

FCC Test Report

Report No.: 2405X57681EC

Applicant: Intellian Technologies, Inc.

Address: 18-7, Jinwisandan-ro, Jinwi-myeon (Chungho-ri), Pyeongtaek-si,
Gyeonggi-do 17709 Korea

Product Name: CNX-Mobility

Product Model: BL6066

Multiple Models: N/A

Trade Mark: **Intellian**

FCC ID: XXZ-BL6066

Standards: FCC CFR Title 47 Part 15C (§15.247)

Test Date: 2024-10-08 to 2024-10-31

Test Result: Complied

Report Date: 2024-11-01

Reviewed by:

Frank Yin

Approved by:

Jacob Kong

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Revision History

Version No.	Issued Date	Description
00	2024-11-01	Original

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1 General Information

1.1 Client Information

Applicant:	Intellian Technologies, Inc.
Address:	18-7, Jinwisandan-ro, Jinwi-myeon (Chungho-ri), Pyeongtaek-si, Gyeonggi-do 17709 Korea
Manufacturer:	Intellian Technologies, Inc.
Address:	18-7, Jinwisandan-ro, Jinwi-myeon (Chungho-ri), Pyeongtaek-si, Gyeonggi-do 17709 Korea

1.2 Product Description of EUT

The EUT is CNX-Mobility that contains 2.4G and 5G WLAN radios, this report covers the full testing of the 2.4G WLAN radio.

Sample Serial Number	2RN4-2 for CE&RE test, 2RN4-3 for RF conducted test(assigned by WATC)
Sample Received Date	2024-09-25
Sample Status	Good Condition
Frequency Range	2412-2462 MHz(802.11b/g/n ht20/ac vht20/ax hew20) 2422-2452 MHz(802.11n ht40/ac vht20/ax hew40)
Maximum Conducted Peak Output Power	18.25dBm
Modulation Technology	DSSS, OFDM; OFDMA
Antenna Gain [#]	Antenna 0: 4.6 dBi Antenna 1: 4.7 dBi
Spatial Streams [#]	MIMO (2TX, 2RX)
Power Supply	DC 56V from AC adapter
Adapter Information	N/A
Modification	Sample No Modification by the test lab

1.3 Antenna information

15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
Device Antenna information:	
The Wi-Fi antenna is an internal antenna which cannot replace by end-user. Please see product internal photos for details.	

1.4 Related Submittal(s)/Grant(s)

FCC Part 15, Subpart E, Equipment Class: NII, FCC ID: XXZ-BL6066

1.5 Measurement Uncertainty

Parameter		Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
AC Power Lines Conducted Emissions		±3.14dB
Emissions, Radiated	Below 30MHz	±2.78dB
	Below 1GHz	±4.84dB
	Above 1GHz	±5.44dB
Emissions, Conducted		1.75dB
Conducted Power		0.74dB
Frequency Error		150Hz
Bandwidth		0.34%
Power Spectral Density		0.74dB
Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.		

1.6 Laboratory Location

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.7 Test Methodology

FCC CFR 47 Part 2

FCC CFR 47 Part 15

KDB 558074 D01 DTS Meas Guidance v05r02

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

2 Description of Measurement

2.1 Test Configuration

Operating channels:					
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	/	/
According to ANSI C63.10-2013 chapter 5.6.1 Table 11 requirement, select lowest channel, middle channel, and highest channel in the frequency range in which device operates for testing. The detailed frequency points are as follows:					
802.11b, 802.11g, 802.11n-HT20, 802.11 ax-HE20					
Lowest channel		Middle channel		Highest channel	
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	2412	6	2437	11	2462
802.11n-HT40, 802.11 ax-HE40					
Lowest channel		Middle channel		Highest channel	
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
3	2422	6	2437	9	2452

Test Mode:				
Transmitting mode:		Keep the EUT in continuous transmitting with modulation		
Exercise software [#] :		QCRT		
Mode	Worst-case Data rate	Power Level Setting [#]		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	9	9	9
802.11g	6Mbps	9	9	9
802.11n-HT20	MCS0	9	9	9
802.11n-HT40	MCS0	9	9	9
802.11ax-HE20	MCS0	9	9	9
802.11ax-HE40	MCS0	9	9	9
The exercise software and the maximum power setting that provided by manufacturer.				

Worst-Case Configuration:
For radiated emissions, EUT was investigated in three orthogonal orientation, the worst-case orientation was recorded in report
For AC power line conducted emission and radiated emission 9kHz-1GHz and above 18GHz were performed with the EUT transmits at the channel with highest output power as worst-case scenario.
According to manufacturer, the device support MIMO mode, for MIMO the device employ Beam-forming mode, all modes share the same power level setting under the same modulation. So the worst mode

MIMO/ Beam-forming was selected to test
For 802.11ax mode, the device only support full RU mode.

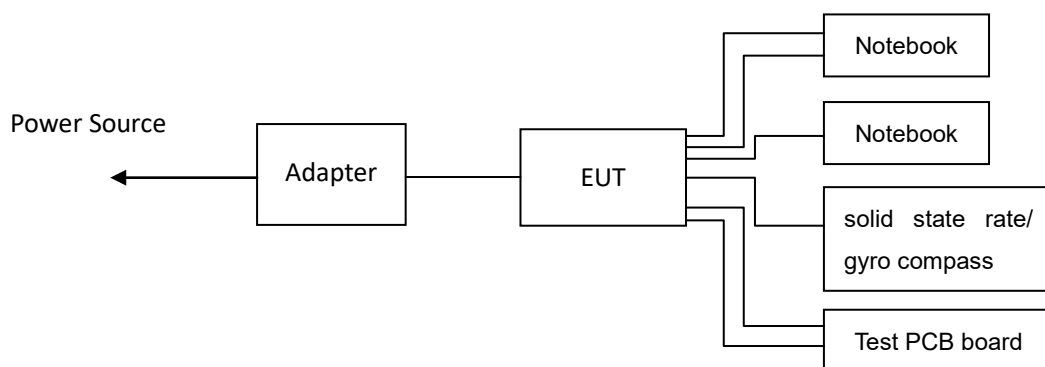
2.2 Test Auxiliary Equipment

Manufacturer	Description	Model	Serial Number
unknown	Test PCB board	unknown	unknown
Dell	Notebook	unknown	unknown
Dell	Notebook	unknown	unknown
unknown	USB to RS232 Adapter	unknown	unknown
Maretron	solid state rate/gyro compass	SSC300	unknown
Adapter Tech.	AC Adapter	ATM450A2-P560	2436

2.3 Interconnecting Cables

Manufacturer	Description	From	To
unknown	RJ45 cable	EUT	Notebook
unknown	RJ45 cable	EUT	Test PCB board
unknown	RJ45 cable	EUT	Notebook
unknown	Coaxial Cable	EUT	Test PCB board
unknown	Dupont Line	EUT	USB to RS232 adapter
unknown	USB Cable	USB to RS232 adapter	Notebook
unknown	Dupont Line	EUT	solid state rate/gyro compass
unknown	AC Power Cable	Power Source	AC Adapter
unknown	DC Power Cable	AC Adapter	EUT

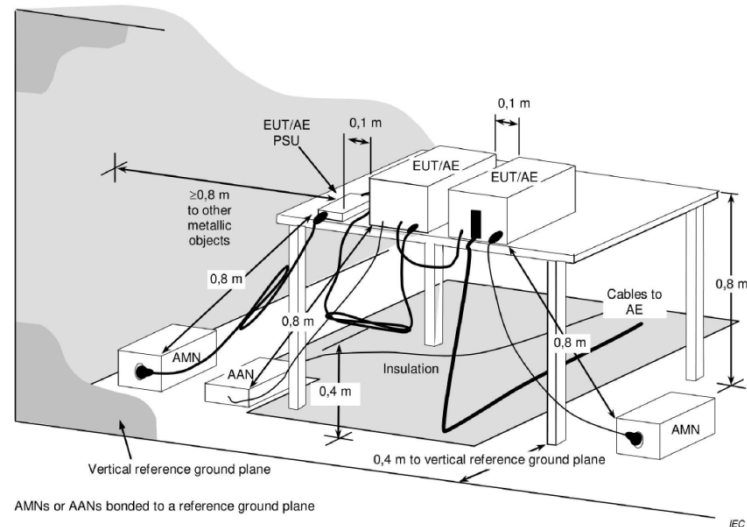
2.4 Block Diagram of Connection between EUT and AE



Note: for reference only, the actual connection setup used for testing please refer to the test photos.

2.5 Test Setup

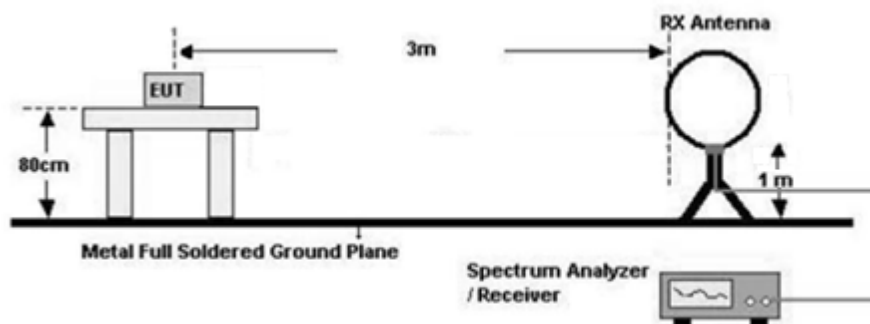
1) Conducted emission measurement:



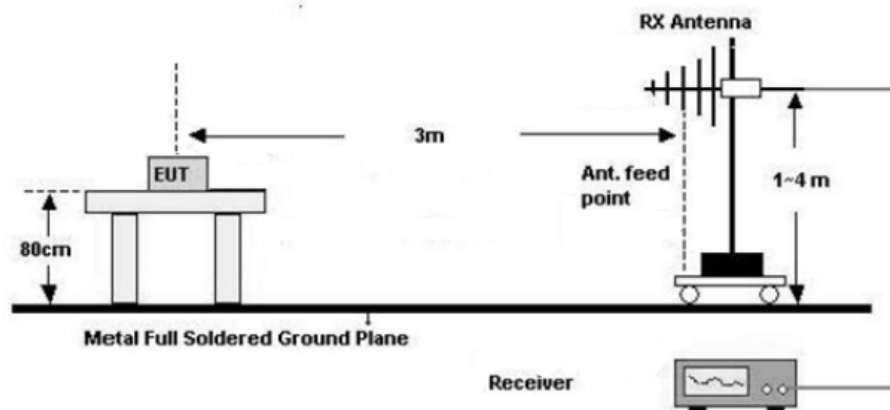
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

2) Radiated emission measurement:

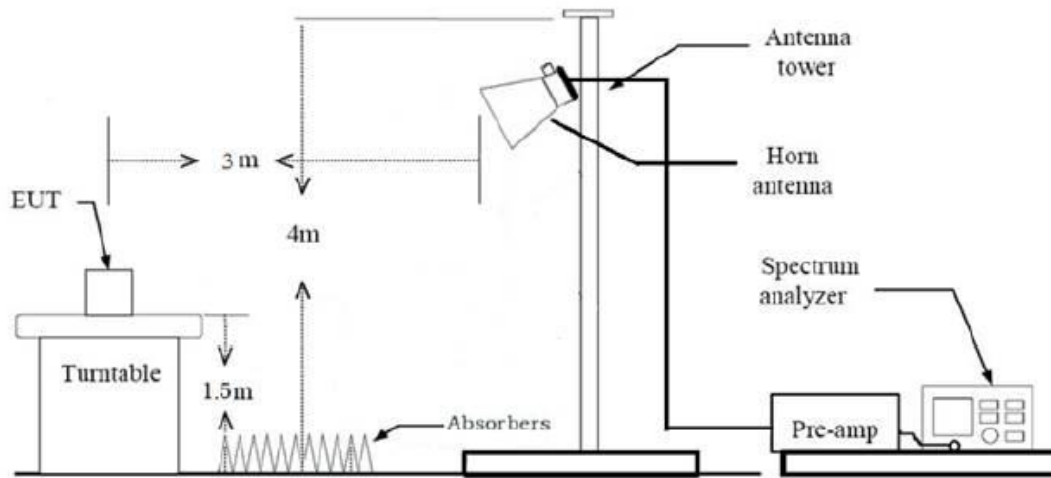
Below 30MHz (3m SAC)



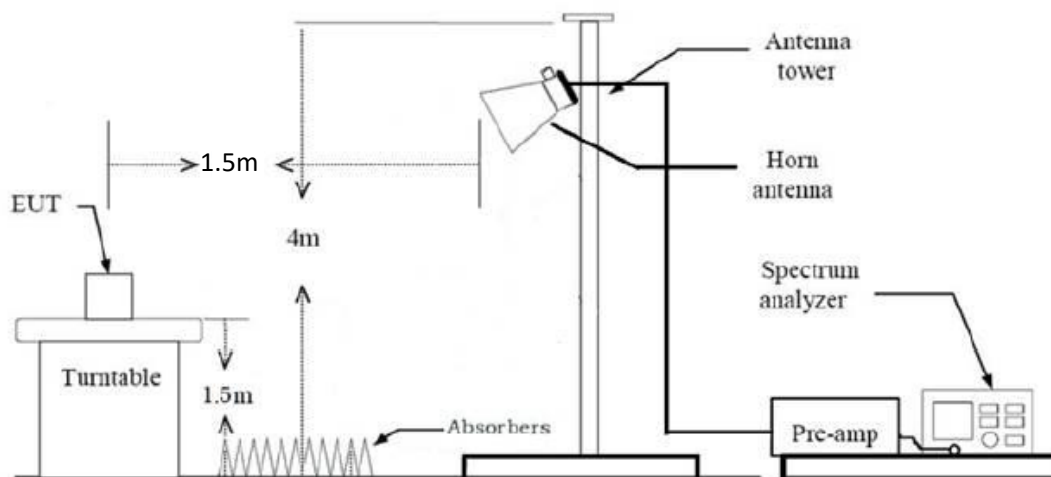
30MHz-1GHz (3m SAC)



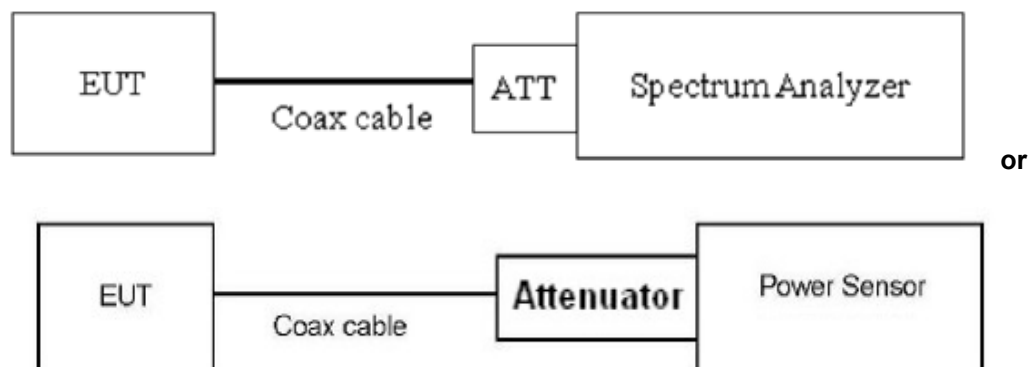
1GHz-18GHz(3m FAC)



Above 18GHz (3m FAC)



3) RF Conducted Test



2.6 Test Procedure

Conducted emission:

1. The E.U.T is placed on a non-conducting table 40cm from the vertical ground plane and 80cm above the horizontal ground plane (Please refer to the block diagram of the test setup and photographs).
2. 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 on conducted measurement.
3. Line conducted data is recorded for both Line and Neutral

Radiated Emission Procedure:

a) For below 30MHz

1. All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz- 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were $40 \cdot \log(\text{test distance} / \text{specification distance})$.
2. Loop antenna use, investigation was done on the three antenna orientations (parallel, perpendicular, ground-parallel)

b) For 30MHz-1GHz:

1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

c) For above 1GHz:

1. The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m (1-18GHz) and 1.5 m (above 18GHz).
2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
4. Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

RF Conducted Test:

1. The antenna port of EUT was connected to the RF port of the test equipment (Power Meter or Spectrum analyzer) through Attenuator and RF cable.

2. The cable assembly insertion loss of 12.0dB (including 10.0 dB Attenuator and 2.0 dB cable) was entered as an offset in the power meter. Note: Actual cable loss was unavailable at the time of testing, therefore a loss of 2.0dB was assumed as worst case. This was later verified to be true by laboratory. (if the RF cable provided by client, the cable loss declared by client)
3. The EUT is keeping in continuous transmission mode and tested in all modulation modes.

2.7 Measurement Method

Description of Test	Measurement Method
AC Line Conducted Emissions	ANSI C63.10-2013 Section 6.2
Maximum Conducted Output Power	ANSI C63.10-2013 Section 11.9.1.2 PKPM1 Peak power meter method or ANSI C63.10-2013 Section 11.9.2.3.2 Method AVGPM-G
Power Spectral Density	ANSI C63.10-2013 Section 11.10.2 Method PKPSD (peak PSD)
6 dB Emission Bandwidth	ANSI C63.10-2013 Section 11.8.1
99% Occupied Bandwidth	ANSI C63.10-2013 Section 6.9.3
100kHz Bandwidth of Frequency Band Edge	ANSI C63.10-2013 Section 6.10
Radiated emission	ANSI C63.10-2013 Section 11.11&11.12
Duty Cycle	ANSI C63.10-2013 Section 11.6

2.8 Measurement Equipment

Manufacturer	Description	Model	Management No.	Calibration Date	Calibration Due Date
AC Line Conducted Emission Test					
ROHDE& SCHWARZ	EMI TEST RECEIVER	ESR	101817	2024/6/4	2025/6/3
R&S	LISN	ENV216	101748	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.12	N/A	2024/6/4	2025/6/3
Farad	Test Software	EZ-EMC	Ver. EMEC-3A1	/	/
Radiated Emission Test					
R&S	EMI test receiver	ESR3	102758	2024/6/4	2025/6/3
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2024/6/4	2025/6/3

SONOMA INSTRUMENT	Low frequency amplifier	310	186014	2024/6/4	2025/6/3
A.H. Systems	PREAMPLIFIER	PAM-0118P	531	2024/6/4	2025/6/3
COM-POWER	Amplifier	PAM-840A	461306	2024/8/7	2025/8/6
BACL	Loop Antenna	1313-1A	4010611	2024/2/7	2027/2/6
SCHWARZBECK	Log - periodic wideband antenna	VULB 9163	9163-872	2023/7/7	2026/7/6
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5
Ducommun technologies	Horn Antenna	ARH-4223-02	1007726-03	2023/7/10	2026/7/9
Ducommun technologies	Horn Antenna	ARH-2823-02	1007726-03	2023/7/10	2026/7/9
Oulitong	Band Reject Filter	OBSF-2400-248 3.5-50N	OE02103119	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.9	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.13	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.15	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.16	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.17	N/A	2024/6/4	2025/6/3
Audix	Test Software	E3	191218 V9	/	/
RF Conducted Test					
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSU-26	200680/026	2024/6/4	2025/6/3
ANRITSU	USB Power Sensor	MA24418A	12620	2024/6/4	2025/6/3
Unknown	10dB attenuator	10dB	10-1	2024/6/4	2025/6/3

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

3 Test Results

3.1 Test Summary

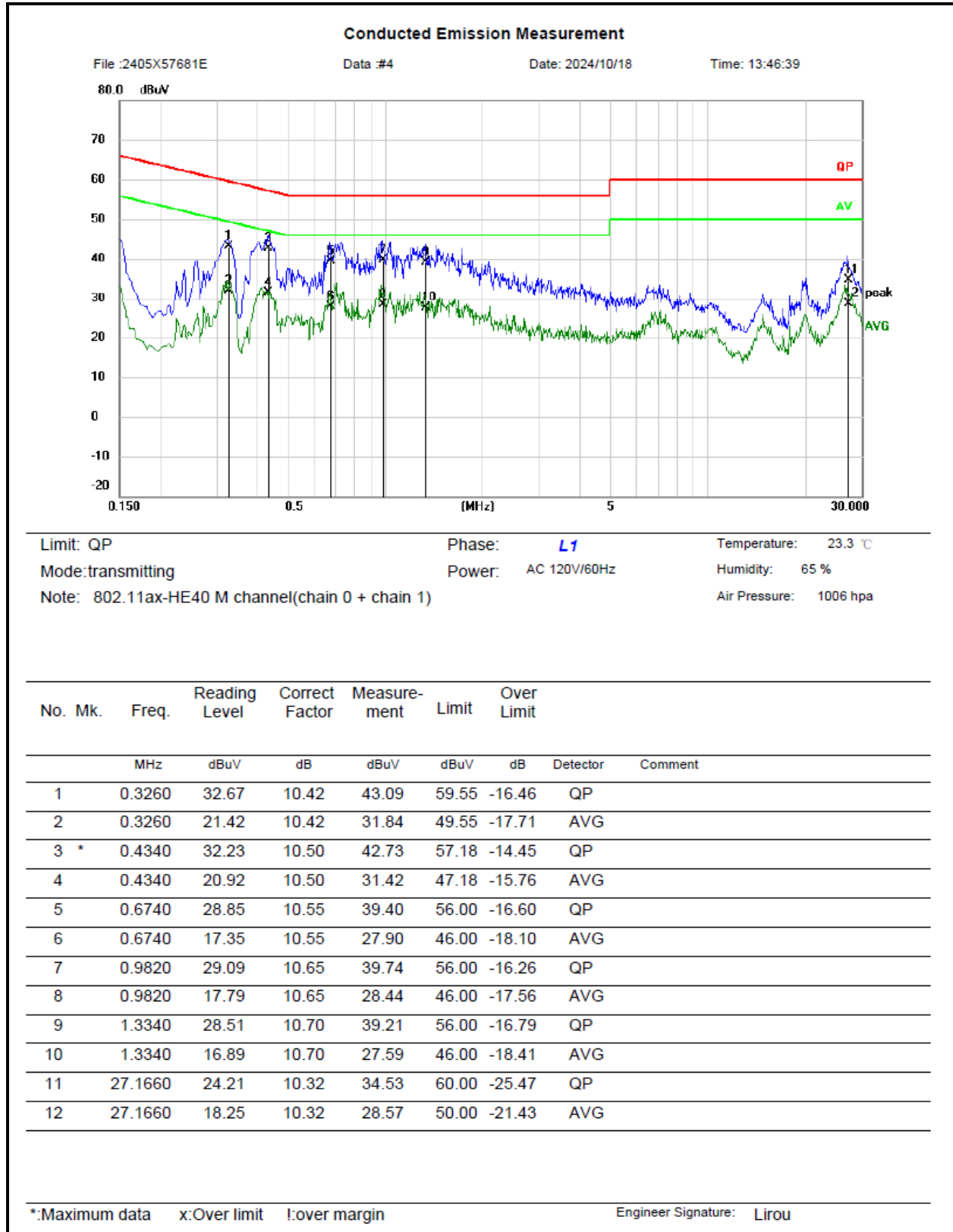
FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.247(b)(3)	Maximum Conducted Output Power	Compliance
§15.247(e)	Power Spectral Density	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance
-	99% Occupied Bandwidth	Report only
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	Compliance
§15.205, §15.209, §15.247(d)	Radiated emission	Compliance
-	Duty Cycle	Report only

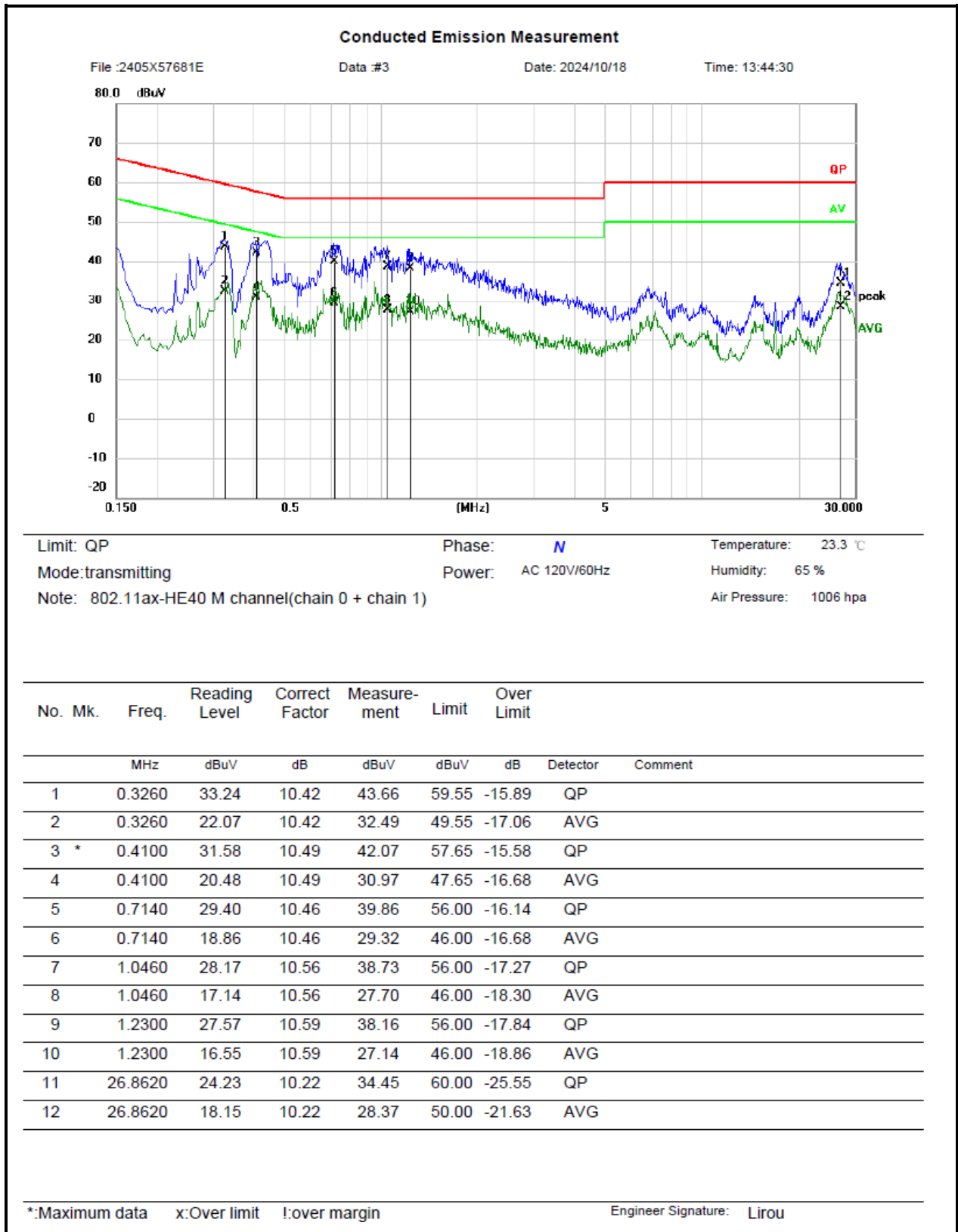
3.2 Limit

Test items	Limit
AC Line Conducted Emissions	See details §15.207 (a)
Conducted Output Power	For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.
6dB Emission Bandwidth	The minimum 6 dB bandwidth shall be at least 500 kHz.
Power Spectral Density	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.
Spurious Emissions, 100kHz Bandwidth of Frequency Band Edge	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions 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) (see §15.205(c)).

3.3 AC Line Conducted Emissions Test Data

Test Date:	2024-10-18	Test By:	Lirou Li
Environment condition:	Temperature: 23.3°C; Relative Humidity:65%; ATM Pressure: 100.6kPa		





Remark:

Measurement (dBuV)= Reading Level (dBuV) + Correct Factor(dB)

Correct Factor (dB)= LISN Voltage Division Factor (dB)+ Cable loss(dB)

Over Limit = Measurement – Limit

3.4 Radiated emission Test Data

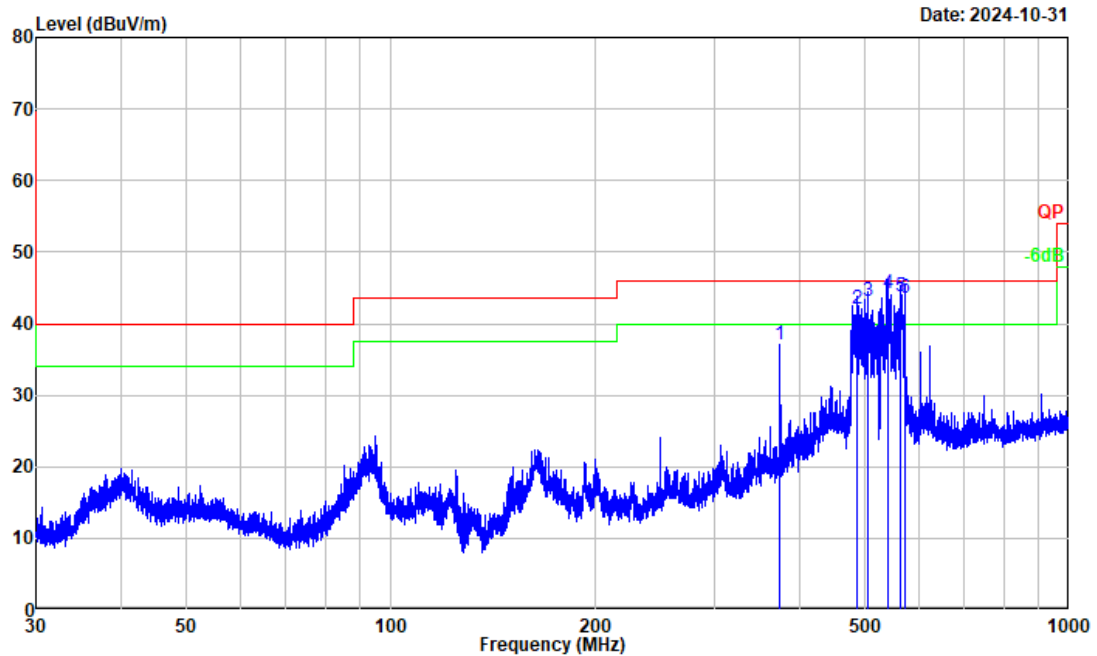
9 kHz-30MHz:

Test Date:	2024-10-31	Test By:	Luke Li
Environment condition:	Temperature: 23.8°C; Relative Humidity:49%; ATM Pressure: 99.7kPa		

For radiated emissions below 30MHz, there were no emissions found within 20dB of limit.

30MHz-1GHz:

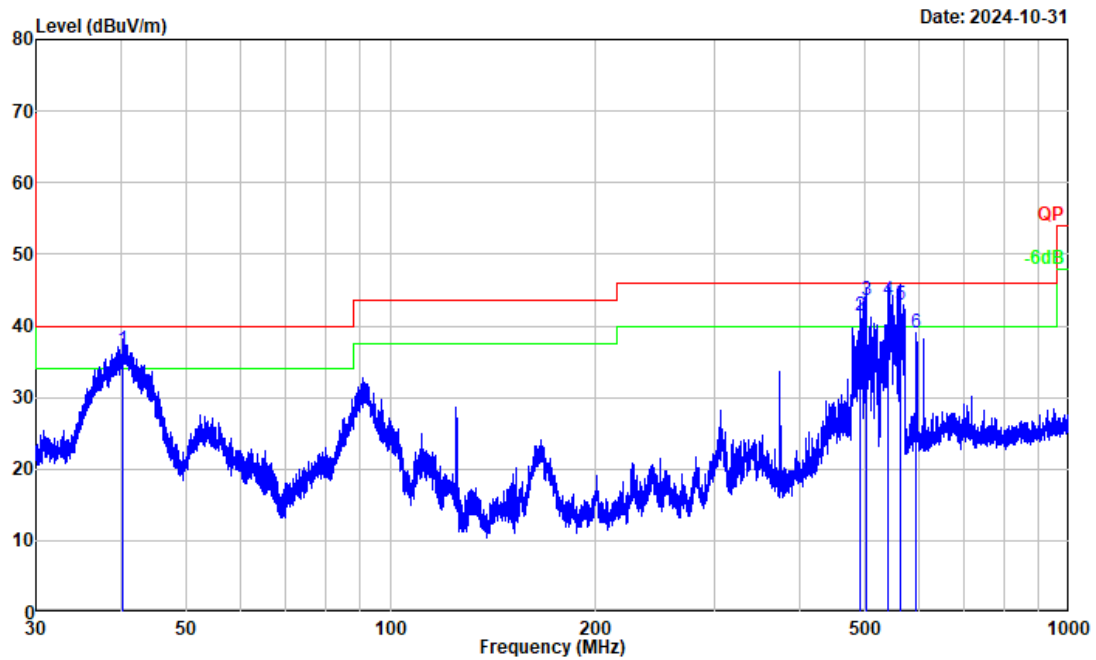
Test Date:	2024-10-31	Test By:	Luke Li
Environment condition:	Temperature: 23.8°C; Relative Humidity:49%; ATM Pressure: 99.7kPa		



Project No. : 2405X57681E-RF
 Test Mode : Transmitting
 Test Voltage : AC 120V/60Hz
 Environment : 23.8°C/49%R.H./99.7kPa
 Tested by : Luke Li
 Polarization : horizontal
 Remark : 802.11ax-HE40 M channel(chain 0 + chain 1)

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	375.116	46.64	-9.46	37.18	46.00	-8.82	Peak
2	486.035	49.90	-7.81	42.09	46.00	-3.91	QP
3	504.264	50.49	-7.38	43.11	46.00	-2.89	QP
4	540.661	50.91	-6.76	44.15	46.00	-1.85	QP
5	563.156	50.10	-6.35	43.75	46.00	-2.25	QP
6	573.619	49.71	-6.09	43.62	46.00	-2.38	QP

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
 Result = Reading + Factor
 Over Limit = Result - Limit



Project No. : 2405X57681E-RF
 Test Mode : Transmitting
 Test Voltage : AC 120V/60Hz
 Environment : 23.8°C/49%R.H./99.7kPa
 Tested by : Luke Li
 Polarization : vertical
 Remark : 802.11ax-HE40 M channel(chain 0 + chain 1)

--No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector

1	40.240	49.59	-13.02	36.57	40.00	-3.43	QP
2	491.606	49.10	-7.65	41.45	46.00	-4.55	QP
3	501.179	51.00	-7.39	43.61	46.00	-2.39	QP
4	539.714	50.44	-6.78	43.66	46.00	-2.34	QP
5	563.156	49.19	-6.35	42.84	46.00	-3.16	QP
6	595.394	44.35	-5.42	38.93	46.00	-7.07	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
 Result = Reading + Factor
 Over Limit = Result - Limit

Above 1GHz:

Test Date:	2024-10-08	Test By:	Luke Li
Environment condition:	Temperature: 24.9°C; Relative Humidity:54%; ATM Pressure: 100.6kPa		

Frequency (MHz)	Reading level (dBμV)	Polar	Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
802.11b							
Low Channel							
2363.962	42.55	horizontal	6.80	49.35	54.00	-4.65	Average
2363.962	54.18	horizontal	6.80	60.98	74.00	-13.02	Peak
2364.192	44.60	vertical	6.80	51.40	54.00	-2.60	Average
2364.192	57.37	vertical	6.80	64.17	74.00	-9.83	Peak
4824.000	49.60	horizontal	-2.75	46.85	74.00	-27.15	Peak
4824.000	48.70	vertical	-2.75	45.95	74.00	-28.05	Peak
Middle Channel							
4874.000	48.88	horizontal	-2.39	46.49	74.00	-27.51	Peak
4874.000	48.66	vertical	-2.39	46.27	74.00	-27.73	Peak
High Channel							
2483.500	36.27	horizontal	7.02	43.29	54.00	-10.71	Average
2483.500	49.55	horizontal	7.02	56.57	74.00	-17.43	Peak
2483.500	35.82	vertical	7.02	42.84	54.00	-11.16	Average
2483.500	49.09	vertical	7.02	56.11	74.00	-17.89	Peak
4924.000	48.94	horizontal	-2.17	46.77	74.00	-27.23	Peak
4924.000	49.51	vertical	-2.17	47.34	74.00	-26.66	Peak
802.11g							
Low Channel							
2364.135	42.89	horizontal	6.80	49.69	54.00	-4.31	Average
2364.135	55.04	horizontal	6.80	61.84	74.00	-12.16	Peak
2366.206	44.73	vertical	6.80	51.53	54.00	-2.47	Average
2366.206	56.79	vertical	6.80	63.59	74.00	-10.41	Peak
4824.000	48.52	horizontal	-2.75	45.77	74.00	-28.23	Peak
4824.000	49.64	vertical	-2.75	46.89	74.00	-27.11	Peak
Middle Channel							
4874.000	48.08	horizontal	-2.39	45.69	74.00	-28.31	Peak
4874.000	48.32	vertical	-2.39	45.93	74.00	-28.07	Peak
High Channel							
2483.500	35.91	horizontal	7.02	42.93	54.00	-11.07	Average
2483.500	48.78	horizontal	7.02	55.80	74.00	-18.20	Peak

2483.500	36.15	vertical	7.02	43.17	54.00	-10.83	Average
2483.500	47.97	vertical	7.02	54.99	74.00	-19.01	Peak
4924.000	48.50	horizontal	-2.17	46.33	74.00	-27.67	Peak
4924.000	48.32	vertical	-2.17	46.15	74.00	-27.85	Peak
802.11n20							
Low Channel							
2363.907	43.08	horizontal	6.80	49.88	54.00	-4.12	Average
2363.907	54.23	horizontal	6.80	61.03	74.00	-12.97	Peak
2365.528	44.85	vertical	6.80	51.65	54.00	-2.35	Average
2365.528	57.35	vertical	6.80	64.15	74.00	-9.85	Peak
4824.000	49.47	horizontal	-2.75	46.72	74.00	-27.28	Peak
4824.000	48.83	vertical	-2.75	46.08	74.00	-27.92	Peak
Middle Channel							
4874.000	48.86	horizontal	-2.39	46.47	74.00	-27.53	Peak
4874.000	48.35	vertical	-2.39	45.96	74.00	-28.04	Peak
High Channel							
2483.500	37.03	horizontal	7.02	44.05	54.00	-9.95	Average
2483.500	48.40	horizontal	7.02	55.42	74.00	-18.58	Peak
2483.500	36.34	vertical	7.02	43.36	54.00	-10.64	Average
2483.500	48.16	vertical	7.02	55.18	74.00	-18.82	Peak
4924.000	49.74	horizontal	-2.17	47.57	74.00	-26.43	Peak
4924.000	48.69	vertical	-2.17	46.52	74.00	-27.48	Peak
802.11n40							
Low Channel							
2374.853	40.76	horizontal	6.80	47.56	54.00	-6.44	Average
2374.853	53.13	horizontal	6.80	59.93	74.00	-14.07	Peak
2372.611	44.72	vertical	6.80	51.52	54.00	-2.48	Average
2372.611	56.56	vertical	6.80	63.36	74.00	-10.64	Peak
4844.000	50.06	horizontal	-2.63	47.43	74.00	-26.57	Peak
4844.000	48.98	vertical	-2.63	46.35	74.00	-27.65	Peak
Middle Channel							
4874.000	49.36	horizontal	-2.39	46.97	74.00	-27.03	Peak
4874.000	48.57	vertical	-2.39	46.18	74.00	-27.82	Peak
High Channel							
2483.507	38.06	horizontal	7.02	45.08	54.00	-8.92	Average
2483.507	51.75	horizontal	7.02	58.77	74.00	-15.23	Peak
2483.507	37.33	vertical	7.02	44.35	54.00	-9.65	Average
2483.507	49.50	vertical	7.02	56.52	74.00	-17.48	Peak

4904.000	49.14	horizontal	-2.18	46.96	74.00	-27.04	Peak
4904.000	48.89	vertical	-2.18	46.71	74.00	-27.29	Peak
802.11ax20							
Low Channel							
2364.267	41.74	horizontal	6.80	48.54	54.00	-5.46	Average
2364.267	54.69	horizontal	6.80	61.49	74.00	-12.51	Peak
2364.507	44.14	vertical	6.80	50.94	54.00	-3.06	Average
2364.507	57.19	vertical	6.80	63.99	74.00	-10.01	Peak
4824.000	48.16	horizontal	-2.75	45.41	74.00	-28.59	Peak
4824.000	49.10	vertical	-2.75	46.35	74.00	-27.65	Peak
Middle Channel							
4874.000	48.68	horizontal	-2.39	46.29	74.00	-27.71	Peak
4874.000	48.38	vertical	-2.39	45.99	74.00	-28.01	Peak
High Channel							
2483.500	37.51	horizontal	7.02	44.53	54.00	-9.47	Average
2483.500	48.94	horizontal	7.02	55.96	74.00	-18.04	Peak
2483.500	37.94	vertical	7.02	44.96	54.00	-9.04	Average
2483.500	49.23	vertical	7.02	56.25	74.00	-17.75	Peak
4924.000	48.38	horizontal	-2.17	46.21	74.00	-27.79	Peak
4924.000	49.23	vertical	-2.17	47.06	74.00	-26.94	Peak
802.11ax40							
Low Channel							
2374.152	42.32	horizontal	6.80	49.12	54.00	-4.88	Average
2374.152	53.36	horizontal	6.80	60.16	74.00	-13.84	Peak
2375.623	43.95	vertical	6.82	50.77	54.00	-3.23	Average
2375.623	56.78	vertical	6.82	63.60	74.00	-10.40	Peak
4844.000	48.52	horizontal	-2.63	45.89	74.00	-28.11	Peak
4844.000	48.63	vertical	-2.63	46.00	74.00	-28.00	Peak
Middle Channel							
4874.000	48.68	horizontal	-2.39	46.29	74.00	-27.71	Peak
4874.000	48.18	vertical	-2.39	45.79	74.00	-28.21	Peak
High Channel							
2483.507	38.23	horizontal	7.02	45.25	54.00	-8.75	Average
2483.507	50.59	horizontal	7.02	57.61	74.00	-16.39	Peak
2483.500	38.99	vertical	7.02	46.01	54.00	-7.99	Average
2483.500	48.38	vertical	7.02	55.40	74.00	-18.60	Peak
4904.000	48.06	horizontal	-2.18	45.88	74.00	-28.12	Peak
4904.000	49.80	vertical	-2.18	47.62	74.00	-26.38	Peak

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss – Amplifier gain

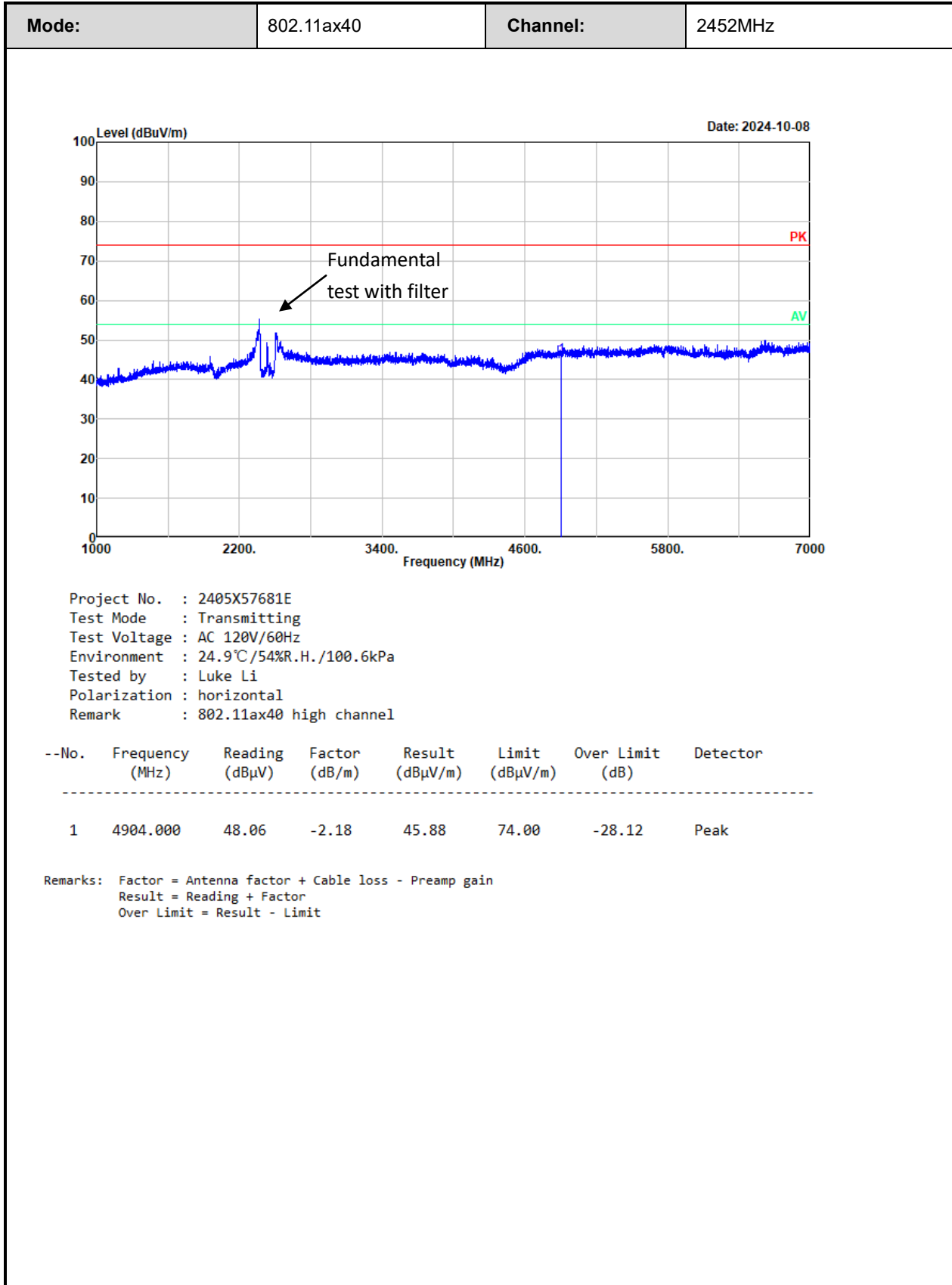
Margin = Corrected Amplitude – Limit

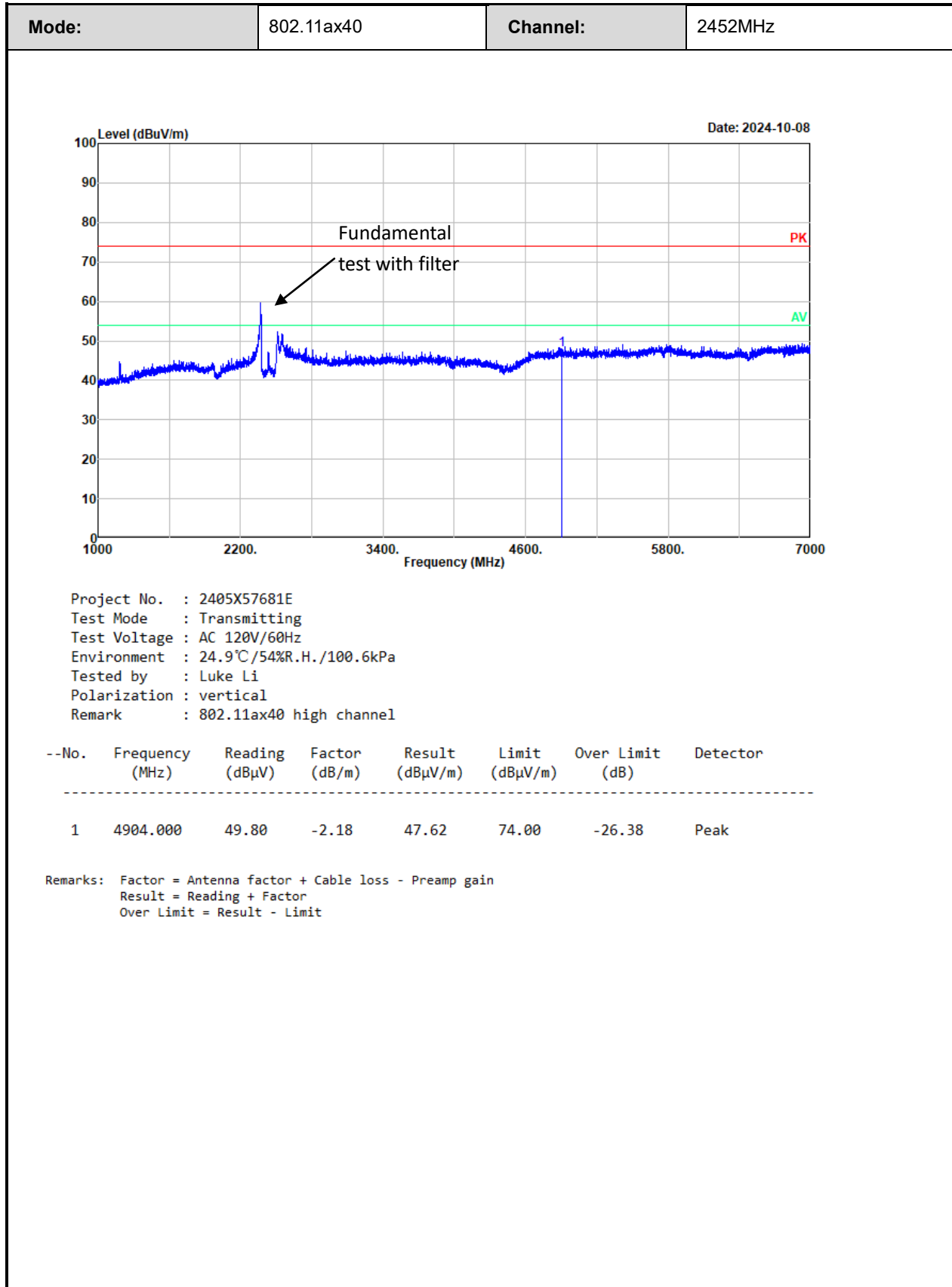
For the test result of Peak below the Peak limit more than 20dB, which can compliance with the average limit, just the Peak level was recorded.

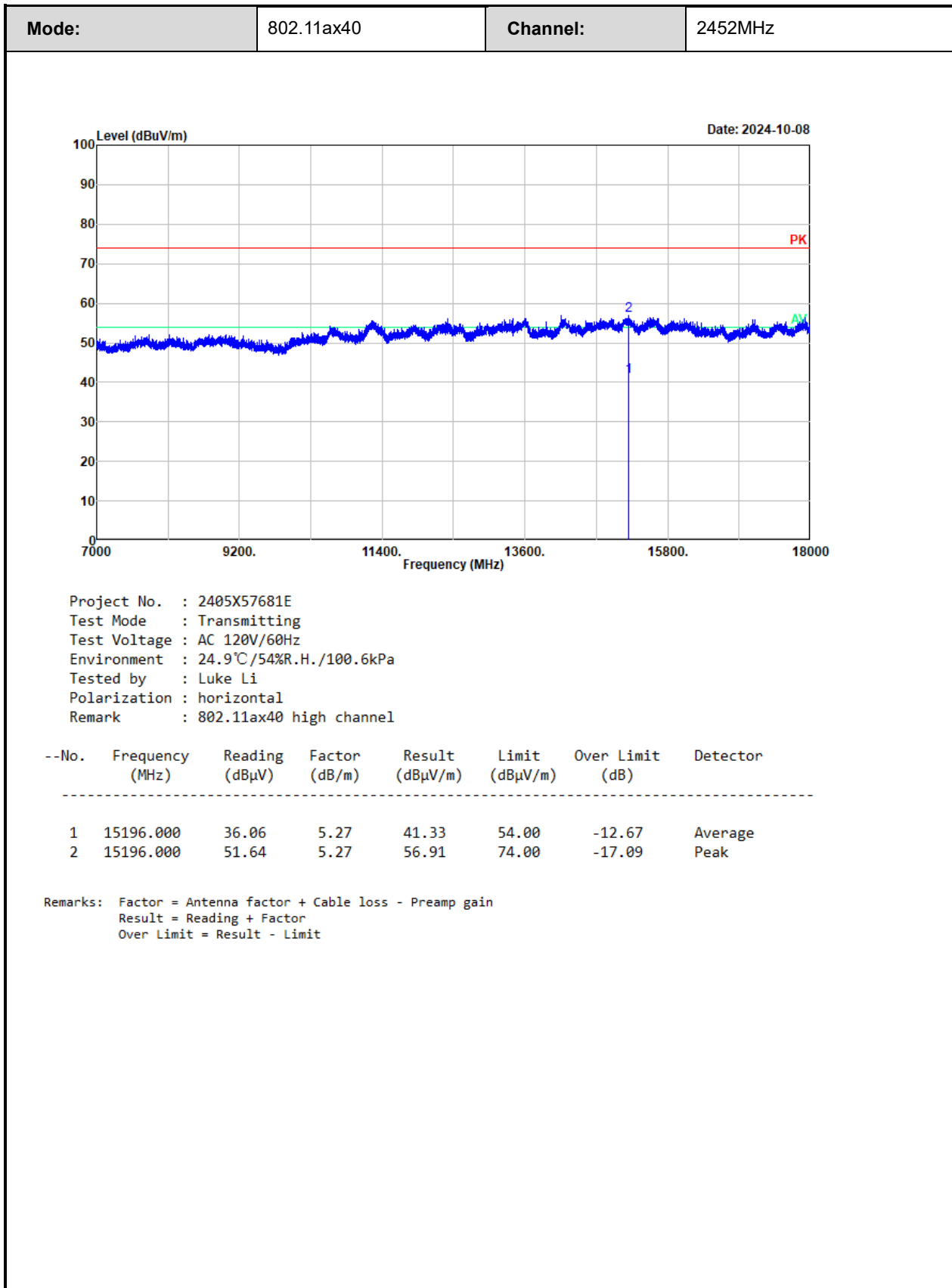
The emission levels of other frequencies that were lower than the limit 20dB not show in test report.

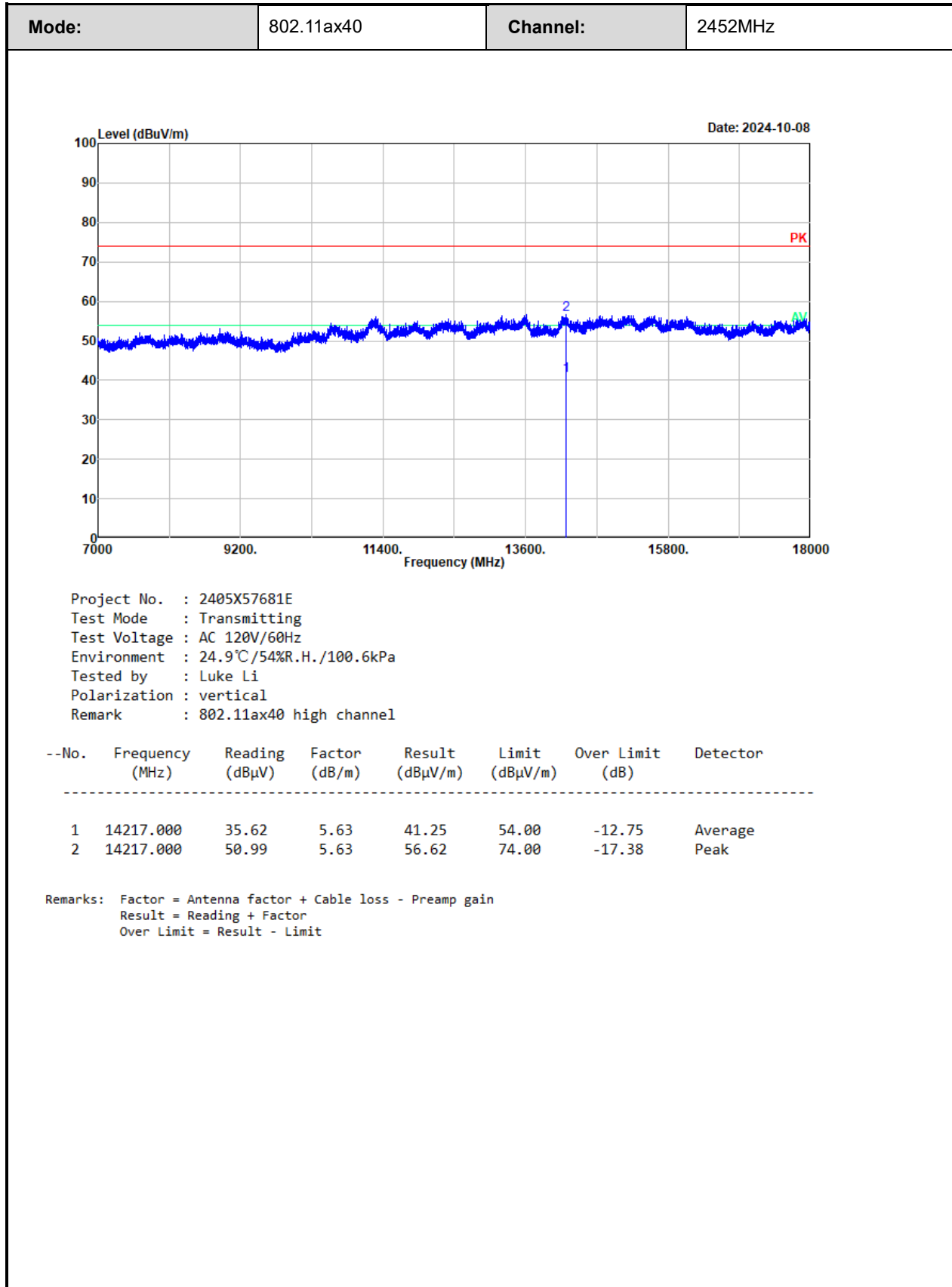
For emissions in 18GHz-25GHz range, all emissions were investigated and in the noise floor level.

Test plot for example as below:









3.4.1 RF Conducted Test Data

Test Date:	2024-10-09~2024-10-10	Test By:	Ryan Zhang
Environment condition:	Temperature: 25.3~25.6°C; Relative Humidity: 45~48%; ATM Pressure: 100.3~100.4kPa		

3.4.2 6dB Emission Bandwidth

Mode	Test Antenna	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11b	chain 0	2412	8.120	≥0.5	Pass
	chain 1	2412	8.160	≥0.5	Pass
	chain 0	2437	7.600	≥0.5	Pass
	chain 1	2437	8.160	≥0.5	Pass
	chain 0	2462	8.160	≥0.5	Pass
	chain 1	2462	7.680	≥0.5	Pass
802.11g	chain 0	2412	15.160	≥0.5	Pass
	chain 1	2412	15.160	≥0.5	Pass
	chain 0	2437	15.160	≥0.5	Pass
	chain 1	2437	15.160	≥0.5	Pass
	chain 0	2462	15.160	≥0.5	Pass
	chain 1	2462	15.160	≥0.5	Pass
802.11n20	chain 0	2412	15.120	≥0.5	Pass
	chain 1	2412	15.120	≥0.5	Pass
	chain 0	2437	15.120	≥0.5	Pass
	chain 1	2437	15.080	≥0.5	Pass
	chain 0	2462	15.120	≥0.5	Pass
	chain 1	2462	15.160	≥0.5	Pass
802.11n40	chain 0	2422	35.200	≥0.5	Pass
	chain 1	2422	35.280	≥0.5	Pass
	chain 0	2437	35.280	≥0.5	Pass
	chain 1	2437	35.280	≥0.5	Pass
	chain 0	2452	34.000	≥0.5	Pass
	chain 1	2452	35.200	≥0.5	Pass
802.11ax20	chain 0	2412	15.160	≥0.5	Pass
	chain 1	2412	15.160	≥0.5	Pass
	chain 0	2437	15.360	≥0.5	Pass
	chain 1	2437	15.160	≥0.5	Pass
	chain 0	2462	15.120	≥0.5	Pass
	chain 1	2462	15.160	≥0.5	Pass

Mode	Test Antenna	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11ax40	chain 0	2422	35.280	≥0.5	Pass
	chain 1	2422	34.000	≥0.5	Pass
	chain 0	2437	35.280	≥0.5	Pass
	chain 1	2437	35.600	≥0.5	Pass
	chain 0	2452	35.520	≥0.5	Pass
	chain 1	2452	34.000	≥0.5	Pass

3.4.3 99% Occupied Bandwidth

Mode	Test Antenna	Test Frequency (MHz)	99% OBW (MHz)
802.11b	chain 0	2412	13.080
	chain 1	2412	13.120
	chain 0	2437	13.280
	chain 1	2437	13.120
	chain 0	2462	13.200
	chain 1	2462	13.200
802.11g	chain 0	2412	16.240
	chain 1	2412	16.240
	chain 0	2437	16.280
	chain 1	2437	16.280
	chain 0	2462	16.280
	chain 1	2462	16.280
802.11n20	chain 0	2412	17.480
	chain 1	2412	17.480
	chain 0	2437	17.400
	chain 1	2437	17.480
	chain 0	2462	17.480
	chain 1	2462	17.480
802.11n40	chain 0	2422	35.840
	chain 1	2422	35.840
	chain 0	2437	35.760
	chain 1	2437	35.920
	chain 0	2452	35.760
	chain 1	2452	35.840
802.11ax20	chain 0	2412	18.760
	chain 1	2412	18.800
	chain 0	2437	18.800

Mode	Test Antenna	Test Frequency (MHz)	99% OBW (MHz)
	chain 1	2437	18.800
	chain 0	2462	18.840
	chain 1	2462	18.840
802.11ax40	chain 0	2422	37.520
	chain 1	2422	37.520
802.11ax40	chain 0	2437	37.440
	chain 1	2437	37.520
	chain 0	2452	37.520
	chain 1	2452	37.600

3.4.4 Maximum Conducted Peak Output Power

Mode	Test Antenna	Test Frequency (MHz)	Peak Output Power(dBm)	Conducted Power Limit (dBm)	Verdict
802.11b	chain 0	2412	10.56	30	Pass
	chain 1	2412	10.35	30	Pass
	chain 0+chain 1	2412	13.47	28.3	Pass
	chain 0	2437	10.28	30	Pass
	chain 1	2437	10.62	30	Pass
	chain 0+chain 1	2437	13.46	28.3	Pass
	chain 0	2462	9.63	30	Pass
	chain 1	2462	9.96	30	Pass
	chain 0+chain 1	2462	12.81	28.3	Pass
802.11g	chain 0	2412	14.04	30	Pass
	chain 1	2412	13.67	30	Pass
	chain 0+chain 1	2412	16.87	28.3	Pass
	chain 0	2437	14.28	30	Pass
	chain 1	2437	14.40	30	Pass
	chain 0+chain 1	2437	17.35	28.3	Pass
	chain 0	2462	13.21	30	Pass
	chain 1	2462	13.06	30	Pass
	chain 0+chain 1	2462	16.15	28.3	Pass
802.11n20	chain 0	2412	14.98	30	Pass
	chain 1	2412	13.36	30	Pass
	chain 0+chain 1	2412	17.26	28.3	Pass
	chain 0	2437	15.20	30	Pass
	chain 1	2437	13.73	30	Pass

Mode	Test Antenna	Test Frequency (MHz)	Peak Output Power(dBm)	Conducted Power Limit (dBm)	Verdict
	chain 0+chain 1	2437	17.54	28.3	Pass
	chain 0	2462	14.54	30	Pass
	chain 1	2462	12.96	30	Pass
	chain 0+chain 1	2462	16.83	28.3	Pass
802.11n40	chain 0	2422	14.77	30	Pass
	chain 1	2422	14.25	30	Pass
	chain 0+chain 1	2422	17.53	28.3	Pass
	chain 0	2437	14.91	30	Pass
	chain 1	2437	14.60	30	Pass
	chain 0+chain 1	2437	17.77	28.3	Pass
	chain 0	2452	14.20	30	Pass
	chain 1	2452	13.98	30	Pass
	chain 0+chain 1	2452	17.10	28.3	Pass
802.11ax20	chain 0	2412	15.43	30	Pass
	chain 1	2412	14.75	30	Pass
	chain 0+chain 1	2412	18.11	28.3	Pass
	chain 0	2437	15.03	30	Pass
	chain 1	2437	15.27	30	Pass
	chain 0+chain 1	2437	18.16	28.3	Pass
	chain 0	2462	14.34	30	Pass
	chain 1	2462	14.21	30	Pass
	chain 0+chain 1	2462	17.29	28.3	Pass
802.11ax40	chain 0	2422	14.72	30	Pass
	chain 1	2422	14.42	30	Pass
	chain 0+chain 1	2422	17.59	28.3	Pass
	chain 0	2437	15.16	30	Pass
	chain 1	2437	15.32	30	Pass
	chain 0+chain 1	2437	18.25	28.3	Pass
	chain 0	2452	14.22	30	Pass
	chain 1	2452	14.22	30	Pass
	chain 0+chain 1	2452	17.23	28.3	Pass

Note:

The device employ Beam-forming for MIMO mode, according to KDB 662911 D01 Multiple Transmitter Output v02r01, Directional gain = $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$

$G_{ANT0}=4.6\text{dBi}$, $G_{ANT1}=4.7\text{dBi}$, use the high antenna gain for calculate

Directional gain= $4.7+10\log 2=7.7\text{dBi}>6\text{dBi}$, so limit need reduce 1.7dB

3.4.5 Power Spectral Density

Mode	Test Antenna	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
802.11b	chain 0	2412	-12.58	8	Pass
	chain 1	2412	-14.90	8	Pass
	chain 0+chain 1	2412	-10.58	6.3	Pass
	chain 0	2437	-14.87	8	Pass
	chain 1	2437	-14.57	8	Pass
	chain 0+chain 1	2437	-11.71	6.3	Pass
	chain 0	2462	-16.00	8	Pass
	chain 1	2462	-14.06	8	Pass
	chain 0+chain 1	2462	-11.91	6.3	Pass
802.11g	chain 0	2412	-14.41	8	Pass
	chain 1	2412	-15.24	8	Pass
	chain 0+chain 1	2412	-11.79	6.3	Pass
	chain 0	2437	-14.28	8	Pass
	chain 1	2437	-14.89	8	Pass
	chain 0+chain 1	2437	-11.56	6.3	Pass
	chain 0	2462	-16.32	8	Pass
	chain 1	2462	-16.21	8	Pass
	chain 0+chain 1	2462	-13.25	6.3	Pass
802.11n20	chain 0	2412	-13.39	8	Pass
	chain 1	2412	-13.97	8	Pass
	chain 0+chain 1	2412	-10.66	6.3	Pass
	chain 0	2437	-13.16	8	Pass
	chain 1	2437	-14.19	8	Pass
	chain 0+chain 1	2437	-10.63	6.3	Pass
	chain 0	2462	-15.16	8	Pass
	chain 1	2462	-13.91	8	Pass
	chain 0+chain 1	2462	-11.48	6.3	Pass
802.11n40	chain 0	2422	-14.59	8	Pass
	chain 1	2422	-17.49	8	Pass
	chain 0+chain 1	2422	-12.79	6.3	Pass
	chain 0	2437	-17.00	8	Pass
	chain 1	2437	-17.17	8	Pass
	chain 0+chain 1	2437	-14.07	6.3	Pass
	chain 0	2452	-17.91	8	Pass
	chain 1	2452	-17.68	8	Pass
	chain 0+chain 1	2452	-14.78	6.3	Pass
802.11ax20	chain 0	2412	-15.61	8	Pass

Mode	Test Antenna	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
	chain 1	2412	-14.68	8	Pass
	chain 0+chain 1	2412	-12.11	6.3	Pass
	chain 0	2437	-15.47	8	Pass
	chain 1	2437	-14.83	8	Pass
	chain 0+chain 1	2437	-12.13	6.3	Pass
	chain 0	2462	-16.60	8	Pass
	chain 1	2462	-16.02	8	Pass
	chain 0+chain 1	2462	-13.29	6.3	Pass
802.11ax40	chain 0	2422	-18.77	8	Pass
	chain 1	2422	-18.39	8	Pass
	chain 0+chain 1	2422	-15.57	6.3	Pass
	chain 0	2437	-17.77	8	Pass
	chain 1	2437	-17.33	8	Pass
	chain 0+chain 1	2437	-14.53	6.3	Pass
	chain 0	2452	-18.06	8	Pass
	chain 1	2452	-18.93	8	Pass
	chain 0+chain 1	2452	-15.46	6.3	Pass

Note:

The device employ Beam-forming for MIMO mode, according to KDB 662911 D01 Multiple Transmitter Output v02r01, Directional gain = $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$

$G_{ANT0}=4.6dBi$, $G_{ANT1}=4.7dBi$, use the high antenna gain for calculate

Directional gain= $4.7+10\log2=7.7dBi>6dBi$, so limit need reduce 1.7dB

3.4.6 100 kHz Bandwidth of Frequency Band Edge

Mode	Test Antenna	Test Frequency (MHz)	Result (dBc)	Limit (dBc)	Verdict
802.11b	chain 0	2412	41.42	20	Pass
	chain 1	2412	39.56	20	Pass
	chain 0	2462	39.62	20	Pass
	chain 1	2462	38.74	20	Pass
802.11g	chain 0	2412	38.67	20	Pass
	chain 1	2412	38.68	20	Pass
	chain 0	2462	33.74	20	Pass
	chain 1	2462	39.51	20	Pass
802.11n20	chain 0	2412	36.63	20	Pass
	chain 1	2412	37.13	20	Pass
	chain 0	2462	39.02	20	Pass
	chain 1	2462	39.35	20	Pass
802.11n40	chain 0	2422	36.03	20	Pass
	chain 1	2422	35.43	20	Pass
	chain 0	2452	34.35	20	Pass
	chain 1	2452	34.19	20	Pass
802.11ax20	chain 0	2412	39.06	20	Pass
	chain 1	2412	36.81	20	Pass
	chain 0	2462	38.60	20	Pass
	chain 1	2462	39.05	20	Pass
802.11ax40	chain 0	2422	35.44	20	Pass
	chain 1	2422	34.65	20	Pass
	chain 0	2452	34.68	20	Pass
	chain 1	2452	34.99	20	Pass

3.4.7 Duty Cycle

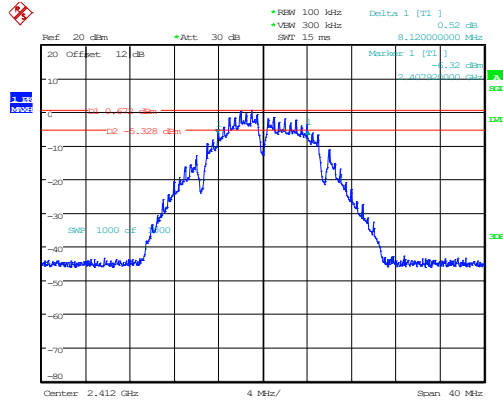
Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	2437	0.660	-	Not constant	-	1515	2.0
802.11g	2437	1.968	-	Not constant	-	508	1.0
802.11n20	2437	5.404	-	Not constant	-	185	0.2
802.11n40	2437	5.377	-	Not constant	-	186	0.2
802.11ax20	2437	5.355	-	Not constant	-	187	0.2
802.11ax40	2437	5.392	-	Not constant	-	185	0.2

Test Plots:

6 dB Emission Bandwidth:

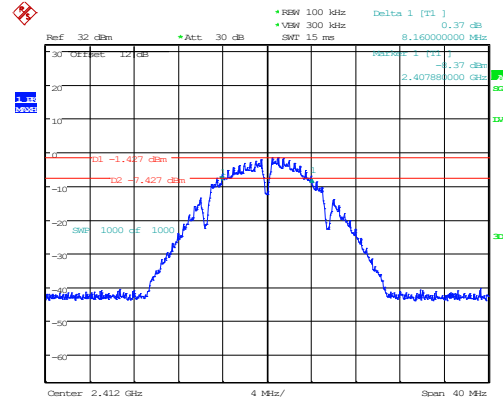
2.4G

802.11b_2412MHz_Chain 0 8.120MHz



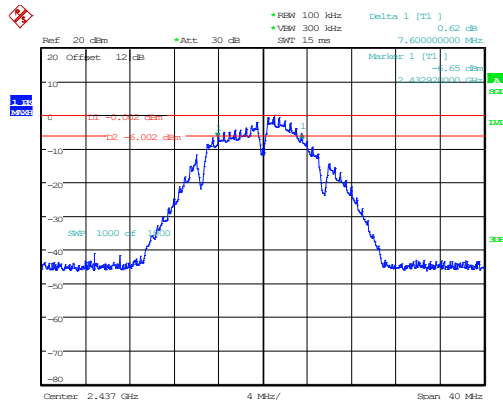
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 09:48:43

802.11b_2412MHz_Chain 1 8.160MHz



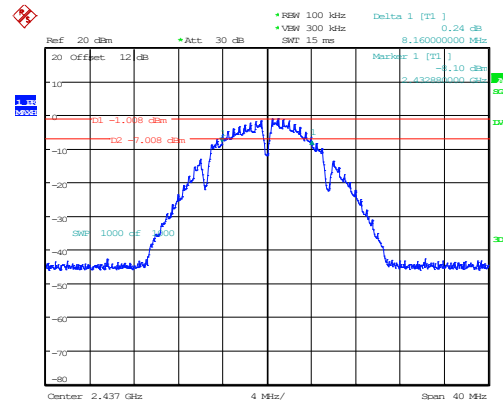
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:55:13

802.11b_2437MHz_Chain 0 7.600MHz



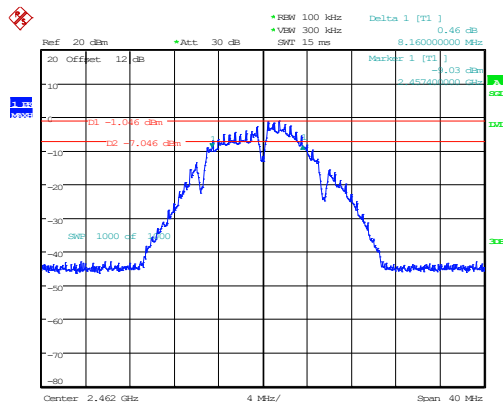
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 09:53:47

802.11b_2437MHz_Chain 1 8.160MHz



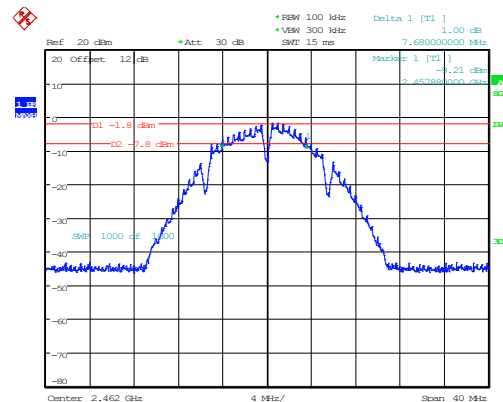
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:00:10

802.11b_2462MHz_Chain 0 8.160MHz



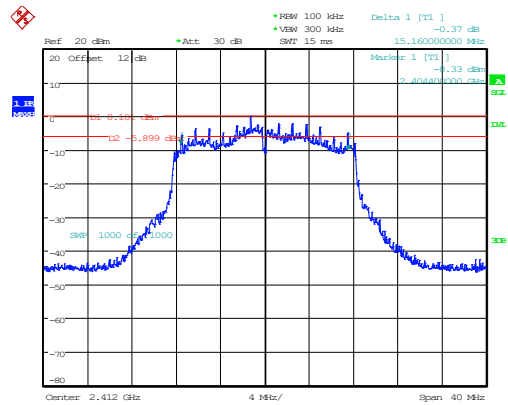
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 09:58:14

802.11b_2462MHz_Chain 1 7.680MHz



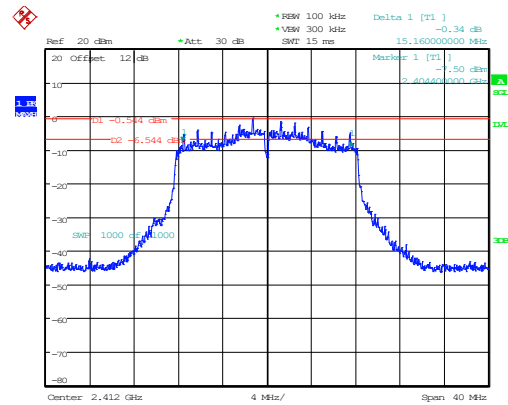
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:05:09

802.11g_2412MHz_Chain 0 15.160MHz



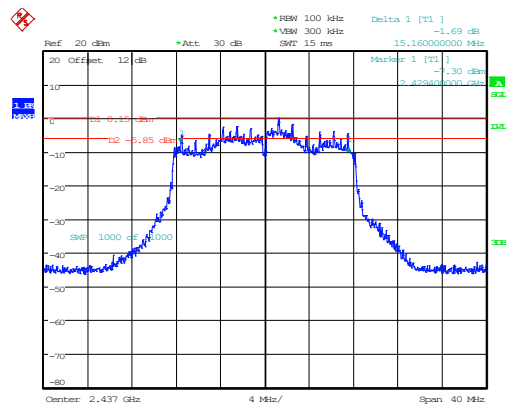
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Date: 9.OCT.2024 10:04:06

802.11g_2412MHz_Chain 1 15.160MHz



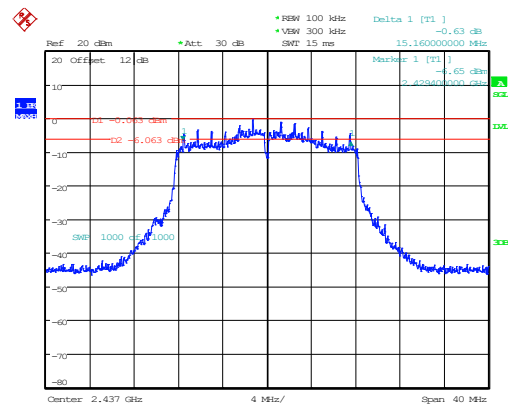
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:21:40

802.11g_2437MHz_Chain 0 15.160MHz



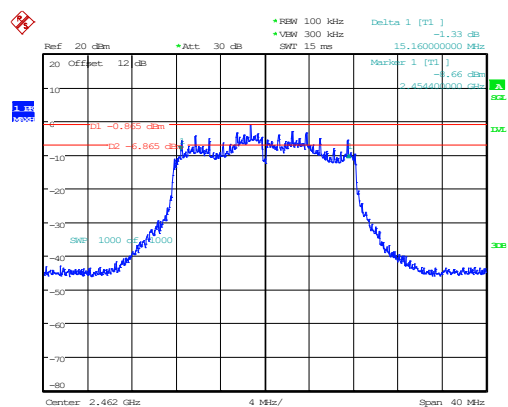
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802.11g_2437MHz_Chain 1 15.160MHz



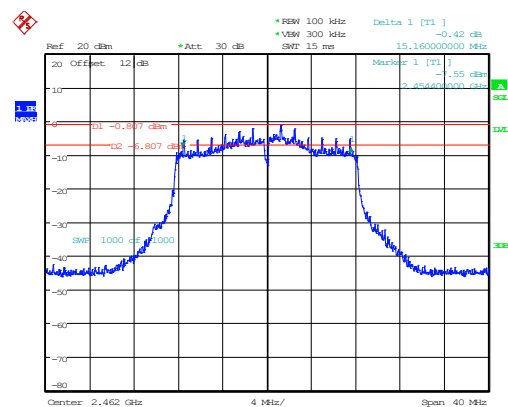
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:29:31

802.11g_2462MHz_Chain 0 15.160MHz



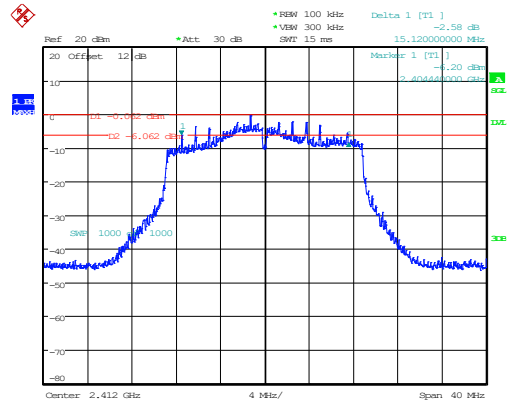
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Date: 9.OCT.2024 11:14:54

802.11g_2462MHz_Chain 1 15.160MHz



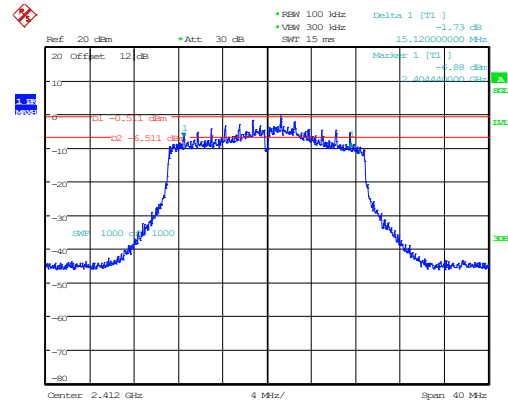
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:36:27

802.11n20_2412MHz_Chain 0 15.120MHz



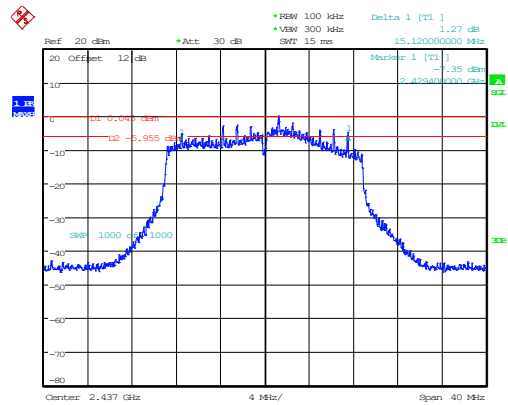
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Date: 9.OCT.2024 11:23:48

802.11n20_2412MHz_Chain 1 15.120MHz



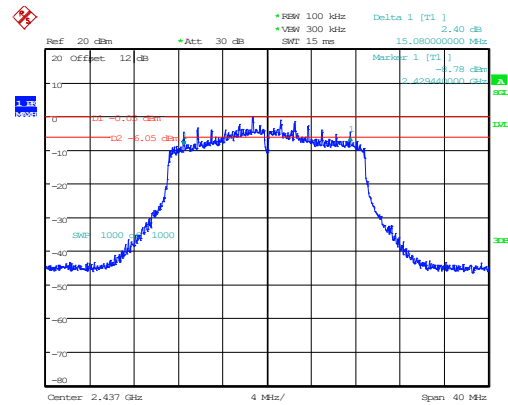
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Date: 9.OCT.2024 14:49:55

802.11n20_2437MHz_Chain 0 15.120MHz



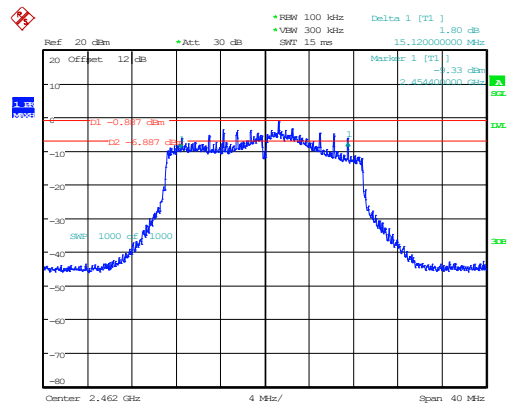
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Date: 9.OCT.2024 11:32:05

802.11n20_2437MHz_Chain 1 15.080MHz



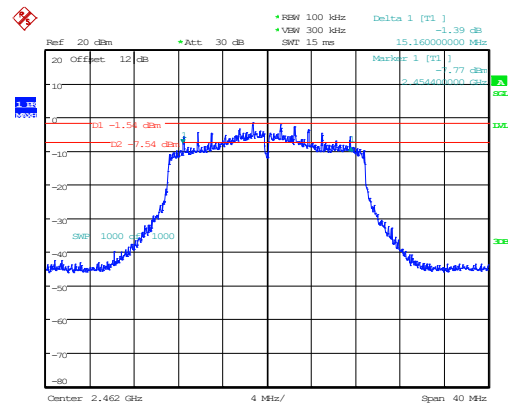
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Date: 9.OCT.2024 15:01:02

802.11n20_2462MHz_Chain 0 15.120MHz



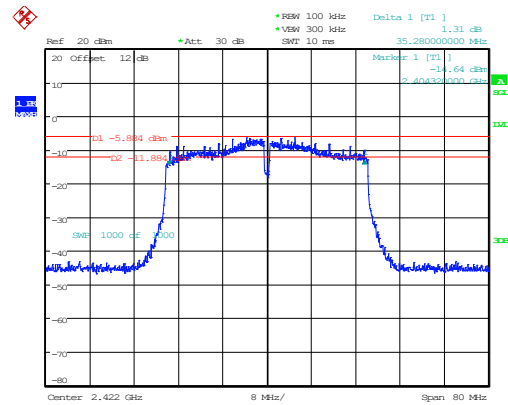
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Date: 9.OCT.2024 11:38:51

802.11n20_2462MHz_Chain 1 15.160MHz



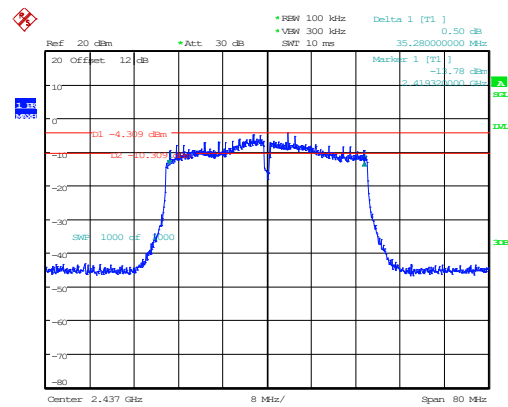
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Date: 9.OCT.2024 15:10:51

802.11n40_2422MHz_Chain 1 35.280MHz



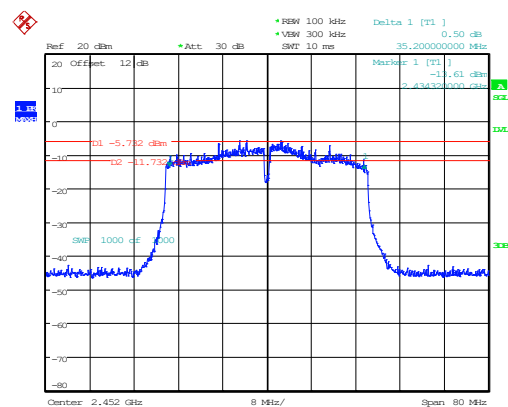
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Date: 9.OCT.2024 15:26:39

802.11n40_2437MHz_Chain 1 35.280MHz



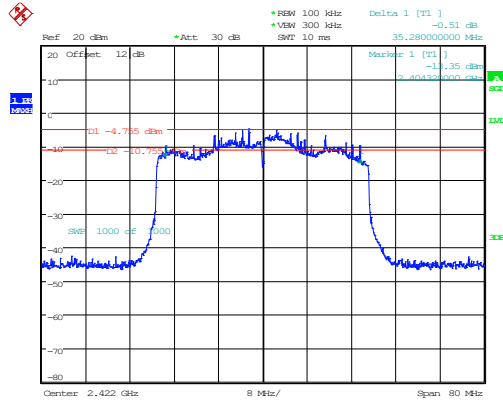
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:40:07

802.11n40_2452MHz_Chain 1 35.200MHz



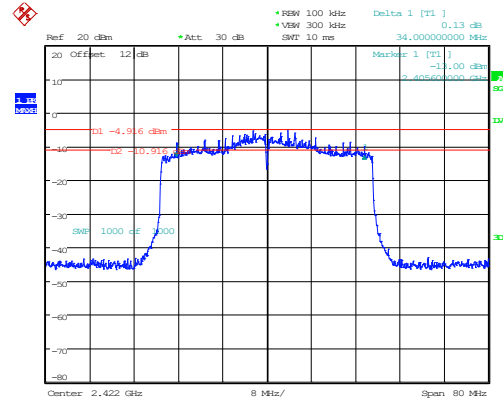
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Date: 9.OCT.2024 15:52:48

802.11ax40_2422MHz_RU_484/65_Chain 0
35.280MHz



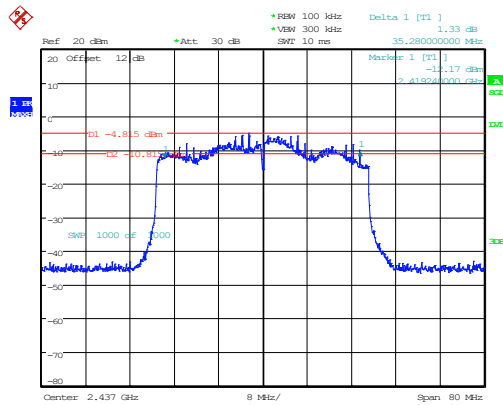
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Date: 9.OCT.2024 13:05:40

802.11ax40_2422MHz_RU_484/65_Chain 1
34MHz



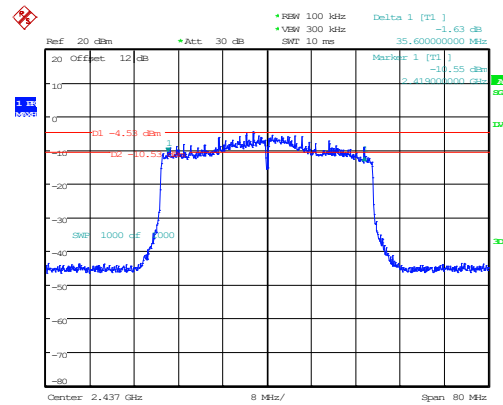
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Date: 10.OCT.2024 11:05:43

802.11ax40_2437MHz_RU_484/65_Chain 0
35.280MHz



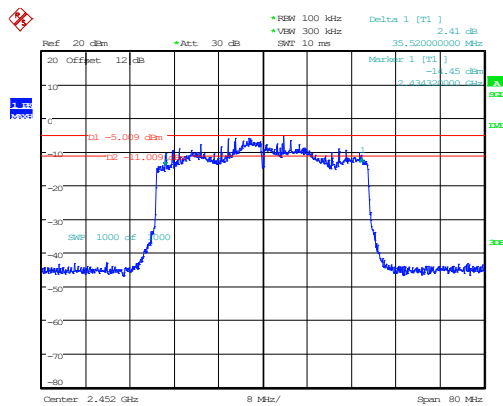
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Date: 9.OCT.2024 13:23:47

802.11ax40_2437MHz_RU_484/65_Chain 1
35.600MHz



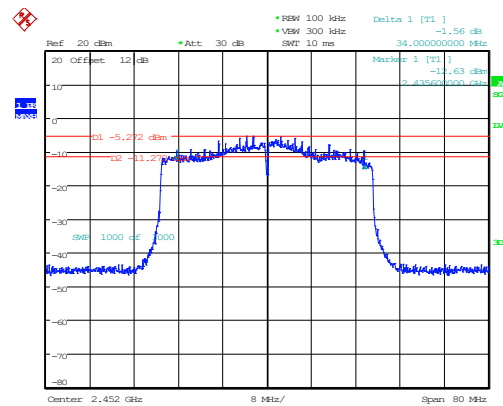
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Date: 10.OCT.2024 11:18:51

802.11ax40_2452MHz_RU_484/65_Chain 0
35.520MHz



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:35:33

802.11ax40_2452MHz_RU_484/65_Chain 1
34MHz

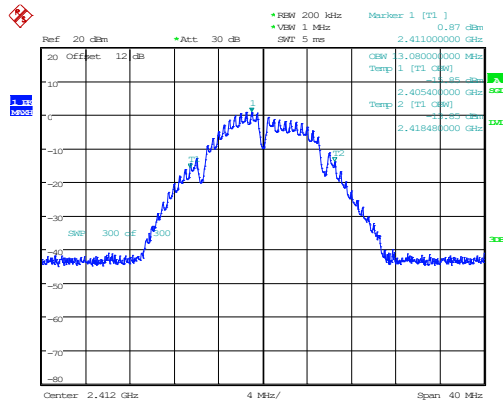


ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:31:07

99% Occupied Bandwidth:

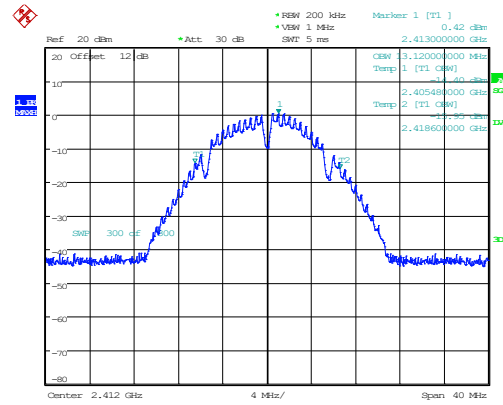
2.4G

802.11b_2412MHz_Chain 0 13.080MHz



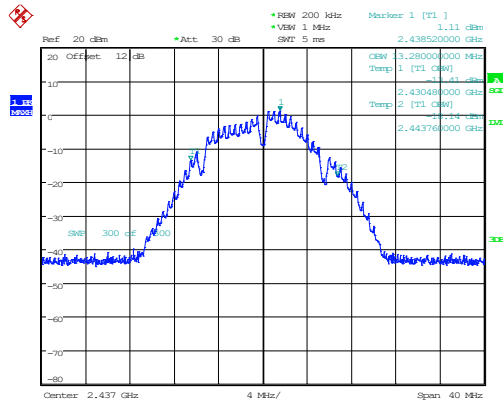
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 09:49:09

802.11b_2412MHz_Chain 1 13.120MHz



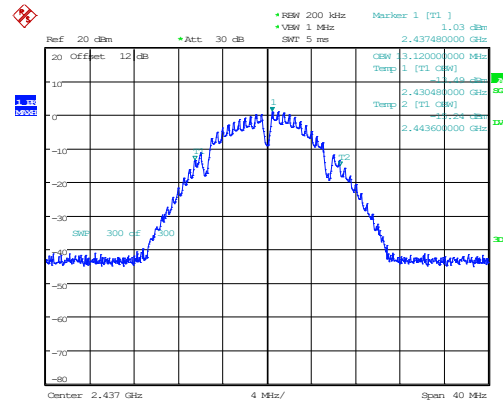
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Date: 9.OCT.2024 13:55:40

802.11b_2437MHz_Chain 0 13.280MHz



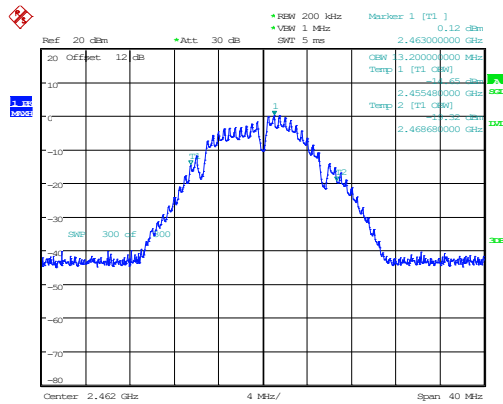
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Date: 9.OCT.2024 09:54:10

802.11b_2437MHz_Chain 1 13.120MHz



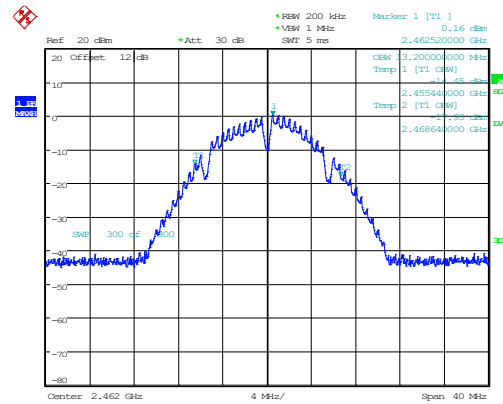
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Date: 9.OCT.2024 14:00:34

802.11b_2462MHz_Chain 0 13.200MHz



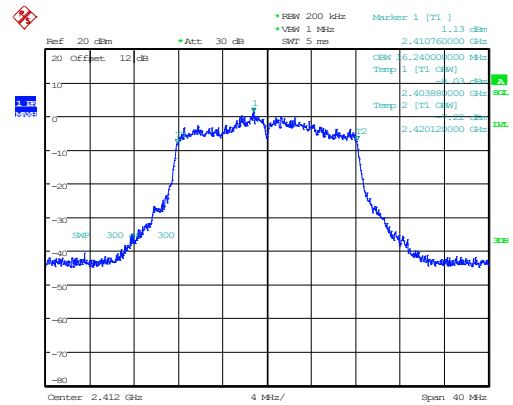
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Date: 9.OCT.2024 09:58:46

802.11b_2462MHz_Chain 1 13.200MHz



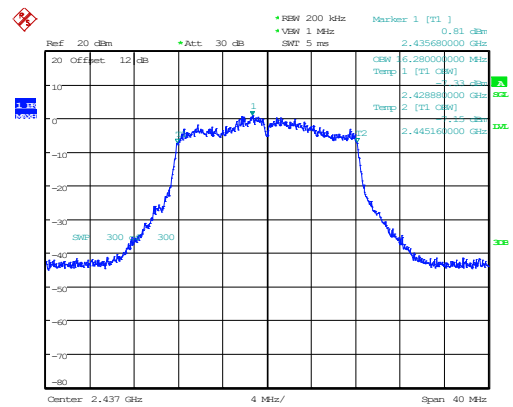
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Date: 9.OCT.2024 14:05:41

802.11g_2412MHz_Chain 1 16.240MHz



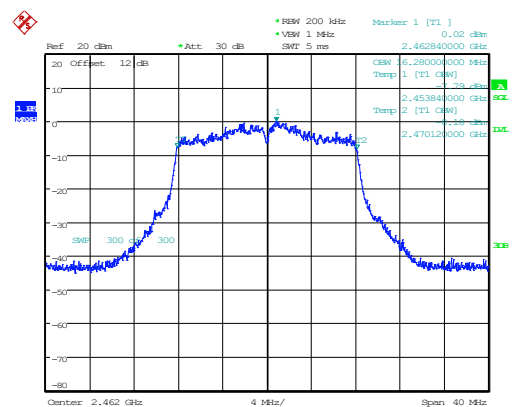
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802.11g_2437MHz_Chain 1 16.280MHz



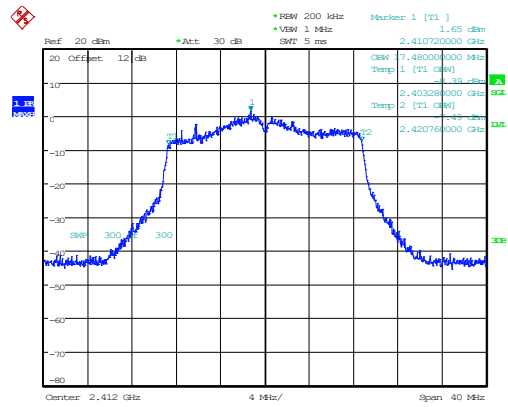
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Date: 9.OCT.2024 14:29:55

802.11g_2462MHz_Chain 1 16.280MHz



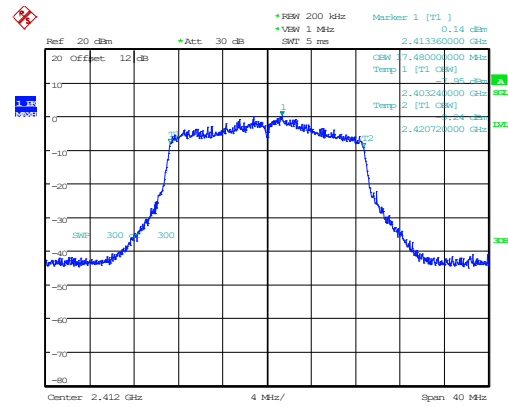
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802.11n20_2412MHz_Chain 0 17.480MHz



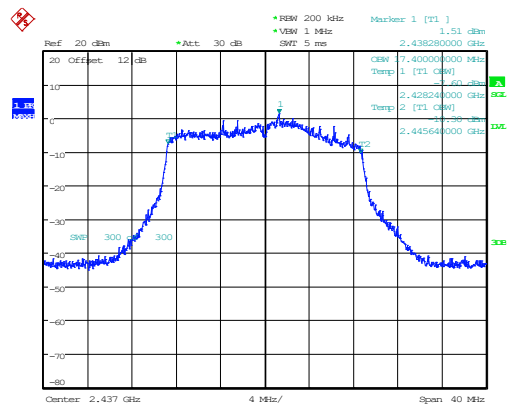
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Date: 9.OCT.2024 11:24:15

802.11n20_2412MHz_Chain 1 17.480MHz



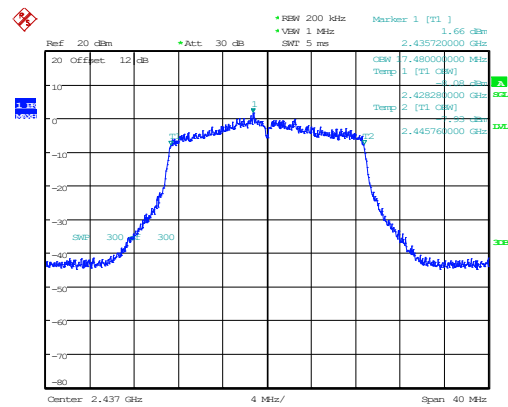
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Date: 9.OCT.2024 14:50:23

802.11n20_2437MHz_Chain 0 17.400MHz



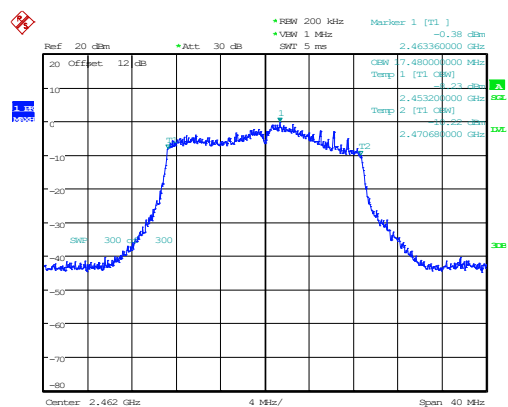
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802.11n20_2437MHz_Chain 1 17.480MHz



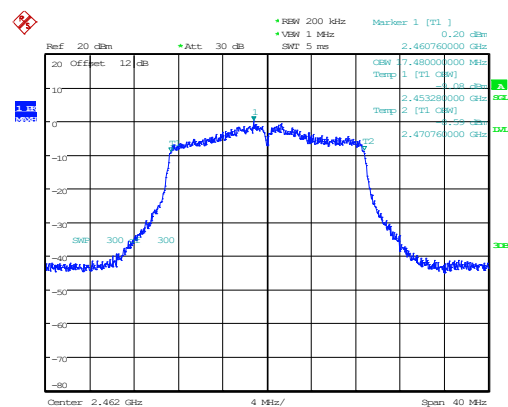
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:01:25

802.11n20_2462MHz_Chain 0 17.480MHz



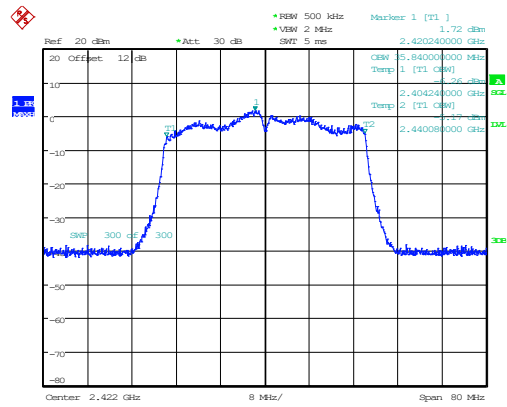
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802.11n20_2462MHz_Chain 1 17.480MHz



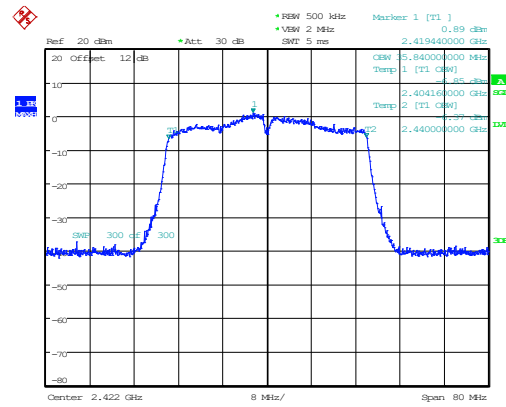
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:11:24

802.11n40_2422MHz_Chain 0 35.840MHz



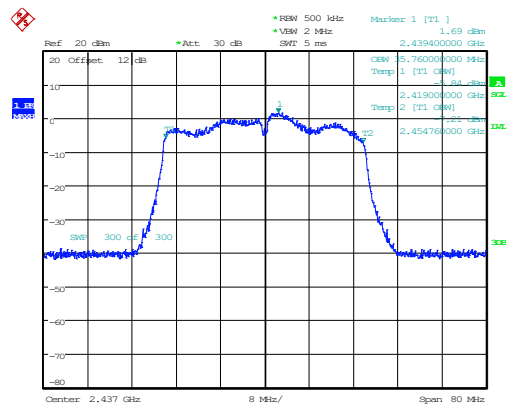
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:13:46

802.11n40_2422MHz_Chain 1 35.840MHz



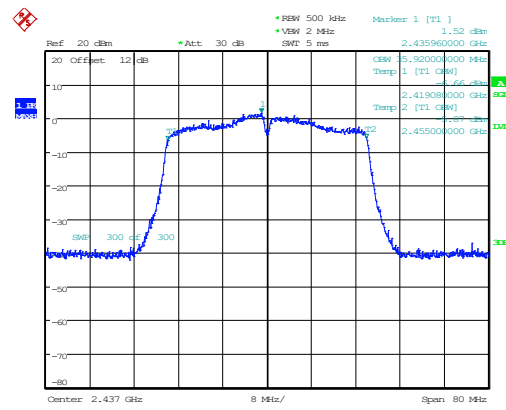
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Date: 9.OCT.2024 15:26:59

802.11n40_2437MHz_Chain 0 35.760MHz



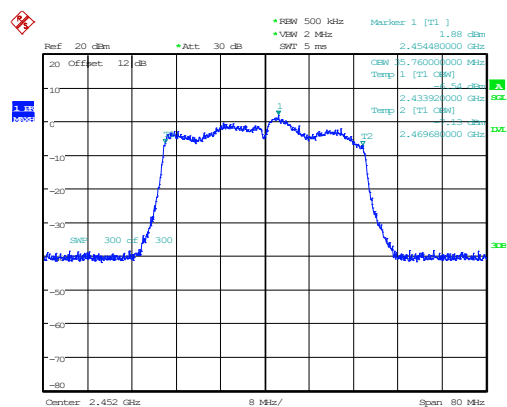
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802.11n40_2437MHz_Chain 1 35.920MHz



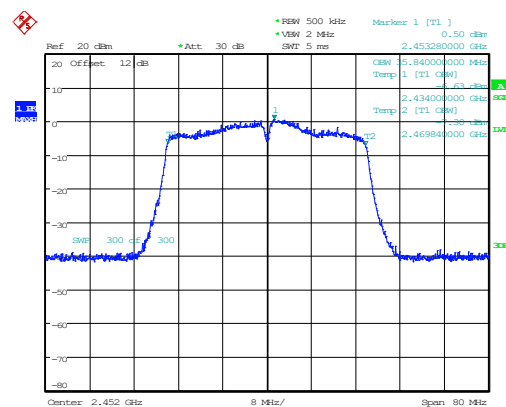
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Date: 9.OCT.2024 15:40:28

802.11n40_2452MHz_Chain 0 35.760MHz



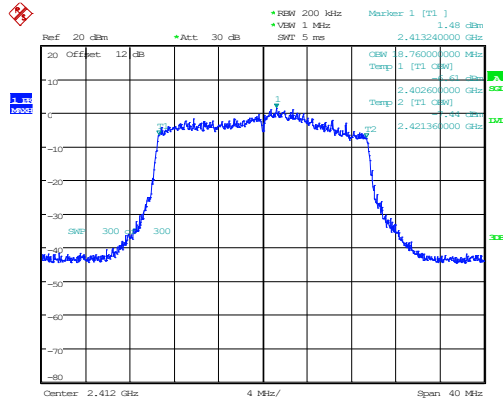
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802.11n40_2452MHz_Chain 1 35.840MHz



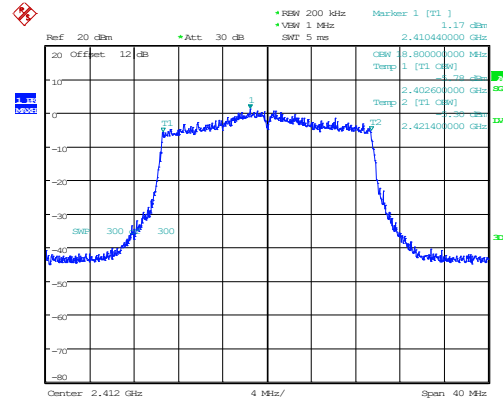
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:53:09

802.11ax20_2412MHz_RU_242/61_Chain 0
18.760MHz



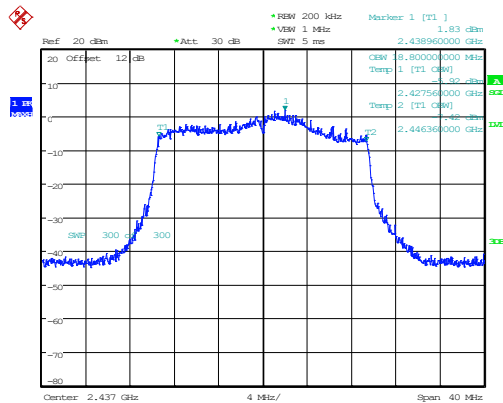
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Date: 9.OCT.2024 12:31:23

802.11ax20_2412MHz_RU_242/61_Chain 1
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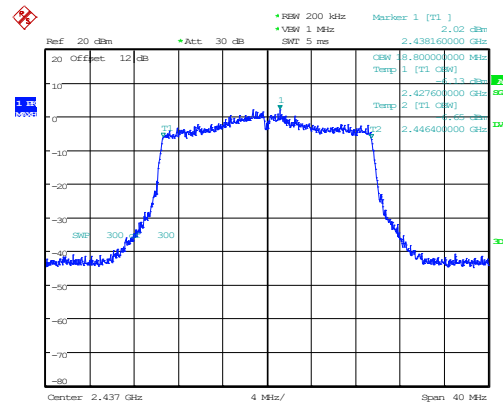
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:33:03

802.11ax20_2437MHz_RU_242/61_Chain 0
18.800MHz



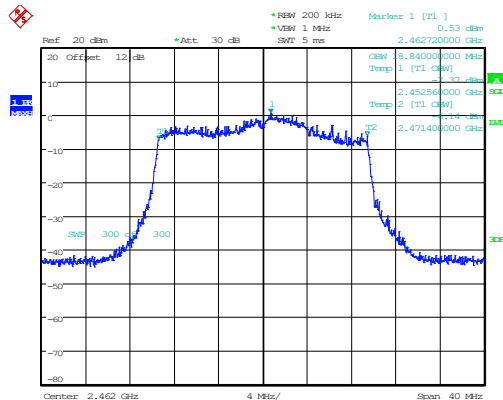
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Date: 9.OCT.2024 12:38:42

802.11ax20_2437MHz_RU_242/61_Chain 1
18.800MHz



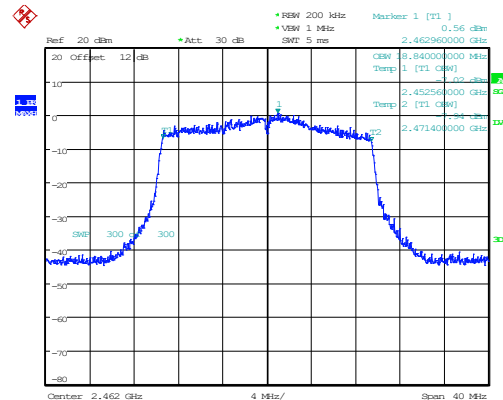
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802.11ax20_2462MHz_RU_242/61_Chain 0
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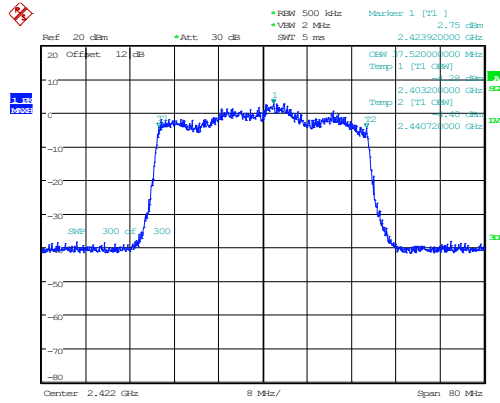
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Date: 9.OCT.2024 12:45:41

802.11ax20_2462MHz_RU_242/61_Chain 1
18.840MHz



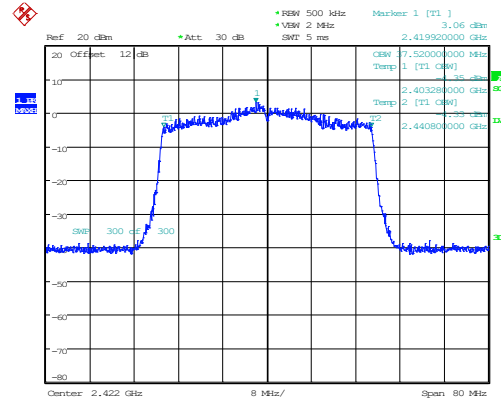
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:48:26

802.11ax40_2422MHz_RU_484/65_Chain 0
37.520MHz



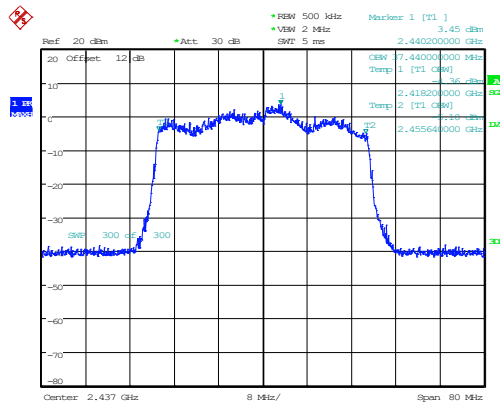
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:06:00

802.11ax40_2422MHz_RU_484/65_Chain 1
37.520MHz



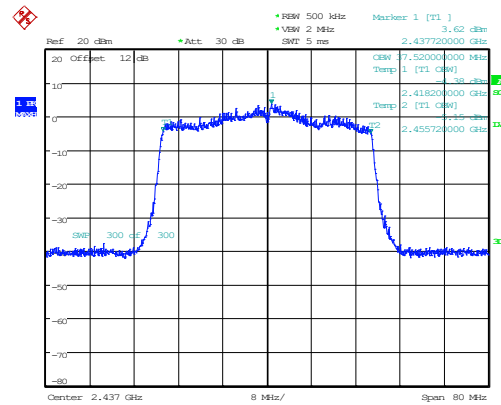
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Date: 10.OCT.2024 11:06:03

802.11ax40_2437MHz_RU_484/65_Chain 0
37.440MHz



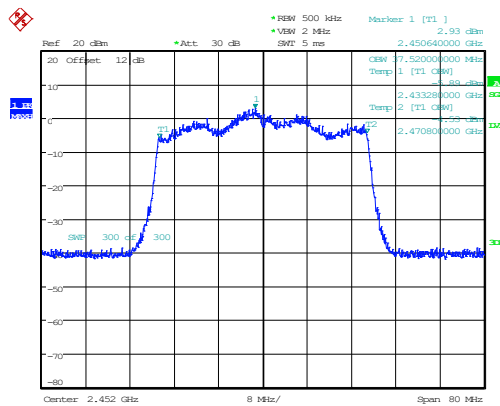
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802.11ax40_2437MHz_RU_484/65_Chain 1
37.520MHz



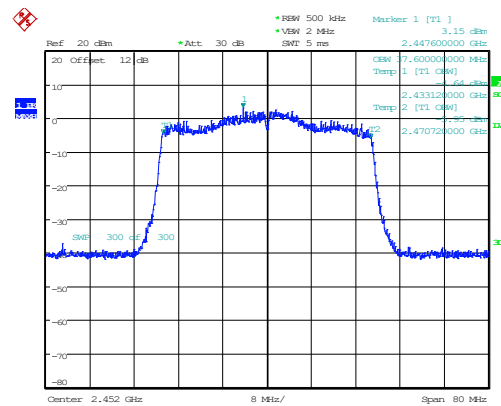
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:19:10

802.11ax40_2452MHz_RU_484/65_Chain 0
37.520MHz



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:35:51

802.11ax40_2452MHz_RU_484/65_Chain 1
37.600MHz

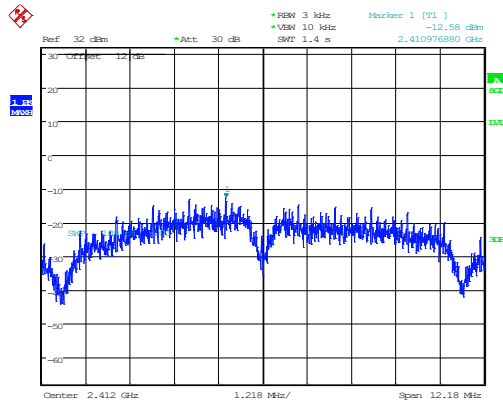


ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:31:25

Power Spectral Density:

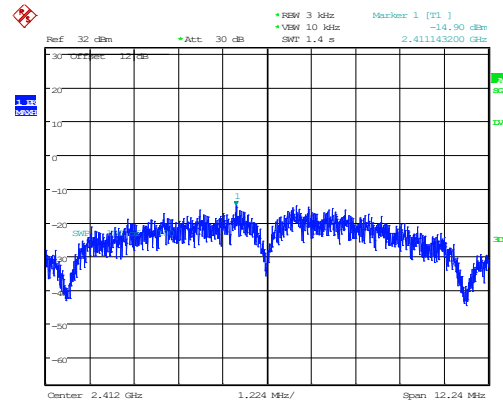
2.4G

802.11b_2412MHz_Chain 0 -12.58dBm/3kHz



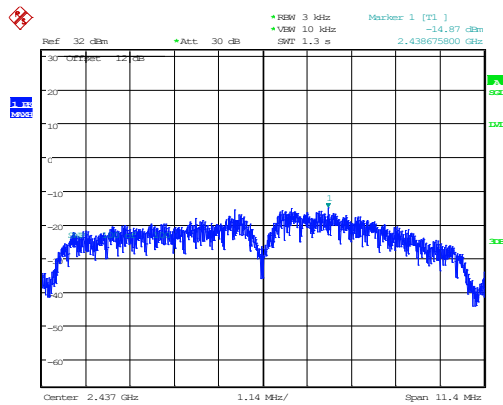
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Date: 9.OCT.2024 09:51:38

802.11b_2412MHz_Chain 1 -14.90dBm/3kHz



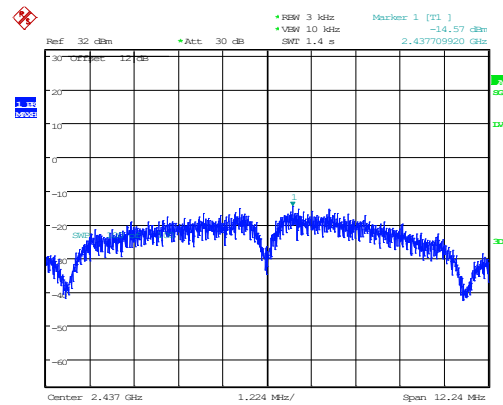
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:58:10

802.11b_2437MHz_Chain 0 -14.87dBm/3kHz



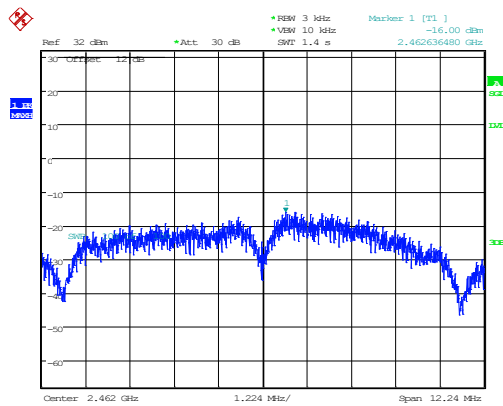
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Date: 9.OCT.2024 09:56:31

802.11b_2437MHz_Chain 1 -14.57dBm/3kHz



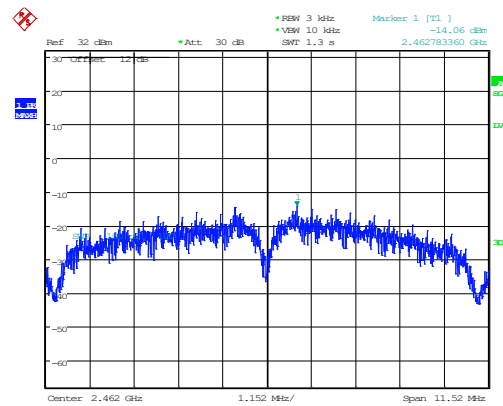
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:03:02

802.11b_2462MHz_Chain 0 -16.00dBm/3kHz



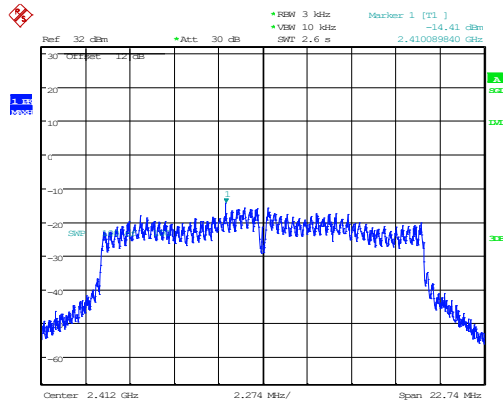
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 10:01:15

802.11b_2462MHz_Chain 1 -14.06dBm/3kHz



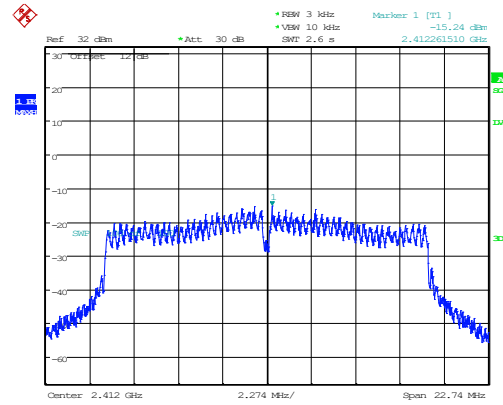
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:08:01

802.11g_2412MHz_Chain 0 -14.41dBm/3kHz



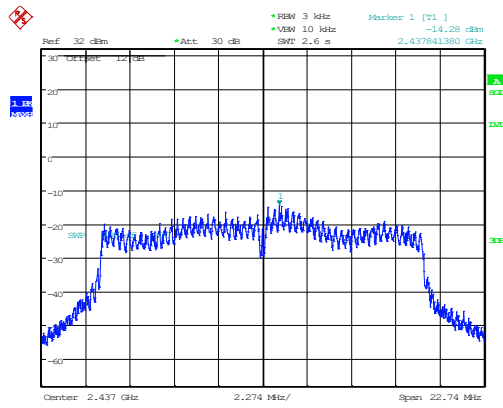
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 10:09:01

802.11g_2412MHz_Chain 1 -15.24dBm/3kHz



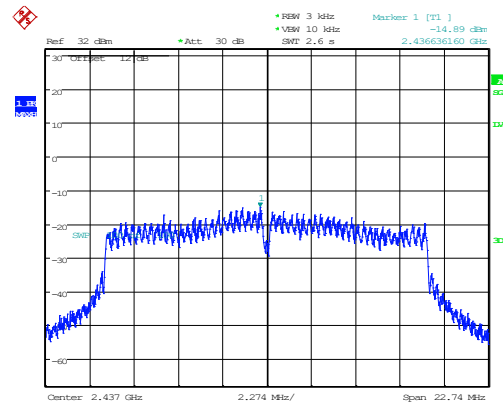
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:26:39

802.11g_2437MHz_Chain 0 -14.28dBm/3kHz



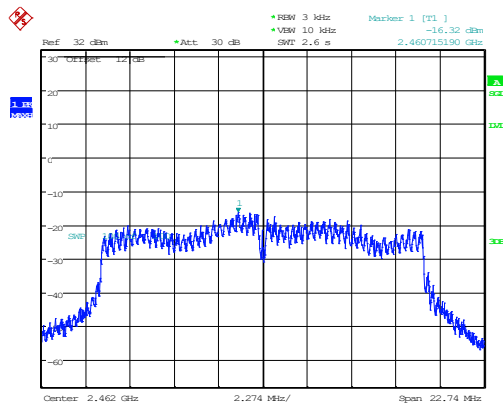
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 11:12:55

802.11g_2437MHz_Chain 1 -14.89dBm/3kHz



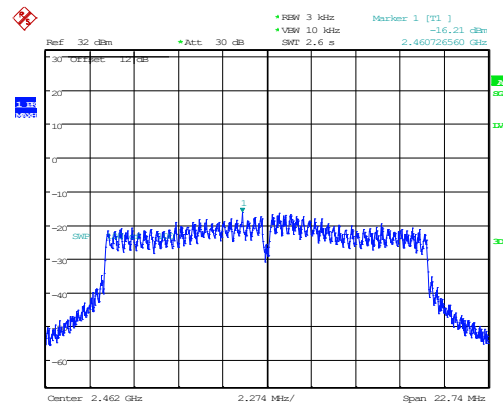
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Date: 9.OCT.2024 14:34:25

802.11g_2462MHz_Chain 0 -16.32dBm/3kHz



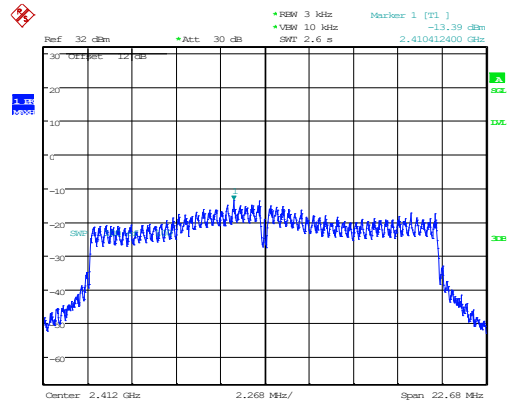
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Date: 9.OCT.2024 11:19:58

802.11g_2462MHz_Chain 1 -16.21dBm/3kHz



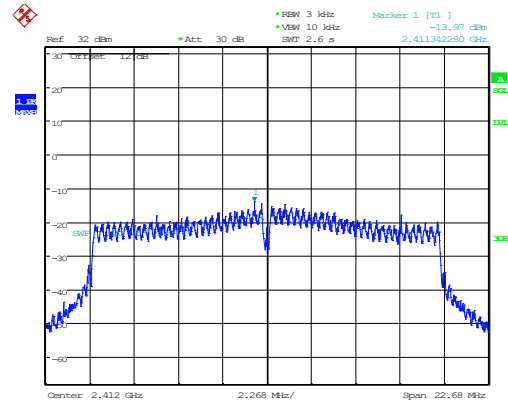
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:41:30

802.11n20_2412MHz_Chain 0 -13.39dBm/3kHz



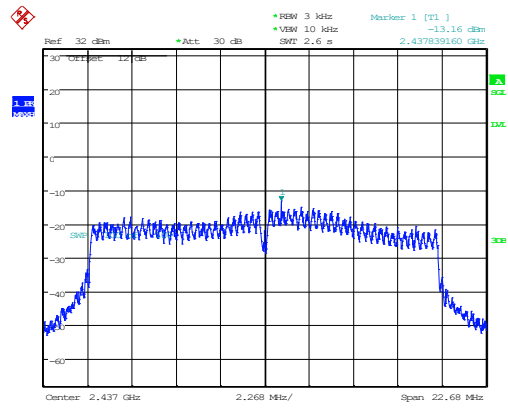
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Date: 9.OCT.2024 11:28:46

802.11n20_2412MHz_Chain 1 -13.97dBm/3kHz



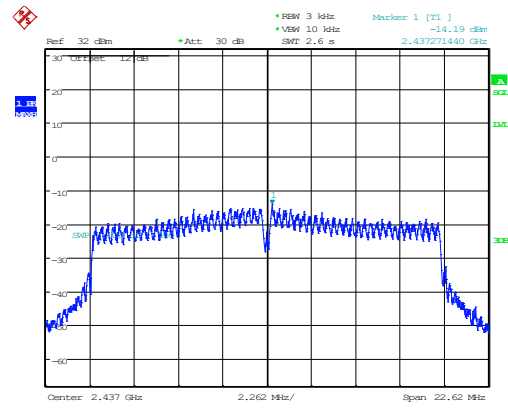
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:54:53

802.11n20_2437MHz_Chain 0 -13.16dBm/3kHz



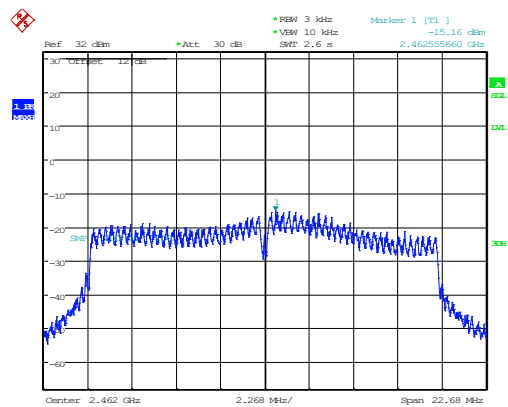
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 11:36:57

802.11n20_2437MHz_Chain 1 -14.19dBm/3kHz



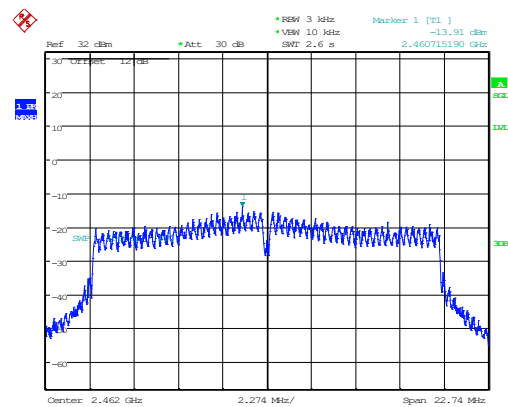
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:05:54

802.11n20_2462MHz_Chain 0 -15.16dBm/3kHz



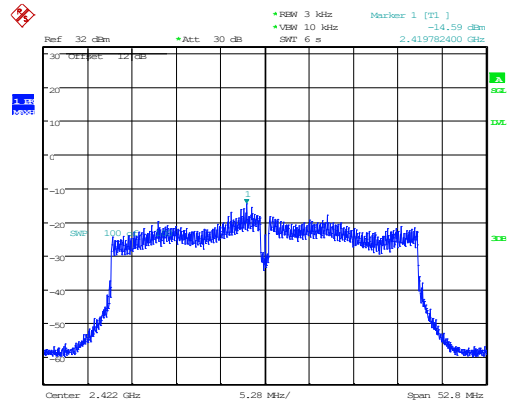
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 11:43:55

802.11n20_2462MHz_Chain 1 -13.91dBm/3kHz



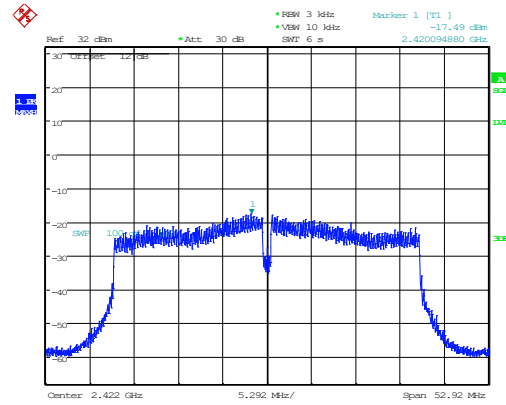
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Date: 9.OCT.2024 15:15:54

802.11n40_2422MHz_Chain 0 -14.59dBm/3kHz



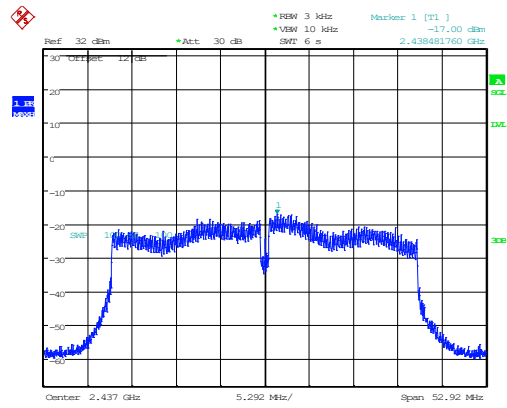
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:23:57

802.11n40_2422MHz_Chain 1 -17.49dBm/3kHz



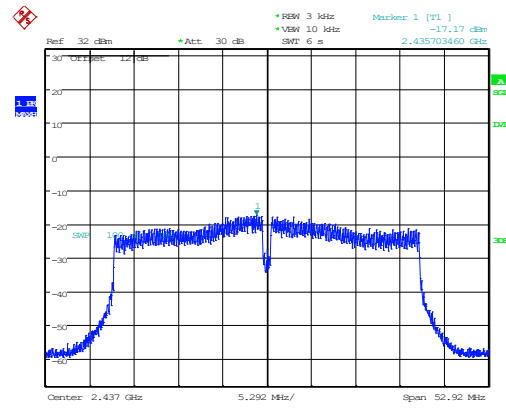
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Date: 9.OCT.2024 15:37:10

802.11n40_2437MHz_Chain 0 -17.00dBm/3kHz



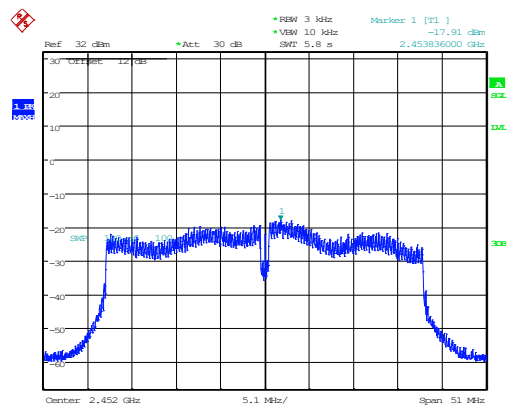
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:00:05

802.11n40_2437MHz_Chain 1 -17.17dBm/3kHz



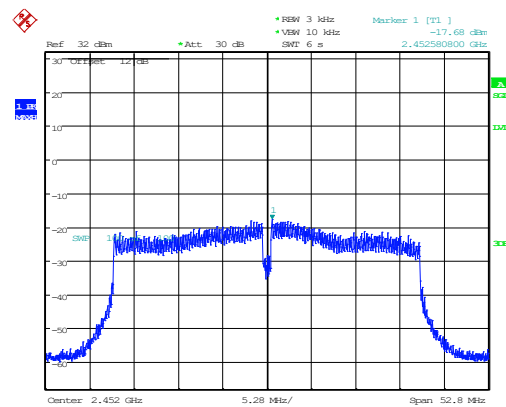
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:51:09

802.11n40_2452MHz_Chain 0 -17.91dBm/3kHz



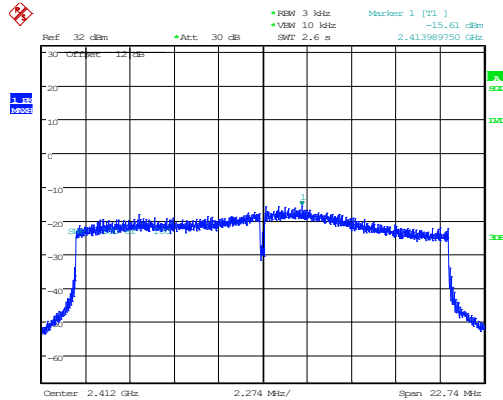
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:11:13

802.11n40_2452MHz_Chain 1 -17.68dBm/3kHz



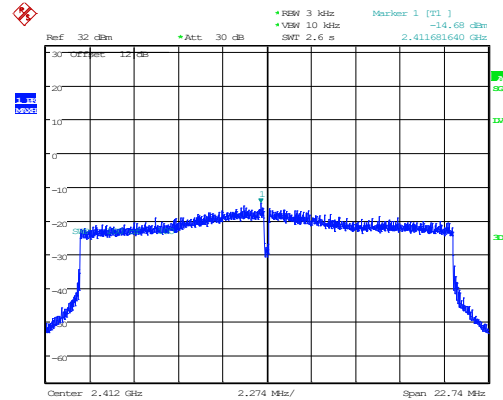
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 16:03:22

802.11ax20_2412MHz_RU_242/61_Chain 0
-15.61dBm/3kHz



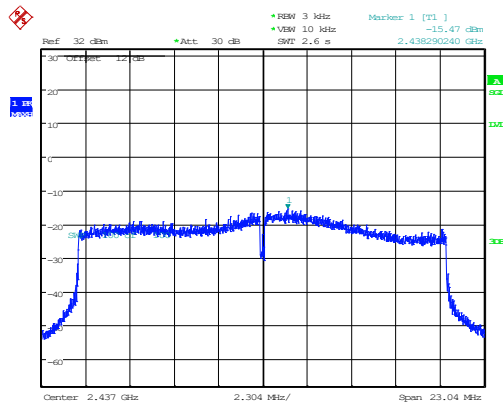
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:35:53

802.11ax20_2412MHz_RU_242/61_Chain 1
-14.68dBm/3kHz



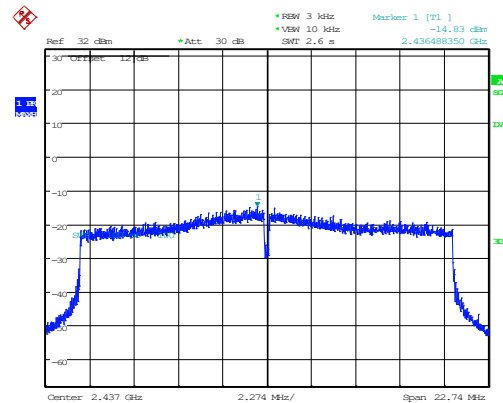
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:37:32

802.11ax20_2437MHz_RU_242/61_Chain 0
-15.47dBm/3kHz



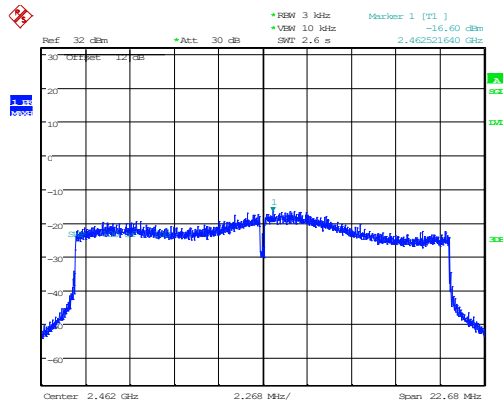
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:43:11

802.11ax20_2437MHz_RU_242/61_Chain 1
-14.83dBm/3kHz



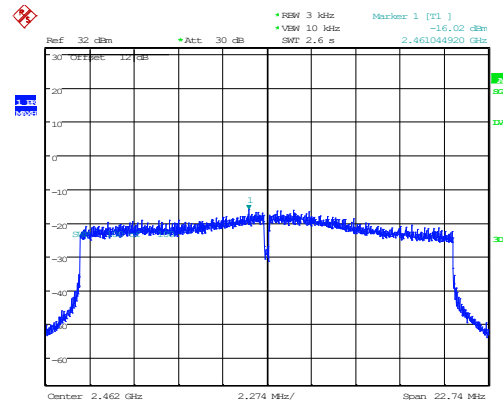
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:46:08

802.11ax20_2462MHz_RU_242/61_Chain 0
-16.60dBm/3kHz



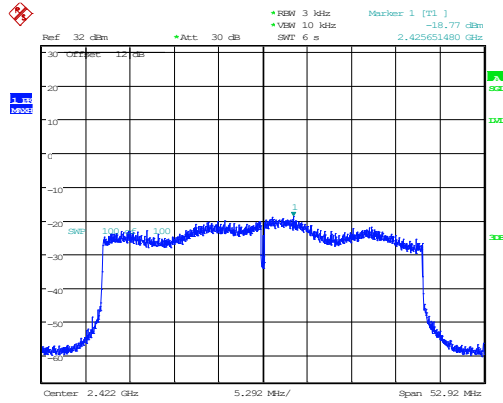
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:50:11

802.11ax20_2462MHz_RU_242/61_Chain 1
-16.02dBm/3kHz



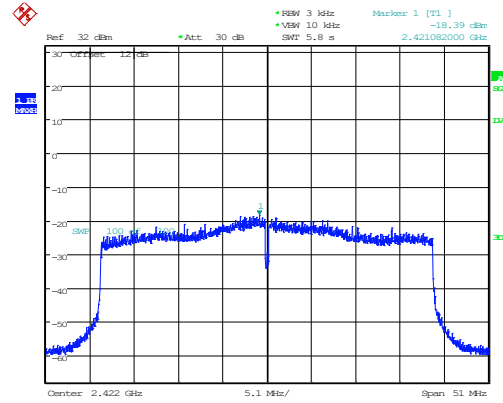
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:52:55

802.11ax40_2422MHz_RU_484/65_Chain 0
-18.77dBm/3kHz



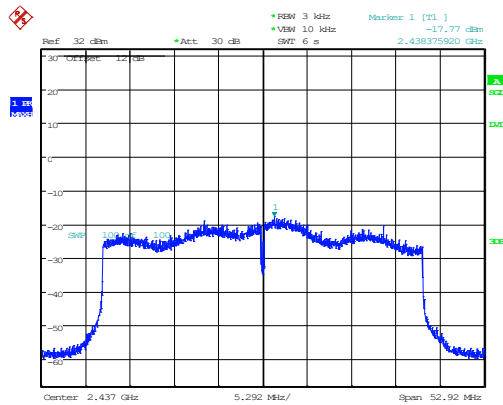
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:16:11

802.11ax40_2422MHz_RU_484/65_Chain 1
-18.39dBm/3kHz



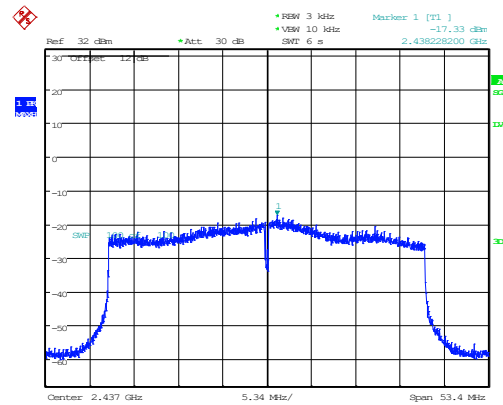
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:15:53

802.11ax40_2437MHz_RU_484/65_Chain 0
-17.77dBm/3kHz



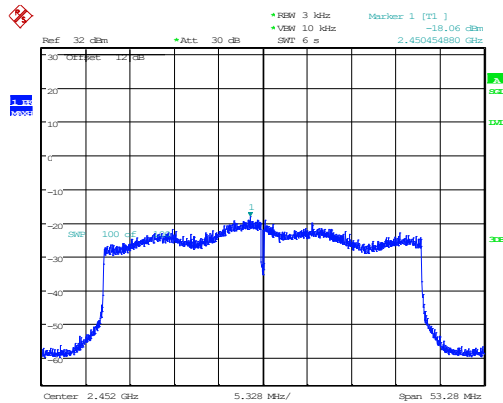
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:34:14

802.11ax40_2437MHz_RU_484/65_Chain 1
-17.33dBm/3kHz



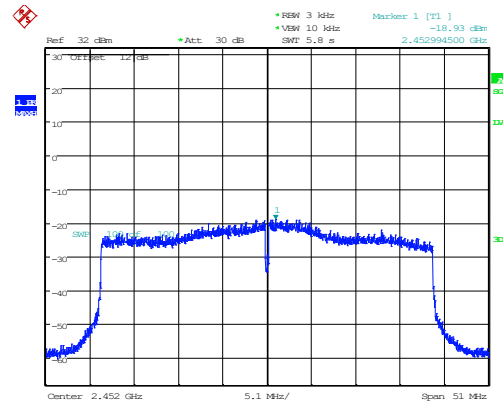
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:29:19

802.11ax40_2452MHz_RU_484/65_Chain 0
-18.06dBm/3kHz



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:46:04

802.11ax40_2452MHz_RU_484/65_Chain 1
-18.93dBm/3kHz

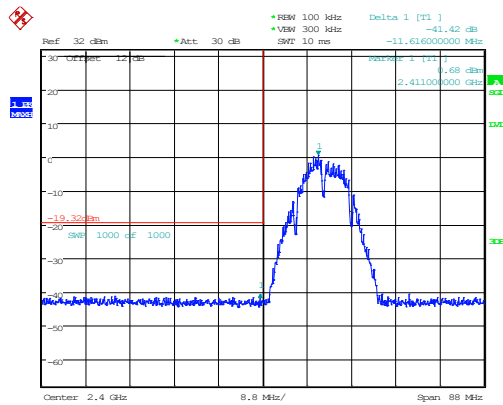


ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:41:16

100kHz Bandwidth of Frequency Band Edge:

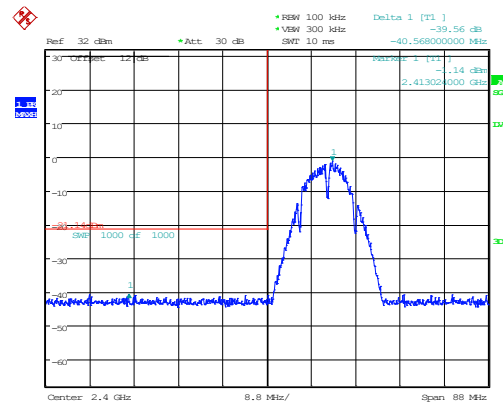
2.4G

802.11b_2412MHz_Chain 0 41.42dB



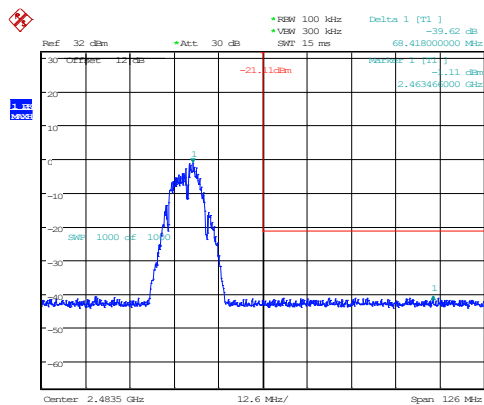
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 09:52:29

802.11b_2412MHz_Chain 1 39.56dB



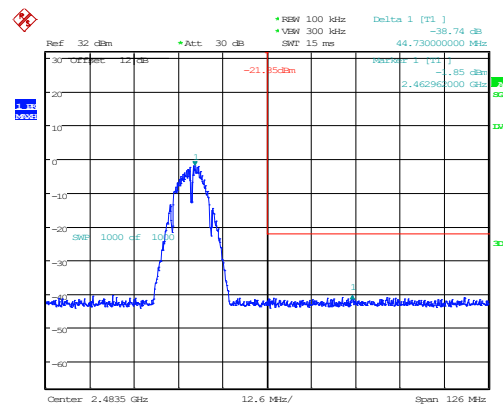
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:58:53

802.11b_2462MHz_Chain 0 39.62dB



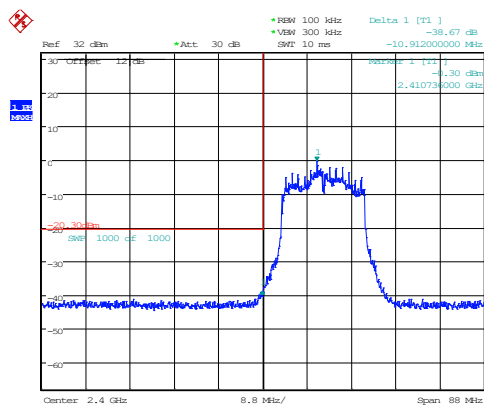
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 10:01:58

802.11b_2462MHz_Chain 1 38.74dB



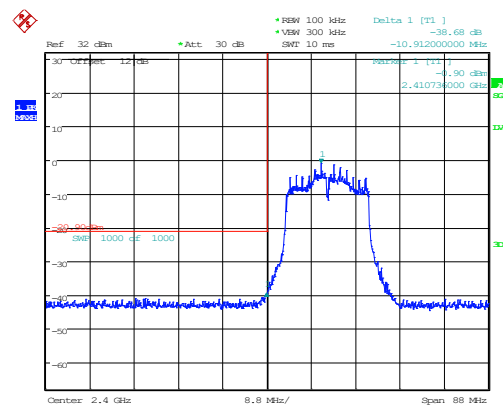
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Date: 9.OCT.2024 14:08:45

802.11g_2412MHz_Chain 0 38.67dB



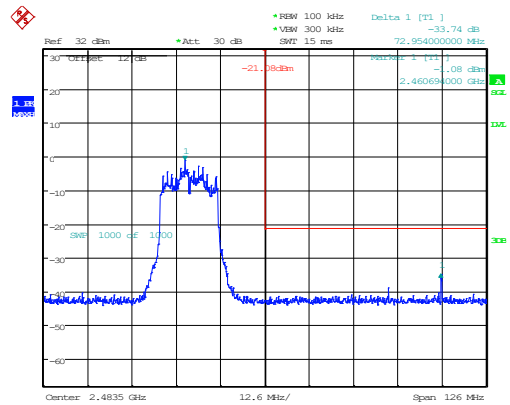
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Date: 9.OCT.2024 10:09:43

802.11g_2412MHz_Chain 1 38.68dB



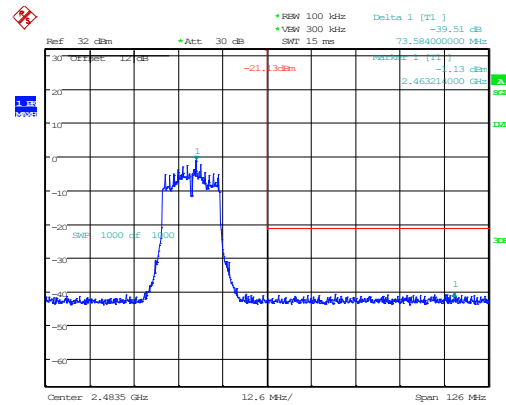
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 14:27:24

802.11g_2462MHz_Chain 0 33.74dB



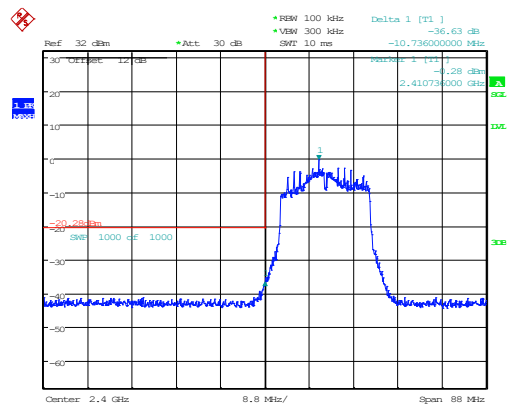
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 11:20:43

802.11g_2462MHz_Chain 1 39.51dB



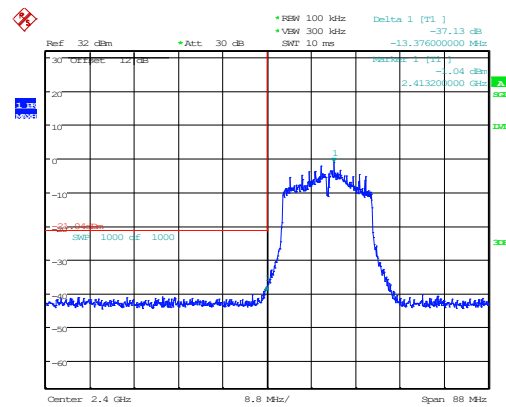
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Date: 9.OCT.2024 14:42:16

802.11n20_2412MHz_Chain 0 36.63dB



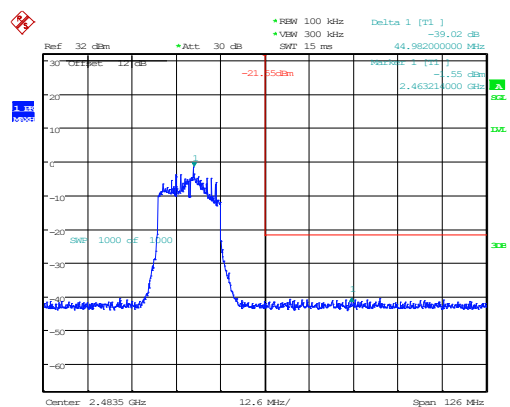
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 11:29:30

802.11n20_2412MHz_Chain 1 37.13dB



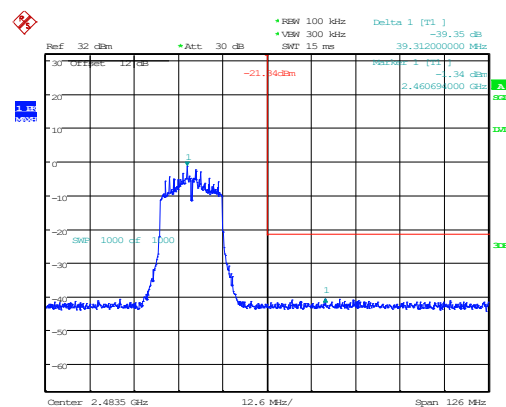
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Date: 9.OCT.2024 14:55:38

802.11n20_2462MHz_Chain 0 39.02dB



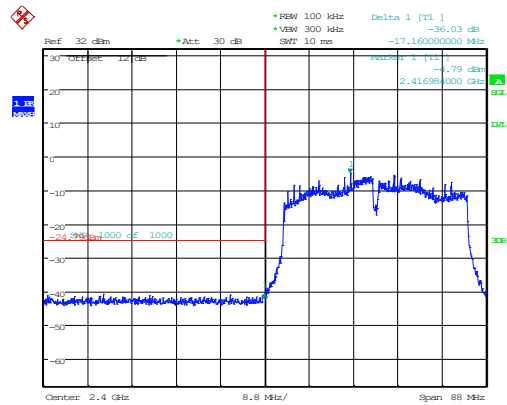
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Date: 9.OCT.2024 11:44:40

802.11n20_2462MHz_Chain 1 39.35dB



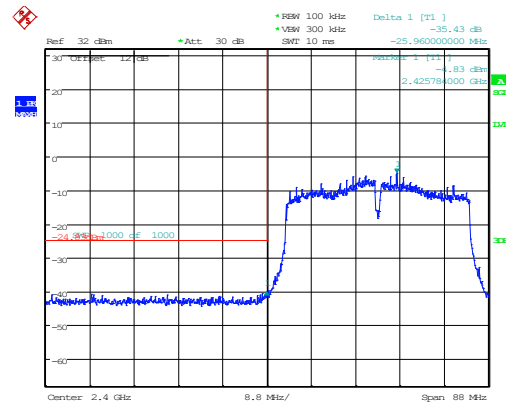
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Date: 9.OCT.2024 15:16:40

802.11n40_2422MHz_Chain 0 36.03dB



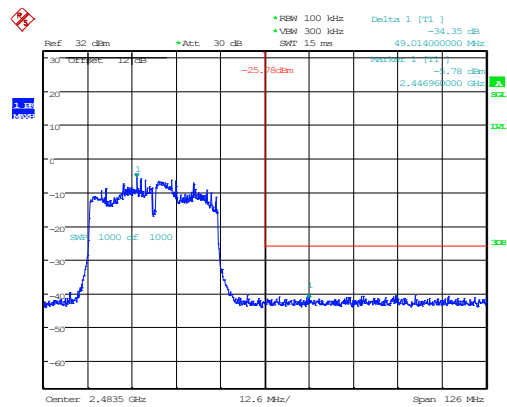
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:24:41

802.11n40_2422MHz_Chain 1 35.43dB



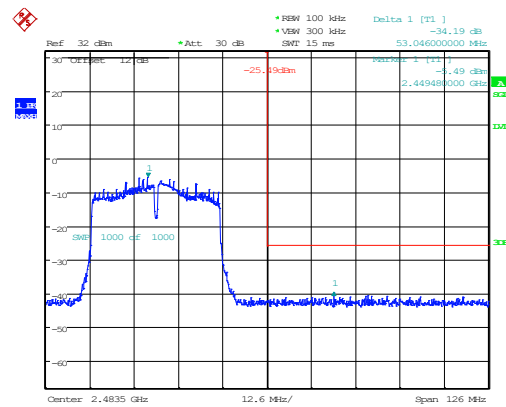
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 15:37:54

802.11n40_2452MHz_Chain 0 34.35dB



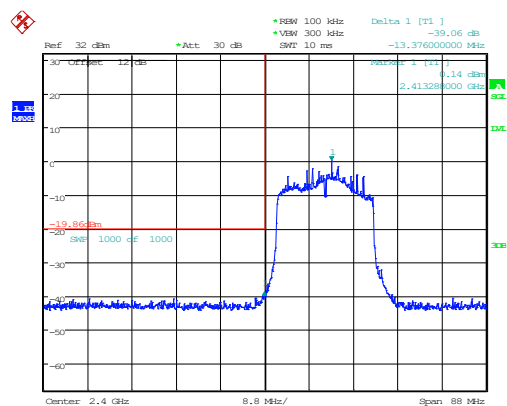
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Date: 9.OCT.2024 12:11:59

802.11n40_2452MHz_Chain 1 34.19dB



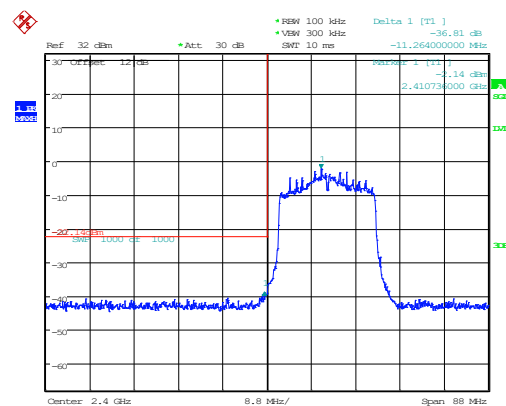
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 16:04:10

802.11ax20_2412MHz_RU_242/61_Chain 0
39.06dB



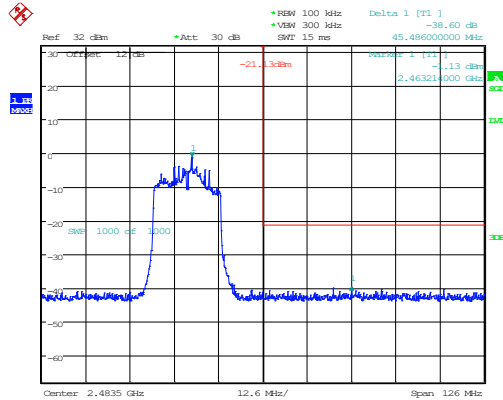
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:36:36

802.11ax20_2412MHz_RU_242/61_Chain 1
36.81dB



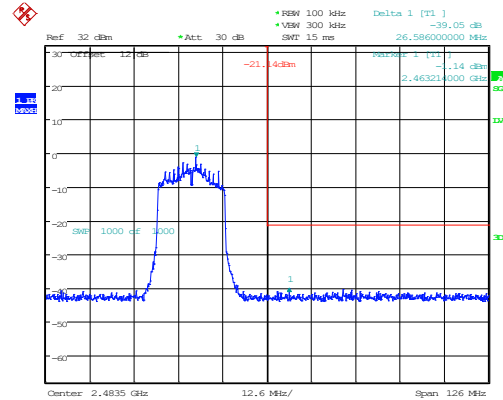
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:40:02

802.11ax20_2462MHz_RU_242/61_Chain 0
38.60dB



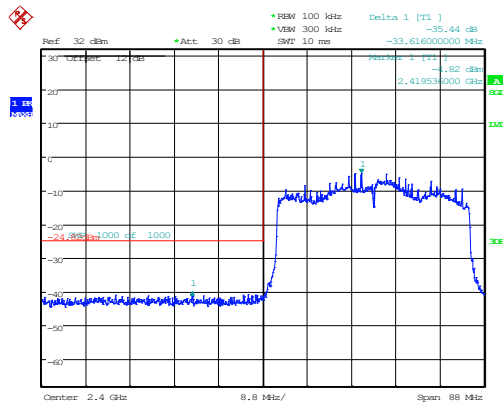
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 12:50:57

802.11ax20_2462MHz_RU_242/61_Chain 1
39.05dB



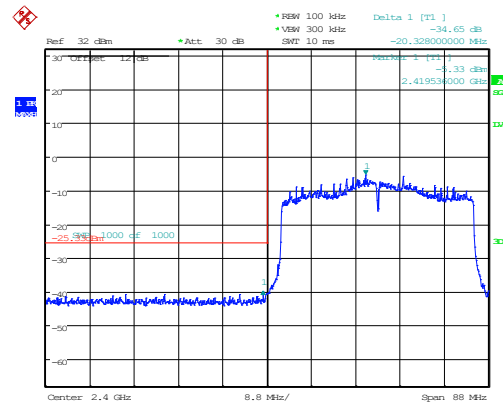
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 10:53:41

802.11ax40_2422MHz_RU_484/65_Chain 0
35.44dB



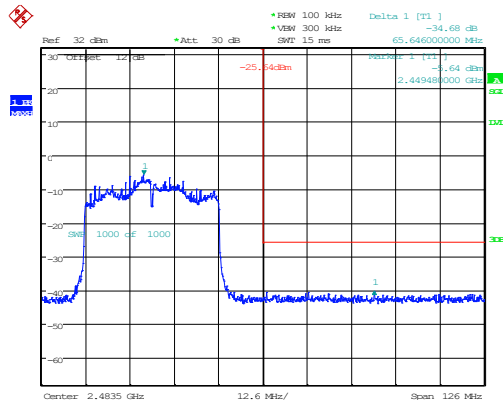
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Date: 9.OCT.2024 13:16:56

802.11ax40_2422MHz_RU_484/65_Chain 1
34.65dB



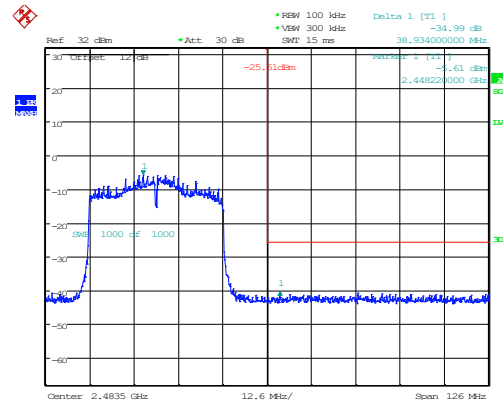
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:16:37

802.11ax40_2452MHz_RU_484/65_Chain 0
34.68dB



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 9.OCT.2024 13:46:57

802.11ax40_2452MHz_RU_484/65_Chain 1
34.99dB

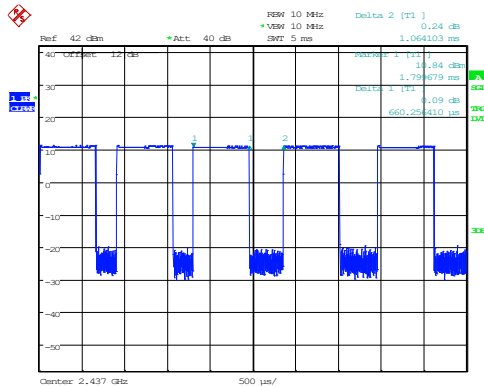


ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:42:01

Duty Cycle:

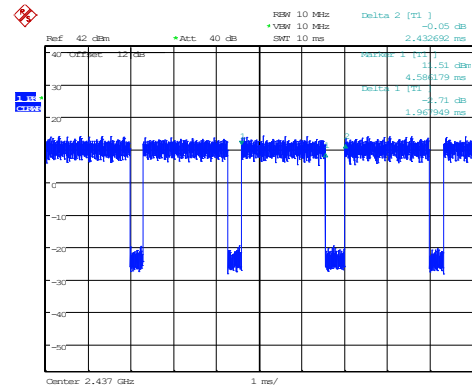
2.4G

802.11b_2437MHz_Chain 0



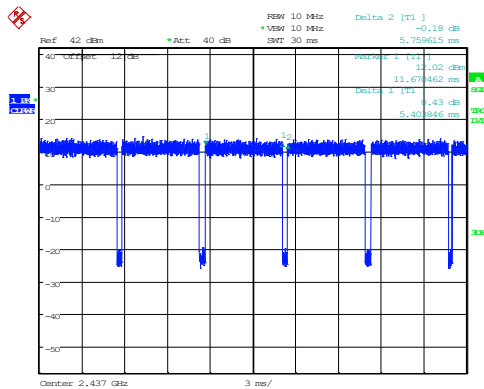
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:53:24

802.11g_2437MHz_Chain 0



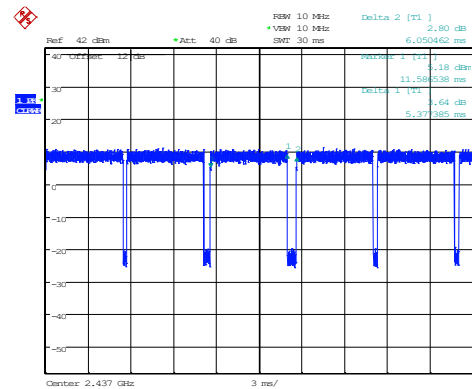
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:55:27

802.11n20_2437MHz_Chain 0



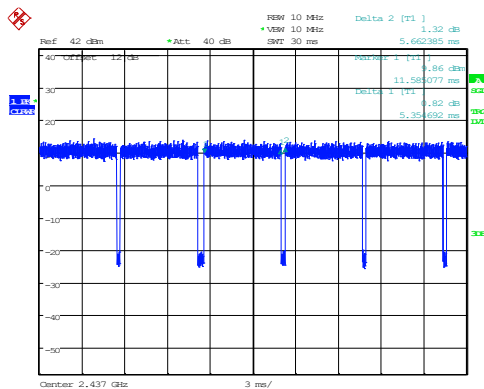
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:57:21

802.11n40_2437MHz_Chain 0



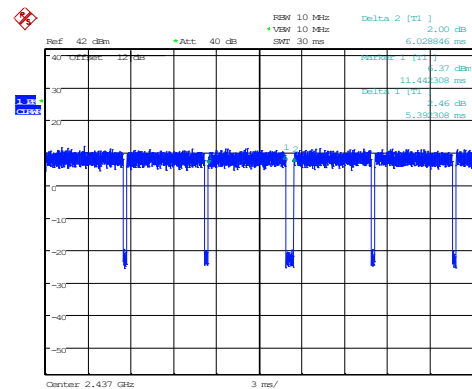
ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 11:59:56

802.11ax20_2437MHz_RU_242/61_Chain 0



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 13:15:15

802.11ax40_2437MHz_RU_484/65_Chain 0



ProjectNo.:2405X57681E-RF Tester:Ryan Zhang
Date: 10.OCT.2024 13:13:07

4 Test Setup Photo

Please refer to the attachment 2405X57681E Test Setup photo.

5 E.U.T Photo

Please refer to the attachment 2405X57681E External photo and 2405X57681E Internal photo.

---End of Report---