

FCC Radio Test Report

FCC ID: 2BH7FC545D

Report No. : BTL-FCCP-2-2508C295
Equipment : Outdoor Dual Lens Pan/Tilt Security Camera
Model Name : Tapo C545D, TC47
Brand Name : tp-link
Applicant : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618
Manufacturer : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618
Factory : Lianzhou International Co., Ltd. Guangming Branch
Address : Room -101, 1F-8F, C901, C1001, C1101, C1201, No.198, Kelian Road, Yutang Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, P.R.China

Radio Function : WLAN 2.4GHz

FCC Rule Part(s) : FCC CFR Title 47, Part 15, Subpart C (15.247)
Measurement : ANSI C63.10-2020
Procedure(s) :

Date of Receipt : 2025/8/25
Date of Test : 2025/8/26 ~ 2025/8/29
Issued Date : 2025/9/28

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2508C295	R00	Original Report.	2025/9/19	Invalid
BTL-FCCP-2-2508C295	R01	This report corrected the test procedure in chapter 6.2. It is a revision of the report BTL-FCCP-2-2508C295 R00. This is a newly released report, replacing the BTL-FCCP-2-2508C295 R00 report.	2025/9/28	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX D	PASS	-----
15.247(b)(3)	Output Power	APPENDIX E	PASS	-----
15.247(d)	Conducted Spurious Emissions	APPENDIX F	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX G	PASS	-----
15.203	Antenna Requirement	-----	PASS	Note(2)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report:

No.64, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
(FCC DN: TW0659)

☒ CB20 ☒ C01

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
(FCC DN: TW0659)

☒ SR06

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95.45% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
C01	CISPR	150 kHz ~ 30MHz	3.44

B. Radiated emissions test:

Test Site	Measurement Frequency Range (GHz)	U (dB)
CB20 (3m)	0.03~0.2	4.01
	0.02~1	4.64
	1 ~ 6	5.91
	6 ~ 18	6.24
	18 ~ 26	3.93
	26 ~ 40	4.06

C. Other Measurement:

Test Item	U
Occupied Bandwidth	86 %
Output power	0.8412 dB
Power Spectral Density	0.8602 dB
Conducted Spurious emissions	1.8304 dB
Conducted Band edges	1.8338 dB

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	Please refer to test data		AC 120 V	Benny Cao
Radiated Emissions-30MHz to 1000MHz	Please refer to test data		AC 120 V	Benny Cao
Radiated Emissions-Above 1000MHz	Please refer to test data		AC 120 V	Benny Cao
Bandwidth	25°C	50%	AC 120 V	Cheng Tsai
Output Power	25°C	60%	AC 120 V	Cheng Tsai
Conducted Spurious Emissions	25°C	50%	AC 120 V	Cheng Tsai
Power Spectral Density	25°C	50%	AC 120 V	Cheng Tsai

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Outdoor Dual Lens Pan/Tilt Security Camera
Brand Name	tp-link
Test Model	Tapo C545D
Model Name	Tapo C545D, TC47
Model Difference(s)	The two models only differ in model name and sales channels (TC47 is an online e-commerce model, while Tapo C545D is available both online and offline); there are no other differences.
Software Version	1.0
Hardware Version	1.X
Power Source	DC Voltage supplied from AC adapter. Model: T120100-2B1
Power Rating	I/P:100-240V ~ 50/60Hz 0.3A O/P:12V --- 1A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM IEEE 802.11ax: OFDMA
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 72.2 Mbps IEEE 802.11ax: up to 143.4 Mbps
Maximum Output Power	IEEE 802.11b: 19.38 dBm (0.0867 W)

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20) , IEEE 802.11ax(HE20)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	N/A	dipole	N/A	0.5
2	TP-Link Systems Inc.	N/A	dipole	N/A	0.5

Note: Smart antenna system with two transmit/receive chains, but operating in a mode where only one transmit/receive chain is used. The worst case is Ant. 1 and recorded.

4. The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

2.2 DESCRIPTION OF TEST MODES

Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal	-	-
Transmitter Radiated Emissions (below 1GHz)	IEEE 802.11b	06	-
Transmitter Radiated Emissions (1GHz to 18GHz)	IEEE 802.11b	01/11	Bandedge
	IEEE 802.11g		
	IEEE 802.11n(HT20)		
	IEEE 802.11ax(HE20)	01/11	
	IEEE 802.11b	01/06/11	Harmonic
	IEEE 802.11g		
	IEEE 802.11n(HT20)		
	IEEE 802.11ax(HE20)	01/06/11	
Transmitter Radiated Emissions (above 18GHz)	IEEE 802.11b	06	-
Bandwidth & Output Power & Power Spectral Density & Conducted Spurious Emission	IEEE 802.11b	01/06/11	-
	IEEE 802.11g		
	IEEE 802.11n(HT20)		
	IEEE 802.11ax(HE20)	01/06/11	

NOTE:

- (1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (2) The electric field intensity signal emitted at 9 kHz - 30 MHz is too weak (20 dB below the limit), so the measured value is not recorded in this report.
- (3) For radiated emission below 1 GHz test, the TX IEEE 802.11b Mode Channel 06 is found to be the worst case and recorded.
- (4) For radiated emission Harmonic above 18GHz test, only tested the worst case and recorded.
- (5) For radiated emission above 1GHz test, both Vertical and Horizontal are evaluated, but only the worst case (Horizontal) is recorded.
- (6) IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report.

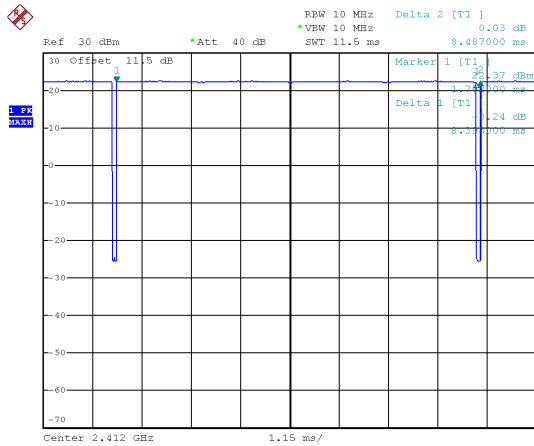
2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	AltobeamWLANFacility_V1.0.55		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	20.5	20.25	19
IEEE 802.11g	17	20.5	17
IEEE 802.11n(HT20)	15.75	20.5	18
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	17	20.5	18

2.4 DUTY CYCLE

If duty cycle is $\geq 98\%$, duty factor is not required.
 If duty cycle is $< 98\%$, duty factor shall be considered.
 The output power = measured power + duty factor.

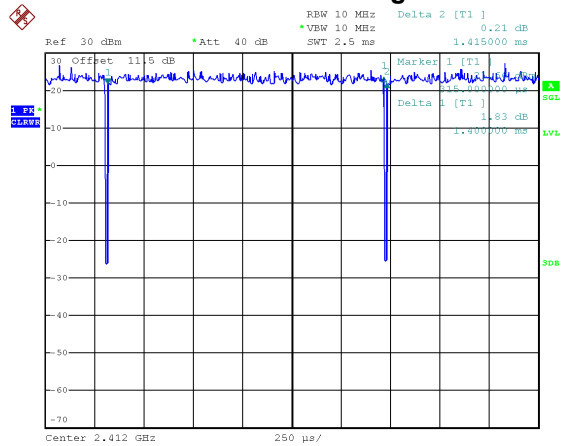
IEEE 802.11b



Date: 26.AUG.2025 23:28:32

Duty cycle = 8.395 ms / 8.487 ms = 98.92%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

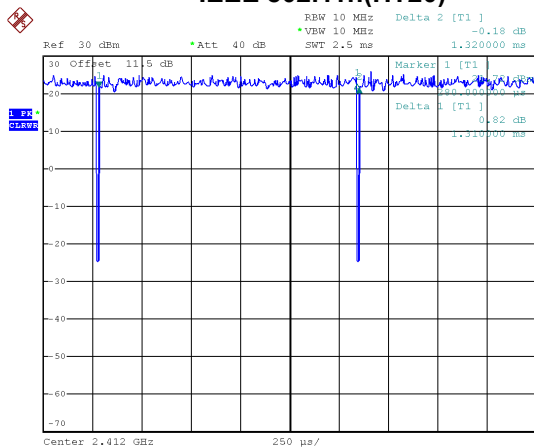
IEEE 802.11g



Date: 26.AUG.2025 23:30:02

Duty cycle = 1.400 ms / 1.415 ms = 98.94%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

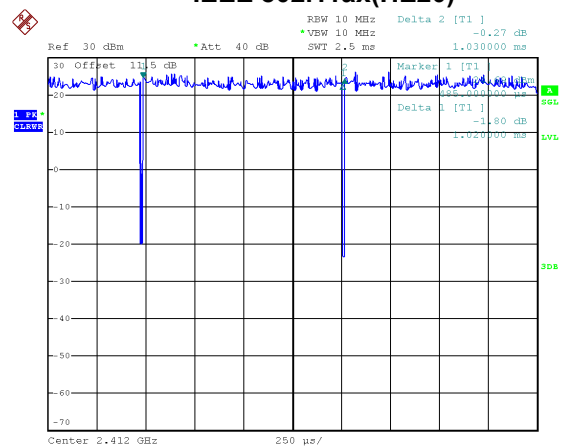
IEEE 802.11n(HT20)



Date: 26.AUG.2025 23:30:35

Duty cycle = 1.310 ms / 1.320 ms = 99.24%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

IEEE 802.11ax(HE20)



Date: 26.AUG.2025 23:28:50

Duty cycle = 1.020 ms / 1.030 ms = 99.03%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

NOTE:

For IEEE 802.11b:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

For IEEE 802.11g:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

For IEEE 802.11n(HT20):

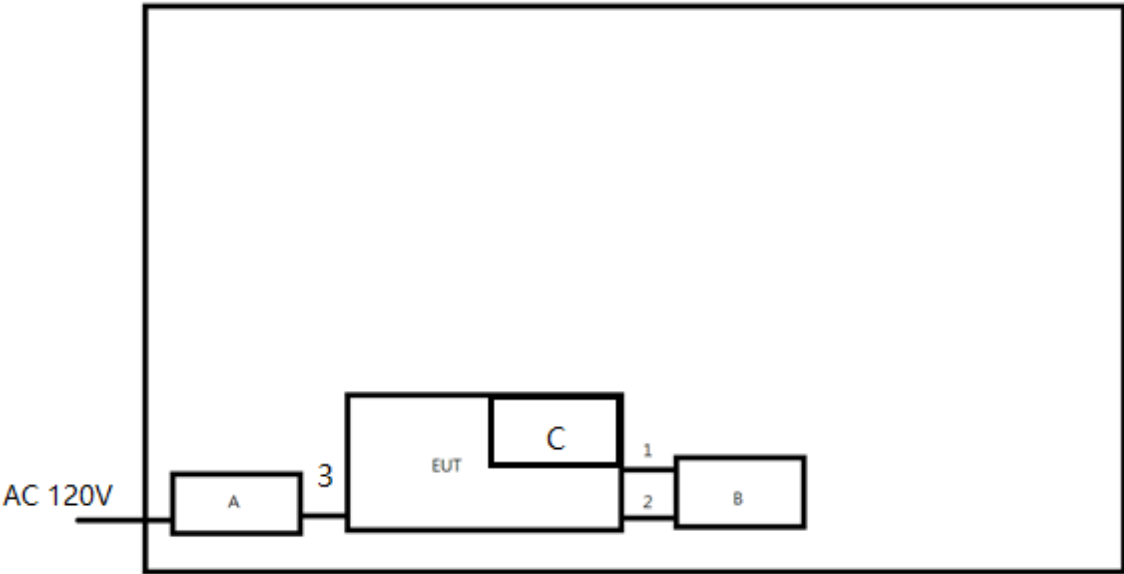
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

For IEEE 802.11ax(HE20):

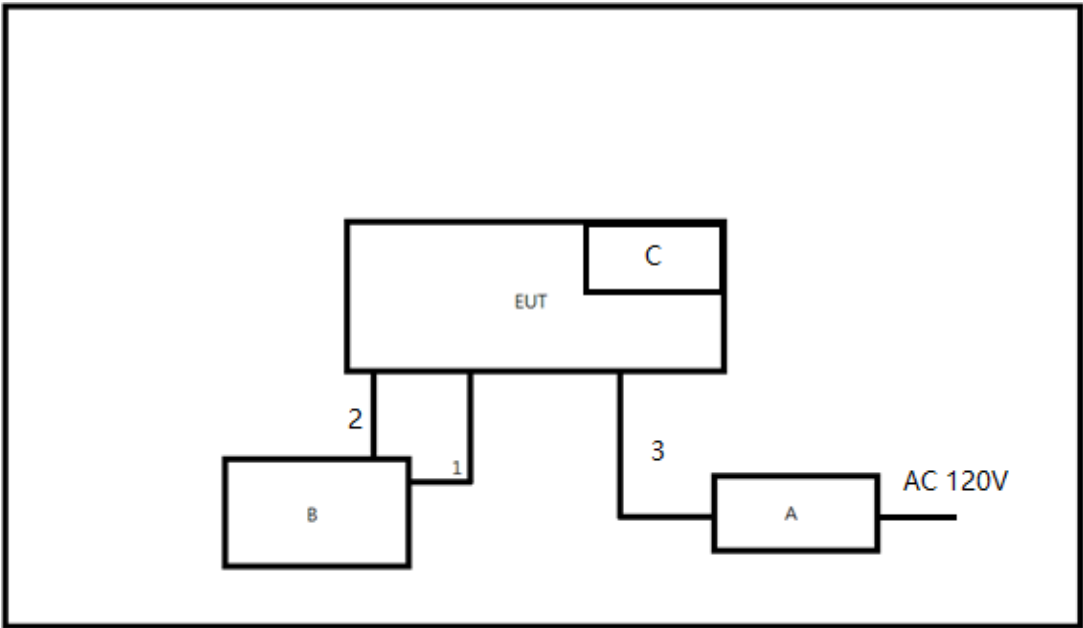
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

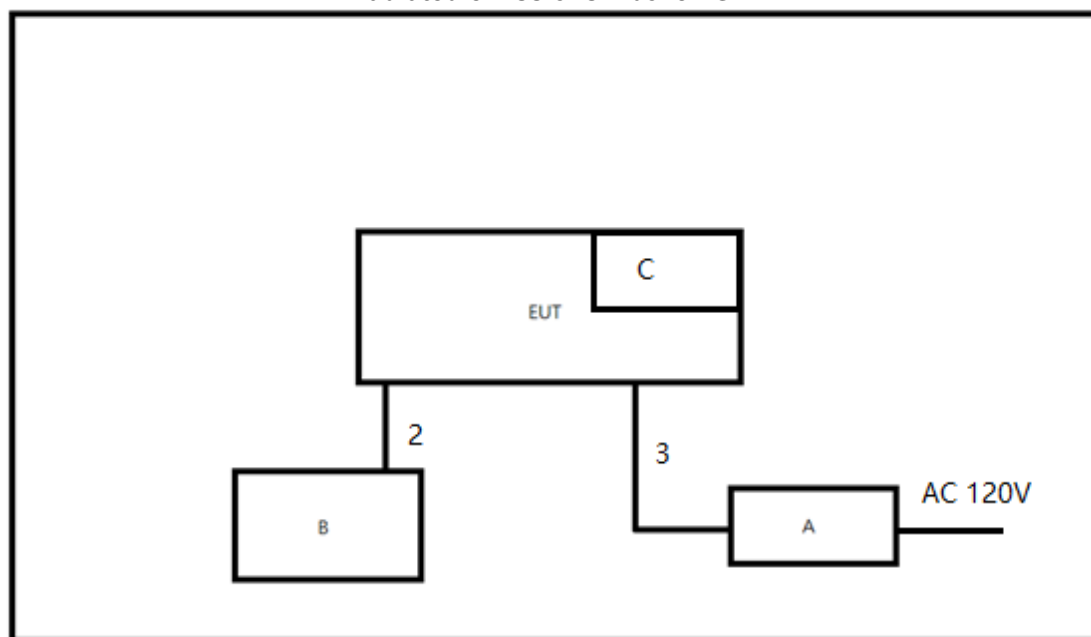
AC power line conducted emissions



Radiated emissions-Below 1GHz



Radiated emissions-Above 1GHz



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks
A	Adapter	tp-link	T120100-2B1	N/A	Furnished by test requestor
B	Notebook	Lenovo	ThinkBook 14 G4 IAP	MP28KHAH	Furnished by test lab
C	SD Card	SanDisk	32GB	N/A	Furnished by test lab

Item	Cable Type	Shielded	Ferrite Core	Length	Remarks
1	RJ-45 Cable	NO	NO	1m	Furnished by test lab
2	USB Fixture Cable	NO	NO	0.8m	Furnished by test lab
3	DC Cable	NO	NO	1.5m	Furnished by test requestor

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)
 Margin Level = Measurement Value – Limit Value

Calculation example:

Reading Level (dBuV)		Correct Factor (dB)		Measurement Value (dBuV)
38.22	+	3.45	=	41.67

Measurement Value (dBuV)		Limit Value (dBuV)		Margin Level (dB)
41.67	-	60	=	-18.33

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

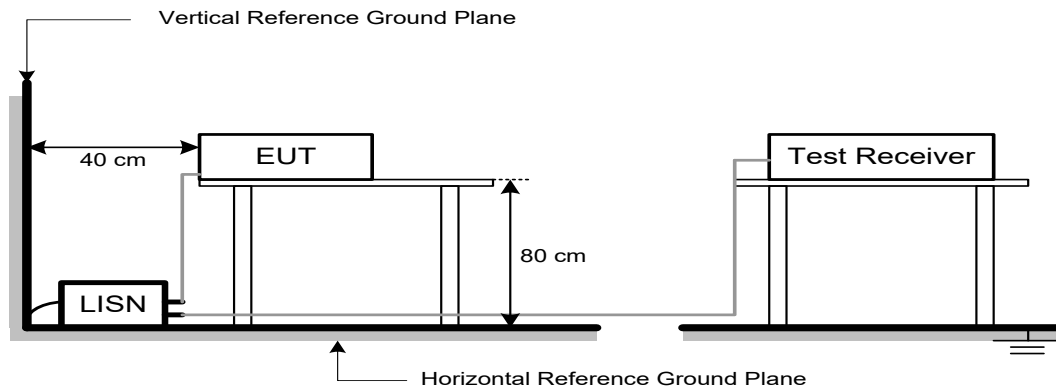
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	Band edge/ Harmonic at 3m (dBμV/m)		Harmonic at 1m (dBμV/m)	
	Peak	Average	Peak	Average
Above 1000	74	54	83.5 (Note 5)	63.5 (Note 5)

NOTE:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBμV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level (dBμV)		Correct Factor (dB/m)		Measurement Value (dBμV/m)
19.11	+	2.11	=	21.22

Measurement Value (dBμV/m)		Limit Value (dBμV/m)		Margin Level (dB)
21.22	-	54	=	-32.78

(5)

$$FS_{\text{limit}} = FS_{\text{max}} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

$20\log(d_{\text{limit}}/d_{\text{measure}})=20\log(3/1)=9.5\text{ dB}$.

FS_{limit} : Harmonic at 3m Peak and Average limit.

FS_{max} : Harmonic at 1m Peak and Average Maximum value.

d_{limit} : Harmonic at 3m test distance.

d_{measure} : Harmonic Actual test distance.

4.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m or 1 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

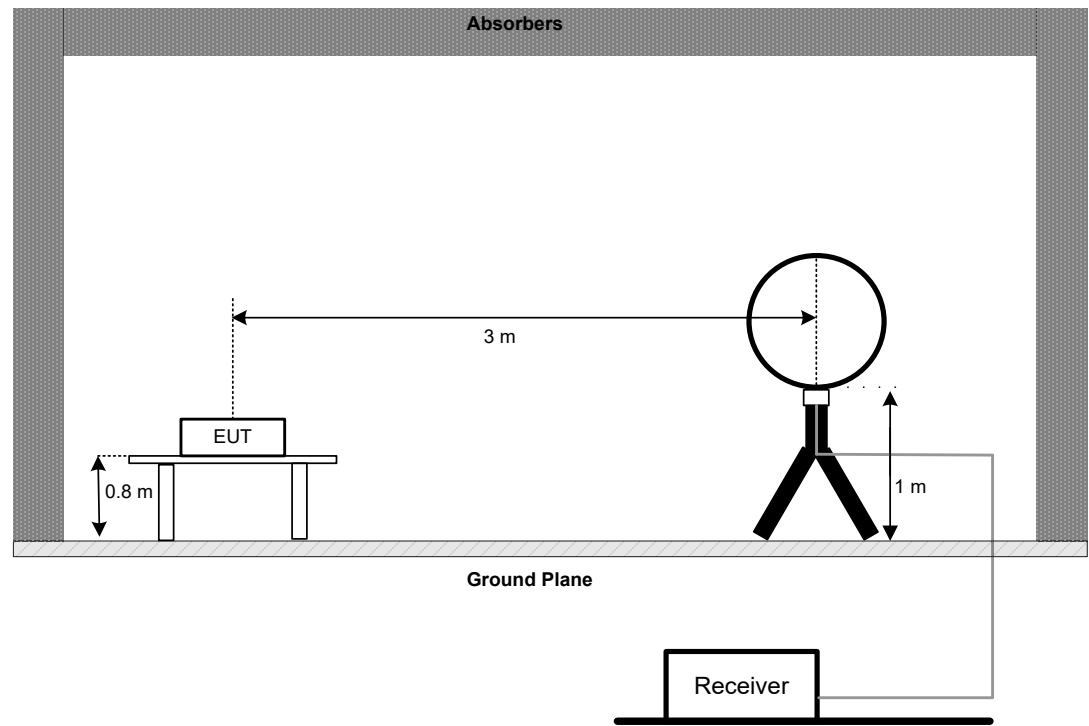
Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

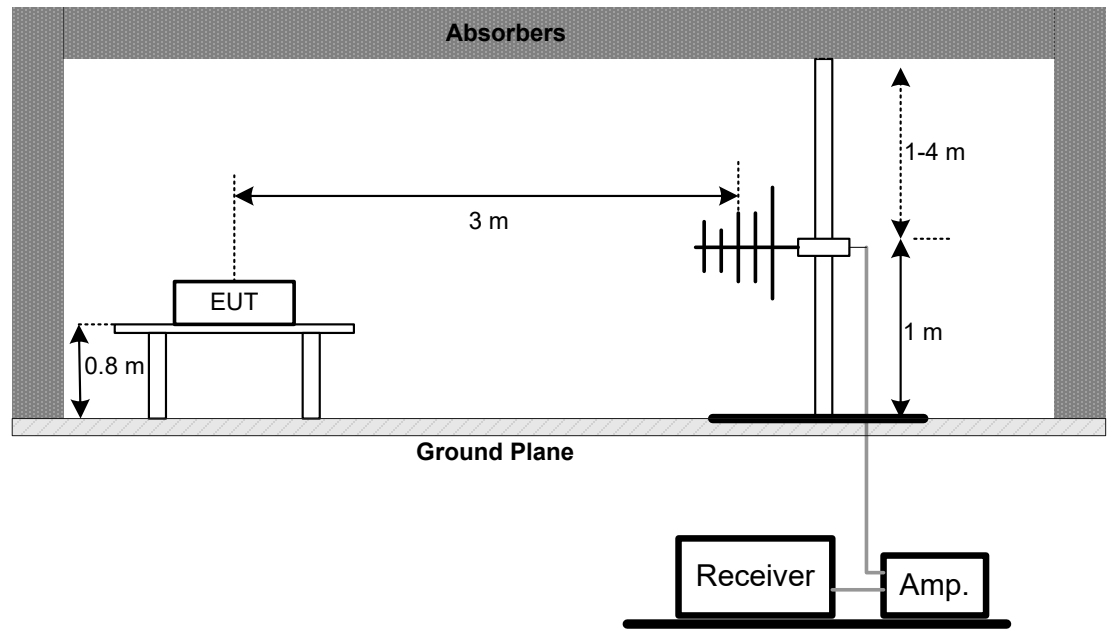
4.3 DEVIATION FROM TEST STANDARD
 No deviation.

4.4 TEST SETUP

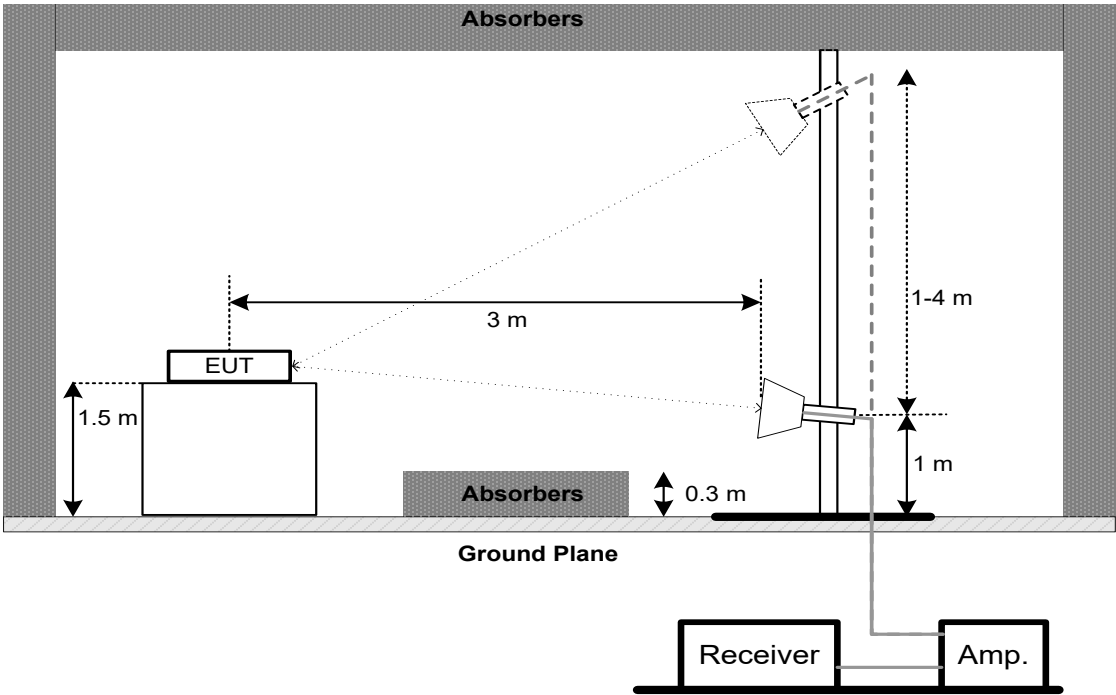
9 kHz to 30 MHz



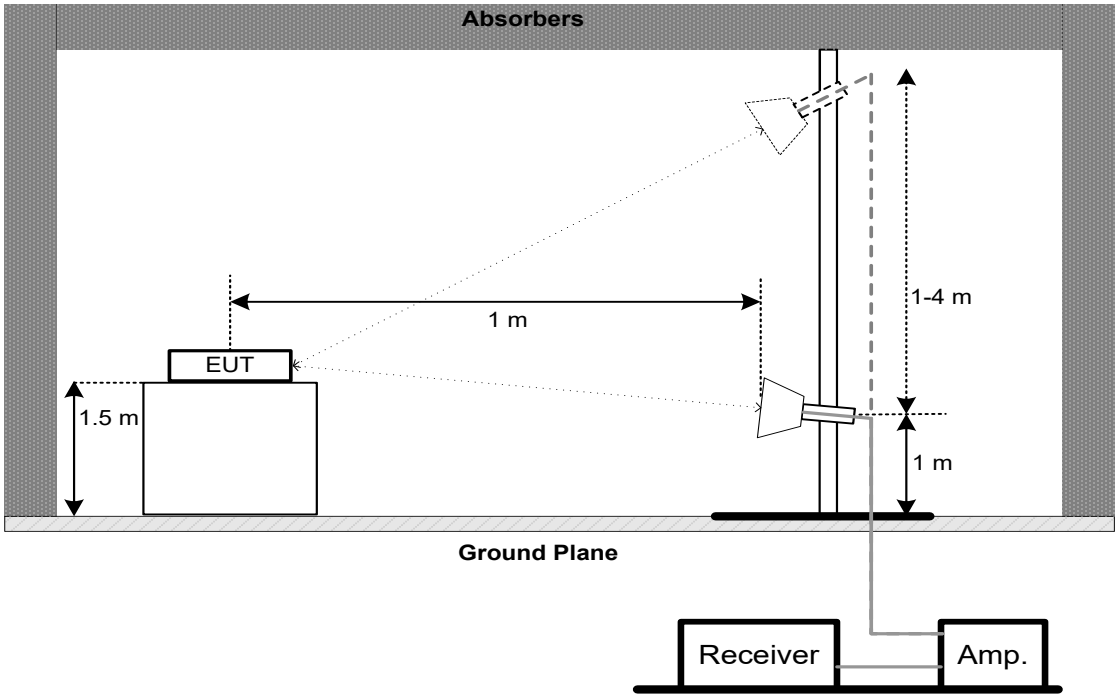
30 MHz to 1 GHz



**Above 1 GHz
Band edge & Harmonic(1 GHz to 18 GHz)**



Harmonic(18 GHz to 26.5 GHz)



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

There were no emissions found below 30 MHz within 20 dB of the limit.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX B.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX C.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH

5.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	300 kHz
VBW	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX D.

6. OUTPUT POWER

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 Watt or 30.00 dBm

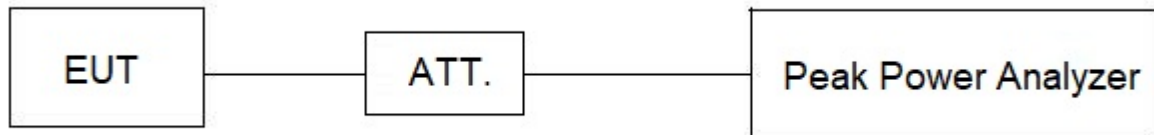
6.2 TEST PROCEDURE

- The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.2.3.1 of ANSI C63.10-2020 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX E.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

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 Output Power limits. If the transmitter complies with the Output 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 Section 15.209(a) is not required.

7.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX F.

8. POWER SPECTRAL DENSITY

8.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

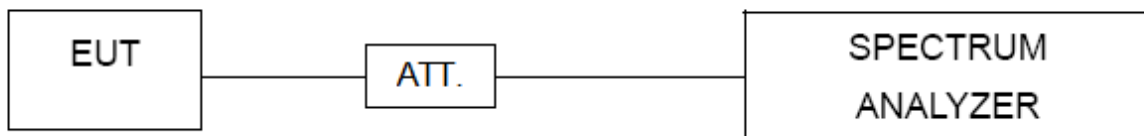
- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	25 MHz
RBW	3 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX G.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Two-Line V-Network	R&S	ENV216	101051	2025/6/26	2026/6/25
2	Test Cable	EMCI	EMCRG58-BM-B M-9000	210501	2024/12/10	2025/12/9
3	EMC Receiver	Keysight	N9038A	MY54130009	2025/6/27	2026/6/26
4	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

Radiated Emissions - Below 1GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	01207	2024/12/4	2025/12/3
2	EMC Receiver	Keysight	N9038A	MY54130009	2025/6/25	2026/6/24
3	Pre-Amplifier	EMCI	EMC001330-202 01222	980807	2024/12/9	2025/12/8
4	Test Cable	EMCI	EMC-8D-NM-NM -5000	150106	2024/12/9	2025/12/8
5	Test Cable	EMCI	EMC-CFD-400-N M-NM-8000	200348	2024/12/9	2025/12/8
6	Test Cable	EMCI	EMC-CFD-400-N M-NM-3300	200343	2024/12/9	2025/12/8
7	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

Radiated Emissions - 1GHz to 18GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Broad-Band Horn Antenna	RFSPIN	DRH18-E	210109A18E	2025/1/14	2026/1/13
2	Pre-Amplifier	EMCI	EMC118A45SE	981030	2024/12/10	2025/12/9
3	Test Cable	EMCI	EMC105-SM-SM-1000	210119	2024/12/10	2025/12/9
4	Test Cable	EMCI	EMC105-SM-SM-3000	210118	2024/12/10	2025/12/9
5	Test Cable	EMCI	EMC105-SM-SM-7000	210117	2024/12/10	2025/12/9
6	EXA Spectrum Analyzer	keysight	N9020B	MY59050137	2024/11/24	2025/11/23
7	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

Radiated Emissions - Above 18GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Pre-Amplifier	EMCI	EMC184045SE	980512	2024/12/10	2025/12/9
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	340	2025/6/27	2026/6/26
3	Test Cable	EMCI	EMC102-KM-KM-1000	220328	2024/12/10	2025/12/9
4	Test Cable	EMCI	EMC101G-KM-KM-3000	220330	2024/12/10	2025/12/9
5	Measurement Software	Farad	EZ EMC (Ver. NB-03A1-01)	N/A	N/A	N/A

Bandwidth & Conducted Spurious Emission & Power Spectral Density						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Spectrum Analyzer	R&S	FSP 30	100854	2025/6/27	2026/6/26
2	10dbAttenuator	INMET	AHC-10dB	1	2024/11/26	2025/11/25
3	BTL-Conducted Test	BTL	1247788684	N/A	N/A	N/A

Output Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	USB Peak Power Sensor	Anritsu	MA24408A	12589	2024/10/25	2025/10/24
2	10dbAttenuator	INMET	AHC-10dB	1	2024/11/26	2025/11/25
3	Measurement Software	Anritsu	MA2440A Peak Power analyzer(Ver1.1.0.0)	N/A	N/A	N/A

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

10. EUT TEST PHOTO

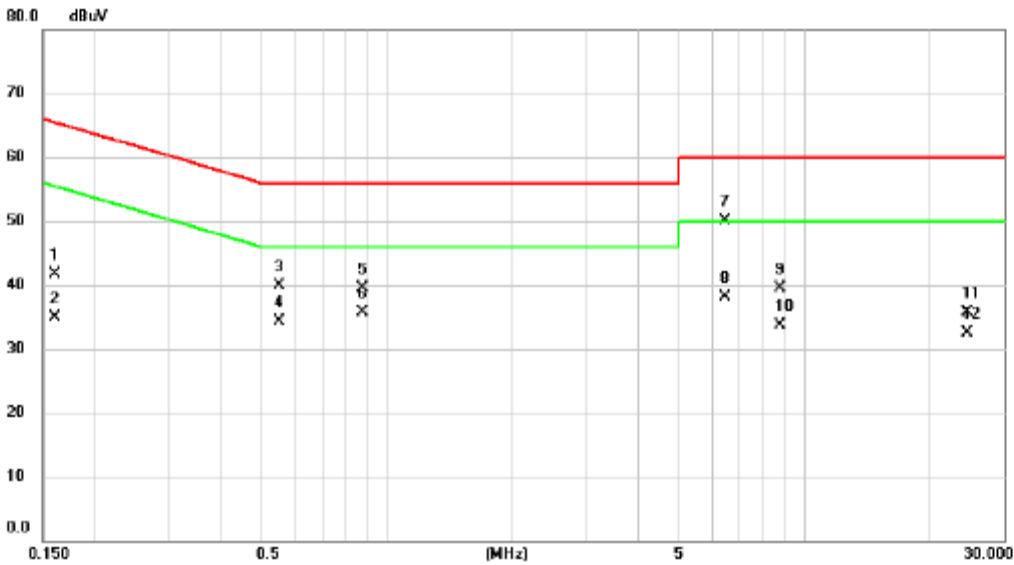
Please refer to document Appendix No.: TP-2508C295-1 (APPENDIX-TEST PHOTOS).

11. EUT PHOTOS

Please refer to document Appendix No.: EP-2508C295-1 (APPENDIX-EUT PHOTOS).

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

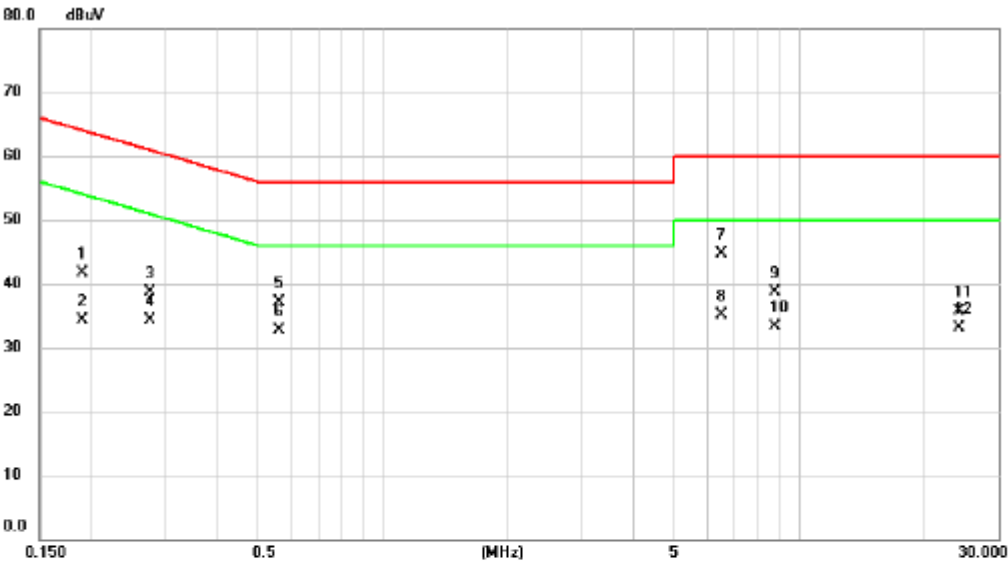
Test Mode	Normal	Test Date	2025/8/27
Test Frequency	-	Phase	Line
Temperature	25°C	Humidity	45%



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1604	32.24	9.50	41.74	65.44	-23.70	QP	
2		0.1604	25.46	9.50	34.96	55.44	-20.48	AVG	
3		0.5540	30.34	9.53	39.87	56.00	-16.13	QP	
4		0.5540	24.81	9.53	34.34	46.00	-11.66	AVG	
5		0.8735	29.93	9.53	39.46	56.00	-16.54	QP	
6		0.8735	26.19	9.53	35.72	46.00	-10.28	AVG	
7	*	6.4500	40.29	9.75	50.04	60.00	-9.96	QP	
8		6.4500	28.37	9.75	38.12	50.00	-11.88	AVG	
9		8.7750	29.73	9.81	39.54	60.00	-20.46	QP	
10		8.7750	23.83	9.81	33.64	50.00	-16.36	AVG	
11		24.5250	25.51	10.12	35.63	60.00	-24.37	QP	
12		24.5250	22.46	10.12	32.58	50.00	-17.42	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	Normal	Test Date	2025/8/27
Test Frequency	-	Phase	Neutral
Temperature	25°C	Humidity	45%

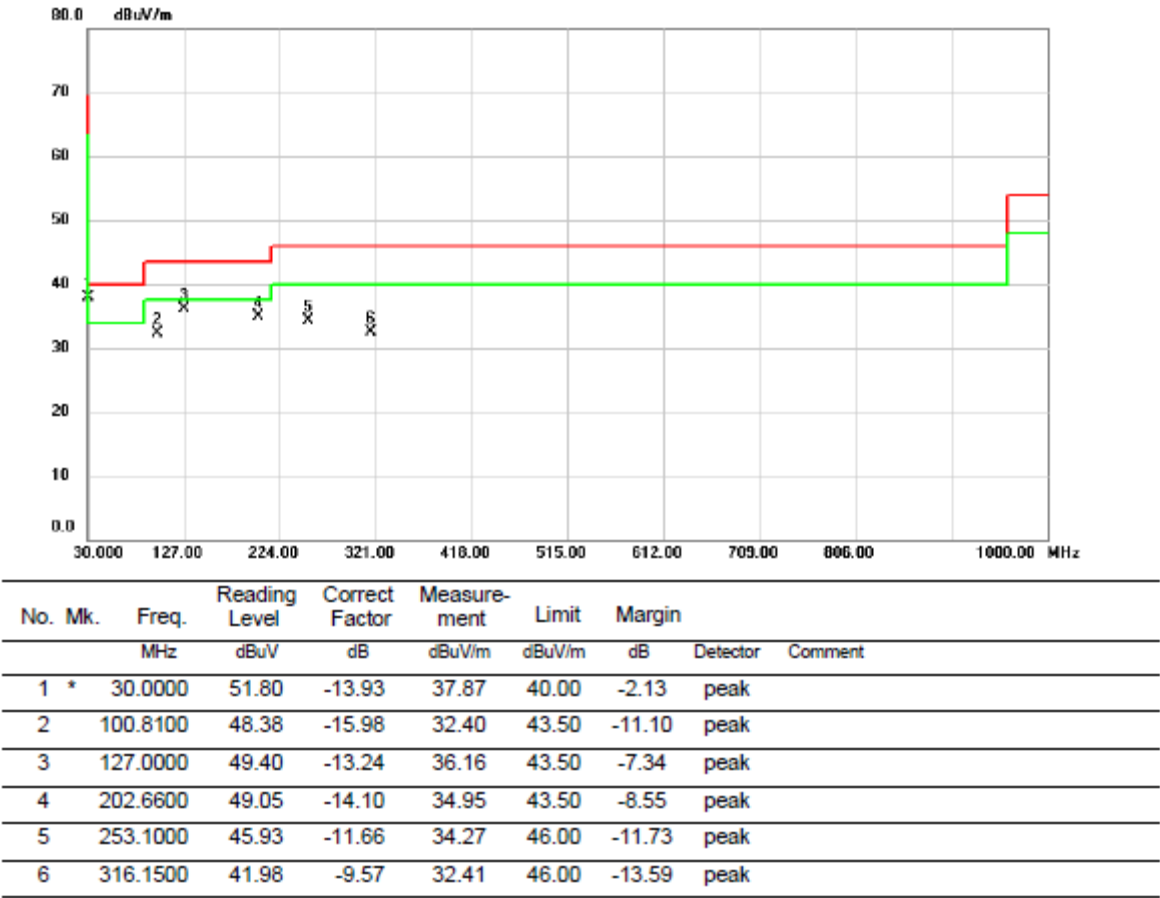


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1900	32.05	9.56	41.61	64.04	-22.43	QP	
2		0.1900	24.69	9.56	34.25	54.04	-19.79	AVG	
3		0.2756	29.13	9.56	38.69	60.95	-22.26	QP	
4		0.2756	24.73	9.56	34.29	50.95	-16.66	AVG	
5		0.5630	27.58	9.57	37.15	56.00	-18.85	QP	
6	*	0.5630	23.13	9.57	32.70	46.00	-13.30	AVG	
7		6.5000	35.01	9.79	44.80	60.00	-15.20	QP	
8		6.5000	25.41	9.79	35.20	50.00	-14.80	AVG	
9		8.7250	28.80	9.85	38.65	60.00	-21.35	QP	
10		8.7250	23.42	9.85	33.27	50.00	-16.73	AVG	
11		24.1500	25.47	10.26	35.73	60.00	-24.27	QP	
12		24.1500	22.83	10.26	33.09	50.00	-16.91	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX B - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Vertical
Temperature	25°C	Humidity	65%

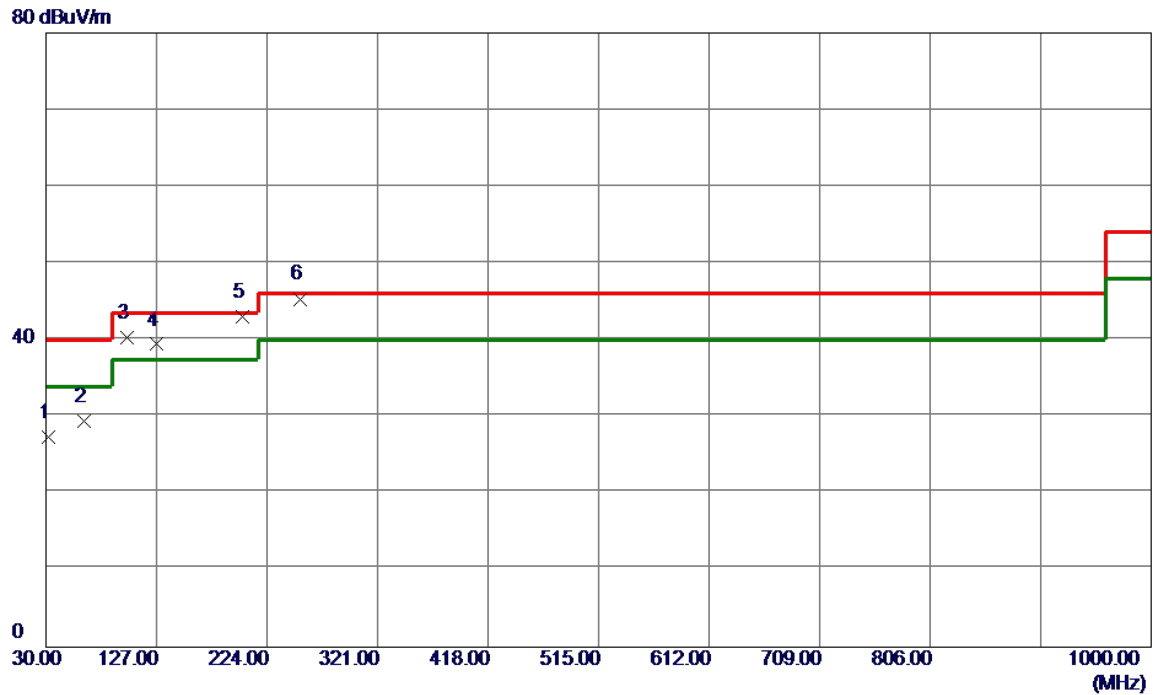


REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	31.9400	40.67	-13.38	27.29	40.00	-12.71	Peak	
2	62.9800	41.75	-12.29	29.46	40.00	-10.54	Peak	
3	100.8100	56.32	-15.98	40.34	43.50	-3.16	Peak	
4	127.0000	52.68	-13.24	39.44	43.50	-4.06	Peak	
5 *	202.6600	57.10	-14.10	43.00	43.50	-0.50	Peak	
6	253.1000	57.02	-11.66	45.36	46.00	-0.64	QP	

REMARKS:

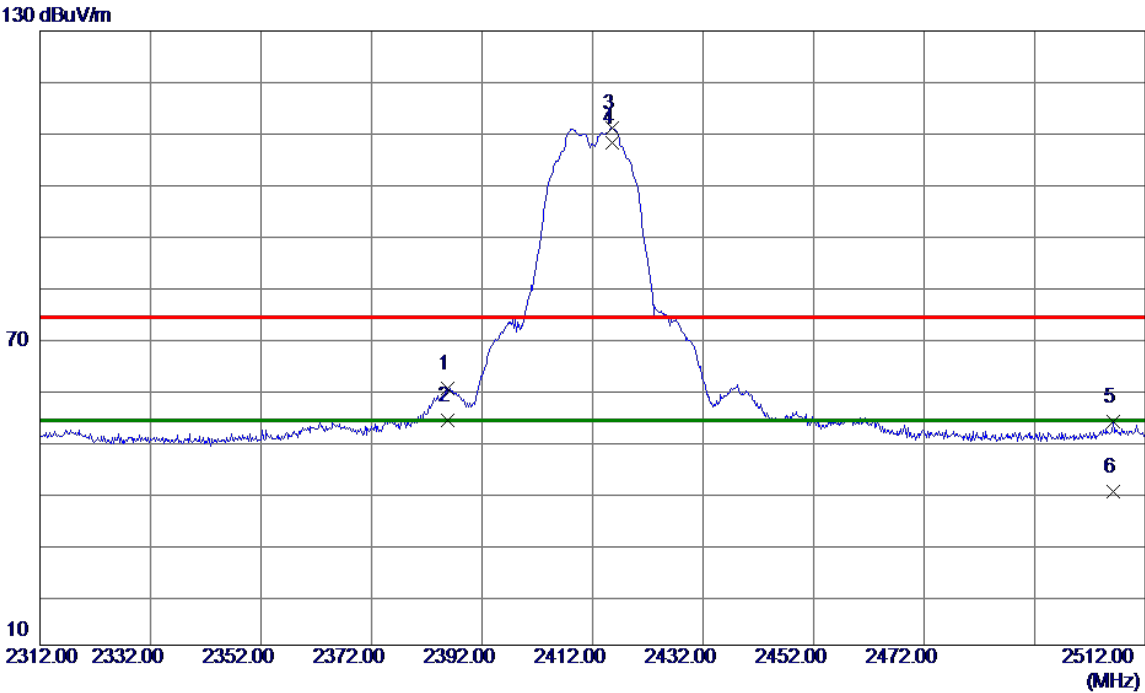
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION- ABOVE 1000 MHZ

Bandedge

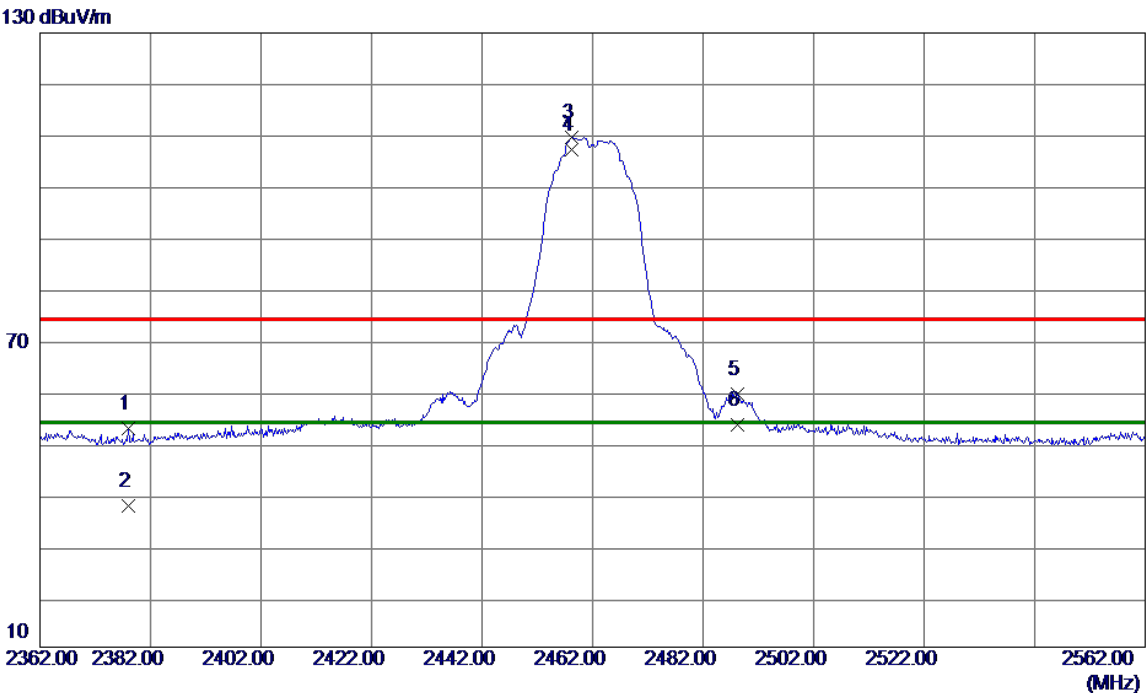
Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2385.8000	54.93	5.23	60.16	74.00	-13.84	Peak	
2	2385.8000	48.70	5.23	53.93	54.00	-0.07	AVG	
3	2415.6000	105.65	5.29	110.94	74.00	36.94	Peak	No Limit
4 *	2415.6000	102.96	5.29	108.25	54.00	54.25	AVG	No Limit
5	2506.2000	48.19	5.47	53.66	74.00	-20.34	Peak	
6	2506.2000	34.46	5.47	39.93	54.00	-14.07	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



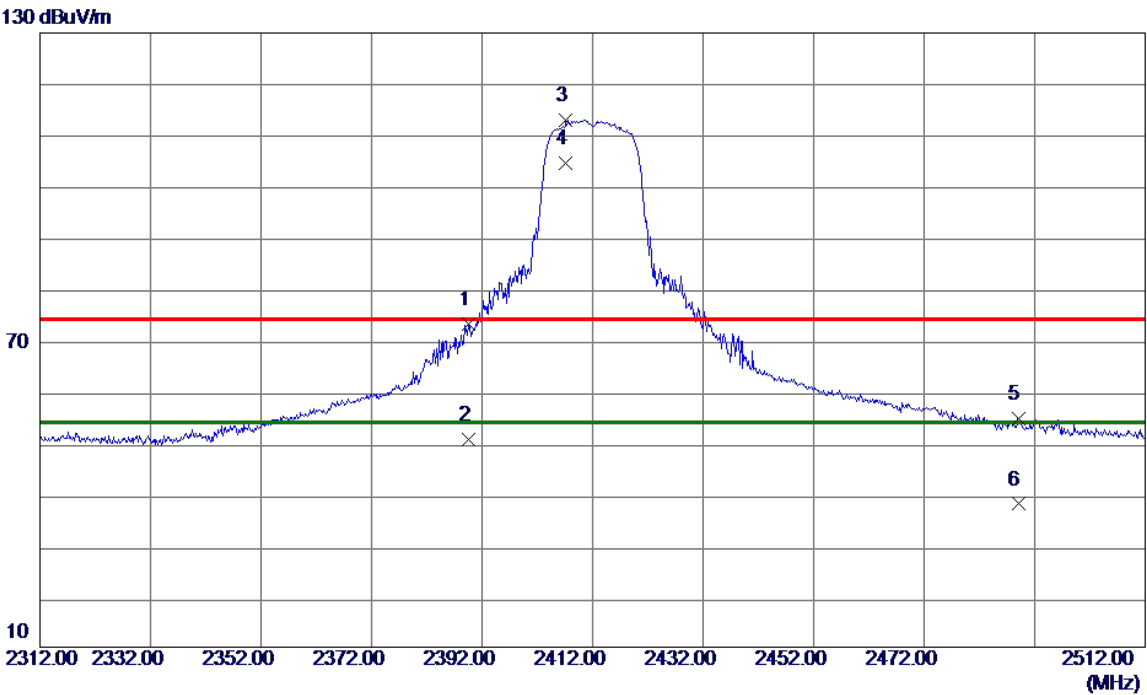
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2378.0000	47.41	5.22	52.63	74.00	-21.37	Peak	
2	2378.0000	32.38	5.22	37.60	54.00	-16.40	AVG	
3	2458.2000	104.17	5.36	109.53	74.00	35.53	Peak	No Limit
4 *	2458.2000	101.78	5.36	107.14	54.00	53.14	AVG	No Limit
5	2488.2000	54.06	5.42	59.48	74.00	-14.52	Peak	
6	2488.2000	47.99	5.42	53.41	54.00	-0.59	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

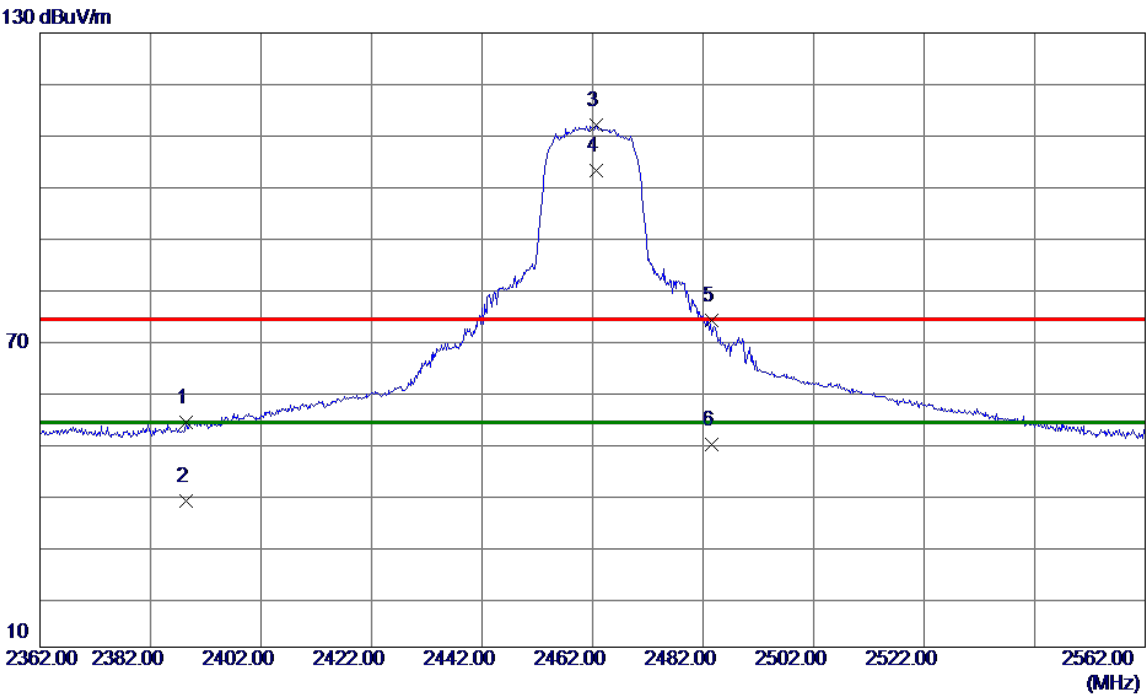
Test Mode	IEEE 802.11g	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2389.6000	67.97	5.24	73.21	74.00	-0.79	Peak	
2	2389.6000	45.33	5.24	50.57	54.00	-3.43	AVG	
3	2407.2000	107.79	5.27	113.06	74.00	39.06	Peak	No Limit
4 *	2407.2000	99.36	5.27	104.63	54.00	50.63	AVG	No Limit
5	2489.0000	49.32	5.42	54.74	74.00	-19.26	Peak	
6	2489.0000	32.54	5.42	37.96	54.00	-16.04	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11g	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



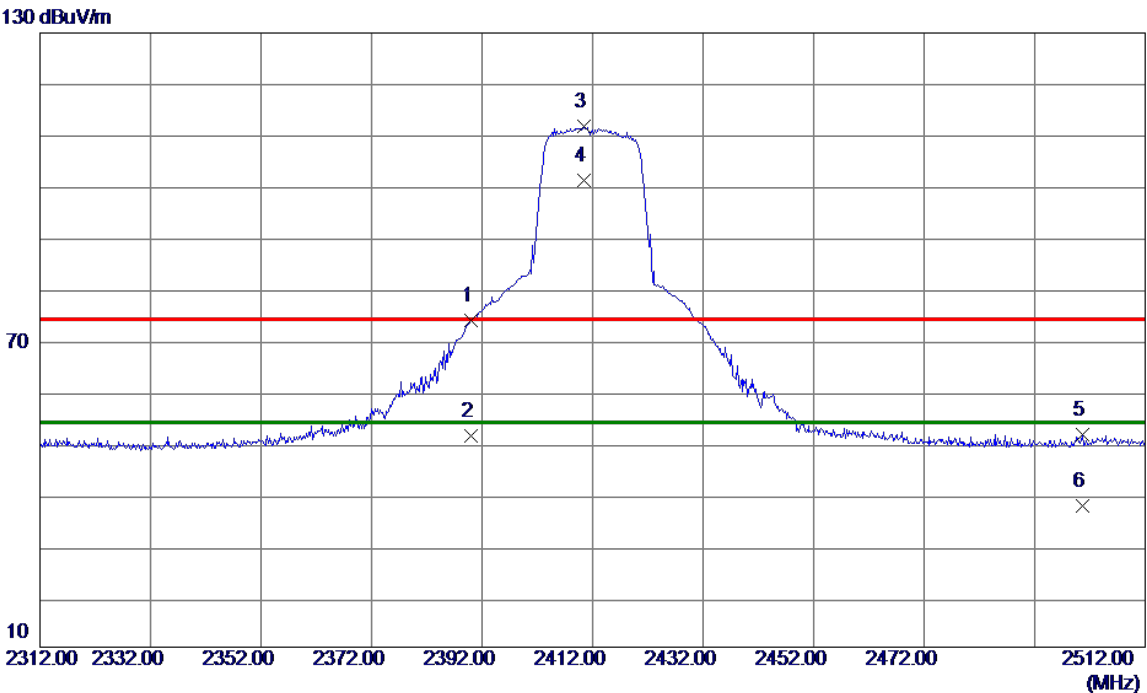
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2388.4000	48.63	5.24	53.87	74.00	-20.13	Peak	
2	2388.4000	33.37	5.24	38.61	54.00	-15.39	AVG	
3	2462.6000	106.56	5.37	111.93	74.00	37.93	Peak	No Limit
4 *	2462.6000	97.66	5.37	103.03	54.00	49.03	AVG	No Limit
5	2483.5000	68.46	5.41	73.87	74.00	-0.13	Peak	
6	2483.5000	44.27	5.41	49.68	54.00	-4.32	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

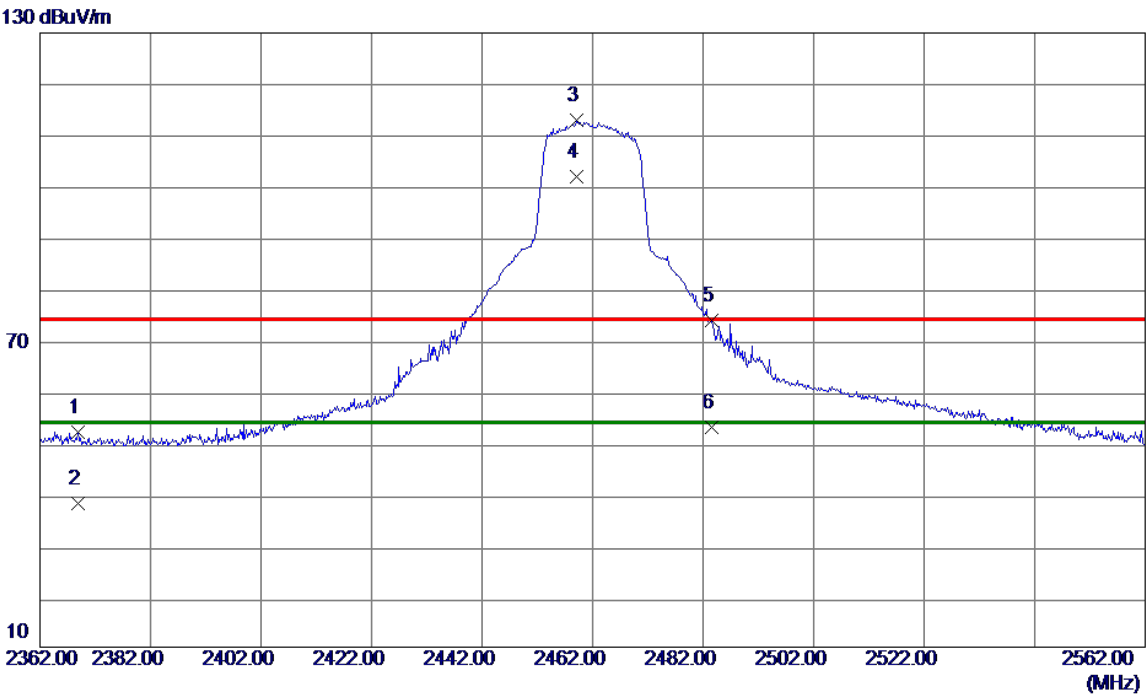
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	68.69	5.24	73.93	74.00	-0.07	Peak	
2	2390.0000	45.95	5.24	51.19	54.00	-2.81	AVG	
3	2410.4000	106.50	5.28	111.78	74.00	37.78	Peak	No Limit
4 *	2410.4000	95.96	5.28	101.24	54.00	47.24	AVG	No Limit
5	2500.6000	46.07	5.44	51.51	74.00	-22.49	Peak	
6	2500.6000	32.20	5.44	37.64	54.00	-16.36	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



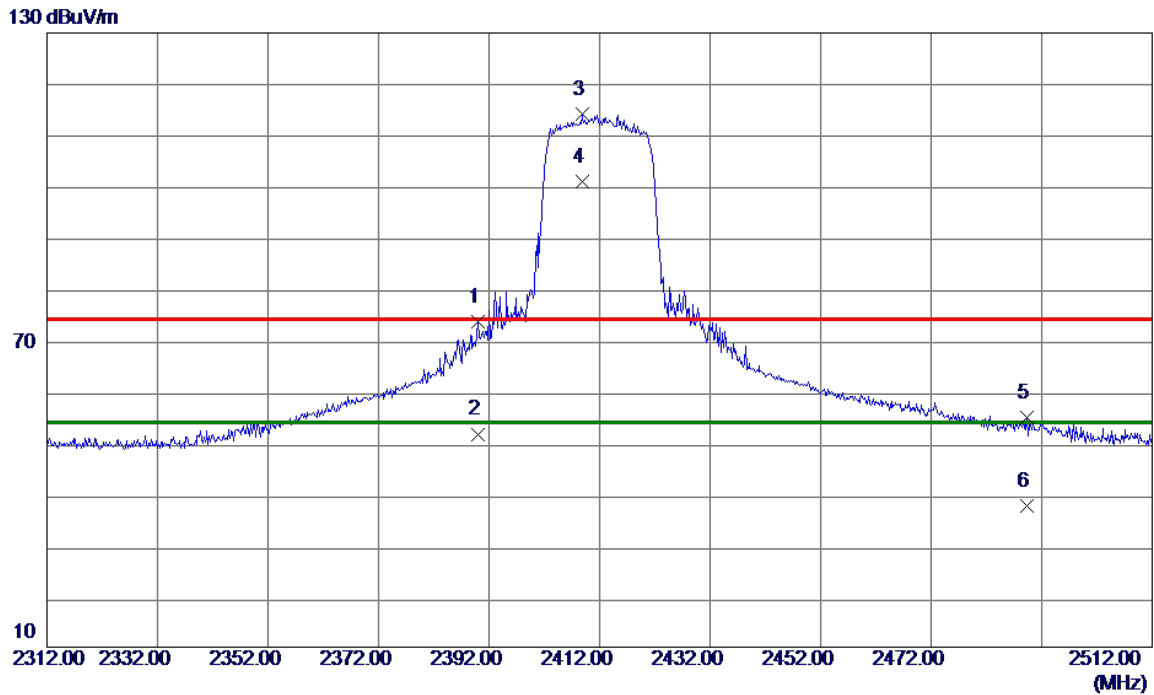
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2368.8000	46.83	5.20	52.03	74.00	-21.97	Peak	
2	2368.8000	32.94	5.20	38.14	54.00	-15.86	AVG	
3	2459.2000	107.49	5.37	112.86	74.00	38.86	Peak	No Limit
4 *	2459.2000	96.44	5.37	101.81	54.00	47.81	AVG	No Limit
5	2483.5000	68.35	5.41	73.76	74.00	-0.24	Peak	
6	2483.5000	47.45	5.41	52.86	54.00	-1.14	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11ax(HE20)	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



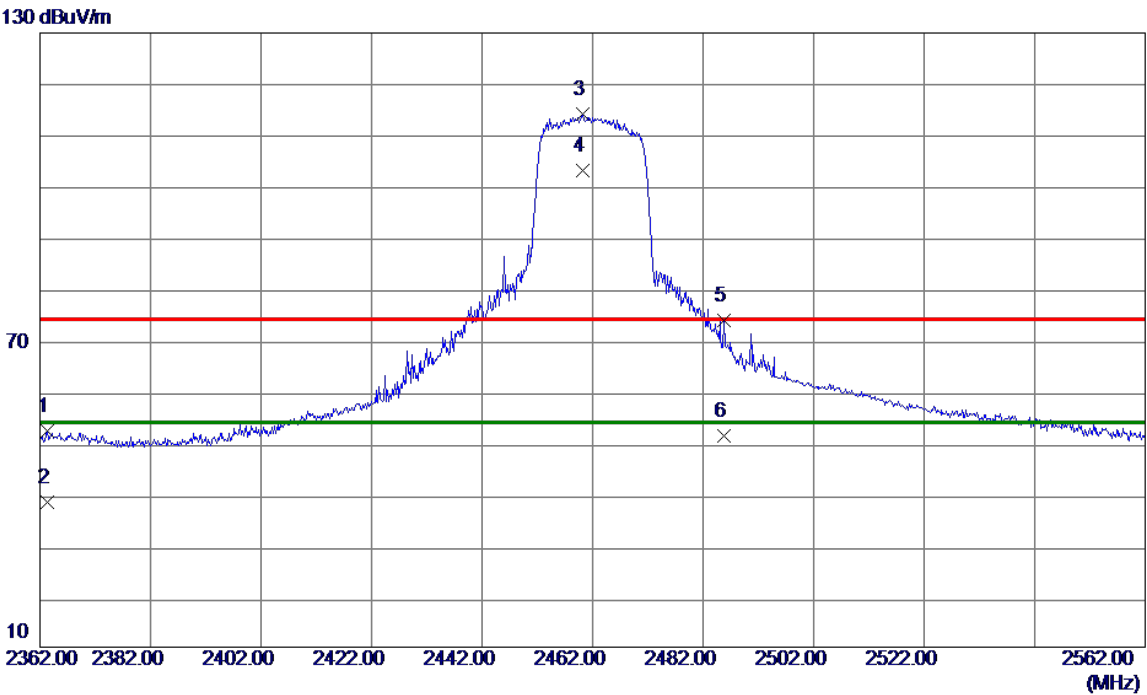
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	68.29	5.24	73.53	74.00	-0.47	Peak	
2	2390.0000	46.40	5.24	51.64	54.00	-2.36	AVG	
3	2408.8000	108.88	5.28	114.16	74.00	40.16	Peak	No Limit
4 *	2408.8000	95.66	5.28	100.94	54.00	46.94	AVG	No Limit
5	2489.4000	49.50	5.42	54.92	74.00	-19.08	Peak	
6	2489.4000	32.12	5.42	37.54	54.00	-16.46	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11ax(HE20)	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%

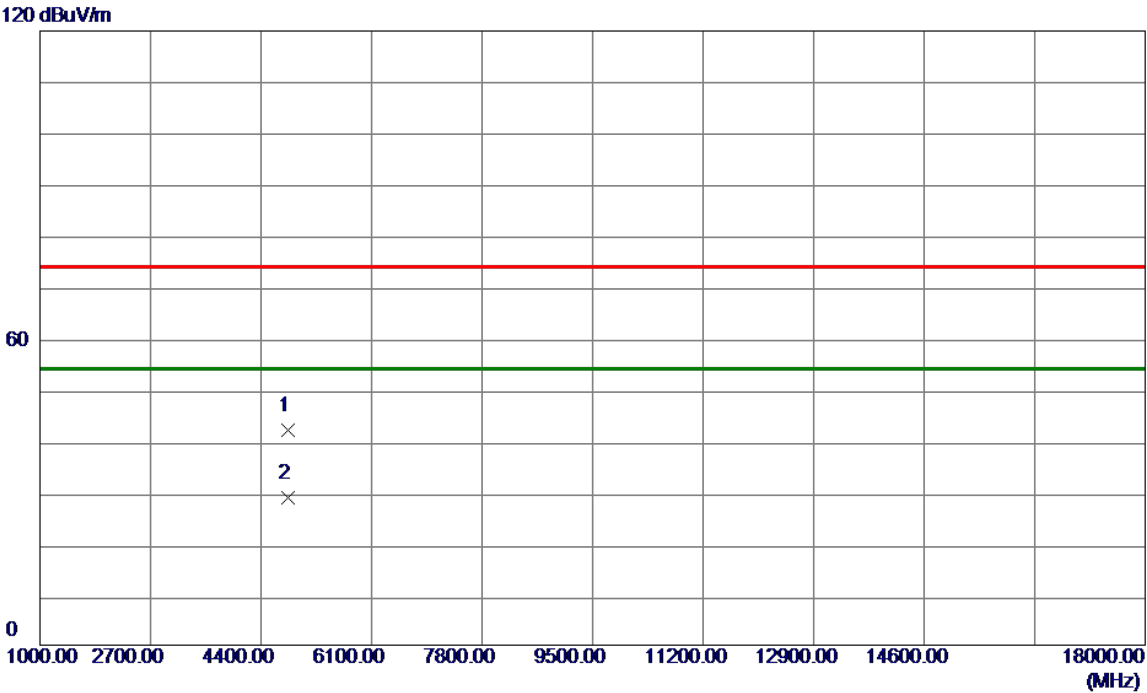


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2363.4000	46.95	5.19	52.14	74.00	-21.86	Peak	
2	2363.4000	33.21	5.19	38.40	54.00	-15.60	AVG	
3	2460.2000	108.73	5.37	114.10	74.00	40.10	Peak	No Limit
4 *	2460.2000	97.69	5.37	103.06	54.00	49.06	AVG	No Limit
5	2485.8000	68.39	5.41	73.80	74.00	-0.20	Peak	
6	2485.8000	45.81	5.41	51.22	54.00	-2.78	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Harmonic

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



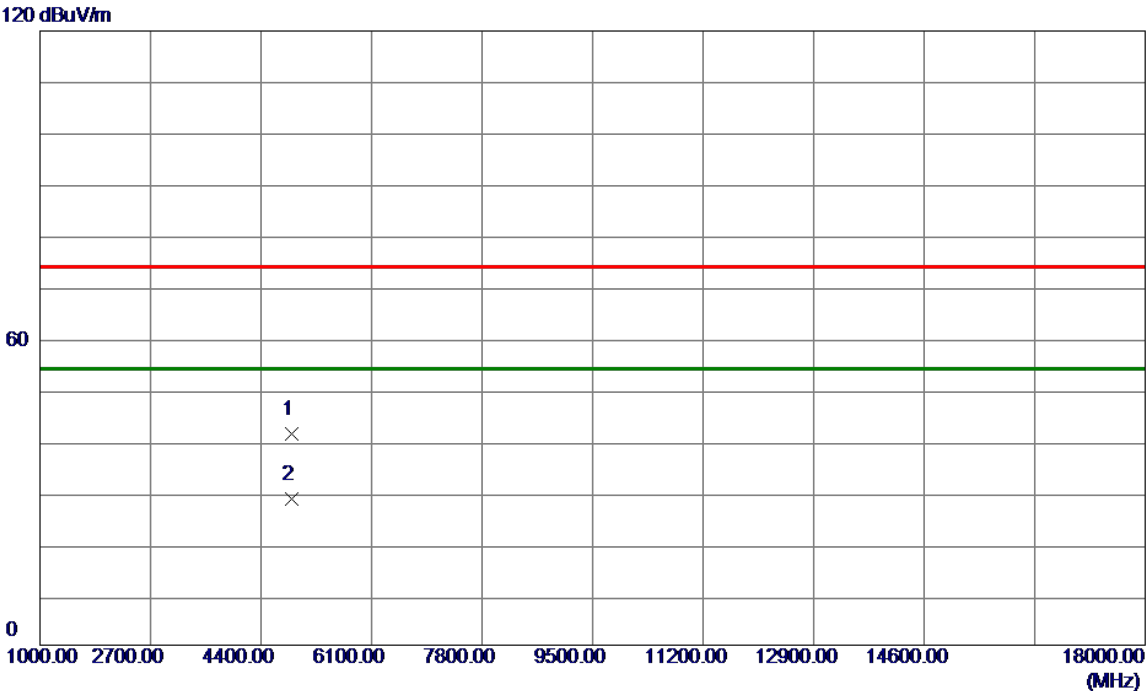
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824.0000	40.32	1.79	42.11	74.00	-31.89	Peak	
2 *	4824.0000	27.05	1.79	28.84	54.00	-25.16	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



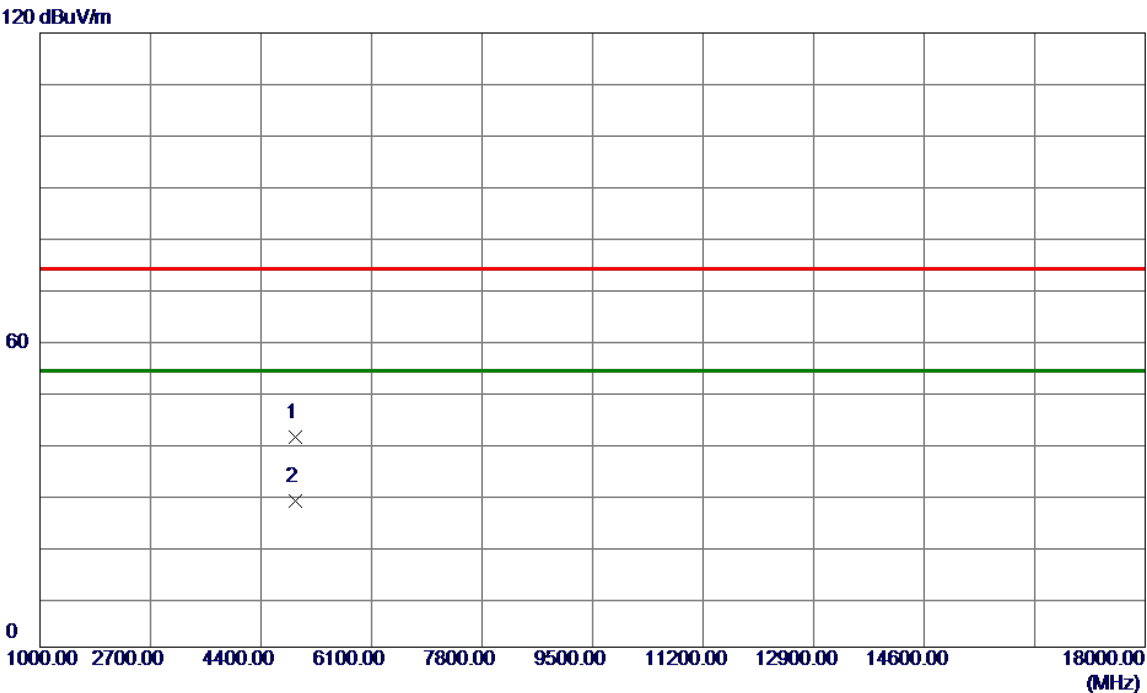
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4874.0000	39.35	1.87	41.22	74.00	-32.78	Peak	
2 *	4874.0000	26.71	1.87	28.58	54.00	-25.42	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



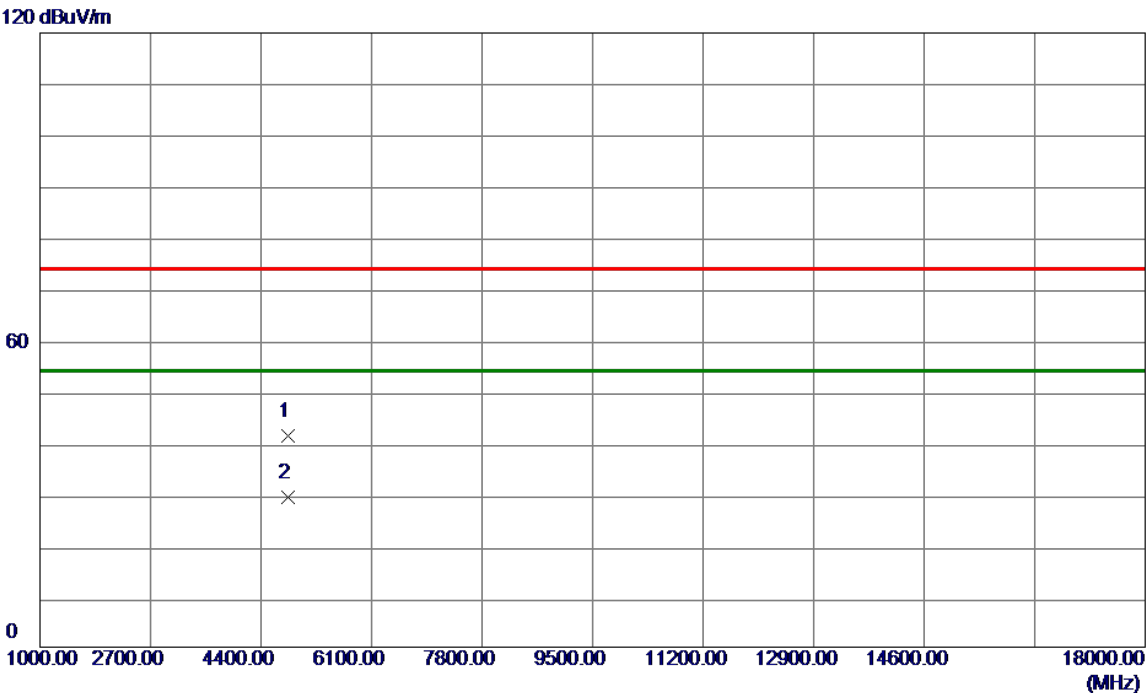
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924. 0000	39. 10	1. 96	41. 06	74. 00	-32. 94	Peak	
2 *	4924. 0000	26. 56	1. 96	28. 52	54. 00	-25. 48	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11g	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



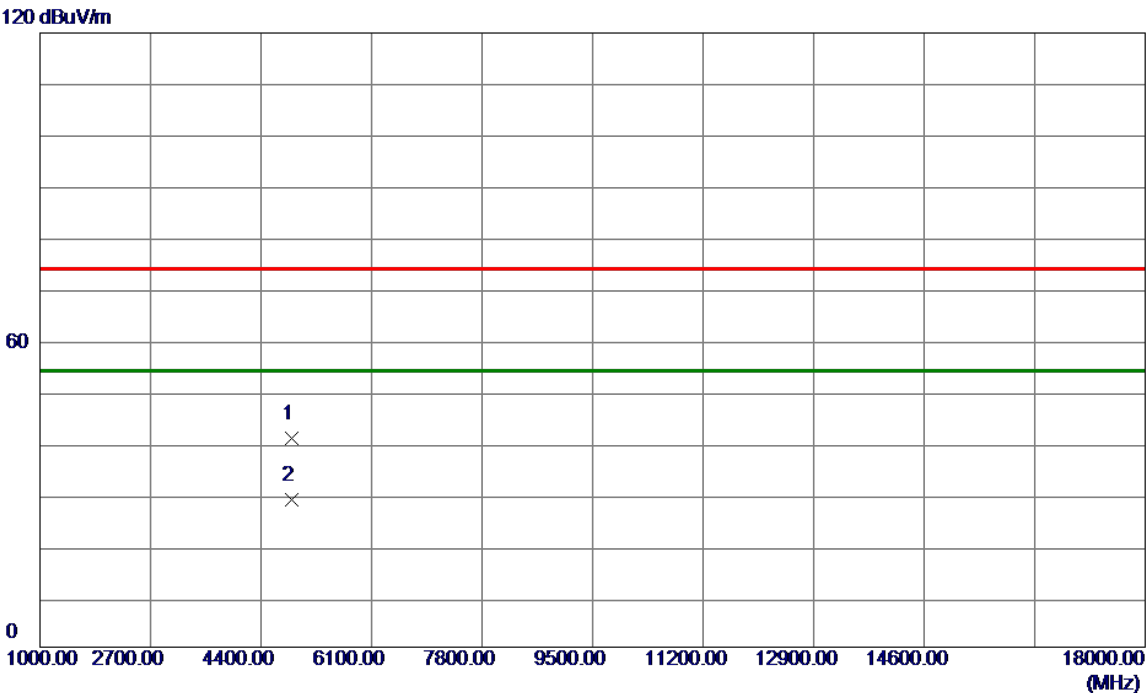
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824. 0000	39. 48	1. 79	41. 27	74. 00	-32. 73	Peak	
2 *	4824. 0000	27. 38	1. 79	29. 17	54. 00	-24. 83	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11g	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



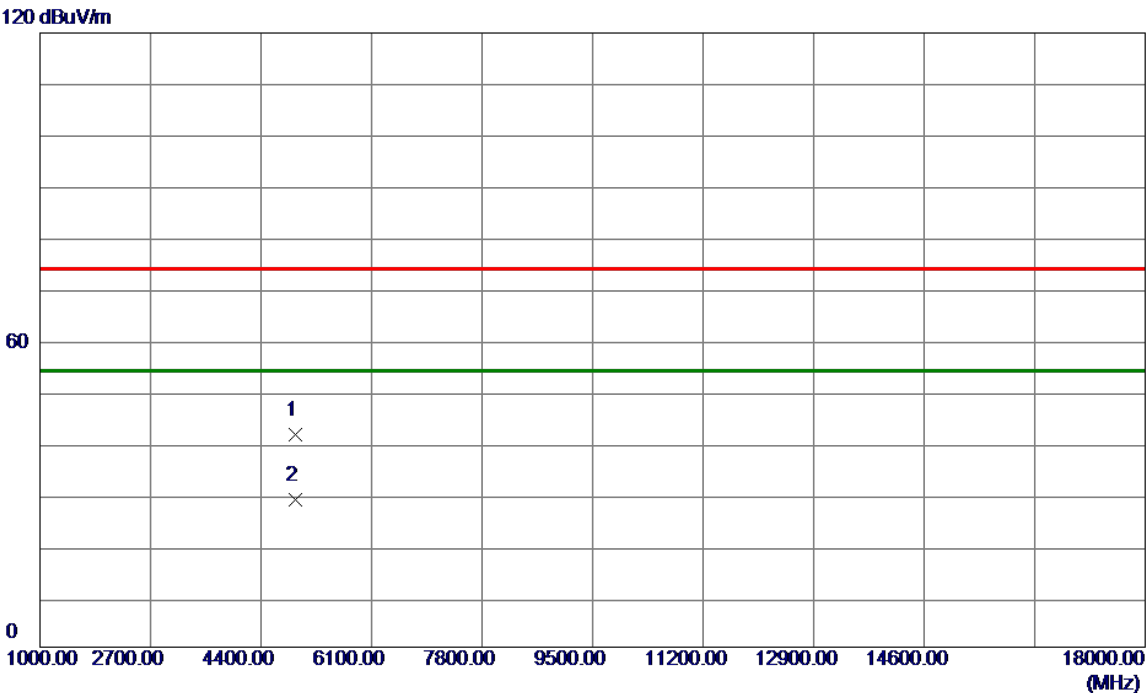
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4874. 0000	38. 88	1. 87	40. 75	74. 00	-33. 25	Peak	
2 *	4874. 0000	26. 94	1. 87	28. 81	54. 00	-25. 19	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11g	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



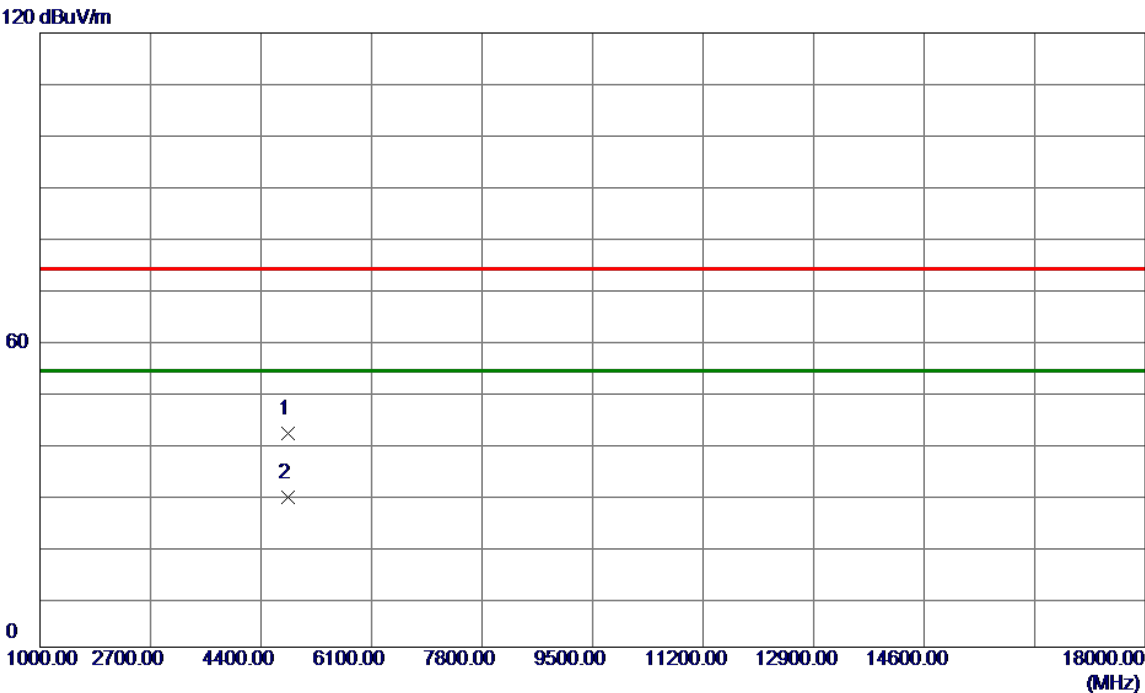
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.0000	39.67	1.96	41.63	74.00	-32.37	Peak	
2 *	4924.0000	26.90	1.96	28.86	54.00	-25.14	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

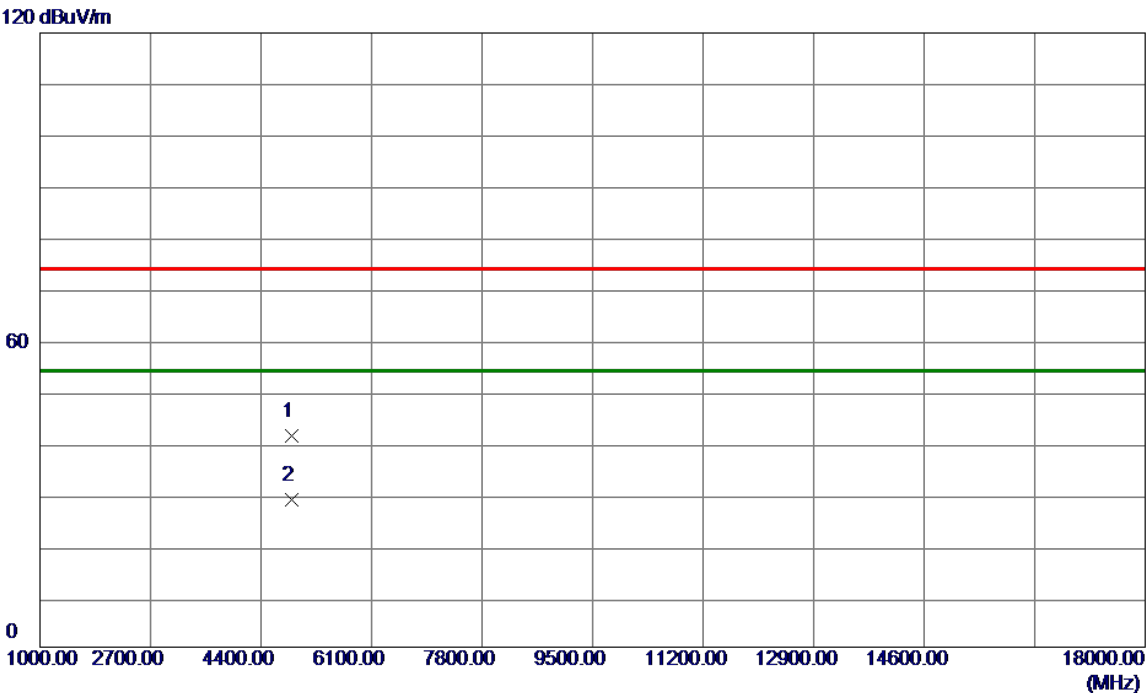
Test Mode	IEEE 802.11n (HT20)	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824. 0000	40. 07	1. 79	41. 86	74. 00	-32. 14	Peak	
2 *	4824. 0000	27. 50	1. 79	29. 29	54. 00	-24. 71	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



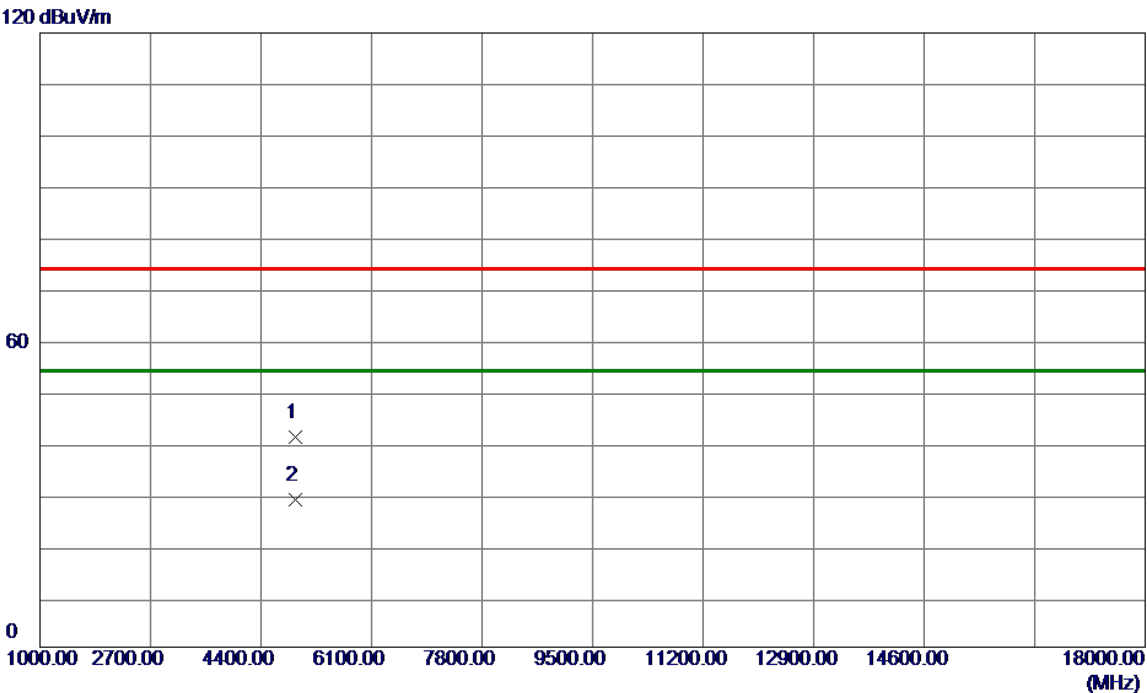
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4874. 0000	39. 50	1. 87	41. 37	74. 00	-32. 63	Peak	
2 *	4874. 0000	27. 03	1. 87	28. 90	54. 00	-25. 10	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11n (HT20)	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



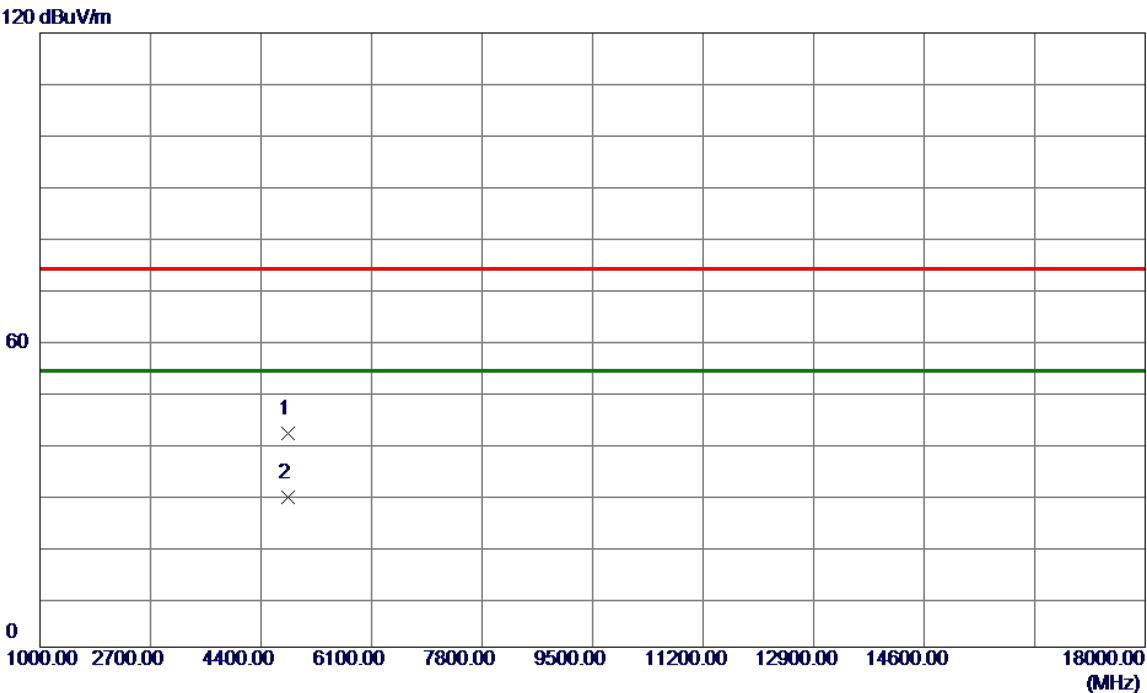
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.0000	39.05	1.96	41.01	74.00	-32.99	Peak	
2 *	4924.0000	26.92	1.96	28.88	54.00	-25.12	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11ax(HE20)	Test Date	2025/8/27
Test Frequency	2412MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



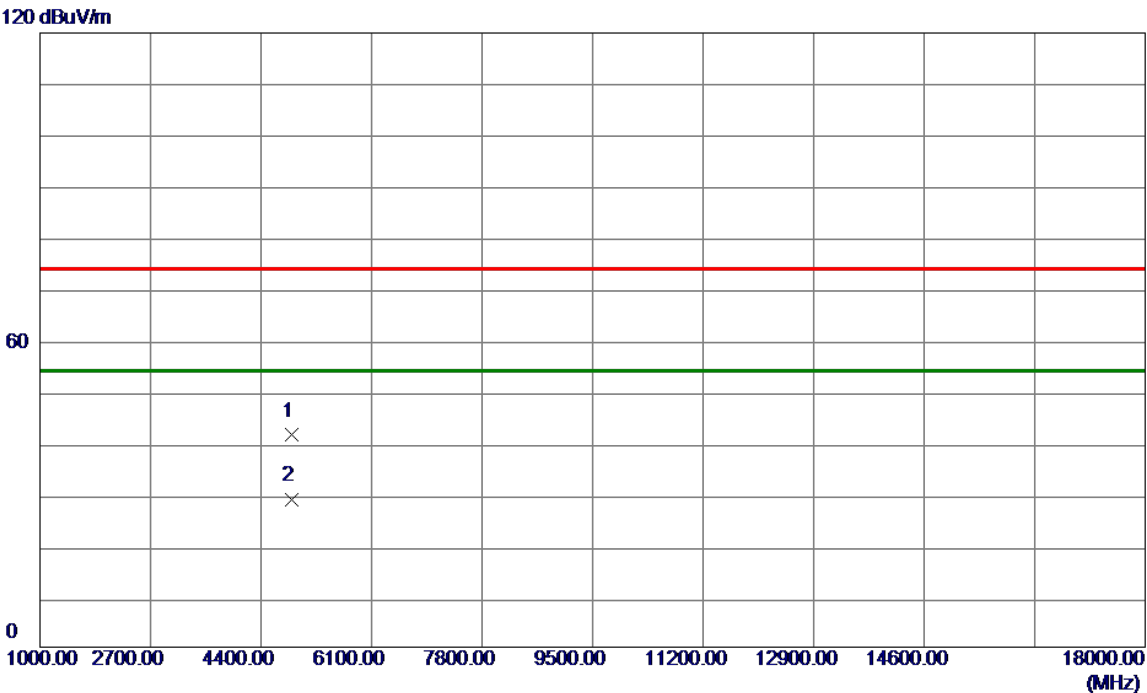
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4824. 0000	39. 96	1. 79	41. 75	74. 00	-32. 25	Peak	
2 *	4824. 0000	27. 48	1. 79	29. 27	54. 00	-24. 73	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

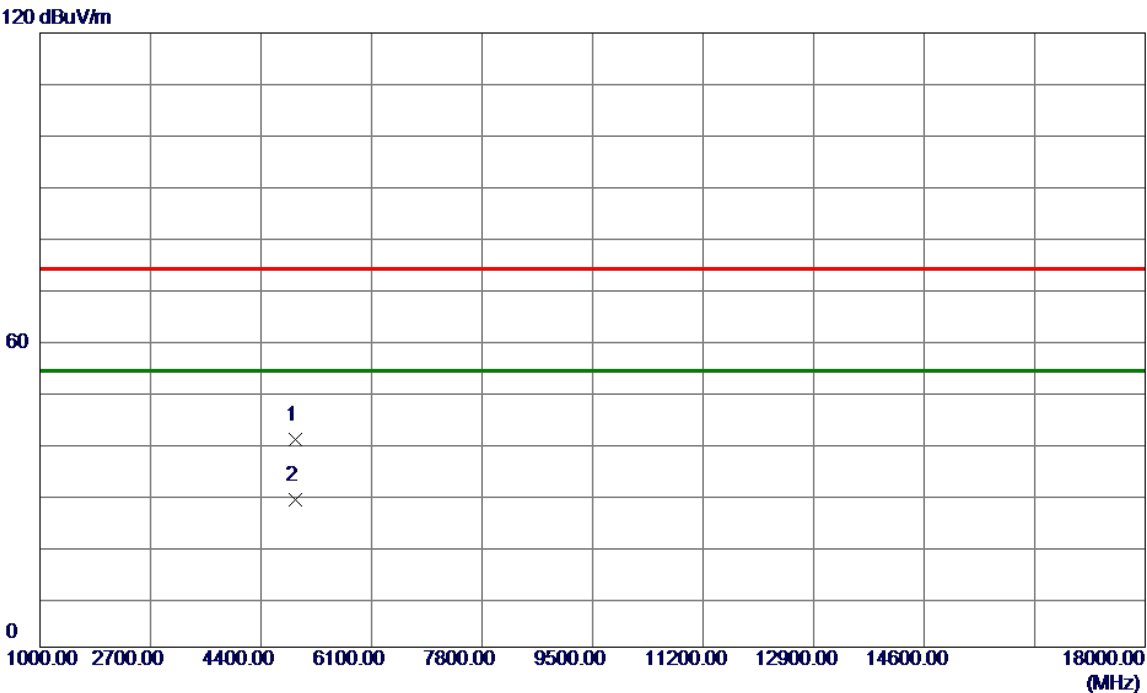
Test Mode	IEEE 802.11ax(HE20)	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4874.0000	39.53	1.87	41.40	74.00	-32.60	Peak	
2 *	4874.0000	27.02	1.87	28.89	54.00	-25.11	AVG	

REMARKS:
 (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11ax(HE20)	Test Date	2025/8/27
Test Frequency	2462MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



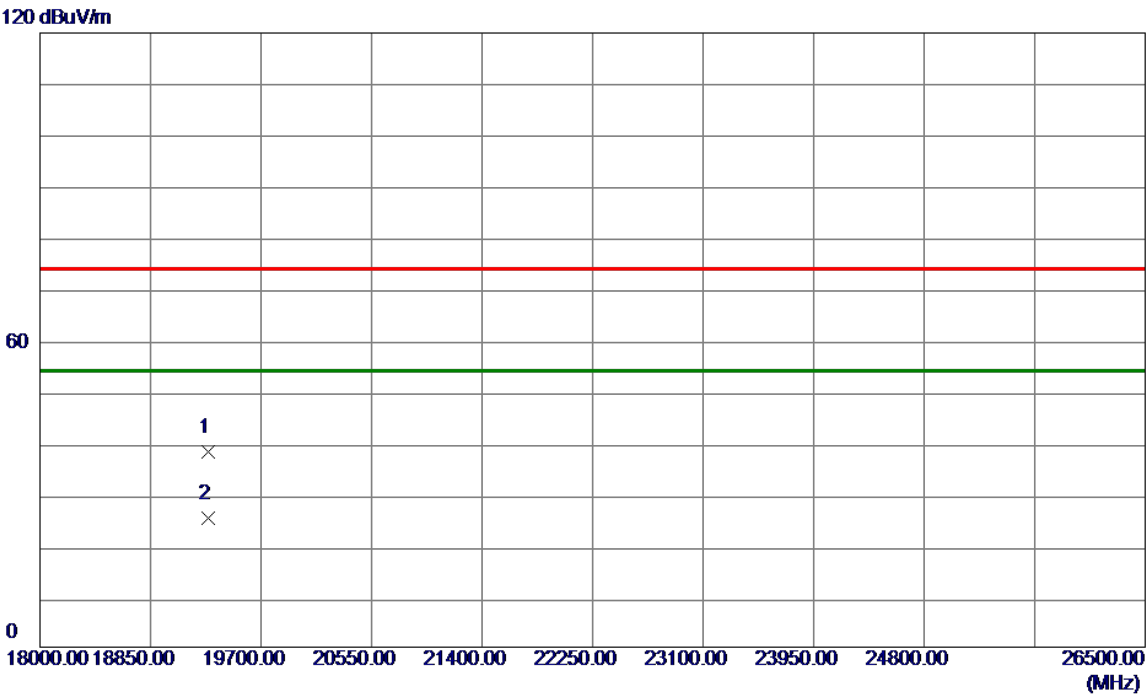
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4924.0000	38.55	1.96	40.51	74.00	-33.49	Peak	
2 *	4924.0000	26.90	1.96	28.86	54.00	-25.14	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	IEEE 802.11b	Test Date	2025/8/27
Test Frequency	2437MHz	Polarization	Horizontal
Temperature	25°C	Humidity	65%



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	19296.0000	48.07	-9.85	38.22	74.00	-35.78	Peak	
2 *	19296.0000	34.94	-9.85	25.09	54.00	-28.91	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

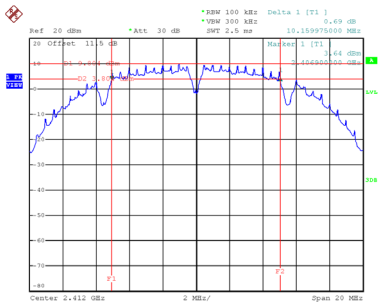
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - BANDWIDTH

Test Mode	TX B Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	10.159	15.040	0.5	Complies
06	2437	10.120	15.040	0.5	Complies
11	2462	11.120	15.040	0.5	Complies

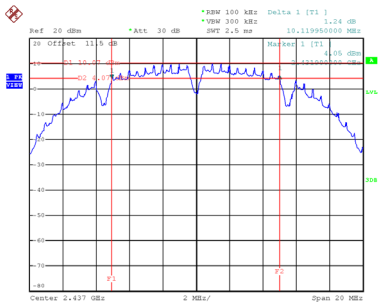
CH01



Date: 26.AUG.2025 23:33:13

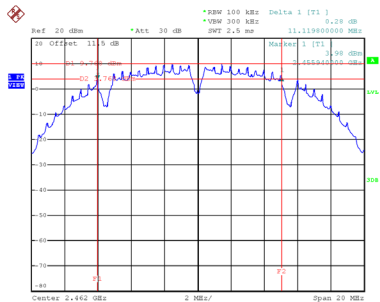
CH06

6 dB Bandwidth



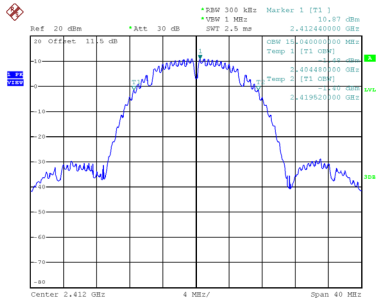
Date: 26.AUG.2025 23:34:59

CH11

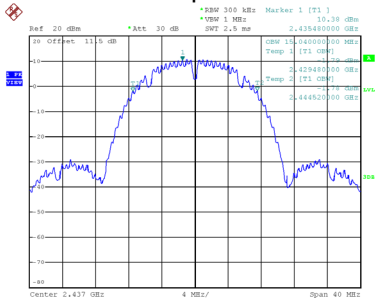


Date: 26.AUG.2025 23:36:40

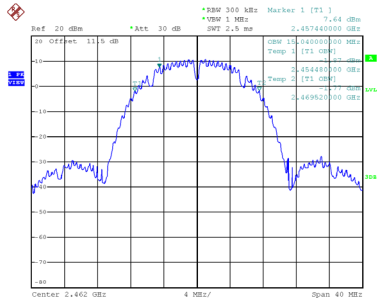
99 % Occupied Bandwidth



Date: 26.AUG.2025 23:33:21



Date: 26.AUG.2025 23:35:08

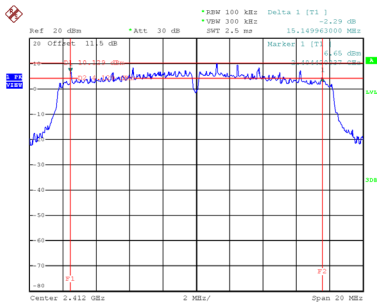


Date: 26.AUG.2025 23:36:49

Test Mode	TX G Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.150	16.480	0.5	Complies
06	2437	15.160	16.400	0.5	Complies
11	2462	15.160	16.400	0.5	Complies

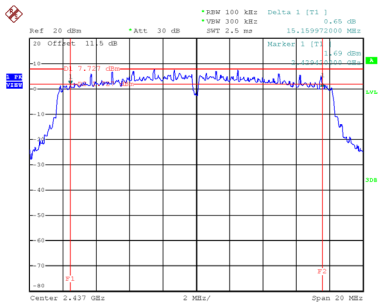
CH01



Date: 26.AUG.2025 23:38:29

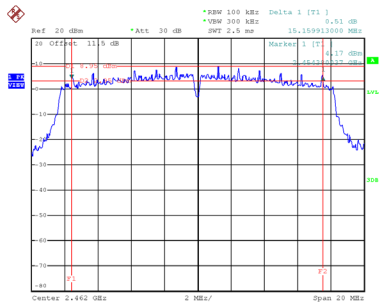
CH06

6 dB Bandwidth



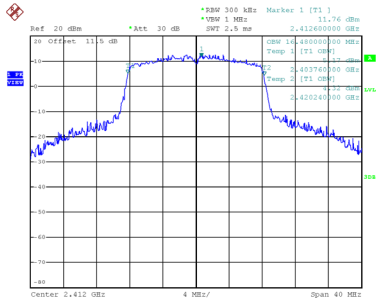
Date: 26.AUG.2025 23:40:04

CH11

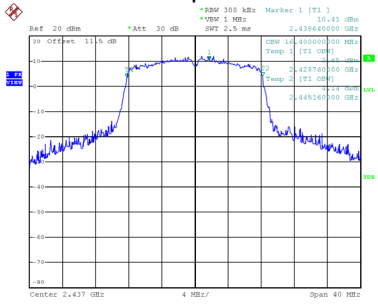


Date: 26.AUG.2025 23:41:34

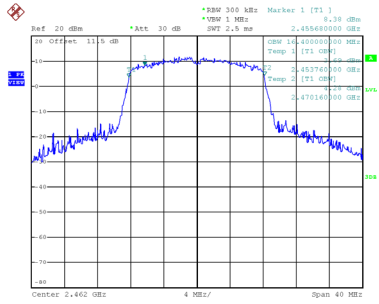
99 % Occupied Bandwidth



Date: 26.AUG.2025 23:38:38



Date: 26.AUG.2025 23:40:12

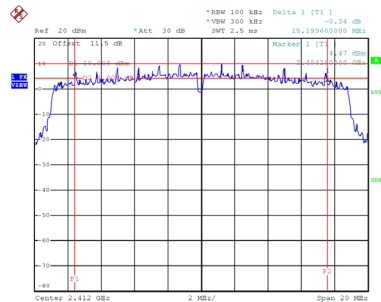


Date: 26.AUG.2025 23:41:43

Test Mode	TX N(HT20) Mode
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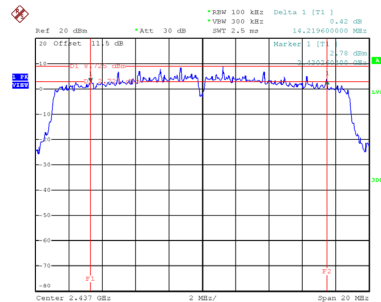
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.200	17.600	0.5	Complies
06	2437	14.220	17.520	0.5	Complies
11	2462	15.030	17.520	0.5	Complies

CH01



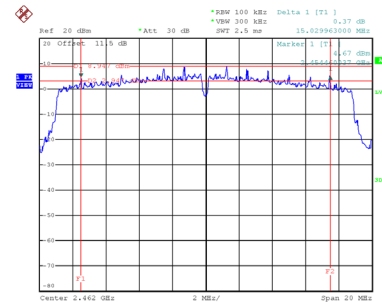
Date: 26.AUG.2025 23:43:33

CH06
6 dB Bandwidth



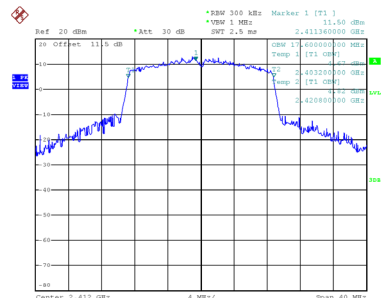
Date: 26.AUG.2025 23:45:09

CH11

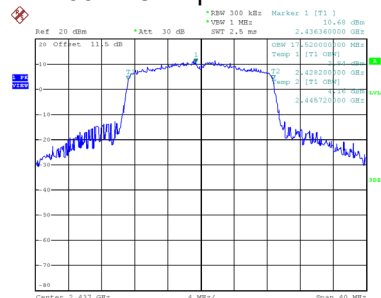


Date: 26.AUG.2025 23:48:31

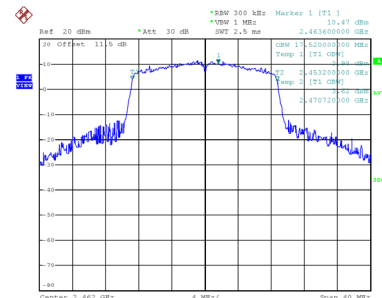
99 % Occupied Bandwidth



Date: 26.AUG.2025 23:43:42



Date: 26.AUG.2025 23:45:17

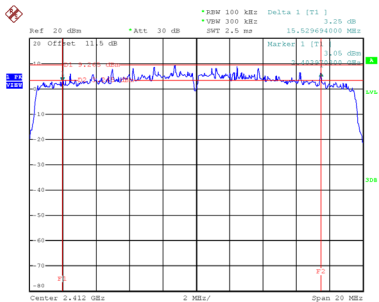


Date: 26.AUG.2025 23:48:40

Test Mode	TX AX(HE20) Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.530	18.880	0.5	Complies
06	2437	16.079	18.880	0.5	Complies
11	2462	15.449	18.800	0.5	Complies

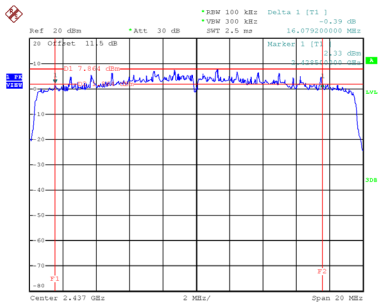
CH01



Date: 26.AUG.2025 23:50:18

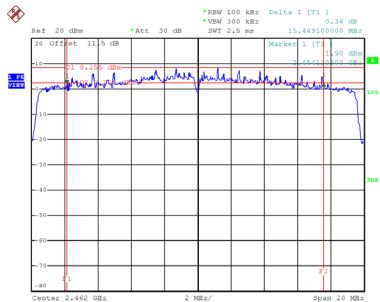
CH06

6 dB Bandwidth



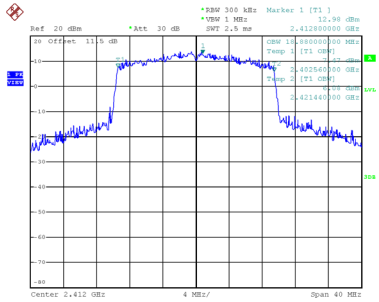
Date: 26.AUG.2025 23:52:03

CH11

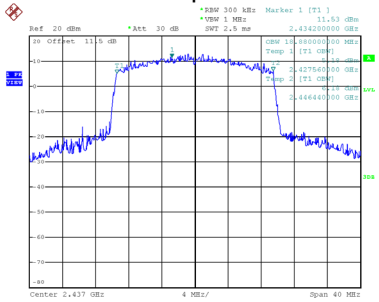


Date: 26.AUG.2025 23:53:32

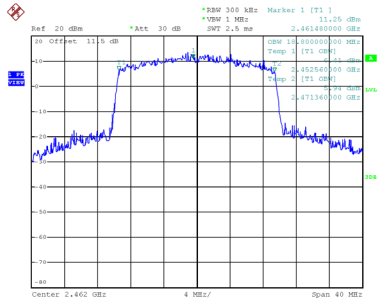
99 % Occupied Bandwidth



Date: 26.AUG.2025 23:50:26



Date: 26.AUG.2025 23:52:12



Date: 26.AUG.2025 23:53:41

APPENDIX E - OUTPUT POWER

Test Mode	TX B Mode
Test Date	2025/8/26

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.29	0.00	19.29	30.00	1.0000	Complies
06	2437	19.38	0.00	19.38	30.00	1.0000	Complies
11	2462	18.94	0.00	18.94	30.00	1.0000	Complies

Test Mode	TX G Mode
Test Date	2025/8/26

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.61	0.00	15.61	30.00	1.0000	Complies
06	2437	18.95	0.00	18.95	30.00	1.0000	Complies
11	2462	16.25	0.00	16.25	30.00	1.0000	Complies

Test Mode	TX N(HT20) Mode_Ant. 1
Test Date	2025/8/26

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	14.37	0.00	14.37	30.00	1.0000	Complies
06	2437	18.89	0.00	18.89	30.00	1.0000	Complies
11	2462	17.13	0.00	17.13	30.00	1.0000	Complies

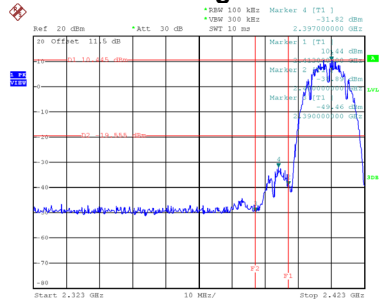
Test Mode	TX AX(HE20) Mode
Test Date	2025/8/26

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.42	0.00	15.42	30.00	1.0000	Complies
06	2437	18.92	0.00	18.92	30.00	1.0000	Complies
11	2462	17.18	0.00	17.18	30.00	1.0000	Complies

APPENDIX F - CONDUCTED SPURIOUS EMISSIONS

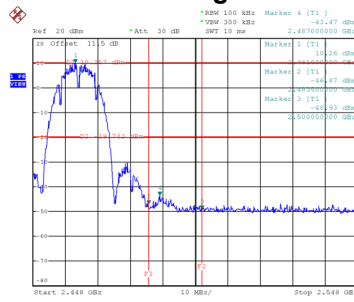
Test Mode TX B Mode

Bandedge-CH01



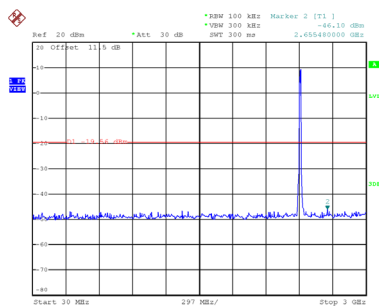
Date: 26.AUG.2025 23:33:30

Bandedge-CH11

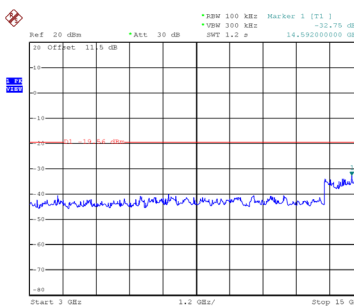


Date: 26.AUG.2025 23:36:58

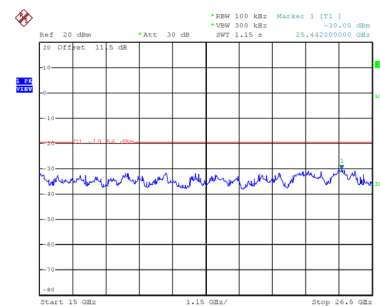
CH01 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:33:45

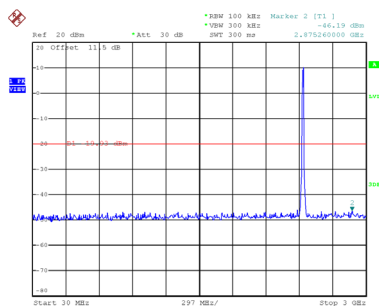


Date: 26.AUG.2025 23:33:55

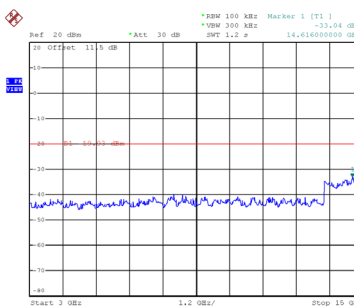


Date: 26.AUG.2025 23:34:04

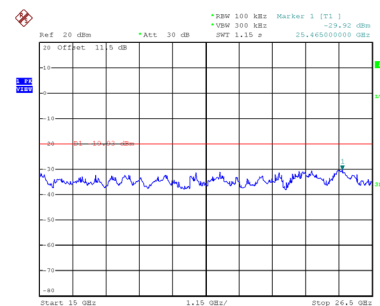
CH06 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:35:32

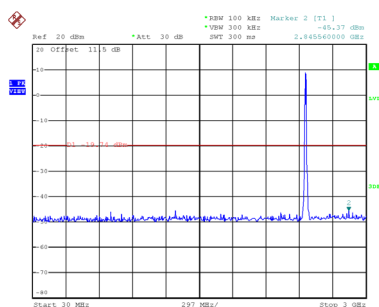


Date: 26.AUG.2025 23:35:41

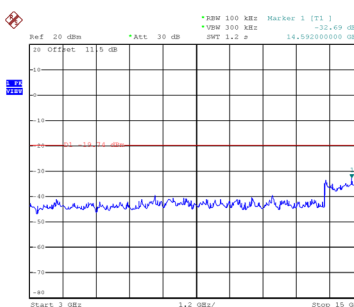


Date: 26.AUG.2025 23:35:50

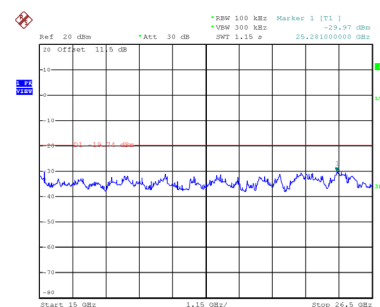
CH11 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:37:13



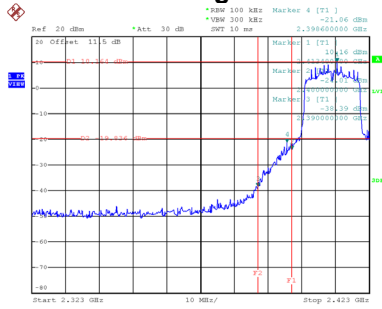
Date: 26.AUG.2025 23:37:22



Date: 26.AUG.2025 23:37:32

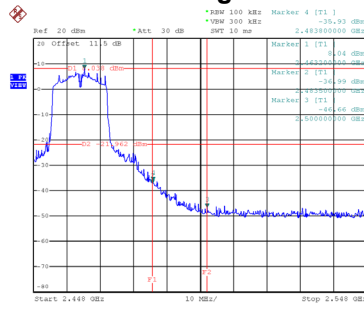
Test Mode TX G Mode

Bandedge-CH01



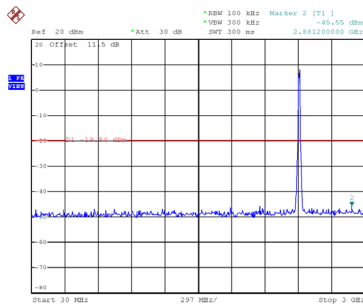
Date: 26.AUG.2025 23:38:47

Bandedge-CH11

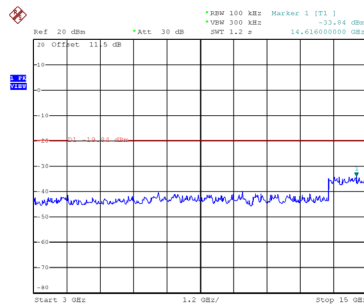


Date: 26.AUG.2025 23:41:52

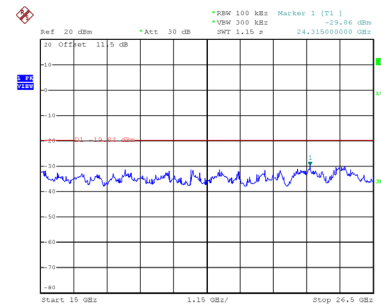
CH01 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:39:02

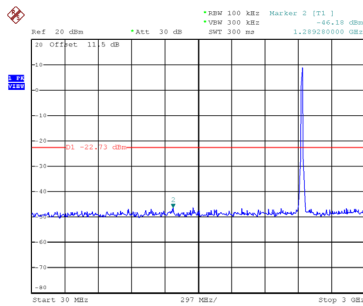


Date: 26.AUG.2025 23:39:11

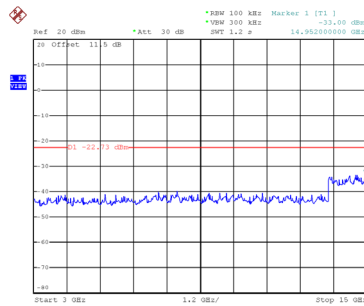


Date: 26.AUG.2025 23:39:20

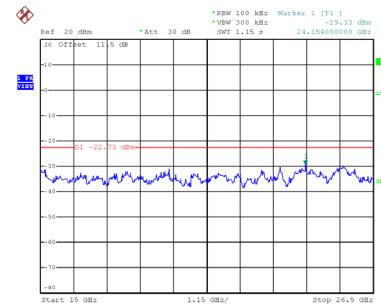
CH06 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:40:36

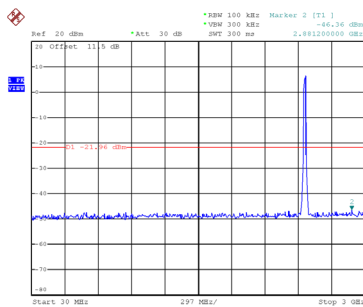


Date: 26.AUG.2025 23:40:46

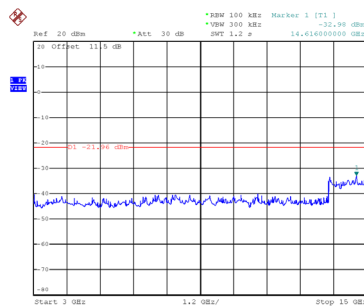


Date: 26.AUG.2025 23:40:55

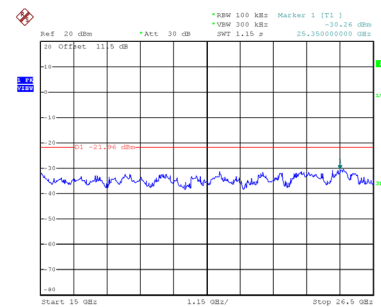
CH11 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:42:08



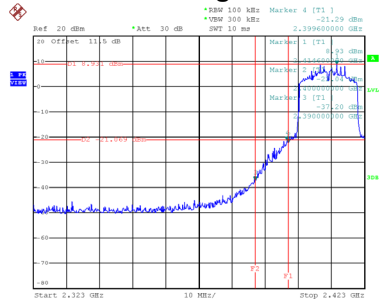
Date: 26.AUG.2025 23:42:17



Date: 26.AUG.2025 23:42:26

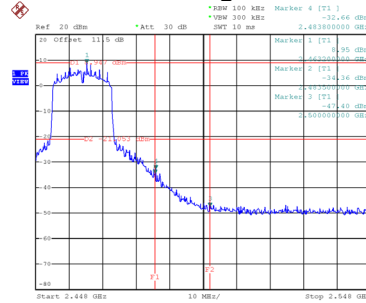
Test Mode	TX N(HT20) Mode
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Bandedge-CH01



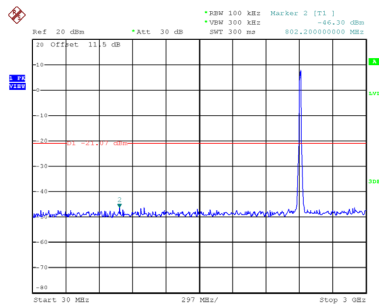
Date: 26.AUG.2025 23:43:51

Bandedge-CH11

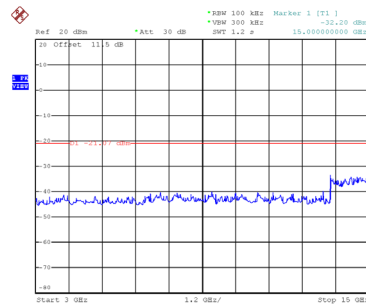


Date: 26.AUG.2025 23:48:49

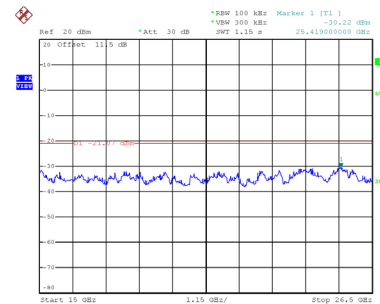
CH01 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:44:06

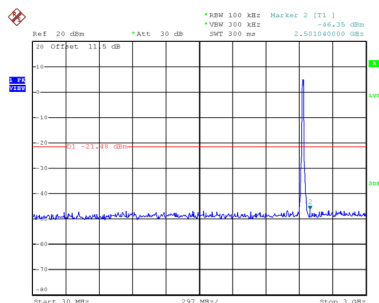


Date: 26.AUG.2025 23:44:15

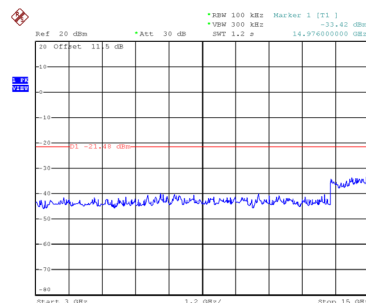


Date: 26.AUG.2025 23:44:25

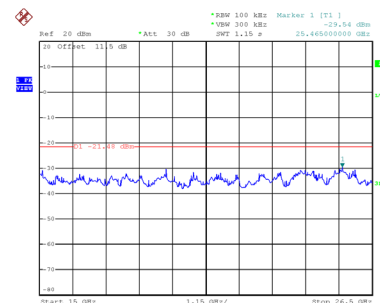
CH06 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:45:41

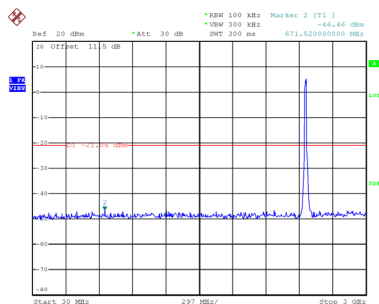


Date: 26.AUG.2025 23:45:51

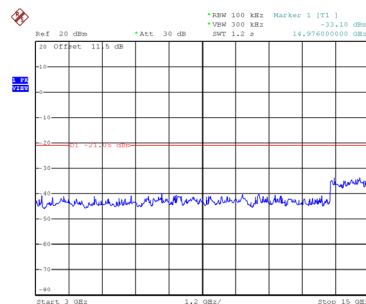


Date: 26.AUG.2025 23:46:00

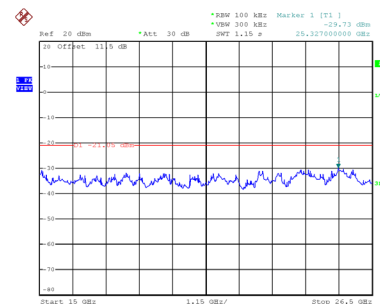
CH11 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:49:04



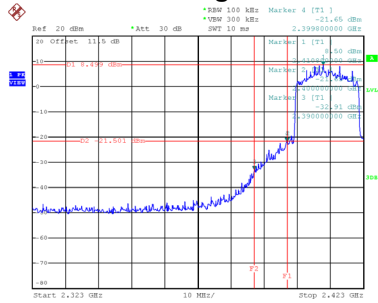
Date: 26.AUG.2025 23:49:13



Date: 26.AUG.2025 23:49:22

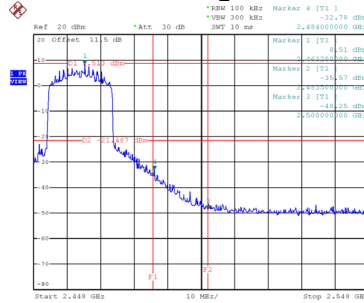
Test Mode TX AX(HE20) Mode_Ant. 1

Bandedge-CH01



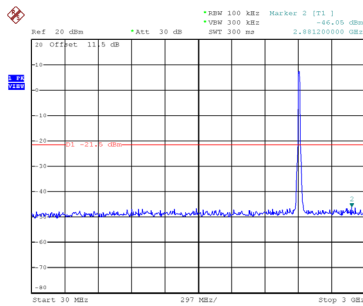
Date: 26.AUG.2025 23:50:35

Bandedge-CH11

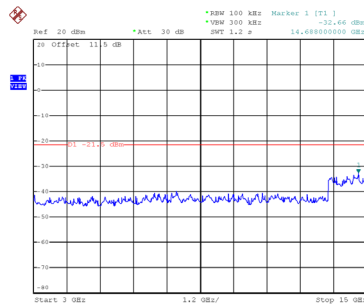


Date: 26.AUG.2025 23:53:50

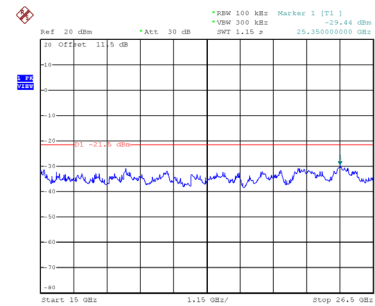
CH01 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:50:50

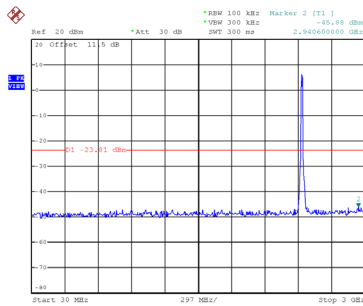


Date: 26.AUG.2025 23:51:00

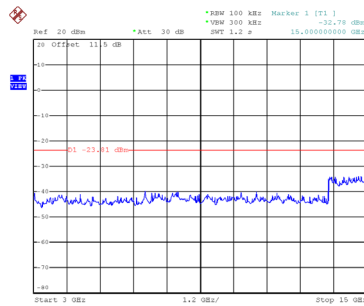


Date: 26.AUG.2025 23:51:09

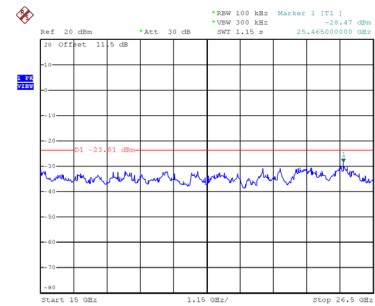
CH06 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:52:36

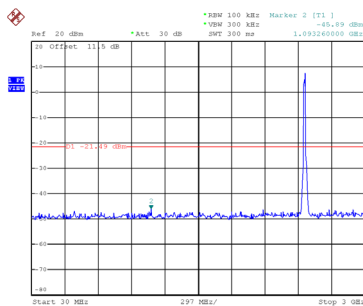


Date: 26.AUG.2025 23:52:45

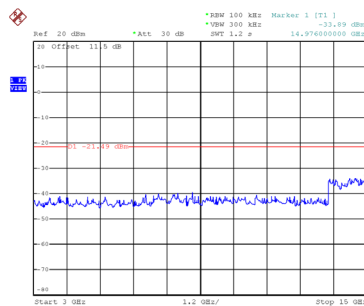


Date: 26.AUG.2025 23:52:54

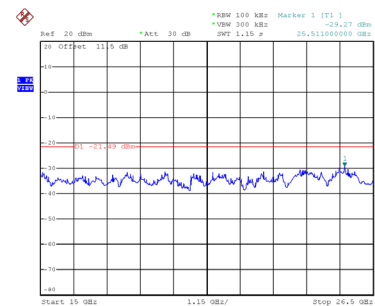
CH11 – 10th Harmonic of the fundamental frequency



Date: 26.AUG.2025 23:54:05



Date: 26.AUG.2025 23:54:14

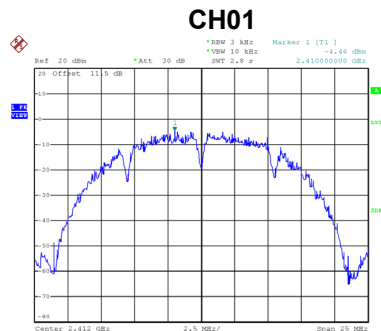


Date: 26.AUG.2025 23:54:23

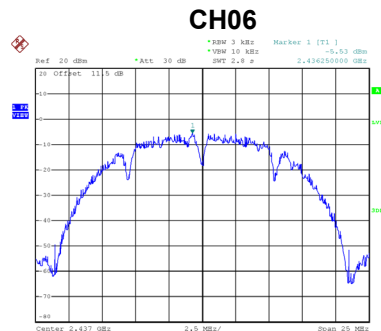
APPENDIX G - POWER SPECTRAL DENSITY

Test Mode	TX B Mode
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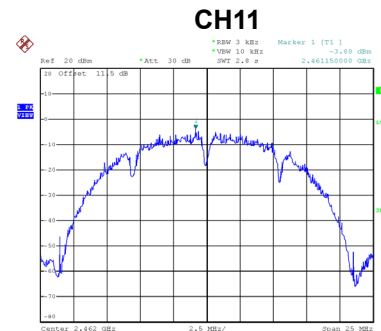
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.46	8.00	Complies
06	2437	-5.53	8.00	Complies
11	2462	-3.80	8.00	Complies



Date: 26.AUG.2025 23:34:14



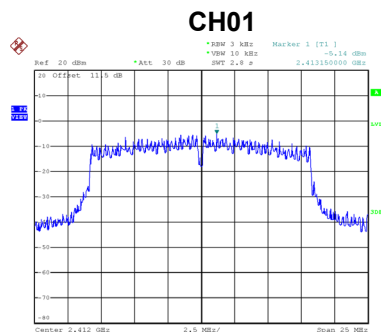
Date: 26.AUG.2025 23:36:01



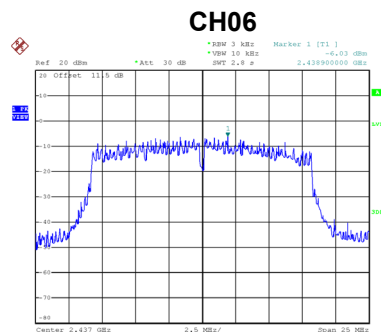
Date: 26.AUG.2025 23:37:42

Test Mode	TX G Mode
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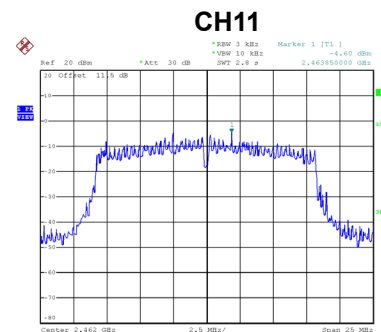
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.14	8.00	Complies
06	2437	-6.03	8.00	Complies
11	2462	-4.60	8.00	Complies



Date: 26.AUG.2025 23:39:31



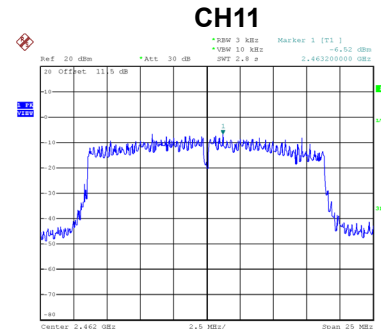
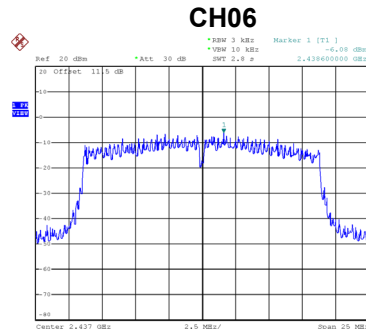
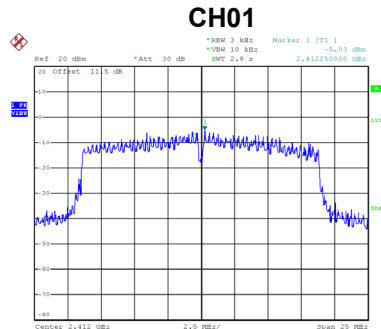
Date: 26.AUG.2025 23:41:05



Date: 26.AUG.2025 23:42:36

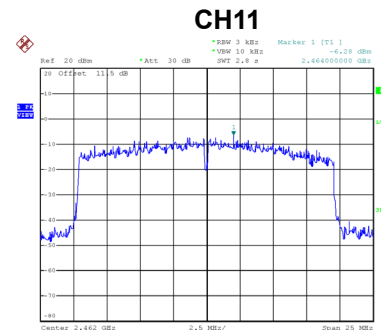
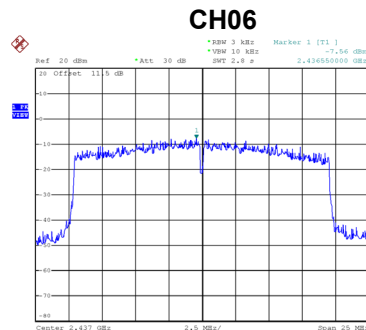
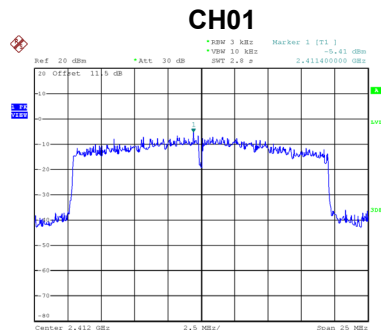
Test Mode	TX N(HT20) Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.03	8.00	Complies
06	2437	-6.08	8.00	Complies
11	2462	-6.52	8.00	Complies



Test Mode	TX AX(HE20) Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.41	8.00	Complies
06	2437	-7.56	8.00	Complies
11	2462	-6.28	8.00	Complies



End of Test Report