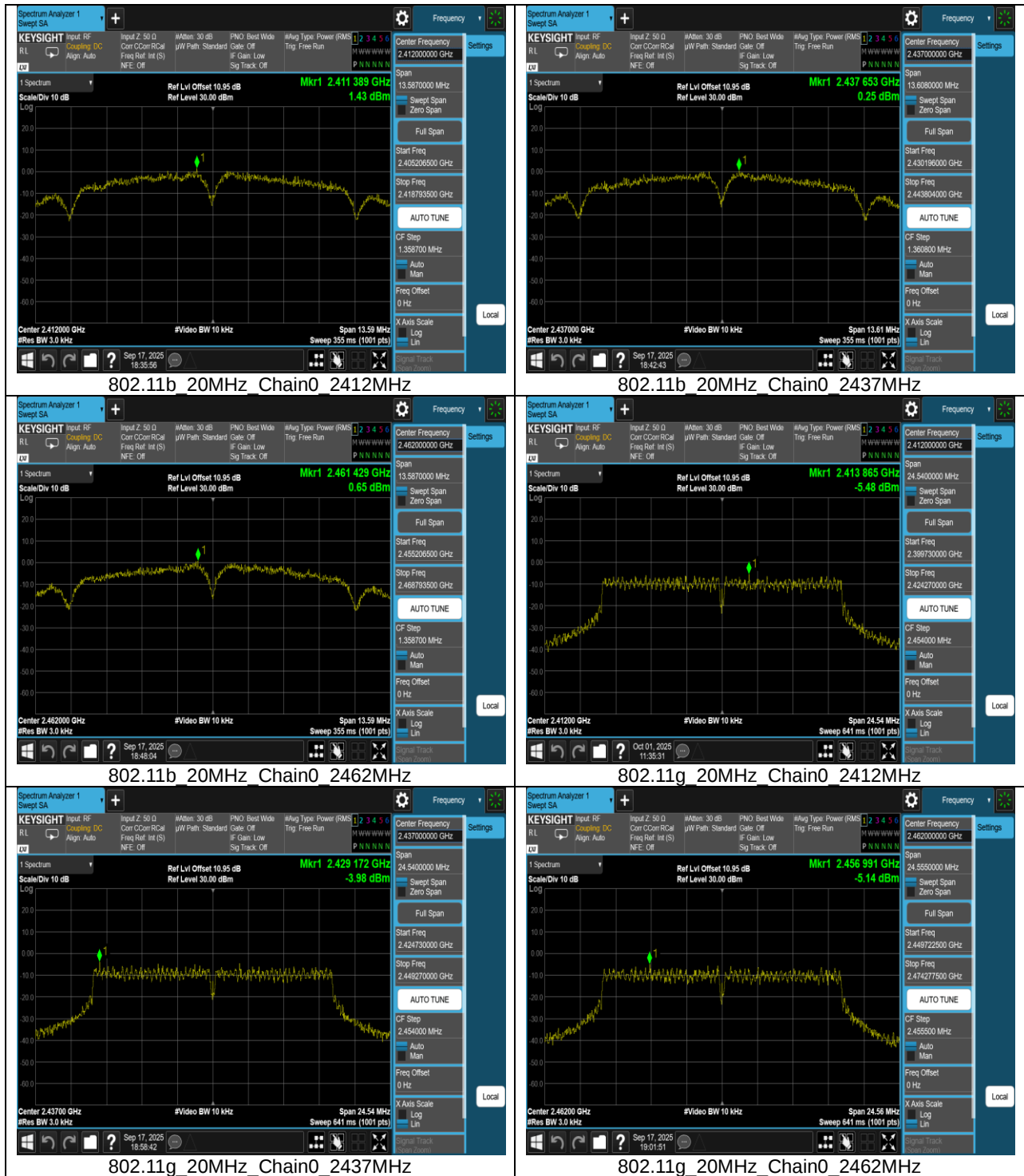
POWER DENSITY 802.11b				
Freq. (MHz)	Ch0 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	1.43	1.43	8.00	PASS
2437	0.25	0.25	8.00	PASS
2462	0.65	0.65	8.00	PASS

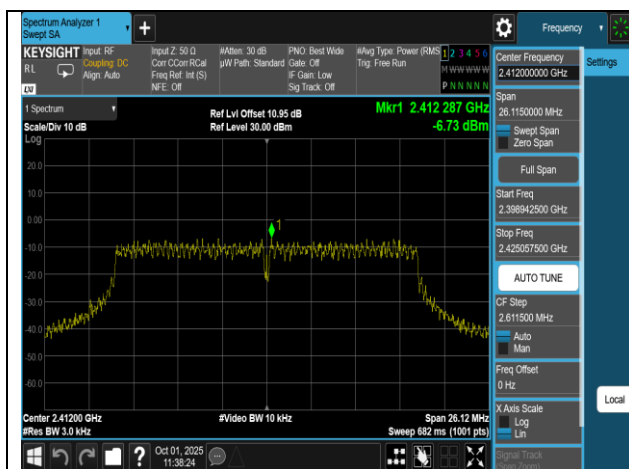
POWER DENSITY 802.11g				
Freq. (MHz)	Ch0 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	-5.48	-5.48	8.00	PASS
2437	-3.98	-3.98	8.00	PASS
2462	-5.14	-5.14	8.00	PASS

POWER DENSITY 802.11n HT20				
Freq. (MHz)	Ch0 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	-6.73	-6.73	8.00	PASS
2437	-3.80	-3.80	8.00	PASS
2462	-6.38	-6.38	8.00	PASS

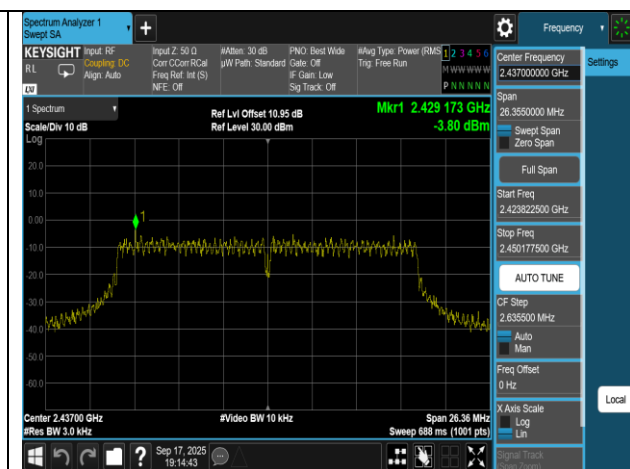
POWER DENSITY 802.11n HT40				
Freq. (MHz)	Ch0 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422	-11.1	-11.10	8.00	PASS
2437	-7.43	-7.43	8.00	PASS
2452	-8.06	-8.06	8.00	PASS

Test Data

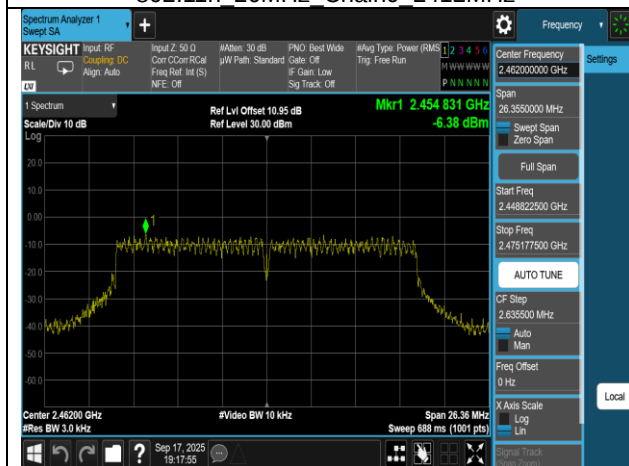




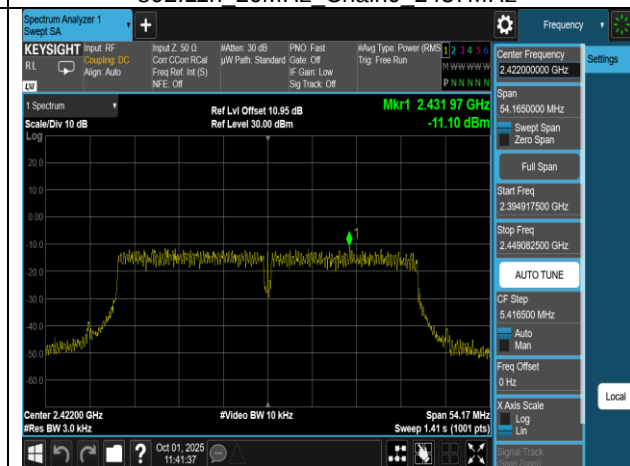
802.11n 20MHz Chain0 2412MHz



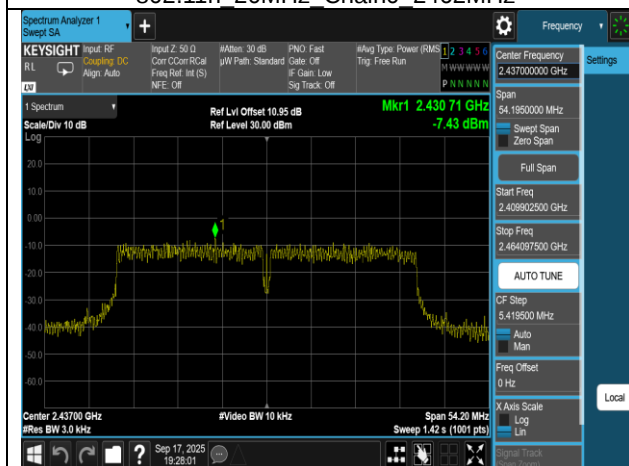
802.11n 20MHz Chain0 2437MHz



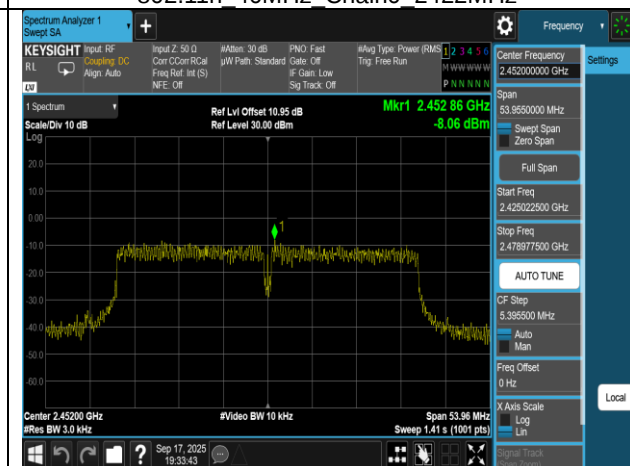
802.11n 20MHz Chain0 2462MHz



802.11n 40MHz Chain0 2422MHz



802.11n 40MHz Chain0 2437MHz



802.11n 40MHz Chain0 2452MHz

4.5 CONDUCTED BANDEDGE AND SPURIOUS EMISSION

4.5.1 Test Limit

According to §15.247(d),

In any 100 kHz bandwidth outside the authorized frequency band,

Non-restricted bands shall be attenuated at least 20 dB/30 dB relative to the maximum PSD level in 100 kHz by RF conducted or a radiated measurement which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

4.5.2 Test Procedure

Test method Refer as KDB 662911 D01, KDB 558074 D01.

1. EUT RF output port connected to the SA by RF cable, and the path loss was compensated to result.
2. SA setting, RBW=100kHz, VBW=300kHz, Detector=Peak, Trace mode = max hold, SWT = Auto.
3. In any 100 kHz bandwidth outside the authorized frequency band, shall be attenuated at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when conducted 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.

4.5.3 Test Setup

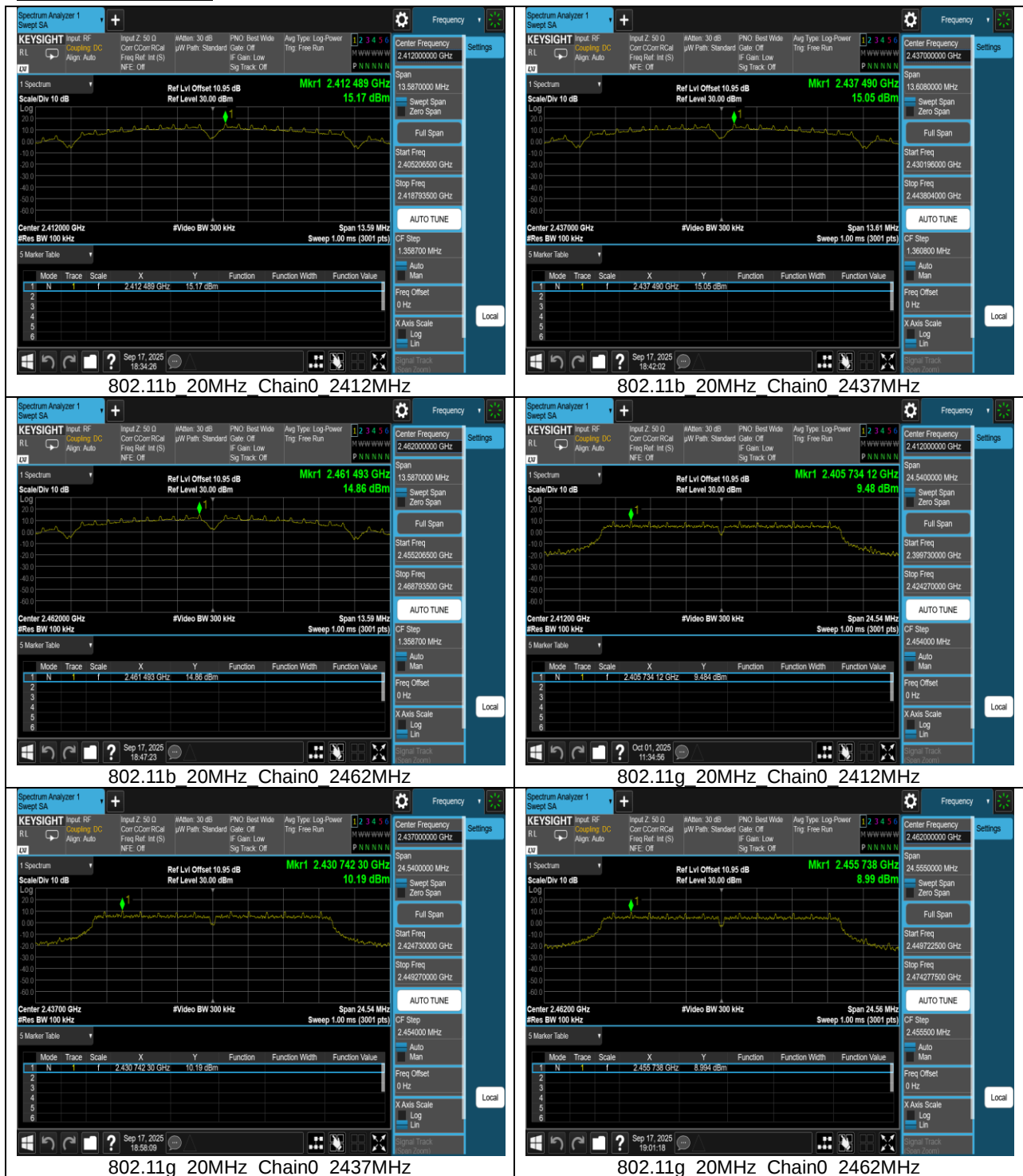
Refer to section 1.8.

4.5.4 Test Result

Temperature: 23 ~ 26.3°C
Humidity: 55 ~ 60% RH

Test date: September 17 ~
October 1, 2025
Tested by: Marco Chan

Test Data Reference Level





802.11n 20MHz Chain0 2412MHz



802.11n 20MHz Chain0 2437MHz



802.11n 20MHz Chain0 2462MHz



802.11n 40MHz Chain0 2422MHz



802.11n 40MHz Chain0 2437MHz



802.11n 40MHz Chain0 2452MHz

Band Edge



802.11b_20MHz_Chain0_2412MHz



802.11b_20MHz_Chain0_2462MHz



802.11g_20MHz_Chain0_2412MHz



802.11g_20MHz_Chain0_2462MHz



802.11n 20MHz Chain0 2412MHz



802.11n 20MHz Chain0 2462MHz



802.11n 40MHz Chain0 2422MHz



802.11n 40MHz Chain0 2452MHz