Frequency (MHz)	Level	Limit	Margin (dB)	Detector	Unit	Angle (°)	Height (cm)	Polarisation
*								

Table 95 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

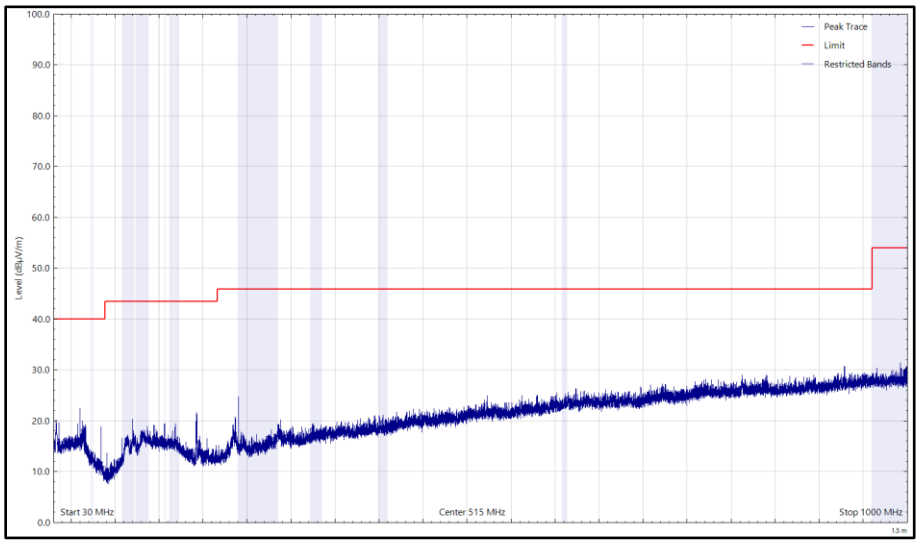

Figure 238 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

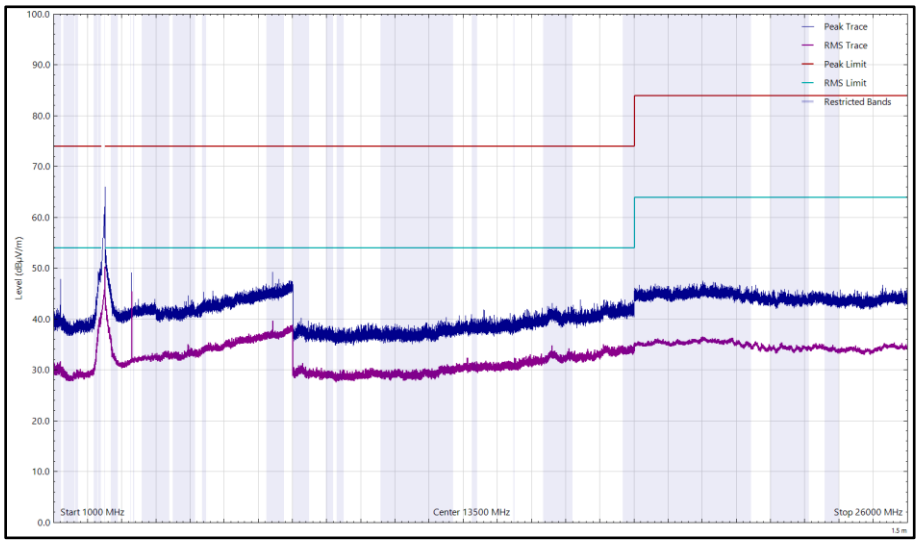

Figure 239 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

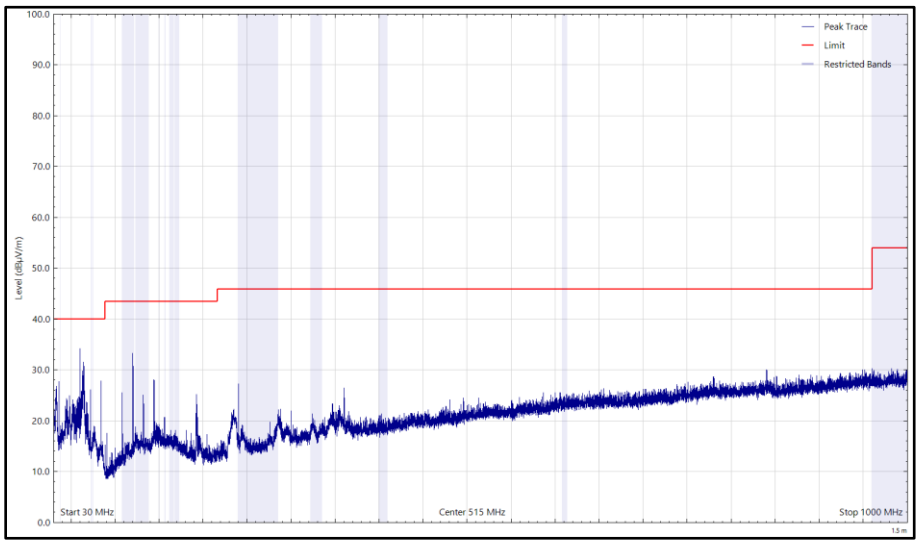

Figure 240 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

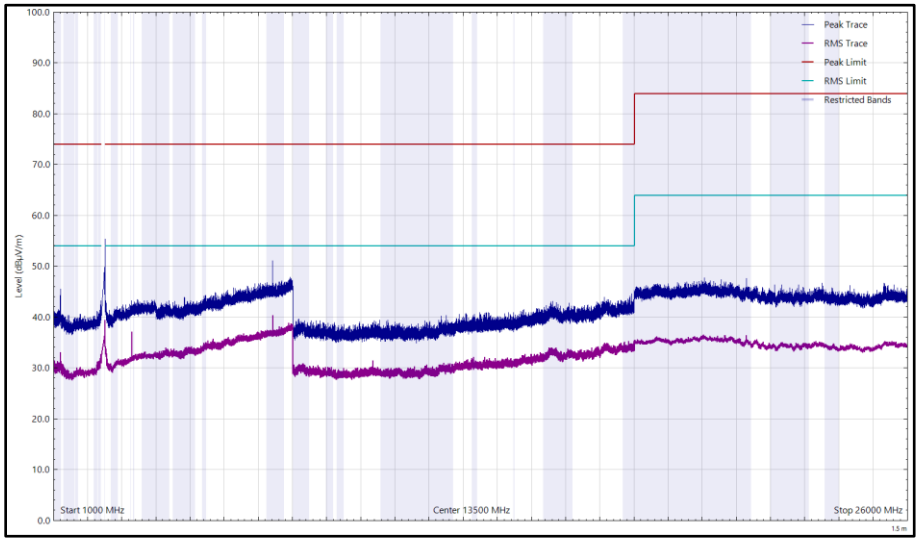

Figure 241 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

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)

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN, clause 8.10, must also comply with the radiated emission limits specified in RSS-GEN clause 8.9.

2.4.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Dual Power Supply Unit	Hewlett Packard	6253A	292	-	O/P Mon
True RMS Multimeter	Fluke	179	4007	12	17-Nov-2024
4dB Attenuator	Pasternack	PE7047-4	4935	12	20-Jul-2024
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5066	12	22-Feb-2025
Band Reject Filter - 2.4585 GHz	Wainwright	WRCGV14-2423.5-2433.5-2483.5-2493.5-50SS	5068	12	06-Nov-2024
Test Receiver	Rohde & Schwarz	ESW44	5084	12	31-Aug-2024
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	24-Nov-2024
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	09-Jul-2024
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	09-Jul-2024
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	5522	12	14-Apr-2024
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5547	12	30-May-2024
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5550	12	30-May-2024
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5595	12	26-Oct-2024
Cable (K-Type to K-Type, 2 m)	Junkosha	MWX241-02000KMSKMS/B	5934	12	18-Jun-2024
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6189	24	02-Jun-2024
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	6635	24	13-Jun-2025

Table 96

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment

2.5 Restricted Band Edges

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.205
ISED RSS-247, Clause 3.3
ISED RSS-GEN, Clause 8.10

2.5.2 Equipment Under Test and Modification State

SiW917Y1GA, S/N: WLAN MAC address: ec:f6:4c:a0:ac:c - Modification State 0
SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.5.3 Date of Test

12-April-2024 to 10-July-2024

2.5.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 6.10.5 and 11.12.1.

Plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.2.

The following conversion can be applied to convert from dBµV/m to µV/m:
10^(Field Strength in dBµV/m/20).

The EUT was supplied with 3.3 VDC by means of a regulator residing in the host certification board, which was in turn being powered over the host certification board's USB connector.

The Power Settings used for testing are as follows:
802.11b Channel 1, 15; Channel 11, 15
802.11g Channel 1, 11; Channel 11, 10
802.11n Channel 1, 10; Channel 11, 10
802.11ax Channel 1, 10; Channel 11, 10

In addition to measurements performed on the worst-case modes of operation as determined by ANSI C63.10 clause 5.6.2.2, measurements were also performed on HE20 RU26-8 for 2412 MHz and RU26-0 for 2462 MHz which were identified as worst-case modes of operation as identified during preliminary measurements performed by the applicant.

2.5.5 Environmental Conditions

Ambient Temperature	19.8 - 19.9 °C
Relative Humidity	39.8 - 47.8 %

2.5.6 Test Results

2.4 GHz WLAN - PCB Trace Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)
802.11b	1Mbps	2412	2390	57.20	48.19
802.11b	1Mbps	2462	2483.5	56.93	47.96
802.11g	6Mbps	2412	2390	60.62	50.60
802.11g	6Mbps	2462	2483.5	59.69	48.88
802.11n	MCS0	2412	2390	59.07	49.78
802.11n	MCS0	2462	2483.5	60.63	49.58
802.11ax	MCS0	2412	2390	59.23	49.10
802.11ax	MCS0	2462	2483.5	61.66	50.25
802.11ax	RU26-8	2412	2390	63.11	48.91
802.11ax	RU26-0	2462	2483.5	64.16	49.84

Table 29

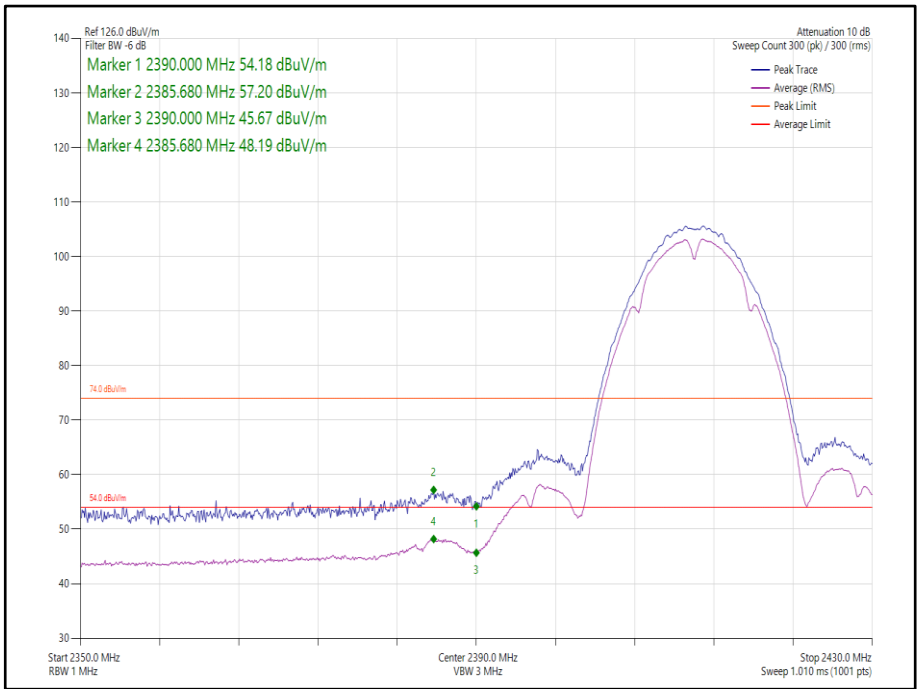

Figure 242 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2390 MHz

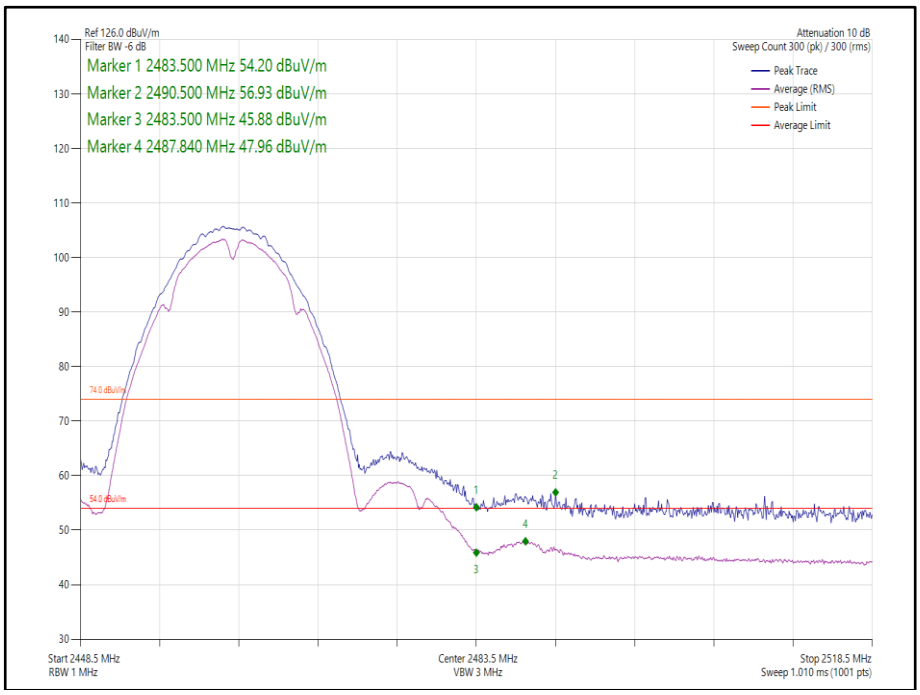

Figure 243 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

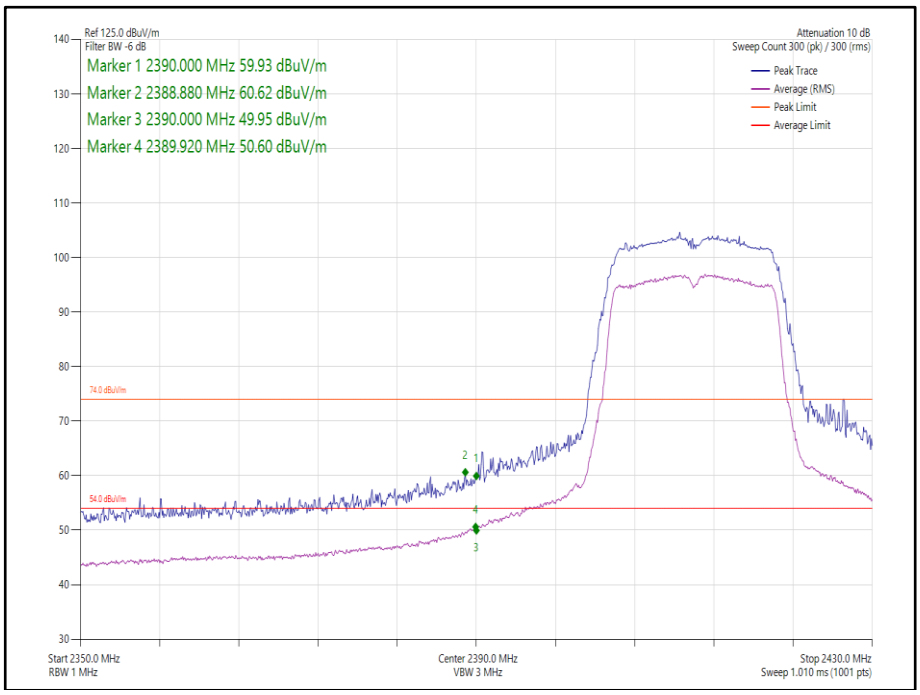

Figure 244 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2390 MHz

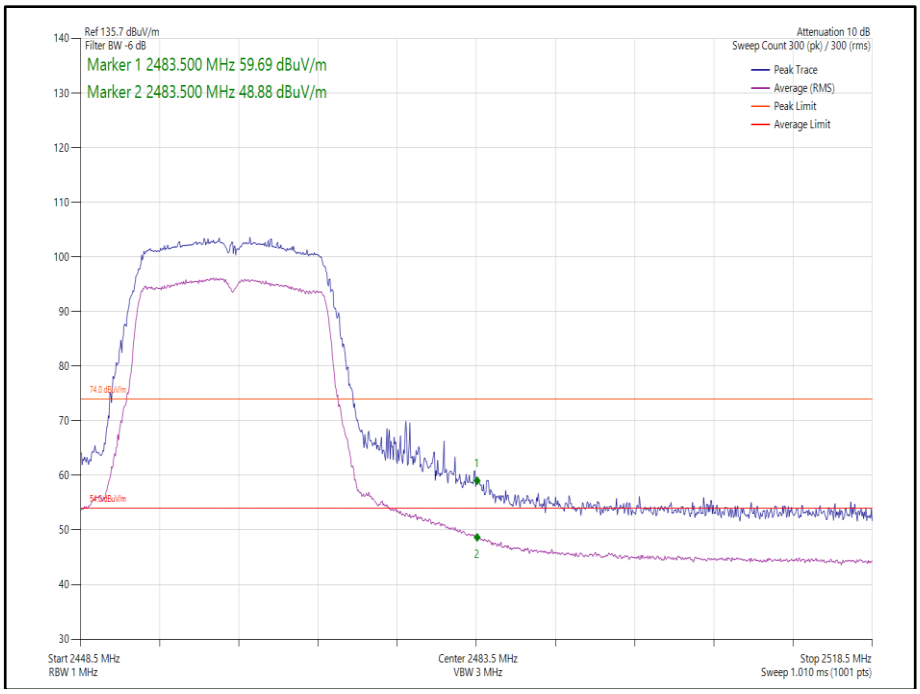

Figure 245 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

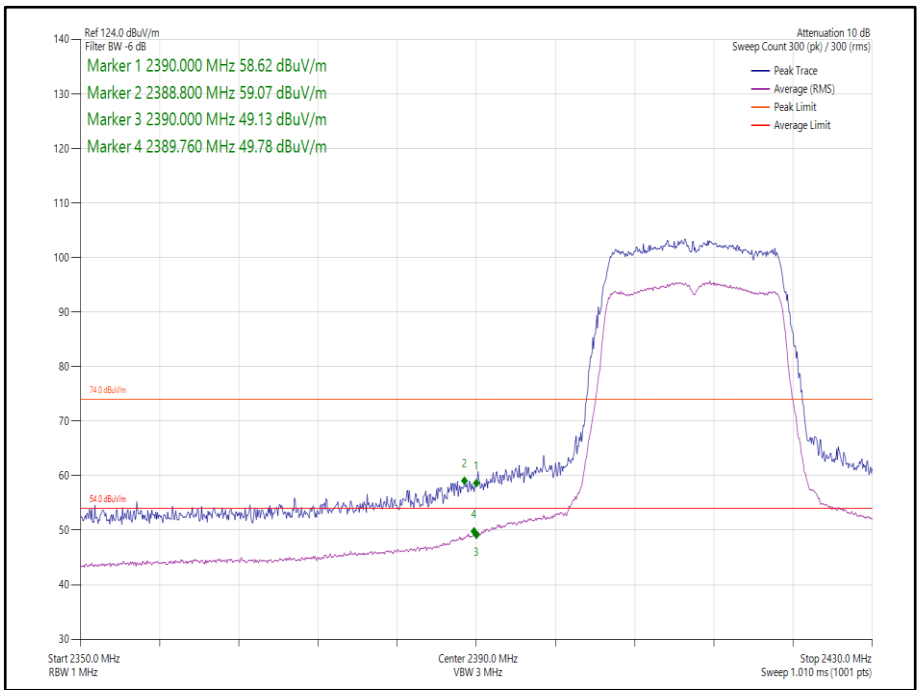

Figure 246 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2390 MHz

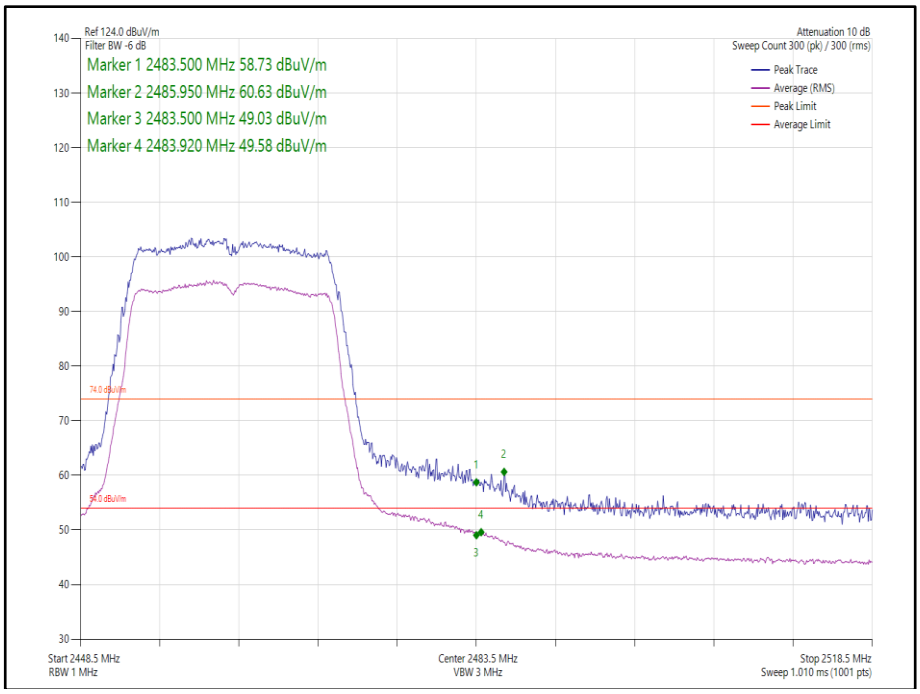

Figure 247 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

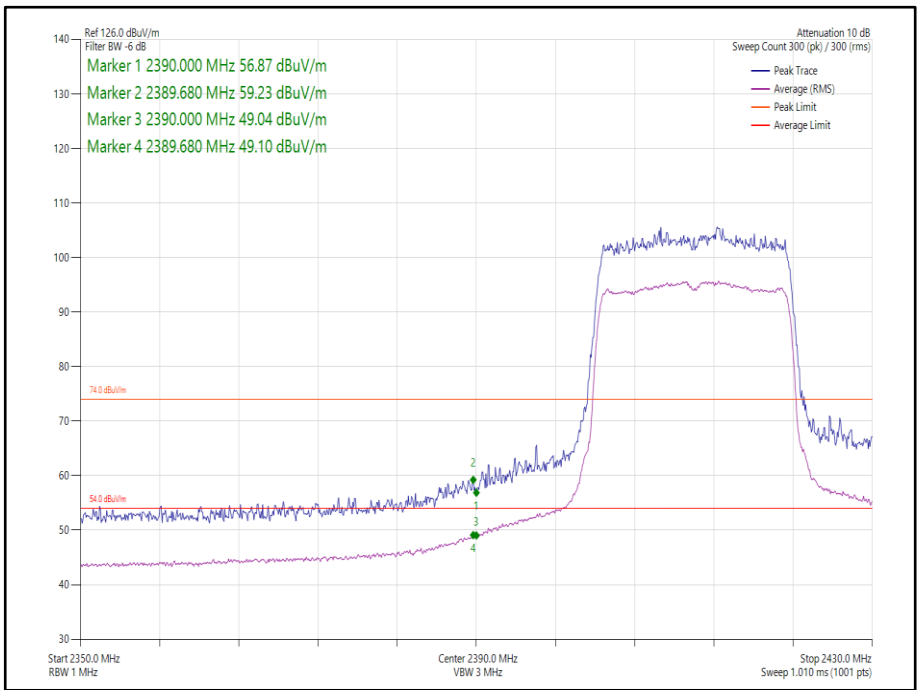

Figure 248 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2390 MHz

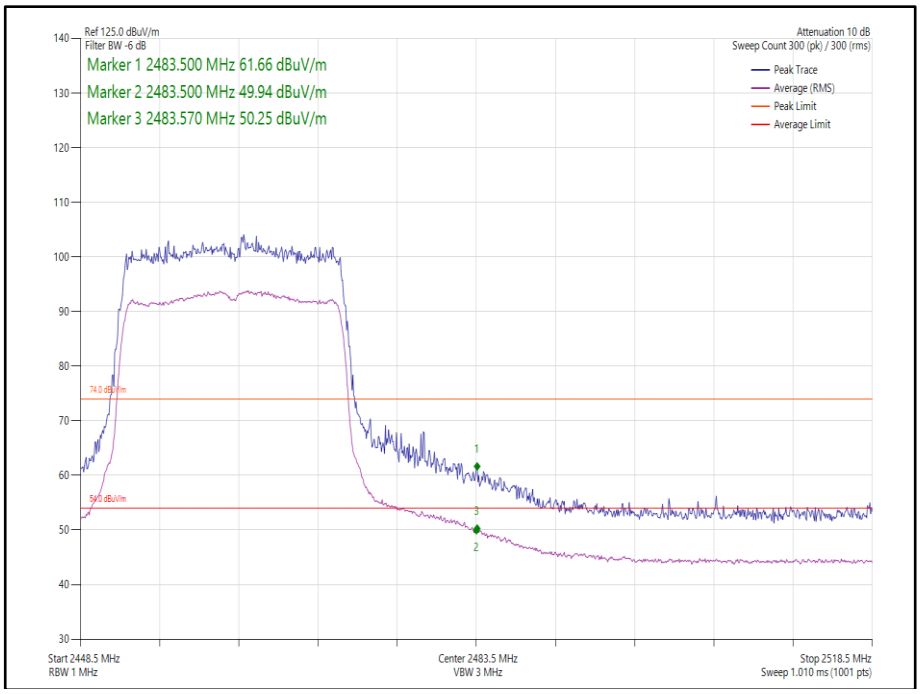

Figure 249 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

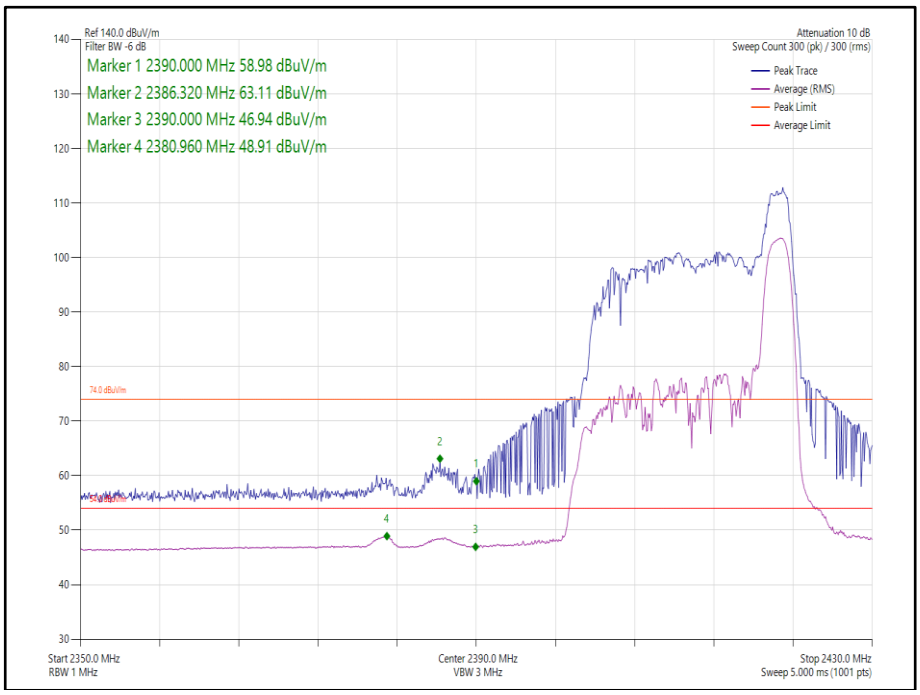

Figure 250 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2390 MHz

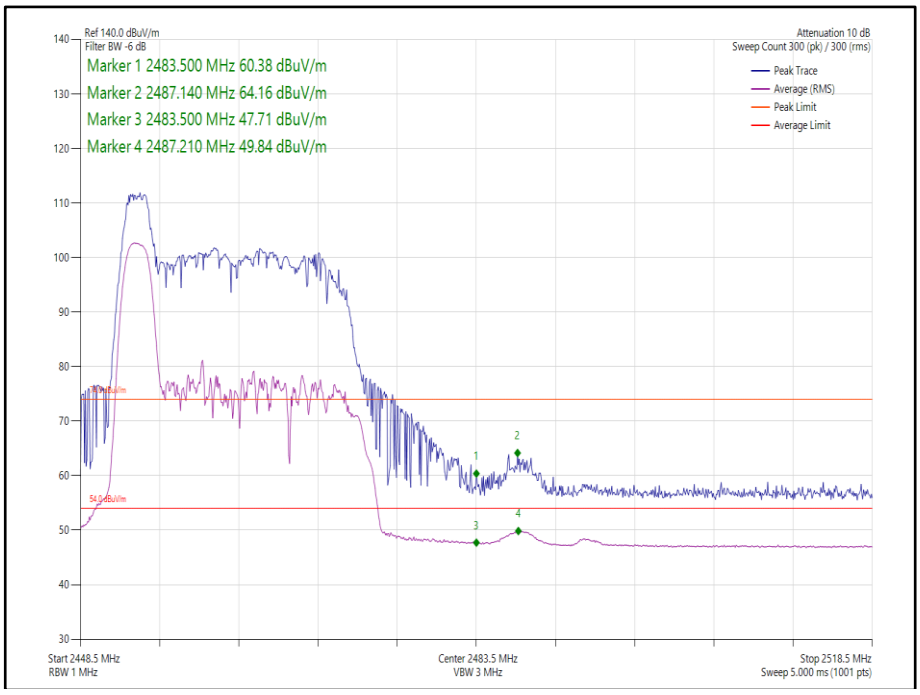

Figure 251 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)
802.11b	1Mbps	2412	2390	57.00	48.09
802.11b	1Mbps	2462	2483.5	57.33	48.07
802.11g	6Mbps	2412	2390	62.96	49.64
802.11g	6Mbps	2462	2483.5	64.47	50.16
802.11n	MCS0	2412	2390	59.69	48.81
802.11n	MCS0	2462	2483.5	61.66	48.95
802.11ax	MCS0	2412	2390	60.70	49.61
802.11ax	MCS0	2462	2483.5	66.21	52.38
802.11ax	RU26-8	2412	2390	67.60	50.36
802.11ax	RU26-0	2462	2483.5	64.56	48.99

Table 29

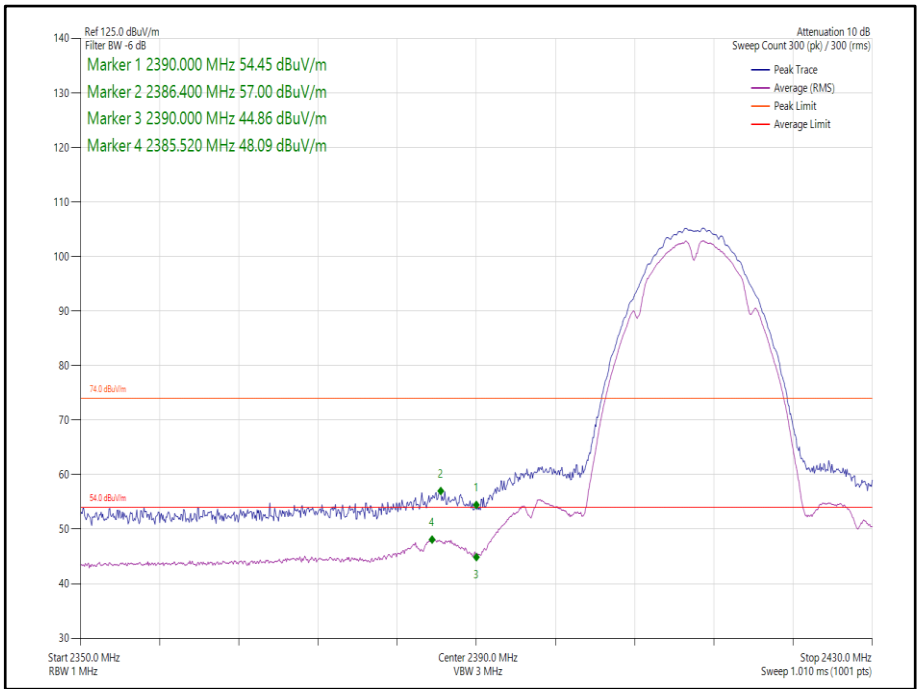

Figure 252 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2390 MHz

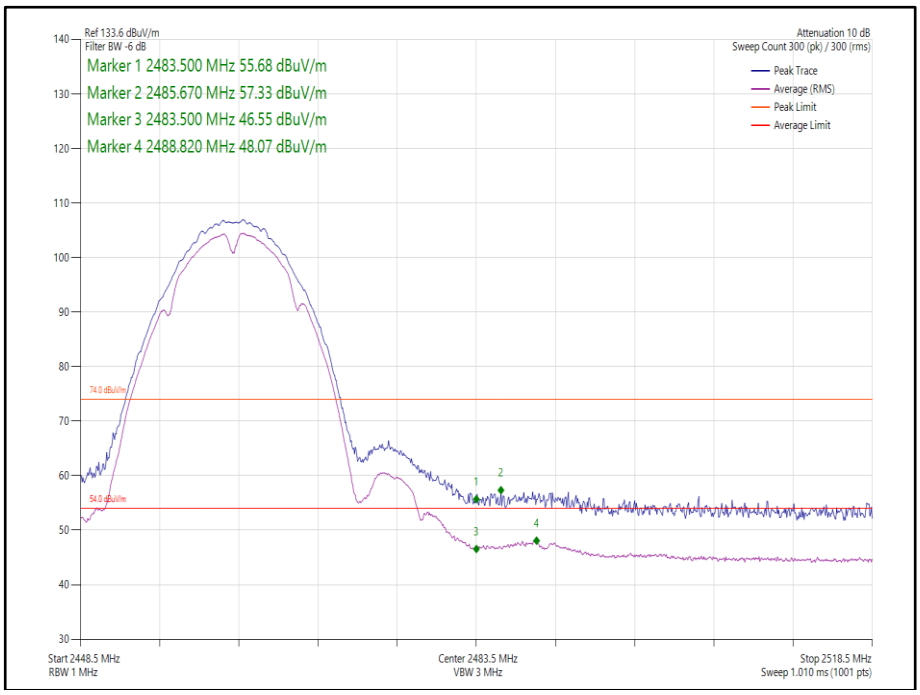

Figure 253 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

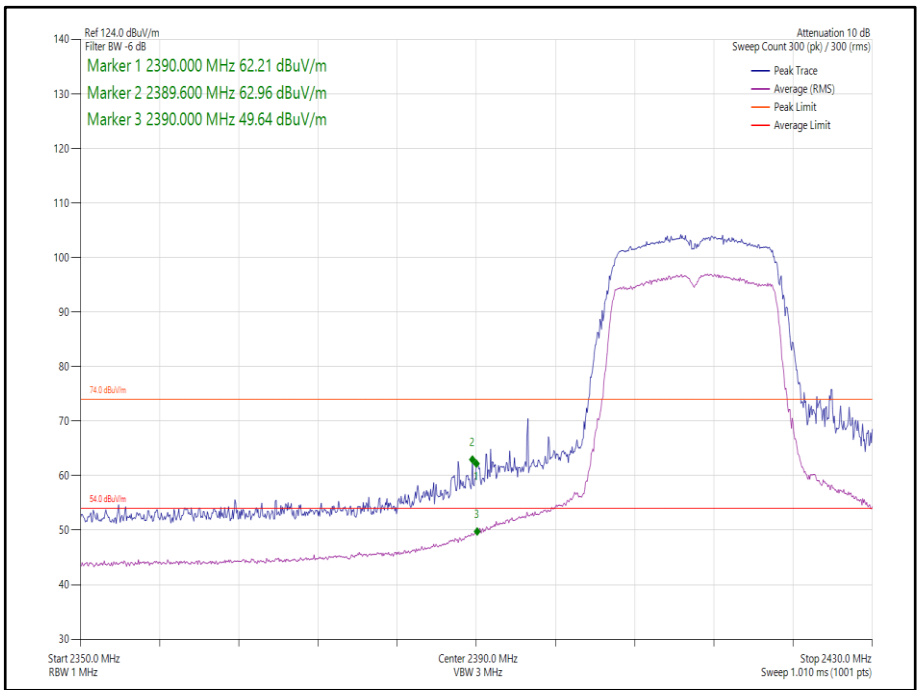

Figure 254 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2390 MHz

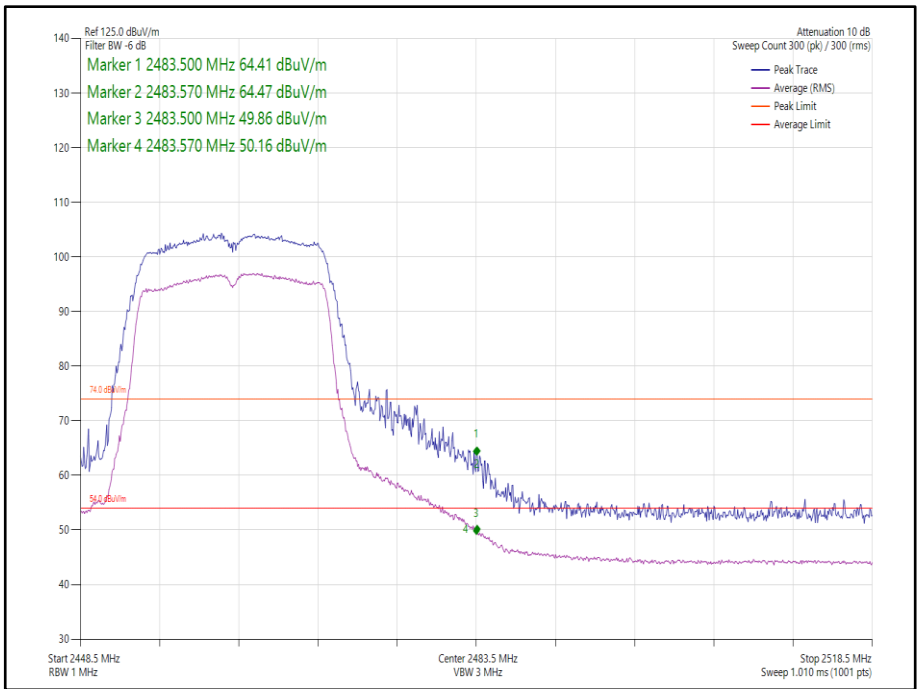

Figure 255 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

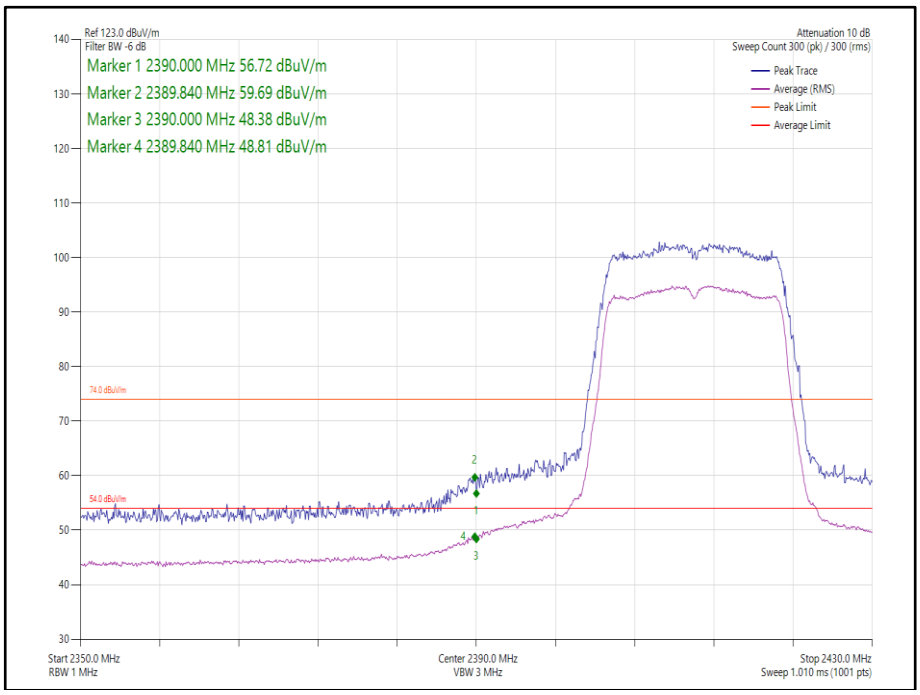

Figure 256 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2390 MHz

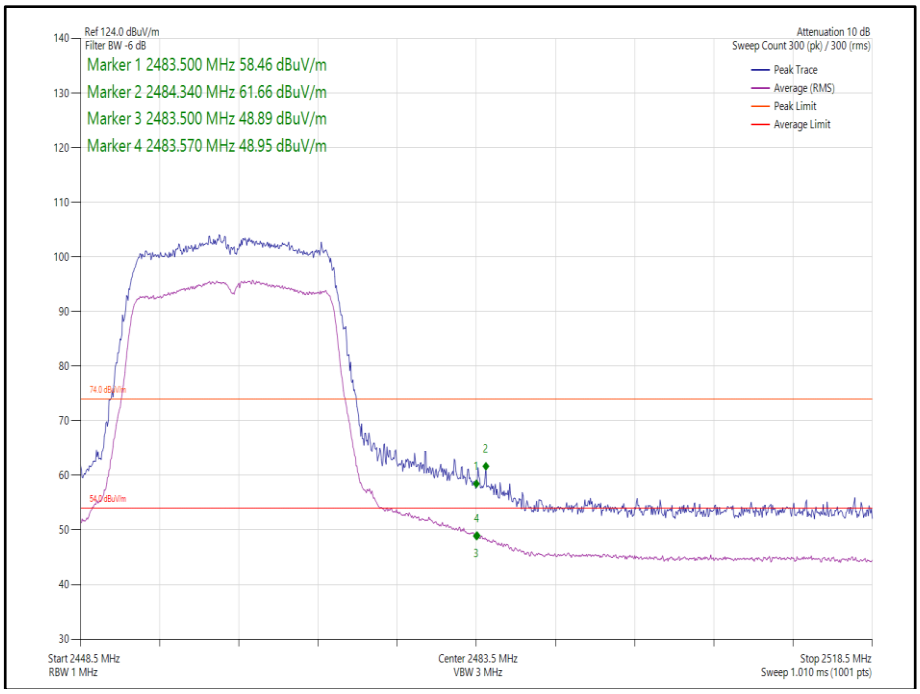

Figure 257 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

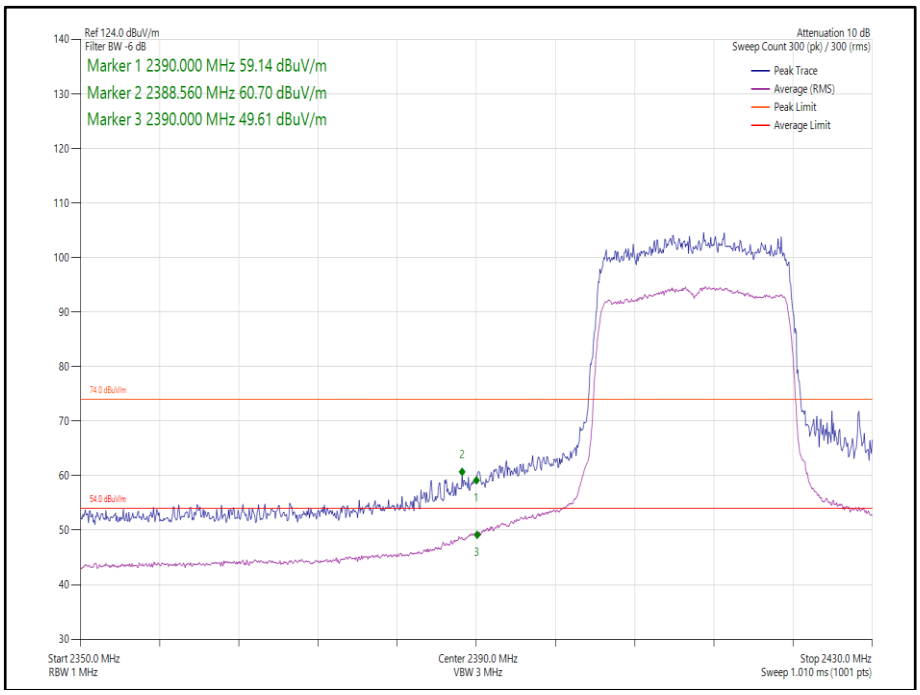

Figure 258 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2390 MHz

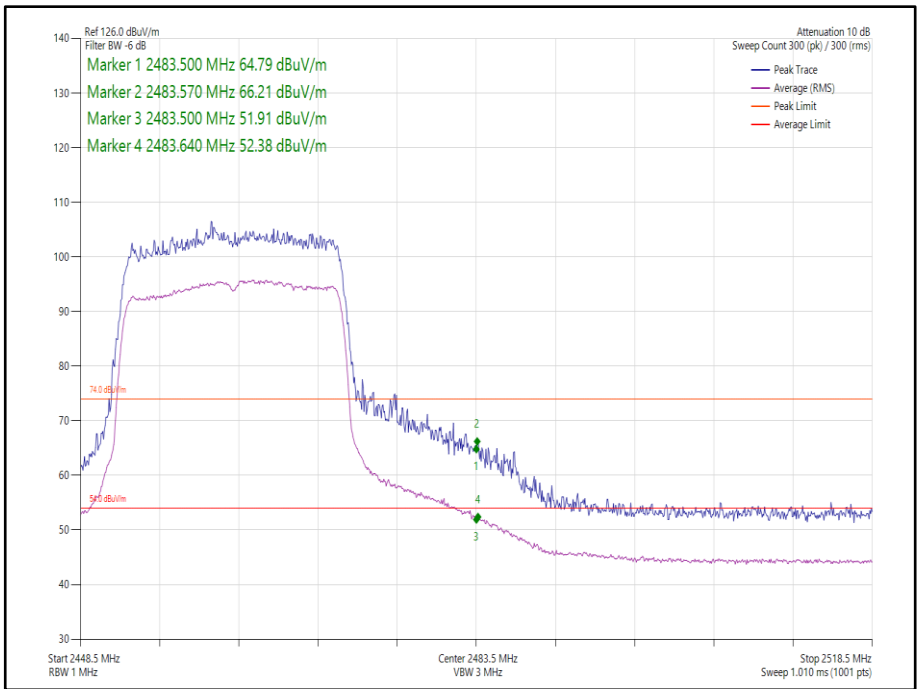

Figure 259 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

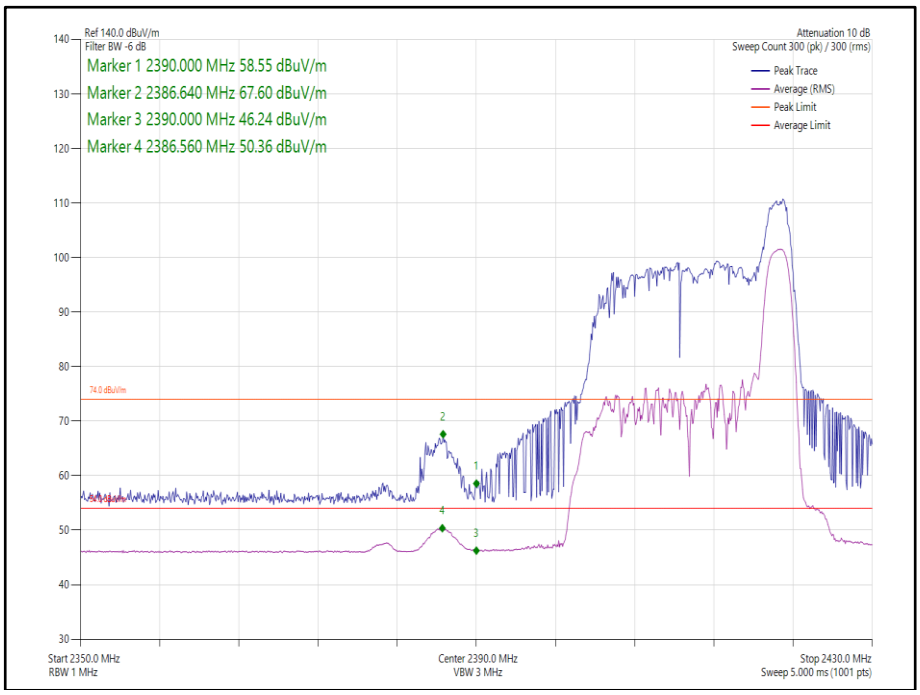

Figure 260 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2390 MHz

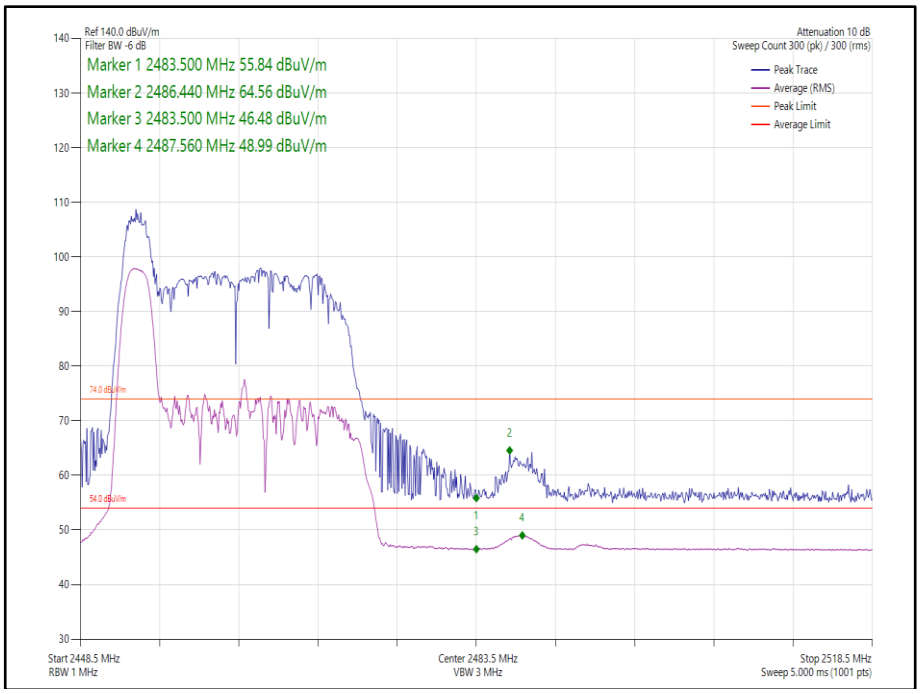

Figure 261 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.209

Frequency (MHz)	Field Strength (µV/m at 3 m)
30 to 88	100
88 to 216	150
216 to 960	200
Above 960	500

Table 97

ISED RSS-GEN, Limit Clause 8.9

Frequency (MHz)	Field Strength (µV/m at 3 m)
30 to 88	100
88 to 216	150
216 to 960	200
Above 960*	500

Table 98

*Unless otherwise specified, for all frequencies greater than 1 GHz, the radiated emission limits for licence-exempt radio apparatus stated in applicable RSSs (including RSS-Gen) are based on measurements using a linear average detector function having a minimum resolution bandwidth of 1 MHz. If an average limit is specified for the EUT, then the peak emission shall also be measured with instrumentation properly adjusted for such factors as pulse desensitization to ensure the peak emission is less than 20 dB above the average limit.

2.5.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Power Supply	Hewlett Packard	6253A	292	-	O/P Mon
Meter	Fluke	179	4006	12	22-Mar-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	04-Nov-2024
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	24-Nov-2024
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	09-Jul-2024
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	14-Jul-2025
Pre -Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	23-May-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo -Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	07-May-2025
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	23-May-2025
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	18-Apr-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	6330	12	17-Feb-2025

Table 99

TU - Traceability Unscheduled
O/P Mon – Output Monitored

2.6 Authorised Band Edges

2.6.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)
ISED RSS-247, Clause 5.5

2.6.2 Equipment Under Test and Modification State

SiW917Y1GA, S/N: WLAN MAC address: ec:f6:4c:a0:ac:c - Modification State 0
SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.6.3 Date of Test

12-April-2024 to 10-July-2024

2.6.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.10.4.

The EUT was supplied with 3.3 VDC by means of a regulator residing in the host certification board, which was in turn being powered over the host certification board's USB connector.

The Power Settings used for testing are as follows:
802.11b Channel 1, 15; Channel 11, 15
802.11g Channel 1, 11; Channel 11, 10
802.11n Channel 1, 10; Channel 11, 10
802.11ax Channel 1, 10; Channel 11, 10

In addition to measurements performed on the worst-case modes of operation as determined by ANSI C63.10 clause 5.6.2.2, measurements were also performed on HE20 RU26-8 for 2412 MHz and RU26-0 for 2462 MHz which were identified as worst-case modes of operation as identified during preliminary measurements performed by the applicant.

2.6.5 Environmental Conditions

Ambient Temperature	19.8 - 19.9 °C
Relative Humidity	39.8 - 47.8 %

2.6.6 Test Results

2.4 GHz WLAN - PCB Trace Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1Mbps	2412	2400	-45.49
802.11b	1Mbps	2462	2483.5	-52.98
802.11g	6Mbps	2412	2400	-37.11
802.11g	6Mbps	2462	2483.5	-44.11
802.11n	MCS0	2412	2400	-38.68
802.11n	MCS0	2462	2483.5	-43.19
802.11ax	MCS0	2412	2400	-37.91
802.11ax	MCS0	2462	2483.5	-41.82
802.11ax	RU26-8	2412	2400	-42.22
802.11ax	RU26-0	2462	2483.5	-49.35

Table 29

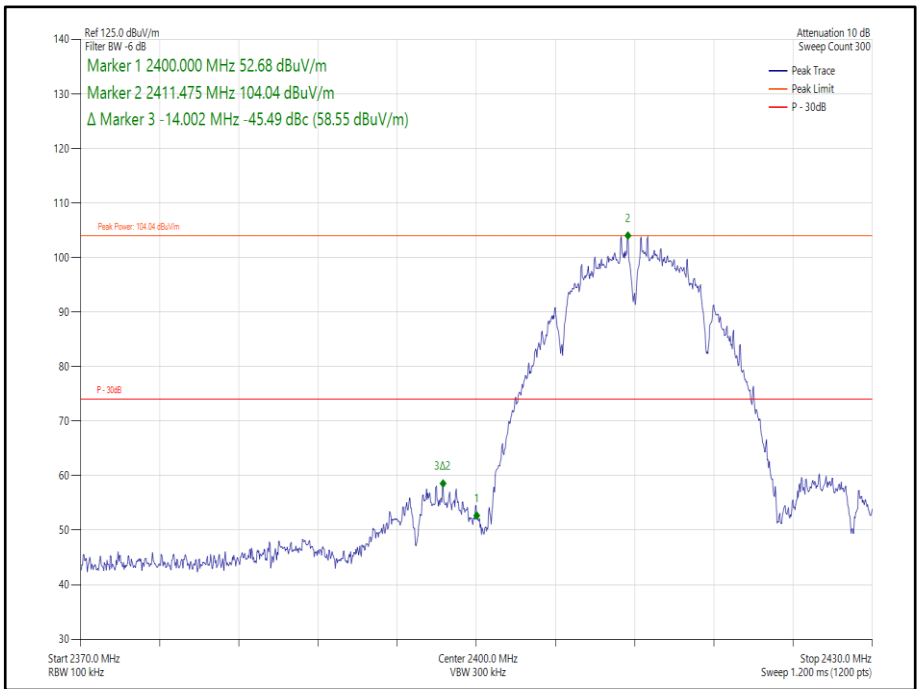

Figure 262 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2400 MHz

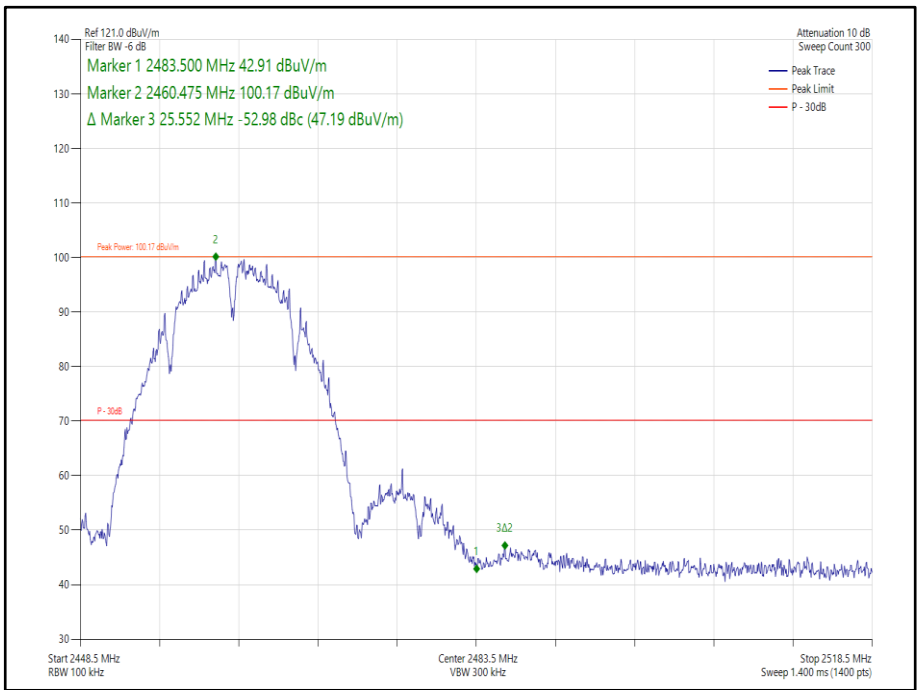

Figure 263 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

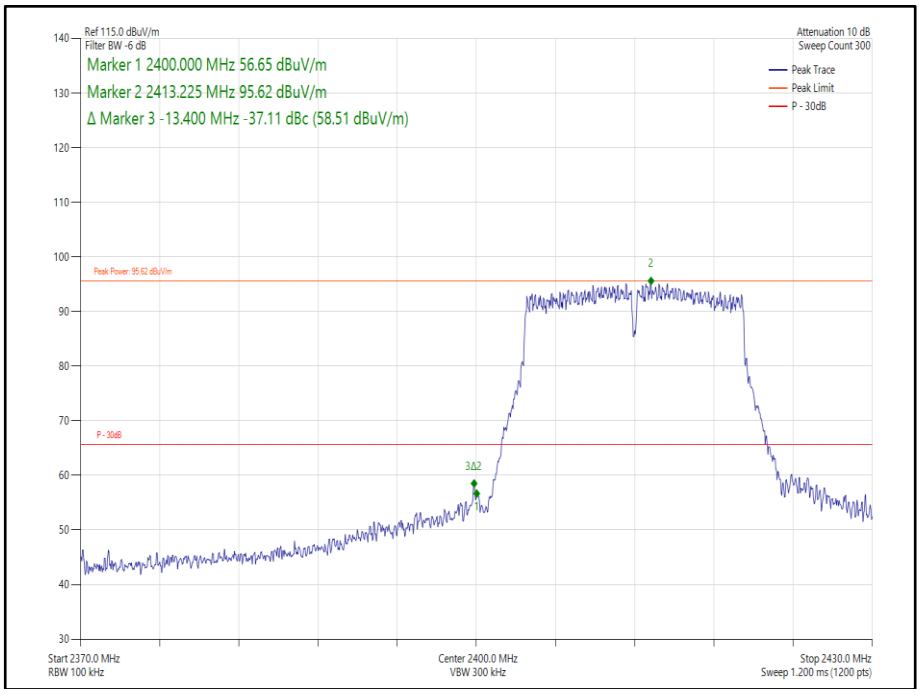

Figure 264 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2400 MHz

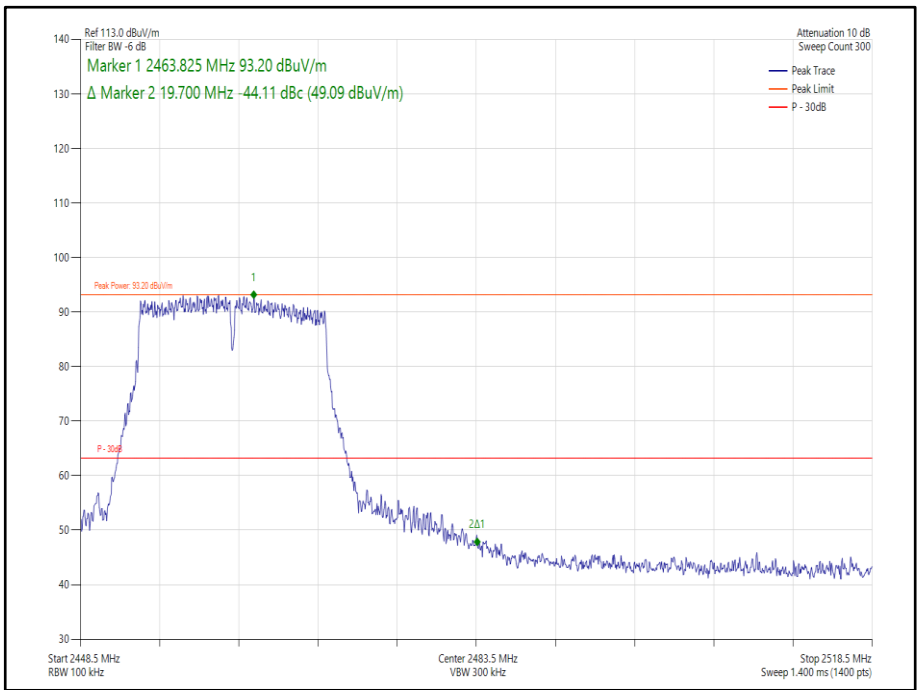

Figure 265 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

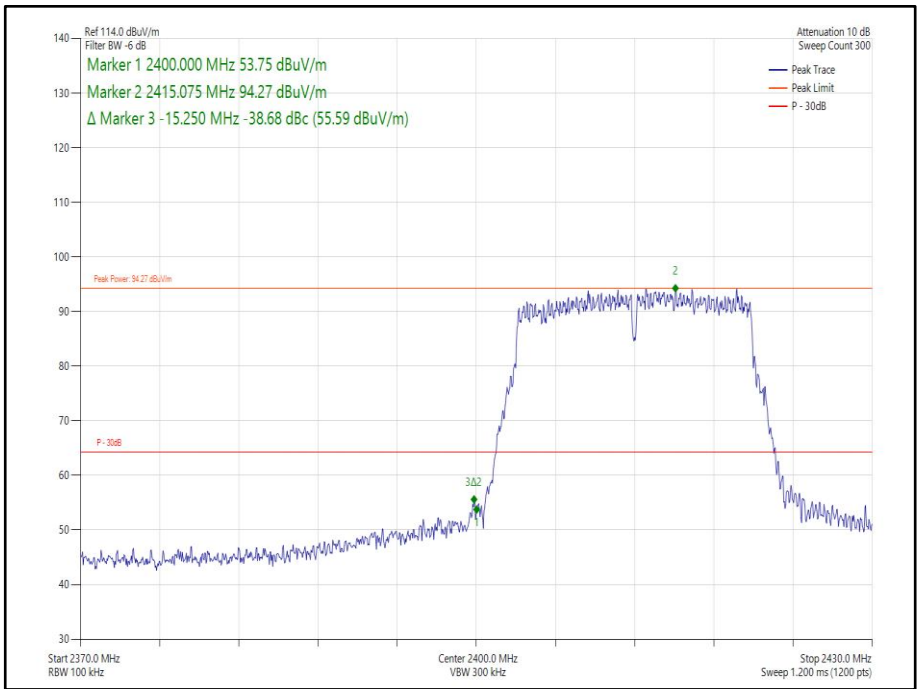

Figure 266 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2400 MHz

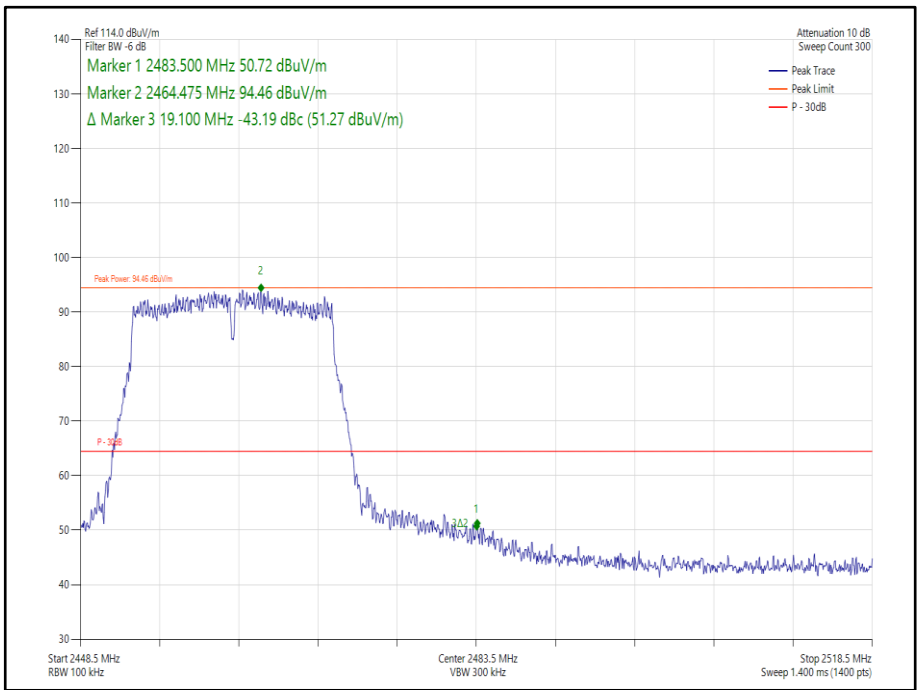

Figure 267 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

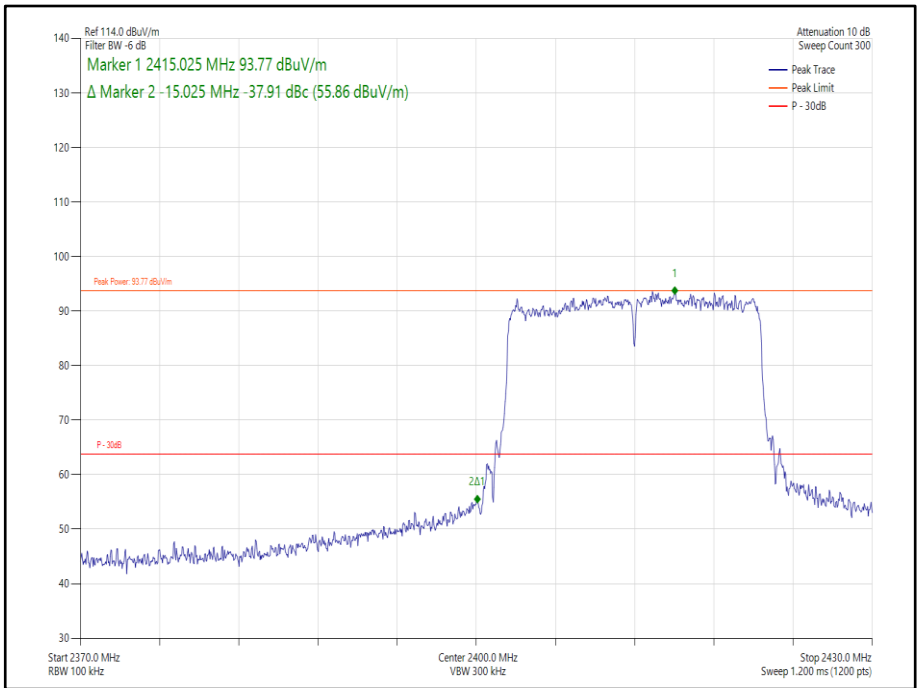

Figure 268 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2400 MHz

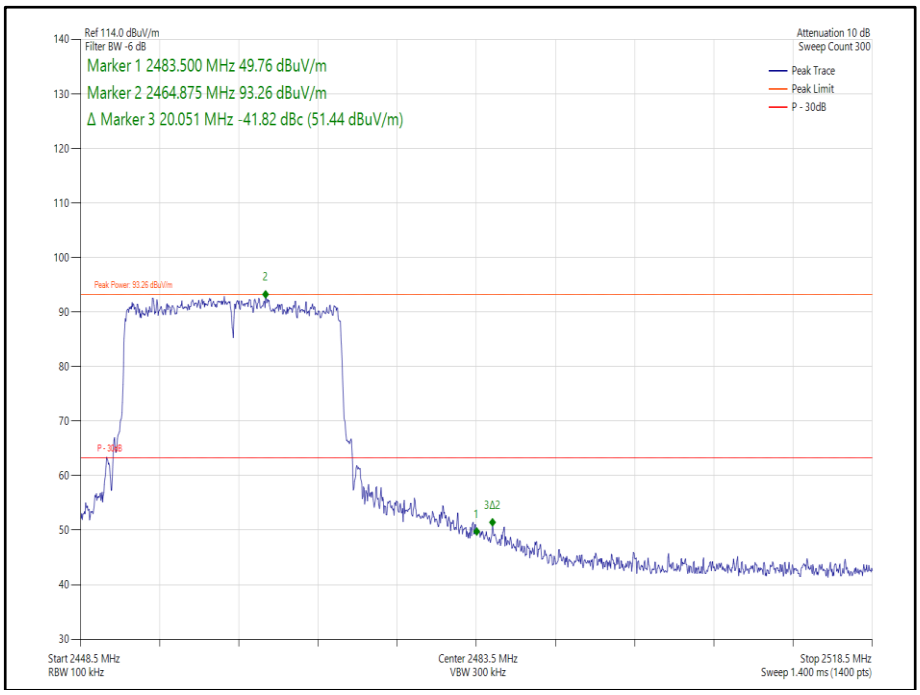

Figure 269 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

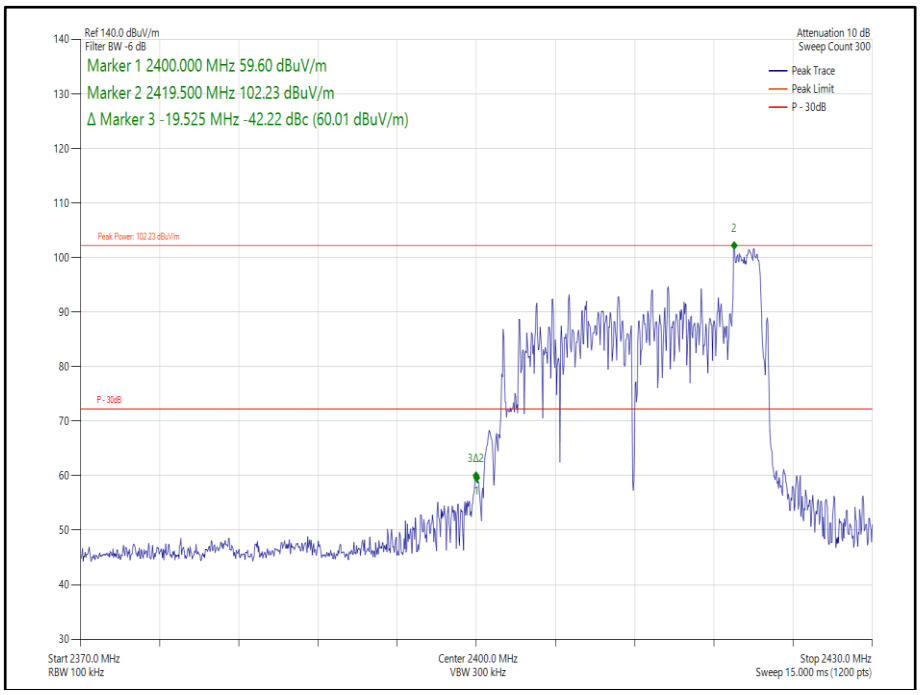

Figure 270 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2400 MHz

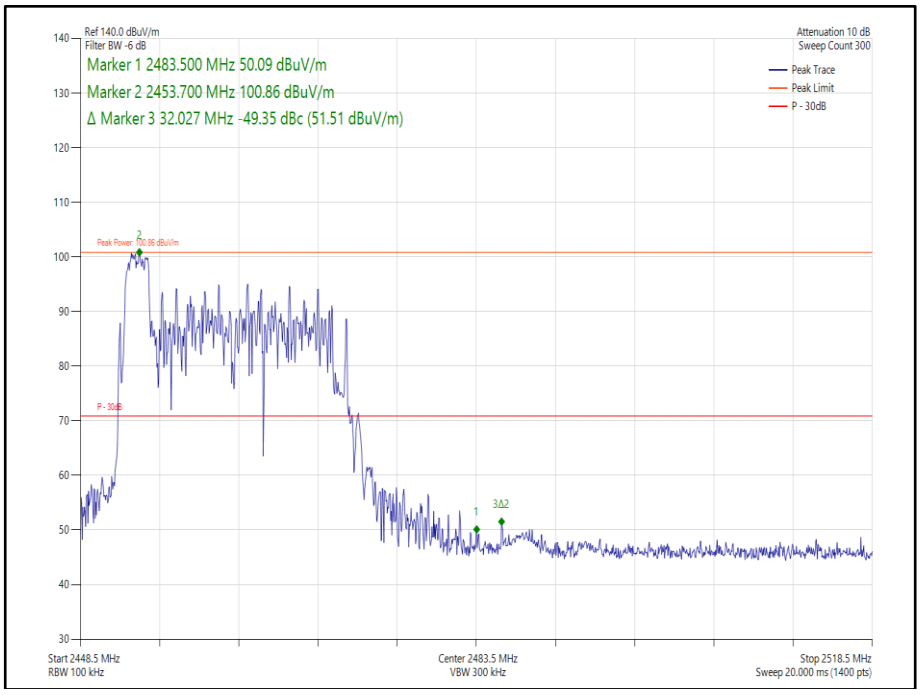

Figure 271 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1Mbps	2412	2400	-47.04
802.11b	1Mbps	2462	2483.5	-54.74
802.11g	6Mbps	2412	2400	-37.20
802.11g	6Mbps	2462	2483.5	-46.16
802.11n	MCS0	2412	2400	-36.81
802.11n	MCS0	2462	2483.5	-43.47
802.11ax	MCS0	2412	2400	-35.11
802.11ax	MCS0	2462	2483.5	-39.38
802.11ax	RU26-8	2412	2400	-40.18
802.11ax	RU26-0	2462	2483.5	-45.08

Table 29

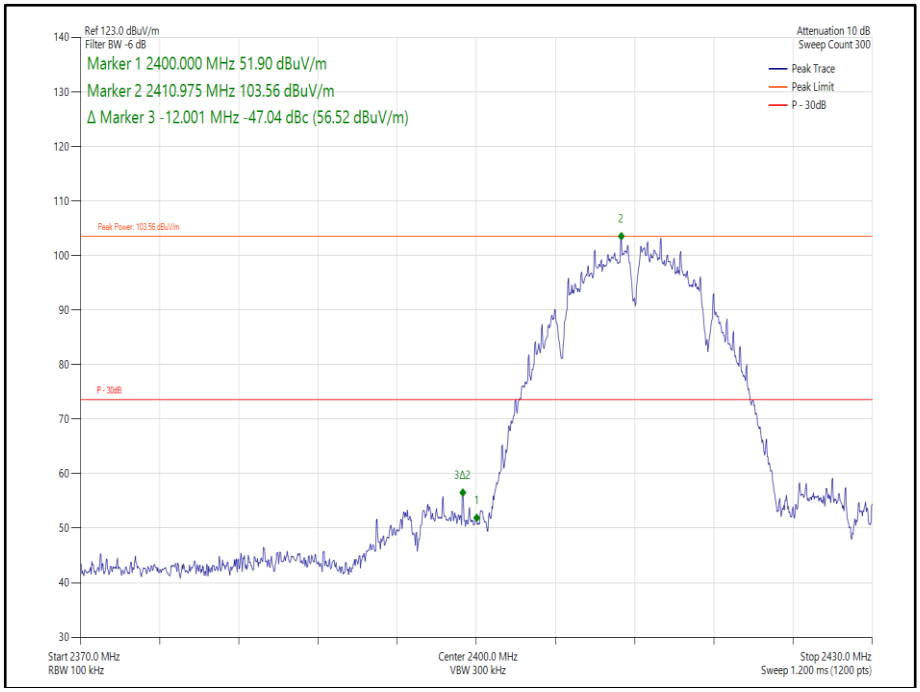

Figure 272 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2400 MHz

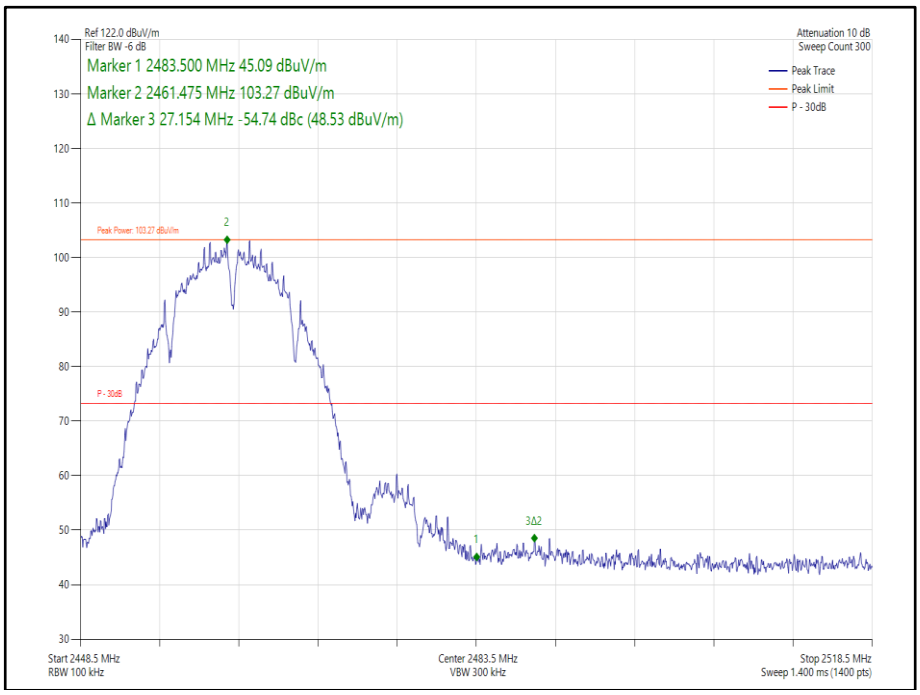

Figure 273 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

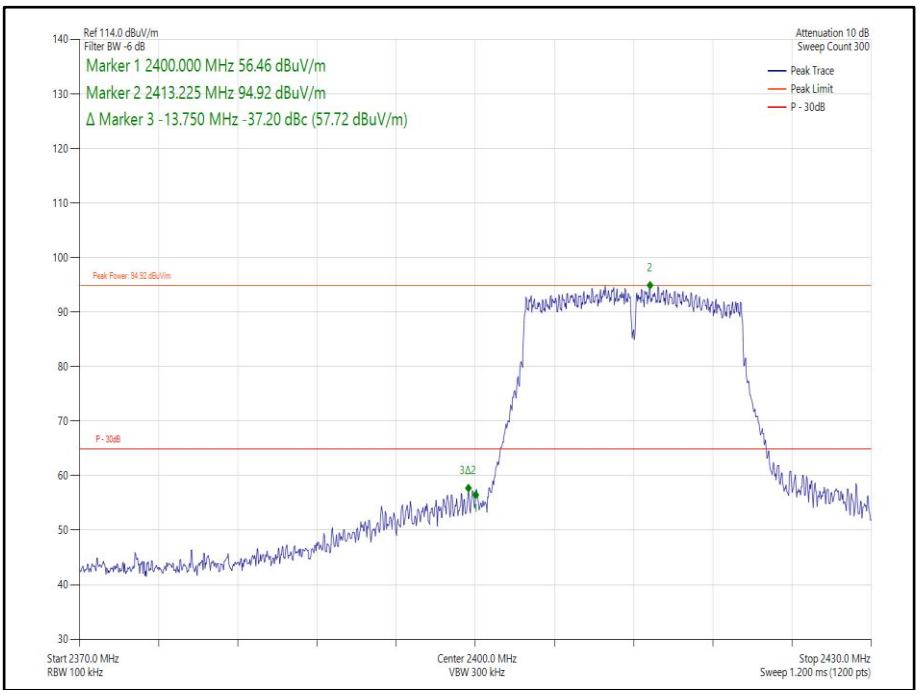

Figure 274 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2400 MHz

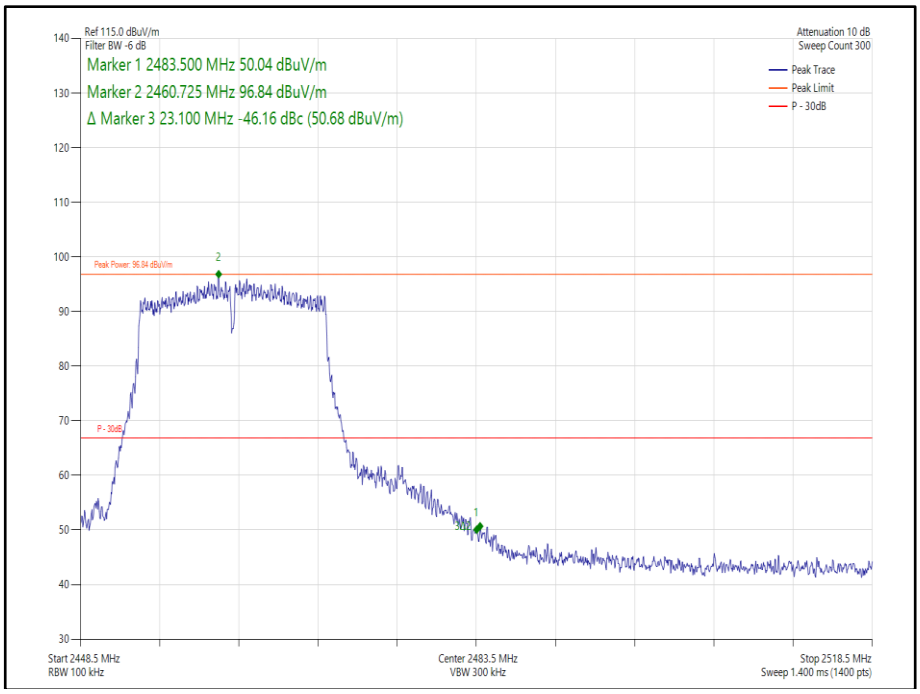

Figure 275 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

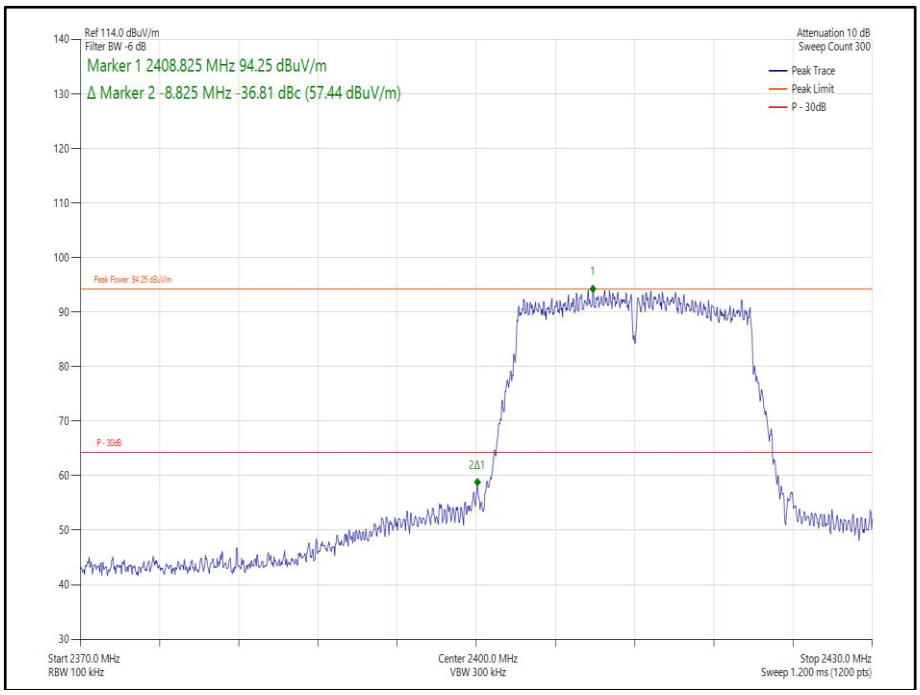

Figure 276 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2400 MHz

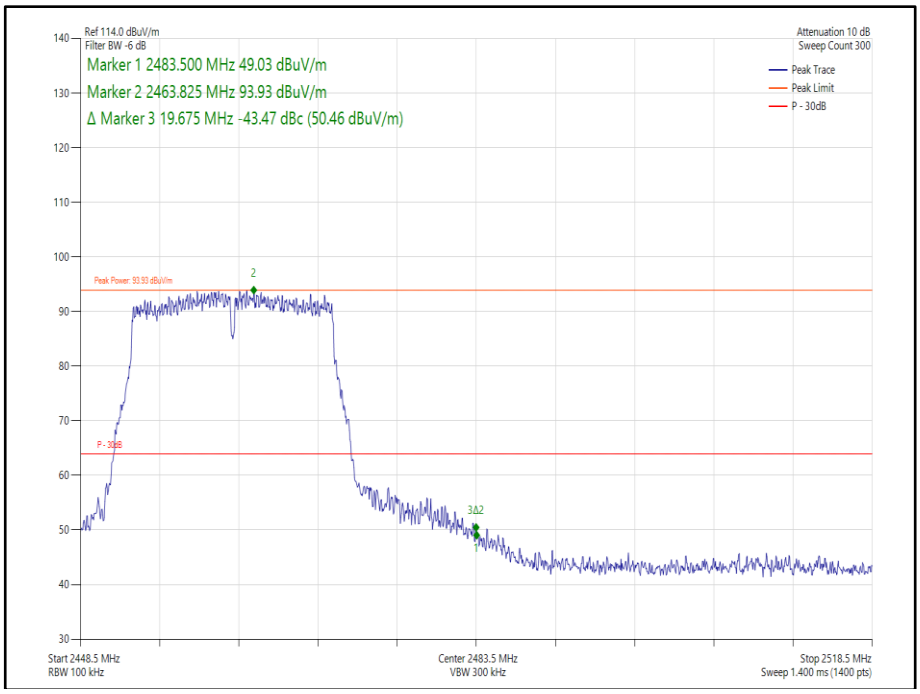

Figure 277 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

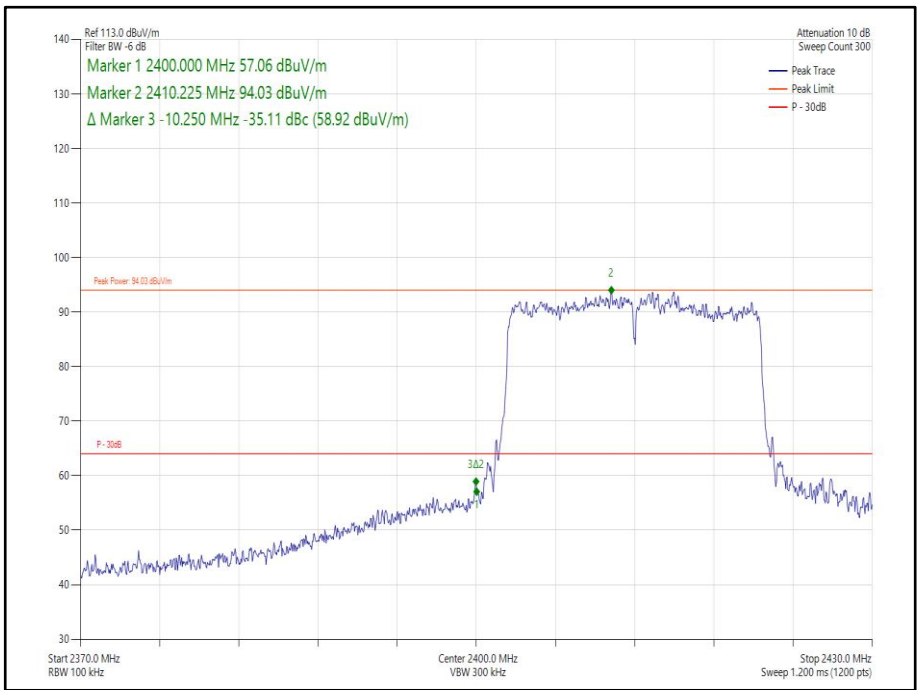

Figure 278 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2400 MHz

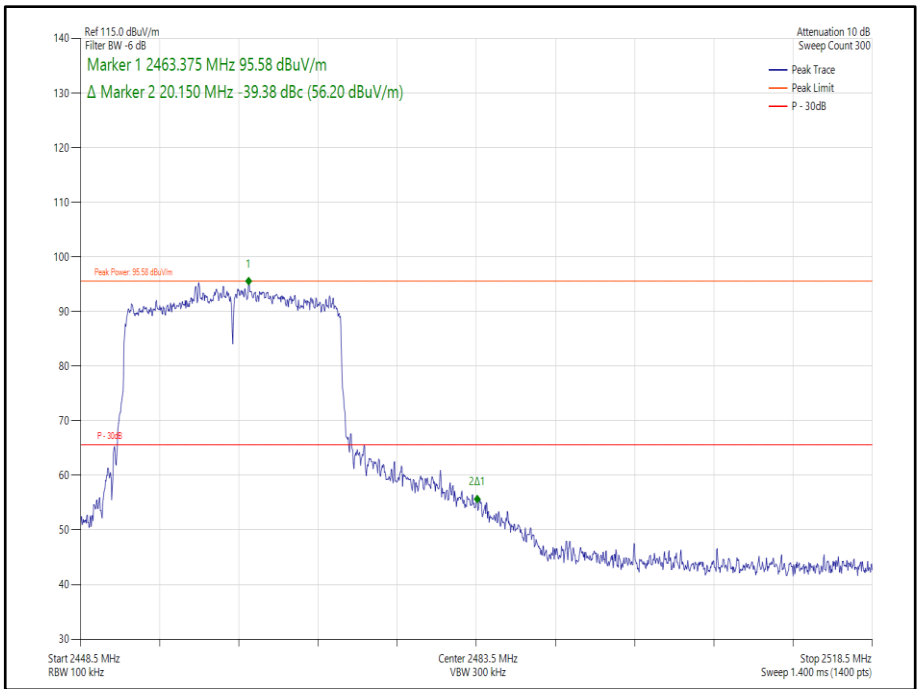

Figure 279 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

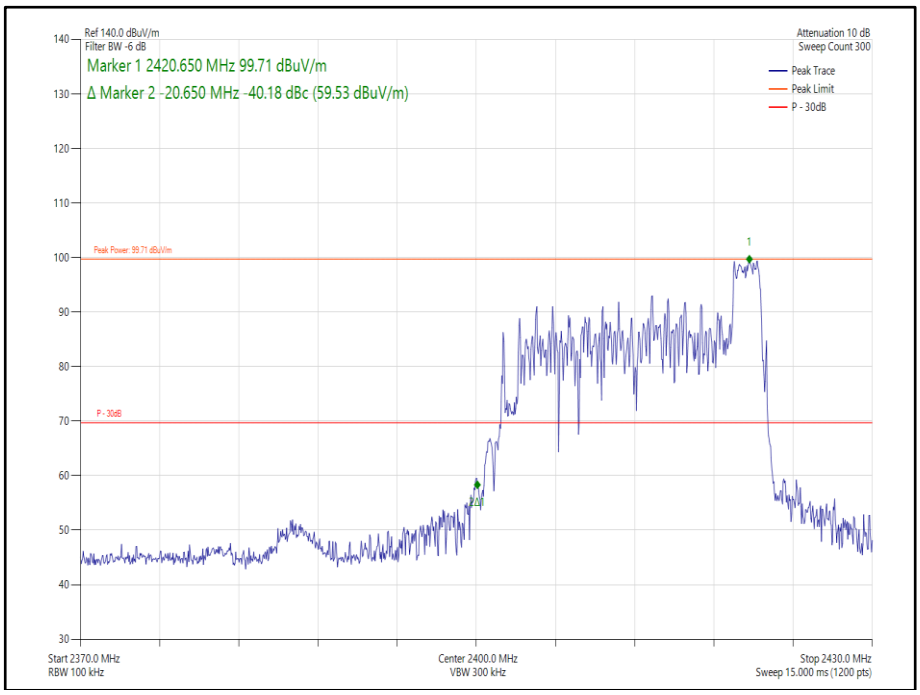

Figure 280 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2400 MHz

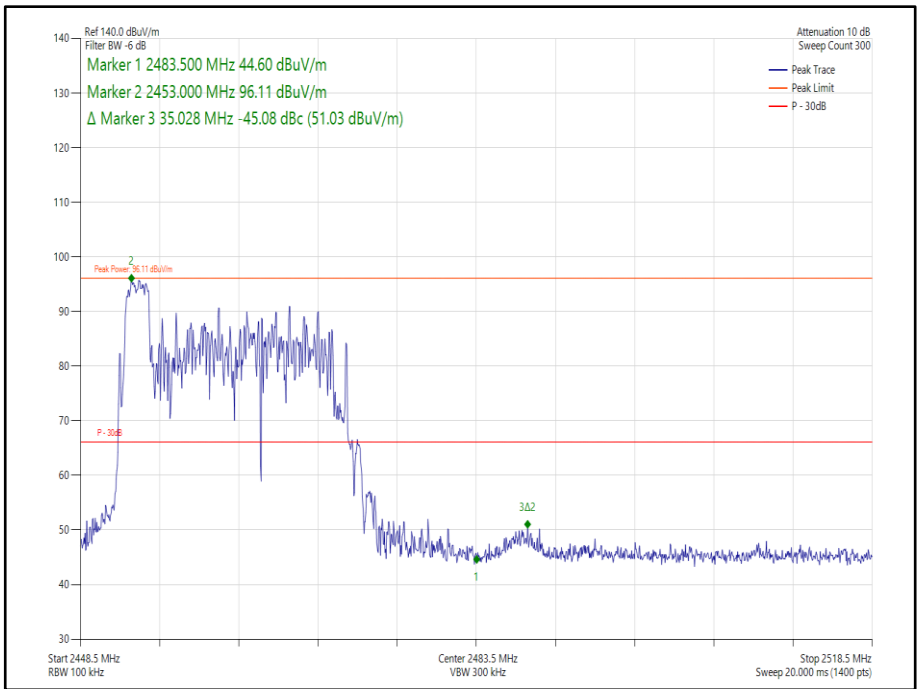

Figure 281 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

2.6.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Power Supply	Hewlett Packard	6253A	292	-	O/P Mon
Meter	Fluke	179	4006	12	22-Mar-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	04-Nov-2024
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	24-Nov-2024
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	09-Jul-2024
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	14-Jul-2025
Pre -Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	23-May-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo -Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	07-May-2025
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	23-May-2025
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	18-Apr-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	6330	12	17-Feb-2025

Table 100

TU - Traceability Unscheduled

3 Photographs

3.1 Test Setup Photographs

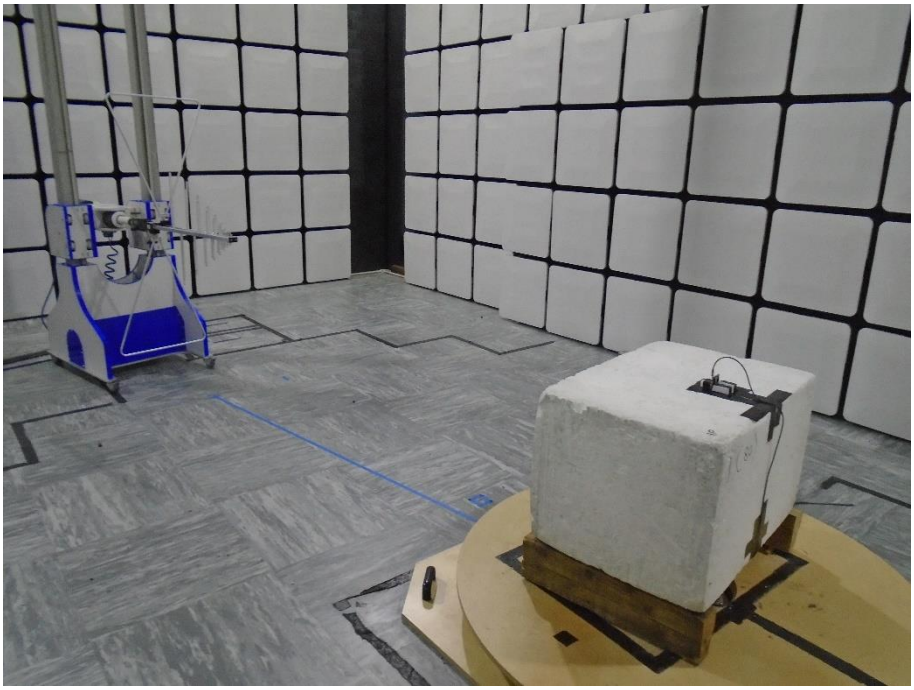

Figure 282 – 30 GHz to 1 GHz – Internal Antenna

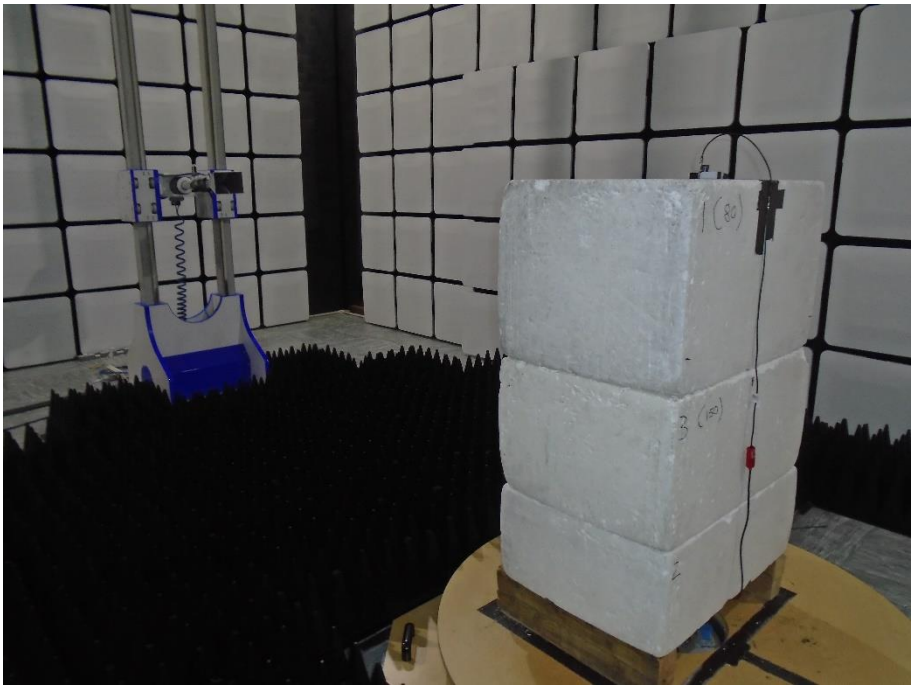

Figure 283 – 1 GHz to 18 GHz - Internal Antenna

Figure 284 – 18 GHz to 26 GHz - Internal Antenna

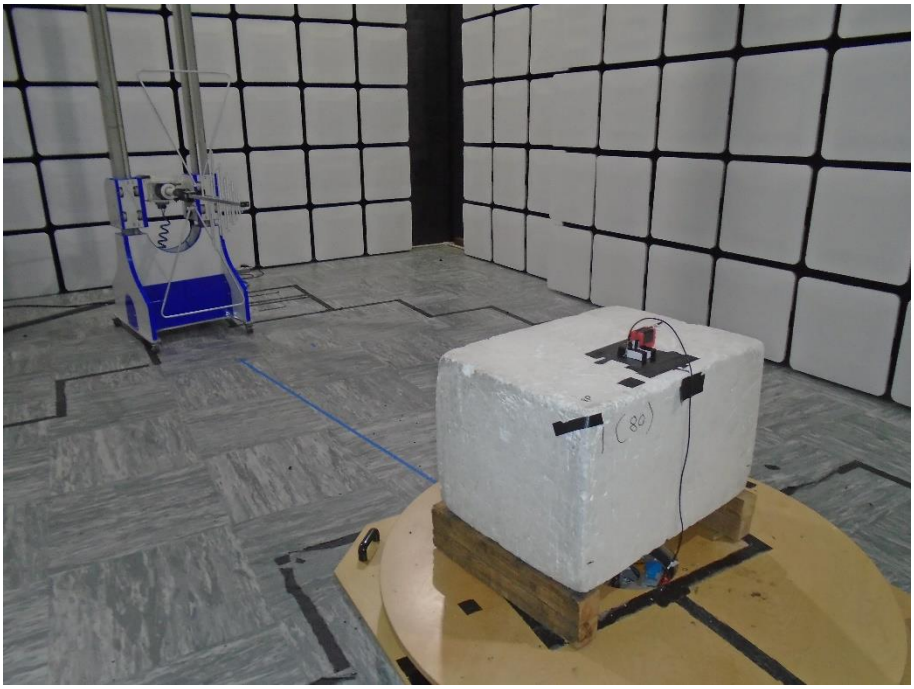

Figure 285 – 30 MHz to 1 GHz – External Antenna

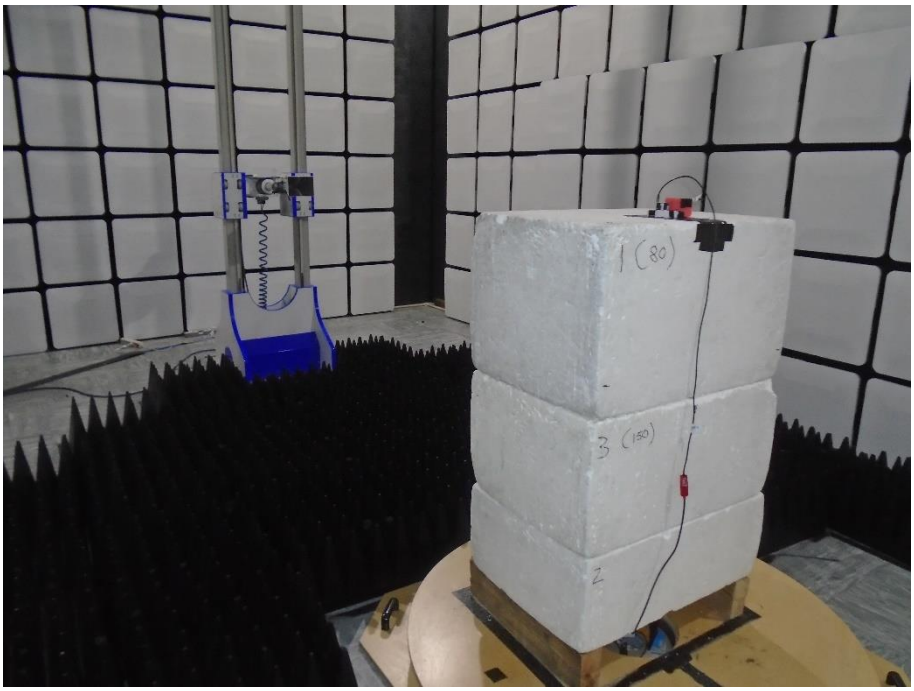

Figure 286 – 1 GHz to 18 GHz – External Antenna

Figure 287 – 18 GHz to 26 GHz – External Antenna

4 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Emission Bandwidth	± 447.29 kHz
Maximum Conducted Output Power	± 1.38 dB
Power Spectral Density	± 1.49 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB

Table 101

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.

ANNEX A

Maximum Conducted Output Power at Extreme Voltages

Measurements in this section were performed at the request of the manufacturer to show that the RF Output power remained compliant when subjected to the extreme voltage conditions stated by the manufacturer to provide evidence that the implementation is satisfactory to comply to the requirements of FCC 47 CFR 15.212.

Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b),
ISED RSS-247, Clause 5.4
ISED RSS-GEN, Clause 6.12

Equipment Under Test and Modification State

SiW917Y1GN, S/N: WLAN MAC ec:f6:4c:a0:f:4 - Modification State 0

Date of Test

29-April-2024

Test Method

The test was performed in accordance with ANSI C63.10 clause 11.9.2.3.2 Method AVGPM-G.

The EUT was supplied directly with a DC PSU.

Environmental Conditions

Ambient Temperature	20.2 °C
Relative Humidity	41.3 %

Test Results

2.4 GHz WLAN - Extreme Voltages

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	100.0
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	15	3.63	16.10	-	-	-	30.00	-13.90
2412	15	3.00	15.45	-	-	-	30.00	-14.55
2437	20	3.63	20.90	-	-	-	30.00	-9.10
2437	20	3.00	19.91	-	-	-	30.00	-10.09
2462	15	3.63	15.24	-	-	-	30.00	-14.76
2462	15	3.00	14.86	-	-	-	30.00	-15.14

Table 102 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	15	3.63	16.10	-	-	-	30.00	-13.90	18.90	36.00	-17.10
2412	15	3.00	15.45	-	-	-	30.00	-14.55	18.25	36.00	-17.75
2437	20	3.63	20.90	-	-	-	30.00	-9.10	23.70	36.00	-12.30
2437	20	3.00	19.91	-	-	-	30.00	-10.09	22.71	36.00	-13.29
2462	15	3.63	15.24	-	-	-	30.00	-14.76	18.04	36.00	-17.96
2462	15	3.00	14.86	-	-	-	30.00	-15.14	17.66	36.00	-18.34

Table 103 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	100.0
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	11	3.63	12.93	-	-	-	30.00	-17.07
2412	11	3.00	12.65	-	-	-	30.00	-17.35
2437	20	3.63	20.91	-	-	-	30.00	-9.09
2437	20	3.00	19.75	-	-	-	30.00	-10.25
2462	10	3.63	11.07	-	-	-	30.00	-18.93
2462	10	3.00	10.85	-	-	-	30.00	-19.15

Table 104 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	11	3.63	12.93	-	-	-	30.00	-17.07	15.73	36.00	-20.27
2412	11	3.00	12.65	-	-	-	30.00	-17.35	15.45	36.00	-20.55
2437	20	3.63	20.91	-	-	-	30.00	-9.09	23.71	36.00	-12.29
2437	20	3.00	19.75	-	-	-	30.00	-10.25	22.55	36.00	-13.45
2462	10	3.63	11.07	-	-	-	30.00	-18.93	13.87	36.00	-22.13
2462	10	3.00	10.85	-	-	-	30.00	-19.15	13.65	36.00	-22.35

Table 105 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	11.86	-	-	-	30.00	-18.14
2412	10	3.00	11.68	-	-	-	30.00	-18.32
2437	20	3.63	20.77	-	-	-	30.00	-9.23
2437	20	3.00	19.74	-	-	-	30.00	-10.26
2462	10	3.63	10.59	-	-	-	30.00	-19.41
2462	10	3.00	10.46	-	-	-	30.00	-19.54

Table 106 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	11.86	-	-	-	30.00	-18.14	14.66	36.00	-21.34
2412	10	3.00	11.68	-	-	-	30.00	-18.32	14.48	36.00	-21.52
2437	20	3.63	20.77	-	-	-	30.00	-9.23	23.57	36.00	-12.43
2437	20	3.00	19.74	-	-	-	30.00	-10.26	22.54	36.00	-13.46
2462	10	3.63	10.59	-	-	-	30.00	-19.41	13.39	36.00	-22.61
2462	10	3.00	10.46	-	-	-	30.00	-19.54	13.26	36.00	-22.74

Table 107 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	12.11	-	-	-	30.00	-17.89
2412	10	3.00	11.98	-	-	-	30.00	-18.02
2437	18	3.63	18.71	-	-	-	30.00	-11.29
2437	18	3.00	17.85	-	-	-	30.00	-12.15
2462	10	3.63	11.44	-	-	-	30.00	-18.56
2462	10	3.00	10.82	-	-	-	30.00	-19.18

Table 108 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	12.11	-	-	-	30.00	-17.89	14.91	36.00	-21.09
2412	10	3.00	11.98	-	-	-	30.00	-18.02	14.78	36.00	-21.22
2437	18	3.63	18.71	-	-	-	30.00	-11.29	21.51	36.00	-14.49
2437	18	3.00	17.85	-	-	-	30.00	-12.15	20.65	36.00	-15.35
2462	10	3.63	11.44	-	-	-	30.00	-18.56	14.24	36.00	-21.76
2462	10	3.00	10.82	-	-	-	30.00	-19.18	13.62	36.00	-22.38

Table 109 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	11.53	-	-	-	30.00	-18.47
2412	10	3.00	11.41	-	-	-	30.00	-18.59
2437	18	3.63	18.29	-	-	-	30.00	-11.71
2437	18	3.00	17.45	-	-	-	30.00	-12.55
2462	10	3.63	10.85	-	-	-	30.00	-19.15
2462	10	3.00	10.27	-	-	-	30.00	-19.73

Table 110 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	11.53	-	-	-	30.00	-18.47	14.33	36.00	-21.67
2412	10	3.00	11.41	-	-	-	30.00	-18.59	14.21	36.00	-21.79
2437	18	3.63	18.29	-	-	-	30.00	-11.71	21.09	36.00	-14.91
2437	18	3.00	17.45	-	-	-	30.00	-12.55	20.25	36.00	-15.75
2462	10	3.63	10.85	-	-	-	30.00	-19.15	13.65	36.00	-22.35
2462	10	3.00	10.27	-	-	-	30.00	-19.73	13.07	36.00	-22.93

Table 111 - ISED Maximum Conducted (average) Output Power Results

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(2)

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels.

ISED RSS-247, Limit Clause 5.4 (a)

For FHSs operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W, and the e.i.r.p. shall not exceed 4 W if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W and the e.i.r.p. shall not exceed 1 W if the hopset uses less than 50 hopping channels.

Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	75 Mk3	455	12	15-Dec-2024
Hygrometer	Rotronic	I-1000	3220	12	28-Nov-2024
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	18-Sep-2025
USB Power Sensor	Boonton	RTP5008	5833	12	12-Jul-2024
Modular Power System Mainframe	Keysight Technologies	N6701C	5835	-	TU
DC Power Module 60V 20A 300W	Keysight Technologies	N6754A	5836	-	O/P Mon
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	14-Sep-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	-	26-Jul-2024
SCU Cable Assembly SCU	TUV SUD	SPECTRUM_SCU_CA	6638	12	26-Jul-2024

Table 112

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment