FCC Part 15.407
RSS-247 ISSUE 3, August 2023
RSS-GEN Issue 5, February 2021 Amendment 2
TEST REPORT

For

YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.

No.666 Hu'an Rd,Huli District Xiamen City, Fujian, P.R. China

FCC ID: T2C-T44
IC: 10741A-T44W

Report Type:	**Product Type:**
Original Report	Ultra-elegant Gigabit IP Phone

Report Producer : Coco Lin

Report Number : RXZ231115070RF03

Report Date : 2024-01-26

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ231115070	RXZ231115070RF03	2024-01-26	Original Report	Coco Lin

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.
	No.666 Hu'an Rd,Huli District Xiamen City, Fujian, P.R. China
Brand(Trade) Name	Yealink
Product (Equipment) / PMN	Ultra-elegant Gigabit IP Phone
Main Model Name	SIP-T44W
HVIN	T44W
Frequency Range	5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz 5470 MHz ~ 5725 MHz, 5725 MHz ~ 5850 MHz Note: frequency range 5600-5650MHz can`t be used in Canada
Maximum Conducted Average Output Power	5150-5250 MHz: 16.33 dBm 5250-5350 MHz: 16.46 dBm 5470-5725 MHz: 16.16 dBm 5725-5850 MHz: 15.88 dBm
Modulation Technique	IEEE 802.11a Mode: OFDM IEEE 802.11n HT20/ ac VHT20 Mode: OFDM IEEE 802.11n HT40/ ac VHT40 Mode: OFDM IEEE 802.11ac VHT80 Mode: OFDM
Power Operation (Voltage Range)	☒ AC 120V/60Hz ☒ Adapter I/P: 100-240V 50/60Hz 0.5A , O/P: 5Vdc, 2.0A ☐ By AC Power Cord ☒ PoE: DC 48V
Received Date	2023/11/16
Date of Test	2023/11/21 ~ 2024/01/25

*All measurement and test data in this report was gathered from production sample serial number: RXZ231115070-1(Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is prepared on behalf of *YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.* in accordance with Part 2, Subpart J, Part 15, Subparts A, and E of the Federal Communication Commission's rules and RSS-247 Issue 3, August 2023 and RSS-GEN Issue 5, February 2021 Amendment 2 of the Innovation, Science and Economic Development Canada.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And RSS-247 Issue 3, August 2023 and RSS-GEN Issue 5, February 2021 Amendment 2 of the Innovation, Science and Economic Development Canada.
KDB 789033 D02 General UNII Test Procedures New Rules v02r01

1.4 Statement

Decision Rule: No, (The test results do not include MU judgment)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

Parameter		Uncertainty
AC Mains		+/- 2.53 dB
RF output power, conducted		+/- 3.74 dB
Power Spectral Density, conducted		+/- 0.62 dBm
Occupied Bandwidth		+/- 0.09 %
Unwanted Emissions, conducted		+/- 1.13 dBm
Emissions, radiated	30 MHz~1 GHz	+/- 4.99 dB
	1 GHz~18 GHz	+/- 7.56 dB
	18 GHz~40 GHz	+/- 5.06 dB
Temperature		+/- 0.79 °C
Humidity		+/- 0.44 %

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

1.6 Environmental Conditions

Test Site	Test Date	Temperature (℃)	Relative Humidity (%)	ATM Pressure (hPa)	Test Engineer
AC Line Conducted Emissions	2023/12/08	19.9	67	1010	Jing
Radiation Spurious Emissions	2023/11/25~2023/12/15	22.2~24.3	62~67	1010	Aaron
26dB attenuated below the channel power	2023/12/22	23.1	51	1010	Jing
Emission Bandwidth And Occupied Bandwidth	2023/11/21~2024/1/24	20.4~25.1	52~57	1010	Jing
Maximum Output Power	2023/11/21~2024/1/24	20.4~23.8	52	1010	Jing
Power Spectral Density	2023/11/21~2024/1/25	20.4~25.1	52~57	1010	Jing

1.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) to collect test data is located on

☒70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 22183, Taiwan, R.O.C.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3732) and the FCC designation No.TW3732 under the Mutual Recognition Agreement (MRA) in FCC Test.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: TW3732.

2 System Test Configuration

2.1 Description of Test Configuration

The system was configured for testing in an engineering mode, which is provided by manufacturer. The system support 802.11a/n ht20/n ht40/ac vht20/ac vht40/ac vht80, the 802.11n ht20/ht40 were reduced since the identical parameters with 802.11ac vht20 and vht40.

For 5150 ~ 5250MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

802.11a/n20/ac20 mode Channel 36, 40, 48 were tested.
802.11n40/ac40 mode Channel 38, 46 were tested.
802.11ac80 mode Channel 42 was tested.

For 5250 ~ 5350MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
56	5280	64	5320

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

802.11a/n20/ac20 mode Channel 52, 60, 64 were tested.
802.11n40/ac40 mode Channel 54, 62 were tested.
802.11ac80 mode Channel 58 was tested.

For 5470 ~ 5725MHz

Note: frequency range 5600-5650MHz can`t be used in Canada

11 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	140	5700
120	5600	/	/

5 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	126	5630
110	5550	134	5670
118	5590	/	/

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610

802.11a/n20/ac20 mode Channel 100, 116, 140 were tested.

802.11n40/ac40 mode Channel 102, 110, 134 were tested.

802.11ac80 mode Channel 106, 122 was tested.

For 5725 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785	/	/

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
155	5775

802.11a/n20/ac20 mode Channel 149, 157, 165 were tested.

802.11n40/ac40 mode Channel 151, 159 were tested.

802.11ac80 mode Channel 155 was tested.

2.2 EUT Exercise Software

The system was configured for testing in an engineering mode, which is provided by manufacturer.

The software was used "AuthenticTool_1.2.21.0".

UNII Band	Mode	Channel	Frequency (MHz)	Power setting
UNII-1	802.11a	36	5180	16
		40	5200	16
		48	5240	16
UNII-2A		52	5260	16
		60	5300	16
		64	5320	16
UNII-2C		100	5500	15
		116	5580	16
		140	5700	16
UNII-3		149	5745	16
		157	5785	16
		165	5825	16
UNII-1	802.11n HT20 / ac VHT20	36	5180	16
		40	5200	16
		48	5240	16
UNII-2A		52	5260	16
		60	5300	16
		64	5320	16
UNII-2C		100	5500	16
		116	5580	16
		140	5700	15
UNII-3		149	5745	16
		157	5785	16
		165	5825	16
UNII-1	802.11n HT40 / ac VHT40	38	5190	16
		46	5230	16
UNII-2A		54	5270	16
		62	5310	15
UNII-2C		102	5510	16
		110	5550	16
		134	5670	16
UNII-3		151	5755	16
		159	5795	16
UNII-1	802.11ac VHT80	42	5210	14
UNII-2A		58	5290	14
UNII-2C		106	5530	12
		122	5610	16
UNII-3		155	5775	16

The worst case data rates are as follows:

802.11a: 6Mbps

802.11ac VHT20: MCS0

802.11ac VHT40: MCS0

802.11ac VHT80: MCS0

2.3 Equipment Modifications

No modification was made to the EUT.

2.4 Test Mode

Pre-scan

AC Line Conducted Emissions and Radiated Spurious Emissions

Mode 1: SIP-T44W + Adapter (YLPS052000E1-US)

Mode 2: SIP-T44W + Adapter (YLPS052000C1-US)

Mode 3: SIP-T44W + Adapter (YLPS052000B1-US)

Mode 4: SIP-T44W + PoE

Worst case is the SIP-T44W + Adapter (YLPS052000E1-US)

Mode 1: SIP-T44W + Adapter (YLPS052000E1-US) tested all measure item.

Mode 4: SIP-T44W + PoE test Below 1GHz Radiated Spurious Emissions and AC Line Conducted Emissions.

2.5 Support Equipment List and Details

Description	Manufacturer	Model Number
Adapter	Yealink	YLPS052000B1-US
Adapter	Yealink	YLPS052000C1-US
Adapter	Yealink	YLPS052000E1-US
NB	DELL	E6410
AP Router	NETGEAR	R7800
Handset	Yealink	N/A
Handset	Yealink	N/A
USB Storage	Transcend	8GB
USB Storage	Transcend	8GB
POE Adapter	Cisco	SB-PWR-INJ2

2.6 External Cable List and Details

Description	Manufacturer	Model Number
RJ-45 Cable	BACL	8m
RJ-45 Cable	BACL	8m
RJ-11 Cable	BACL	0.5m
RJ-11 Cable	BACL	0.5m

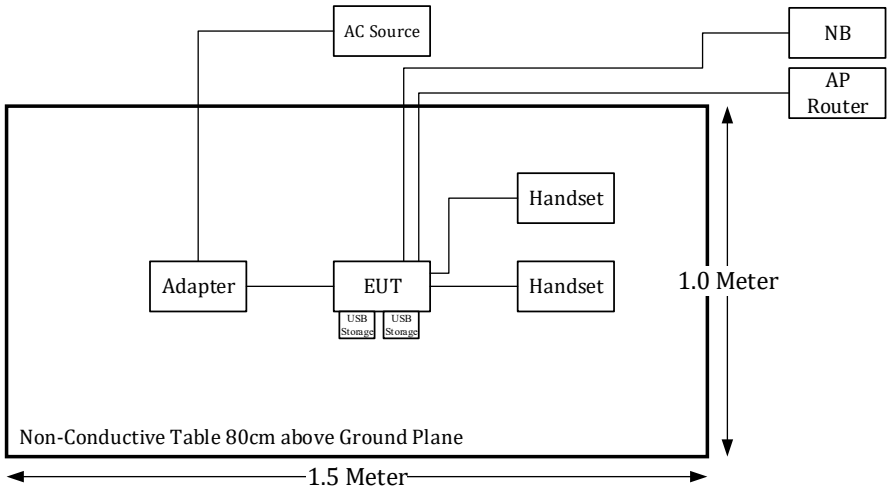
2.7 Block Diagram of Test Setup

See test photographs attached in setup photos for the actual connections between EUT and support equipment.

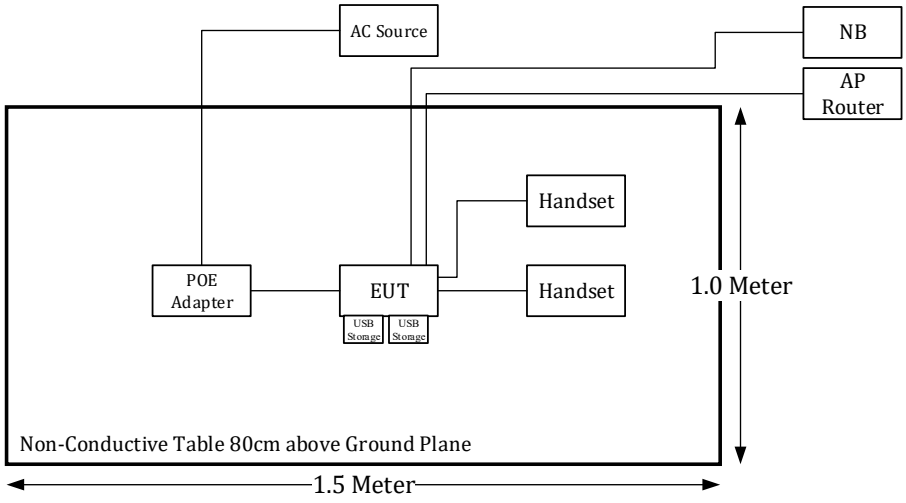
Radiation:

Below 1GHz

Adapter Mode:

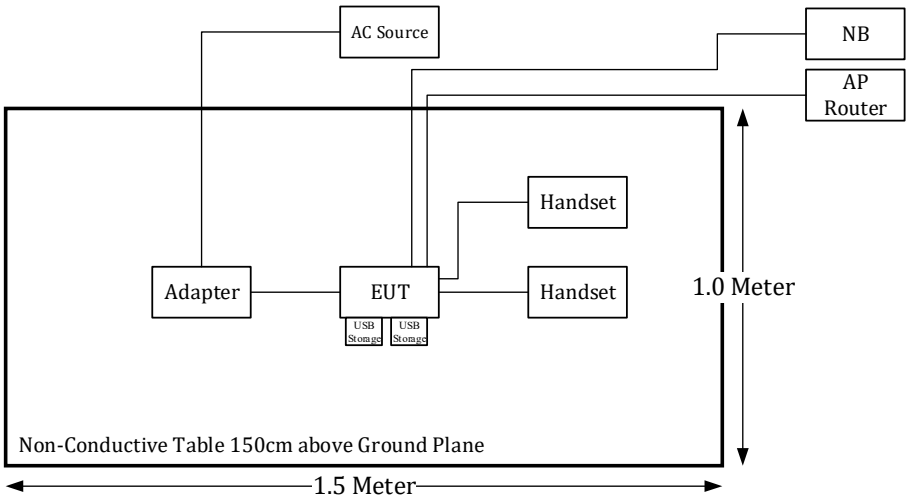


PoE Mode:

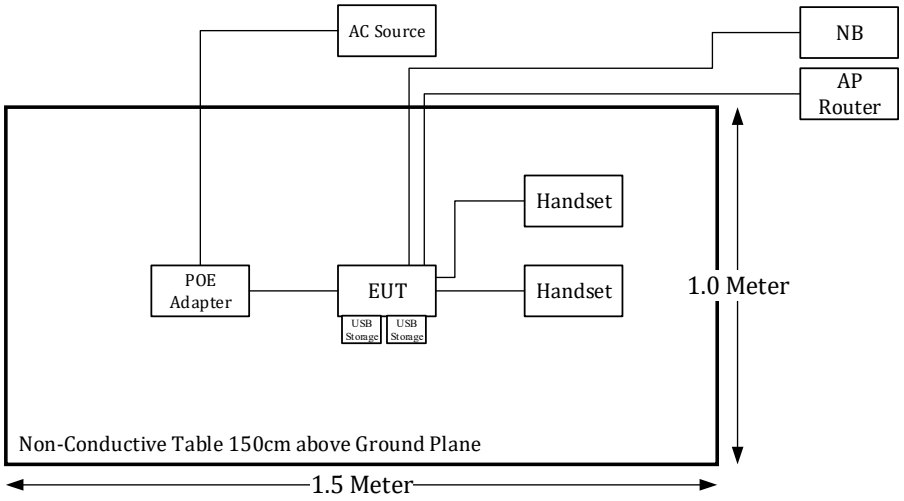


Above 1GHz:

Adapter Mode:

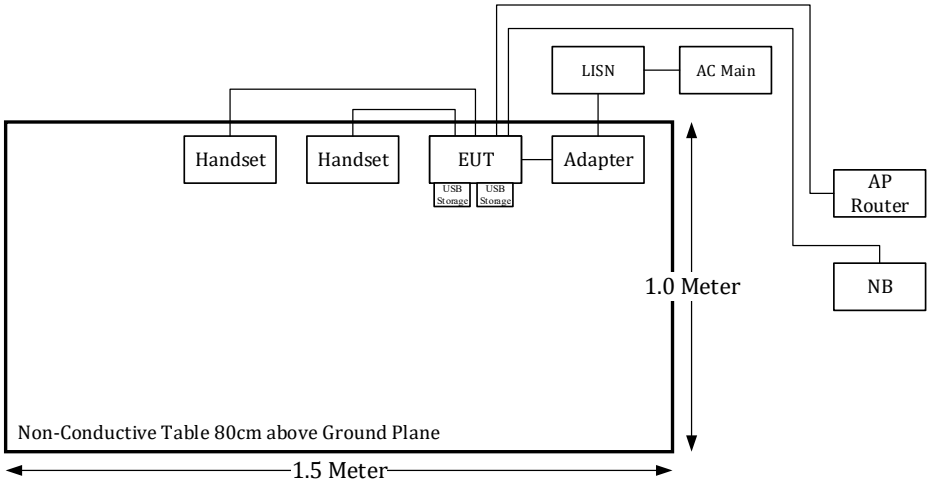


PoE Mode:

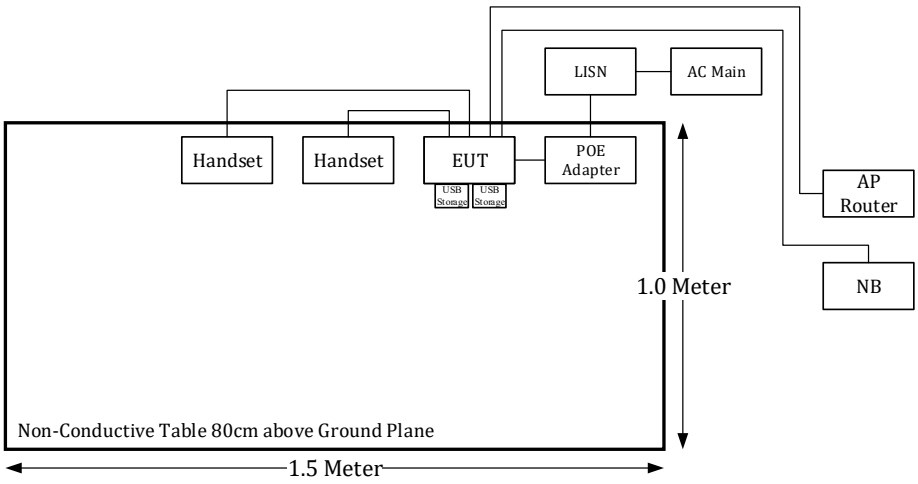


Conduction:

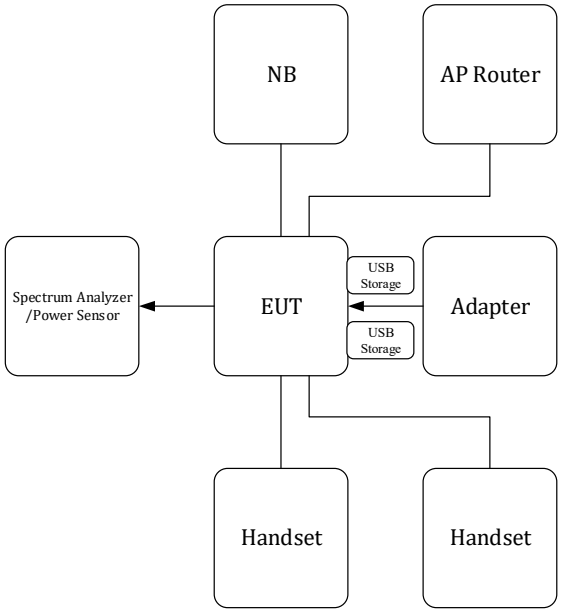
Adapter Mode:



PoE Mode:



Conducted:



2.8 Duty Cycle

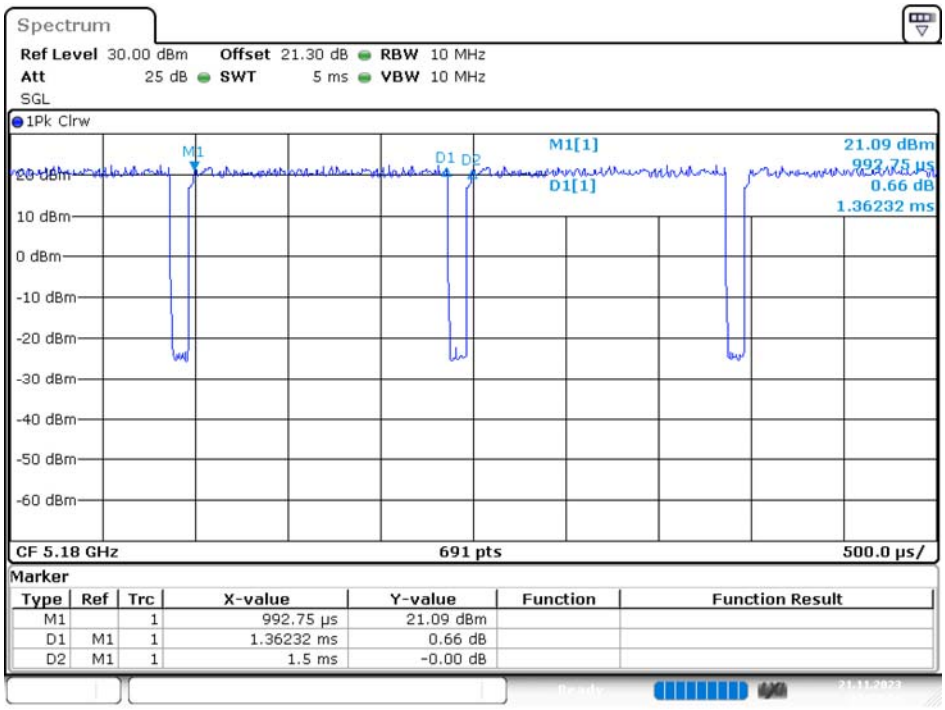
The duty cycle as below:

Radio Mode	On Time (ms)	Off Time (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T (kHz)	VBW Setting (kHz)
802.11a	1.36232	0.13768	91	0.41	0.73	1.0
802.11ac 20	1.28986	0.13768	90	0.46	0.78	1.0
802.11ac 40	0.63043	0.12319	84	0.76	1.59	2.0
802.11ac 80	0.31159	0.12319	72	1.43	3.21	5.0

Note: Duty Cycle Correction Factor = 10*log(1/duty cycle)

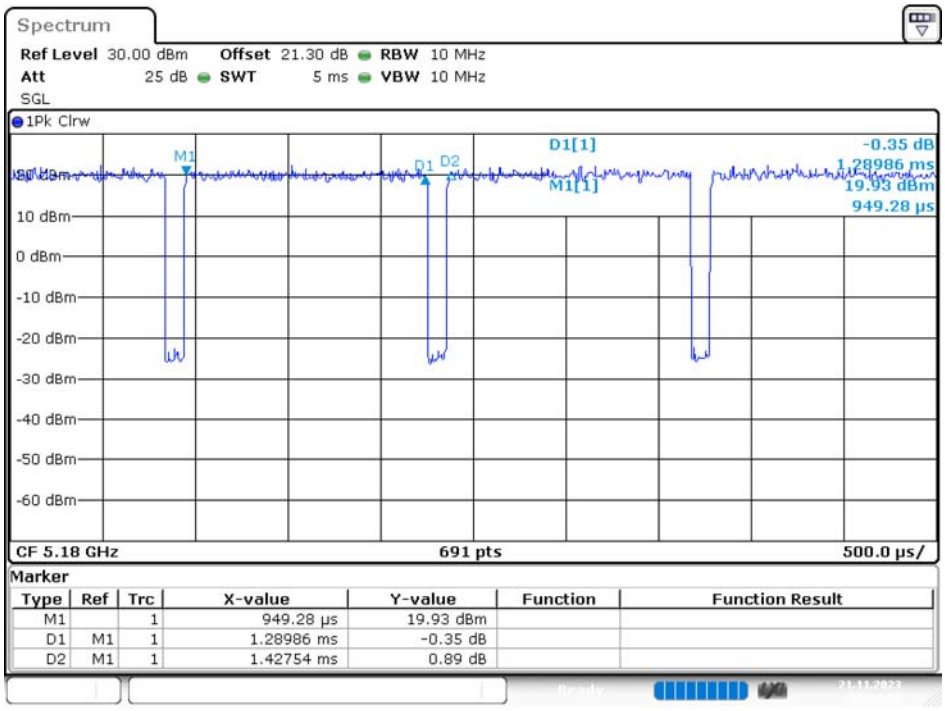
Please refer to the following plots.

802.11a Mode



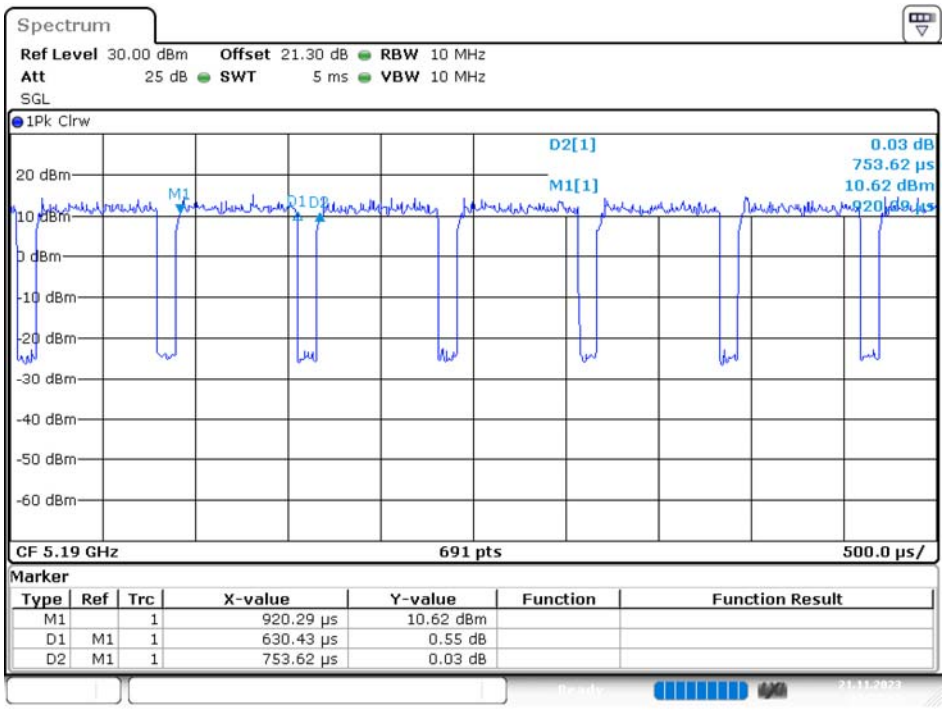
Date: 21.NOV.2023 11:19:24

802.11ac VHT20 Mode



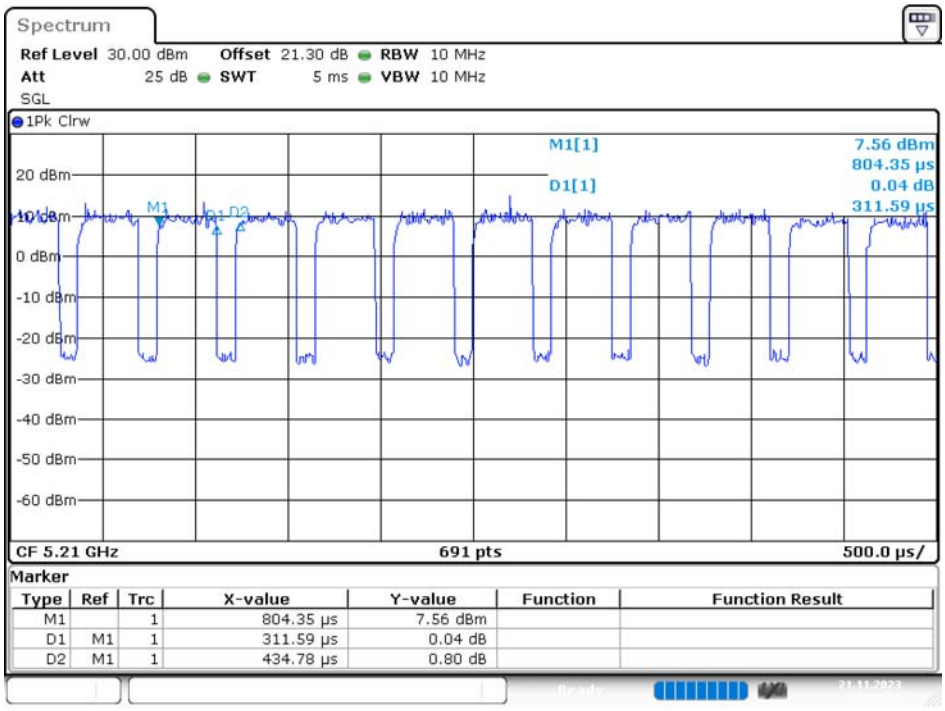
Date: 21.NOV.2023 11:30:52

802.11ac VHT40 Mode



Date: 21.NOV.2023 11:57:45

802.11ac VHT80 Mode



Date: 21.NOV.2023 12:02:12

3 Summary of Test Results

Standard(s) Section	Description of Test	Results
FCC §15.407(f), §1.1307(b)(3), §2.1091	RF Exposure	Compliance
RSS-102 §4	Exposure Limit	Compliance
§15.203 RSS-GEN §6.8	Antenna Requirement	Compliance
§15.407(b)(9) & §15.207(a) RSS- GEN §8.8	AC Line Conducted Emissions	Compliance
§15.205 & §15.209 & §15.407(b) RSS-247 §6.2 RSS-GEN §8.9 RSS-GEN §8.10	Unwanted Emission	Compliance
RSS-247 §6.2.1.2	26dB Attenuated Below The Channel Power	Compliance
§15.407(a)(e) RSS-247 §6.2 RSS- GEN §6.7	Emission Bandwidth	Compliance
§15.407(a) RSS-247 §6.2	Conducted Transmitter Output Power	Compliance
§15.407(a) RSS-247 §6.2	Power Spectral Density	Compliance
RSS-247 §6.4	Additional requirements	Compliance

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2023/2/2	2024/2/1
EMI Test Receiver	Rohde & Schwarz	ESW8	100947	2023/5/22	2024/5/20
Pulse Limiter	Rohde & Schwarz	ESH3Z2	TXZEM104	2023/5/18	2024/5/16
RF Cable	EMEC	EM-CB5D	1	2023/6/6	2024/6/4
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiation 3M Room (966-A)					
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/15542_01	2023/2/2	2024/2/1
Horn Antenna	EMCO	SAS-571	1020	2023/5/18	2024/5/17
Horn Antenna	ETS-Lindgren	3116	62638	2023/8/25	2024/8/24
Preamplifier	Sonoma	310N	130602	2023/6/16	2024/6/15
Preamplifier	Channel	ERA-100M-18G-01D1748	EC2300051	2023/04/01	2024/03/31
Microware Preamplifier	EM Electronics Corporation	EM18G40G	60656	2023/1/6	2024/1/5
Spectrum Analyzer	Rohde & Schwarz	FSV40	101435	2023/2/1	2024/1/31
EMI Test Receiver	Rohde & Schwarz	ESR3	102099	2023/6/16	2024/6/15
Micro flex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2023/1/24	2024/1/23
Coaxial Cable	COMMATE	PEWC	8Dr	2022/12/24	2023/12/23
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2023/1/24	2024/1/23
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2022/12/24	2023/12/23
Cable	EMC	EMC105-SM-SM-10000	201003	2023/1/24	2024/1/23
Coaxial Cable	ROSNOL	K1K50-UP0264-K1K50-450CM	160309-1	2023/1/24	2024/1/23
Coaxial Cable	ROSNOL	K1K50-UP0264-K1K50-50CM	15120-1	2023/2/2	2024/2/1
Attenuator	MCL	BW-S10W5+	605	2023/1/18	2024/1/17
Band-stop filter	SinoSciTe	BSF5150-5850 MN-0899-002	001	2023/10/20	2024/10/19
High-pass filter	XINGBOKEJI	XBLBQ-GTA29	200121-3-26	2023/10/20	2024/10/19
Software	AUDIX	E3	18621a	N.C.R	N.C.R
Conducted Room					
Spectrum Analyzer	Rohde & Schwarz	FSV40	101140	2023/2/10	2024/2/9
Cable	UTIFLEX	UFA210A	9435	2023/10/2	2024/9/30
Power Sensor	KEYSIGHT	U2021XA	MY54080018	2023/2/2	2024/2/1
Attenuator	MCL	BW-S10W5+	1419	2023/2/1	2024/1/31

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements.

5 FCC §15.407(f), §1.1307(b)(3), §2.1091 – RF Exposure

5.1 Applicable Standard

According to subpart 15.407(f) and subpart §2.1091, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

For single RF sources (*i.e.,* any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold *Pth* (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). *Pth* is given by:

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^{a}\frac{P_i}{P_{th,i}}+\sum_{j=1}^{b}\frac{ERP_j}{ERP_{th,j}}+\sum_{k=1}^{c}\frac{Evaluated_k}{Exposure\ Limit_k}\leq 1$$

5.2 RF Exposure Evaluation Result

Project info

Band	Freq (MHz)	Tune-up Power (dBm)	Ant Gain (dBi)	Distances (mm)	Tune-up Power (mW)	ERP (dBm)	ERP (mW)
BT	2402-2480	11	4.94	200	12.59	13.79	23.93
WIFI 2.4GHz	2412-2462	19	4.94	200	79.43	21.79	151.01
WIFI 5GHz	5180-5825	16.5	3.43	200	44.67	17.78	59.98

§ 1.1307(b)(3)(i)(A) method is not applicable.

§ 1.1307(b)(3)(i)(C)

Band	Freq (MHz)	λ/2π (mm)	Distances applies	ERP Limit (mW)	Result Option C
BT	2402	19.88	apply	768.00	exempt
WIFI 2.4GHz	2412	19.8	apply	768.00	exempt
WIFI 5GHz	5180	9.22	apply	768.00	exempt

The minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates
ERP (watts) is no more than the calculated value prescribed for that frequency
R must be at least $\lambda/2\pi$
λ is the free-space operating wavelength in meters

The BT and Wi-Fi can transmit simultaneously.

Simultaneous transmitting consideration (worst case):

The ratio=ERP_{BT}/limit + $ERP_{Wi\text{-}Fi}$/limit=23.93/768+151.01/768=0.23 < 1.0

So simultaneous exposure is compliant.

Result: The device compliant the MPE-Based Exemption at 20cm distances.

6 RSS-102 §4 – EXPOSURE LIMIT

6.1 Applicable Standard

According to RSS-102 §4:

For the purpose of this standard, Industry Canada has adopted the SAR and RF field strength limits established in Health Canada's RF exposure guideline, Safety Code 6.

Table 4: RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Reference Period (minutes)
0.003-10[21]	83	90	-	Instantaneous*
0.1-10	-	0.73/ f	-	6**
1.1-10	87/ $f^{0.5}$	-	-	6**
10-20	27.46	0.0728	2	6
20-48	58.07/ $f^{0.25}$	0.1540/ $f^{0.25}$	8.944/ $f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000/ $f^{1.2}$
150000-300000	0.158 $f^{0.5}$	4.21 x 10^{-4} $f^{0.5}$	6.67 x 10^{-5} f	616000/$f^{1.2}$

Note: f is frequency in MHz.
* Based on nerve stimulation (NS).
** Based on specific absorption rate (SAR).

Calculated Formulary:

S = PG/4 π R^2 = power density (in appropriate units, e.g. W/m^2);
P = power input to the antenna (in appropriate units, e.g., W);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., m);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

6.2 RF Exposure Evaluation Result

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Power		Distances (mm)	Power Density (W/m^2)	RF Exp. Limit (W/m^2)
		(dBi)	(numeric)	(dBm)	(W)			
BT	2402-2480	4.94	3.119	11	0.013	200	0.0781	5.35
WIFI 2.4GHz	2412-2462	4.94	3.119	19	0.079	200	0.4929	5.37
WIFI 5GHz	5180-5825	3.43	2.203	16.5	0.045	200	0.1958	9.05

The BT and Wi-Fi can transmit simultaneously.

Simultaneous transmitting consideration (worst case):

The ratio=MPE_{BT}/limit + $MPE_{Wi\text{-}Fi}$/limit=0.0781/5.35+0.4929/5.37=0.11 < 1.0

So simultaneous exposure is compliant.

Result: The device compliant the MPE-Based Exemption at 20cm distances.

7 FCC §15.203 & RSS-GEN §6.8 – Antenna Requirements

7.1 Applicable Standard

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

According to RSS-Gen §6.8, The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. fo transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested. For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

7.2 Antenna Information

Manufacturer	Antenna Type	Antenna Gain (dBi)	Input impedance
YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.	PCB Antenna	5150~5250 MHz: 3.21 5250~5350 MHz: 3.43 5470~5725 MHz: 3.00 5725~5850 MHz: 2.97	50Ω

The antenna is permanently connected to the EUT.

Result: Compliance

8 FCC §15.407(b)(9), §15.207(a) & RSS-GEN §8 – AC Line Conducted Emissions

8.1 Applicable Standard

As per FCC §15.407(b) (9)

Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207

RSS-Gen Clause 8.8

Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 4, as measured using a 50 μH / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

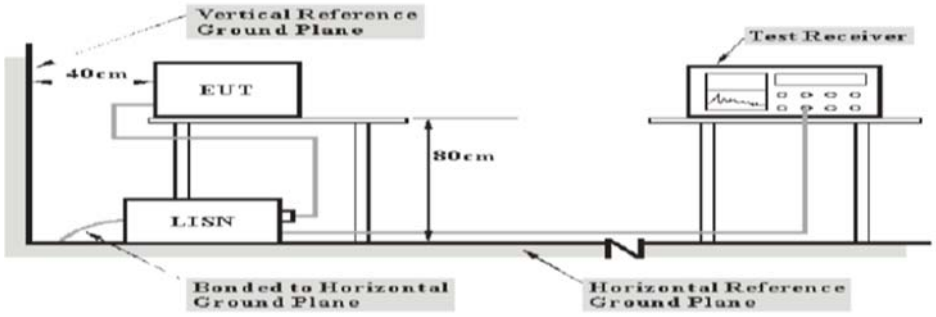
For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 Note 1	56 to 46 Note 1
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency.

8.2 EUT Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 and RSS-GEN limits.

8.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

8.4 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

8.5 Corrected Factor & Margin Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

Factor = LISN VDF + Cable Loss + Transient Limiter Attenuation

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

Over Limit = Level – Limit Line

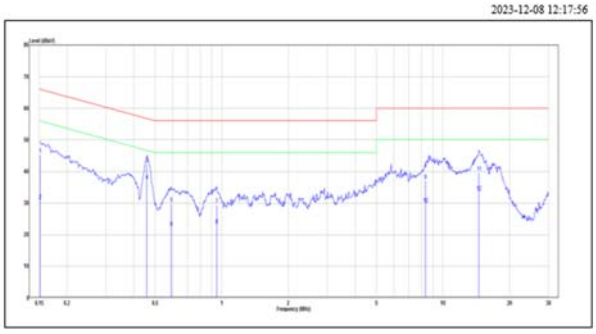
8.6 Test Results

Test Mode: Transmitting

Main: AC120 V, 60 Hz

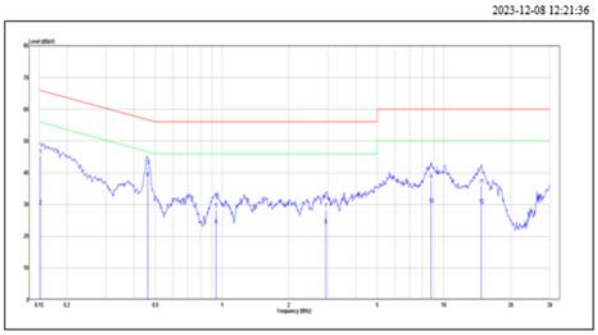
Adapter Mode: (Worst case is 802.11ac 80 Mode, 5210MHz)

Line



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.151	25.73	19.50	45.23	65.96	-20.73	QP	Line
2	0.151	11.17	19.50	30.67	55.96	-25.29	Average	Line
3	0.459	22.72	19.60	42.33	56.71	-14.39	QP	Line
4	0.459	17.41	19.60	37.01	46.71	-9.70	Average	Line
5	0.592	10.07	19.67	29.73	56.00	-26.27	QP	Line
6	0.592	2.56	19.67	22.23	46.00	-23.77	Average	Line
7	0.948	9.39	19.84	29.23	56.00	-26.77	QP	Line
8	0.948	3.12	19.84	22.96	46.00	-23.04	Average	Line
9	8.323	16.90	20.13	37.02	60.00	-22.98	QP	Line
10	8.323	9.48	20.13	29.60	50.00	-20.40	Average	Line
11	14.517	19.39	20.26	39.65	60.00	-20.35	QP	Line
12	14.517	13.24	20.26	33.50	50.00	-16.50	Average	Line

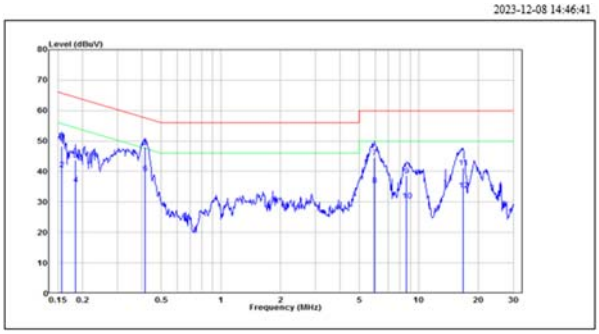
Neutral



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.152	26.03	19.50	45.53	65.91	-20.38	QP	Neutral
2	0.152	9.96	19.50	29.46	55.91	-26.45	Average	Neutral
3	0.461	22.55	19.61	42.17	56.67	-14.51	QP	Neutral
4	0.461	18.68	19.61	38.30	46.67	-8.37	Average	Neutral
5	0.938	8.73	19.84	28.57	56.00	-27.43	QP	Neutral
6	0.938	3.53	19.84	23.37	46.00	-22.63	Average	Neutral
7	2.931	8.32	20.10	28.42	56.00	-27.58	QP	Neutral
8	2.931	3.39	20.10	23.49	46.00	-22.51	Average	Neutral
9	8.729	17.54	20.14	37.68	60.00	-22.32	QP	Neutral
10	8.729	9.80	20.14	29.94	50.00	-20.06	Average	Neutral
11	14.750	15.73	20.31	36.05	60.00	-23.95	QP	Neutral
12	14.750	9.42	20.31	29.73	50.00	-20.27	Average	Neutral

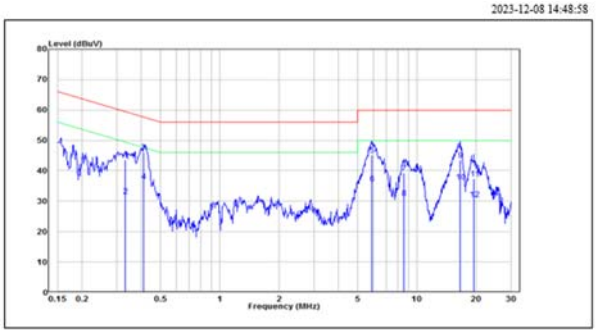
PoE Mode: (Worst case is 802.11ac 80 Mode, 5290MHz)

Line



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.157	28.84	19.50	48.34	65.60	-17.27	QP	Line
2	0.157	21.19	19.50	40.69	55.60	-14.92	Average	Line
3	0.184	24.28	19.49	43.77	64.28	-20.51	QP	Line
4	0.184	16.38	19.49	35.88	54.28	-18.41	Average	Line
5	0.413	28.60	19.58	48.18	57.59	-9.41	QP	Line
6	0.413	19.83	19.58	39.42	47.59	-8.18	Average	Line
7	5.929	24.55	20.14	44.70	60.00	-15.30	QP	Line
8	5.929	15.44	20.14	35.58	50.00	-14.42	Average	Line
9	8.637	18.52	20.12	38.65	60.00	-21.35	QP	Line
10	8.637	10.31	20.12	30.43	50.00	-19.57	Average	Line
11	16.661	21.02	20.34	41.36	60.00	-18.64	QP	Line
12	16.661	13.64	20.34	33.98	50.00	-16.02	Average	Line

Neutral



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.332	24.04	19.56	43.60	59.40	-15.80	QP	Neutral
2	0.332	12.16	19.56	31.71	49.40	-17.69	Average	Neutral
3	0.410	26.67	19.59	46.27	57.64	-11.37	QP	Neutral
4	0.410	17.12	19.59	36.71	47.64	-10.93	Average	Neutral
5	5.898	24.99	20.16	45.15	60.00	-14.85	QP	Neutral
6	5.898	15.71	20.16	35.86	50.00	-14.14	Average	Neutral
7	8.592	19.12	20.14	39.27	60.00	-20.73	QP	Neutral
8	8.592	10.88	20.14	31.02	50.00	-18.98	Average	Neutral
9	16.573	23.29	20.39	43.68	60.00	-16.32	QP	Neutral
10	16.573	15.96	20.39	36.35	50.00	-13.65	Average	Neutral
11	19.428	17.00	20.51	37.52	60.00	-22.48	QP	Neutral
12	19.428	10.11	20.51	30.62	50.00	-19.38	Average	Neutral

Note:

Result = Read Level + Factor

Over Limit = Result – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

9 FCC §15.209, §15.205, §15.407(b) & RSS-247 §6.2, RSS-GEN §8.9, RSS-GEN §8.10 – Spurious Emissions

9.1 Applicable Standard

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	608 – 614	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5.35 – 5. 46
2.1735 – 2.1905	16.80425 – 16.80475	1300 – 1427	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1660 – 1710	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2310 – 2390	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	162.0125 –167.17	3.332 – 3.339	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3 3458 – 3 358	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3.600 – 4.400	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4		Above 38.6
13.36 – 13.41	399.9 – 410		

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/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

Note 1: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

According to ANSI C63.10-2013, section 5.3.3

Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4). Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing

measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

As per FCC Part 15.407 (b)

- For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
- The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

RSS-247 Clause 6.2

5.15-5.25 GHz

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS)and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

5.25-5.35 GHz

All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.; or

All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device, except devices installed in vehicles, shall be labelled or include in the user manual the following text “for indoor use only.”

5.47-5.725 GHz

Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, devices with bandwidth overlapping the band edge of 5725 MHz can meet the emission limit of -27 dBm/MHz e.i.r.p.at 5850 MHz instead of 5725 MHz.

5.725-5.850 GHz

Devices operating in the band 5725-5850 MHz with antenna gain greater than 10 dBi can have unwanted emissions that comply with either the limits in this section or in section 5.5 until six (6) months after the publication date of this standard for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2018.

Devices operating in the band 5725-5850 MHz with antenna gain of 10 dBi or less can have unwanted emissions that comply with either the limits in this section or in section 5.5 until April 1, 2018 for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2020.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 Bm/MHz at 5 MHz above or below the band edges;

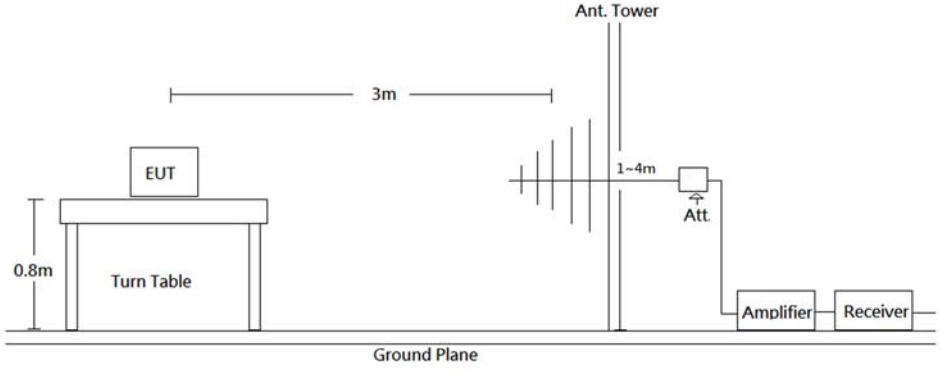
15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;

10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and

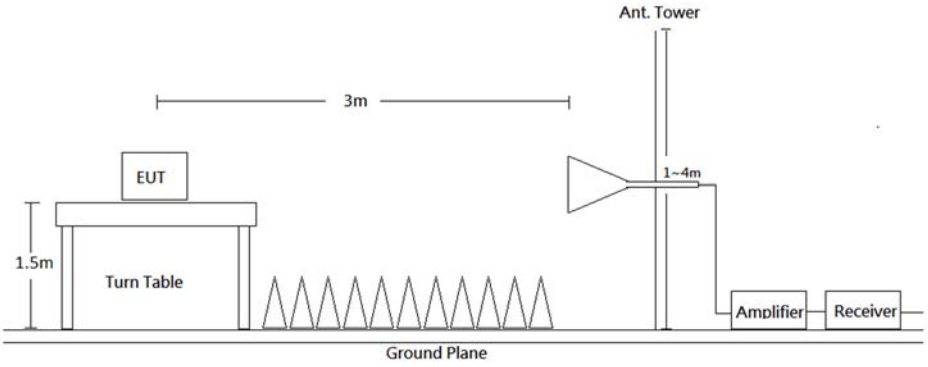
-27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

9.2 EUT Setup

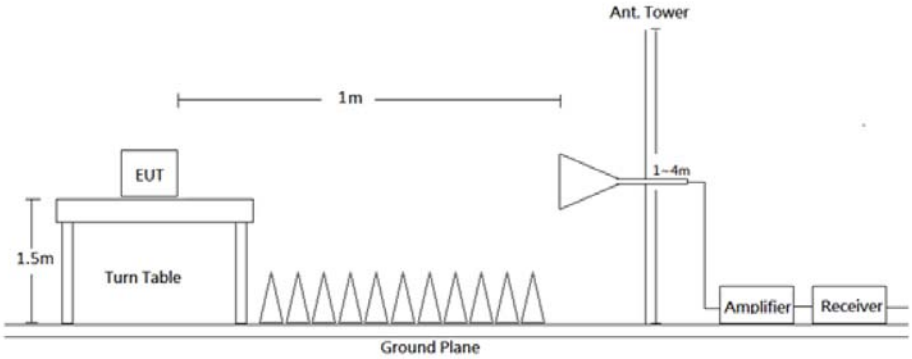
Below 1 GHz:



1-18 GHz:



18-40 GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part 15.209, FCC 15.407, RSS-247, RSS-GEN Limits.

9.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10.

Frequency Range	RBW	VBW	Duty cycle	Measurement method
30-1000 MHz	120 kHz	/	/	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	>98%	Ave
	1 MHz	1/T	<98%	Ave

Note: T is minimum transmission duration

9.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

According to C63.10, emission shall be computed as: E [dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

All emissions under the average limit and under the noise floor have not recorded in the report

9.5 Corrected Factor & Margin Calculation

The Correct Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Level – Limit

9.6 Test Results

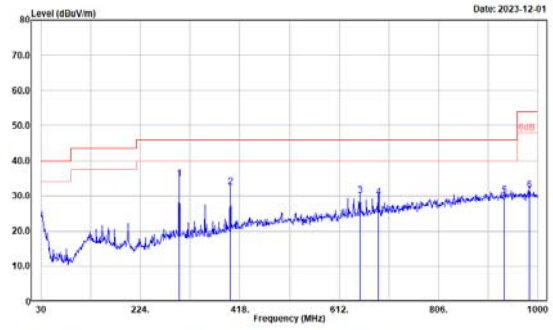
Test Mode: Transmitting

30MHz-1GHz:

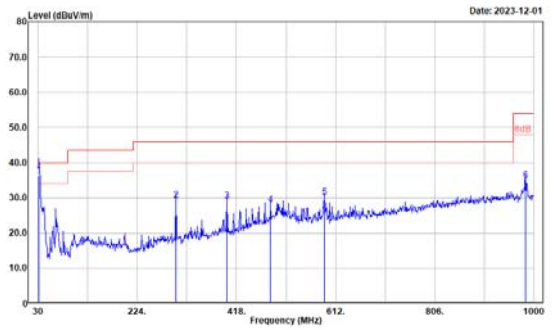
Adapter Mode:

5150~5250 MHz

(Worst case is 802.11ac 80 Mode, 5210 MHz)	
Horizontal	**Vertical**



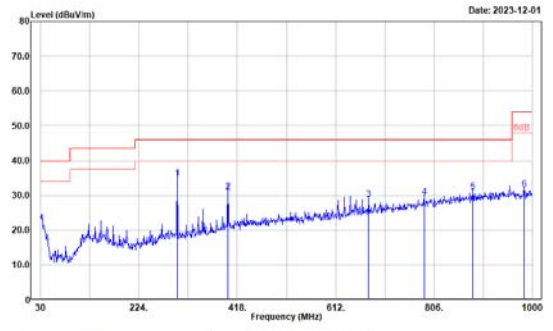
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.04	-9.14	34.90	46.00	-11.10	100	172	QP
399.570	39.64	-7.02	32.62	46.00	-13.38	100	215	QP
652.740	32.68	-2.56	30.12	46.00	-15.88	100	15	QP
688.630	31.81	-2.03	29.78	46.00	-16.22	100	238	QP
935.010	27.60	2.43	30.03	46.00	-15.97	100	1	QP
983.510	29.06	2.59	31.65	54.00	-22.35	100	215	QP



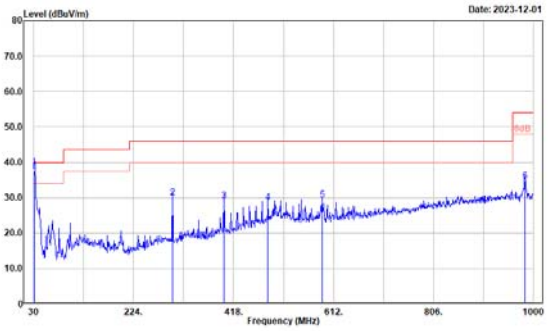
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	40.66	-4.45	36.21	40.00	-3.79	100	324	QP
299.660	38.40	-9.14	29.26	46.00	-16.74	100	106	QP
399.570	36.10	-7.02	29.08	46.00	-16.92	100	3	QP
484.930	33.08	-5.04	28.04	46.00	-17.96	100	282	QP
589.690	33.62	-3.48	30.14	46.00	-15.86	100	248	QP
983.510	32.37	2.59	34.96	54.00	-19.04	100	313	QP

5250~5350 MHz

(Worst case is 802.11ac 80 Mode, 5290 MHz)	
Horizontal	**Vertical**



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.02	-9.14	34.88	46.00	-11.12	100	169	QP
399.570	38.12	-7.02	31.10	46.00	-14.90	100	181	QP
676.990	31.02	-2.15	28.87	46.00	-17.13	100	21	QP
786.600	29.57	-0.13	29.44	46.00	-16.56	100	213	QP
882.630	29.51	1.55	31.06	46.00	-14.94	100	246	QP
983.510	29.00	2.59	31.59	54.00	-22.41	100	289	QP

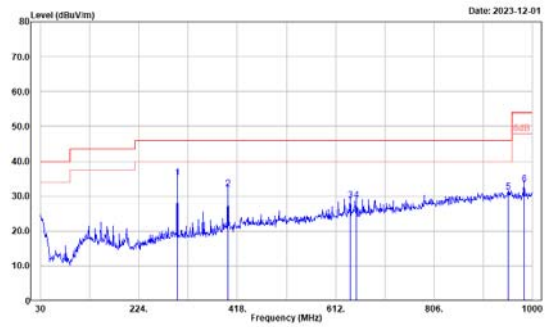


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	42.00	-4.45	37.55	40.00	-2.45	100	326	QP
299.660	39.08	-9.14	29.94	46.00	-16.06	100	107	QP
399.570	36.03	-7.02	29.01	46.00	-16.99	100	35	QP
484.930	33.72	-5.04	28.68	46.00	-17.32	100	130	QP
589.690	32.69	-3.48	29.21	46.00	-16.79	100	294	QP
983.510	32.08	2.59	34.67	54.00	-19.33	100	326	QP

5470~5725 MHz

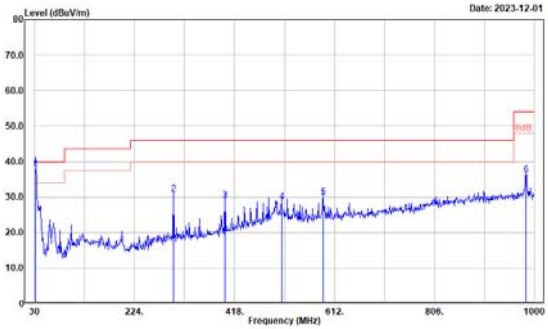
(Worst case is 802.11ac 80 Mode, 5530 MHz)

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.38	-9.14	35.24	46.00	-10.76	100	166	QP
399.570	39.06	-7.02	32.04	46.00	-13.96	100	200	QP
641.100	31.56	-2.79	28.77	46.00	-17.23	100	7	QP
652.740	31.34	-2.56	28.78	46.00	-17.22	100	1	QP
952.470	28.35	2.79	31.14	46.00	-14.86	100	333	QP
983.510	30.88	2.59	33.47	54.00	-20.53	100	294	QP

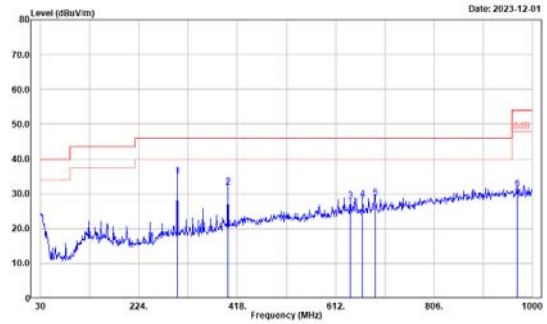
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	42.43	-4.45	37.98	40.00	-2.02	100	85	QP
299.660	39.87	-9.14	30.73	46.00	-15.27	100	116	QP
399.570	36.06	-7.02	29.04	46.00	-16.96	100	295	QP
509.180	33.30	-4.61	28.69	46.00	-17.31	100	299	QP
589.690	33.43	-3.48	29.95	46.00	-16.05	100	358	QP
983.510	33.60	2.59	36.19	54.00	-17.81	100	322	QP

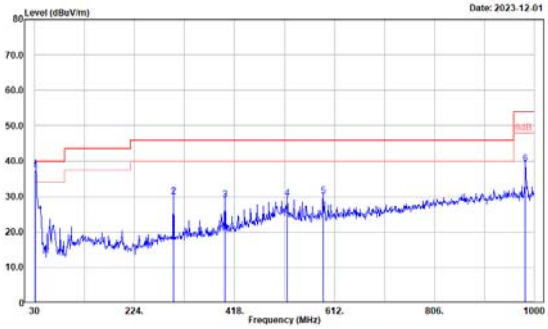
(Worst case is 802.11ac 80 Mode, 5610 MHz)

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.30	-9.14	35.16	46.00	-10.84	100	178	QP
399.570	38.90	-7.02	31.88	46.00	-14.12	100	201	QP
641.100	30.66	-2.79	27.87	46.00	-18.13	100	11	QP
665.350	30.65	-2.34	28.31	46.00	-17.69	100	7	QP
689.600	30.81	-2.03	28.78	46.00	-17.22	100	358	QP
970.900	28.85	2.60	31.45	54.00	-22.55	100	358	QP

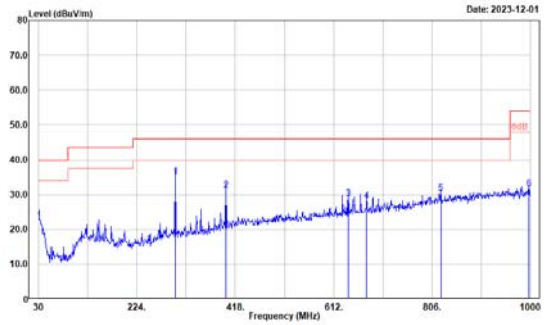
Vertical



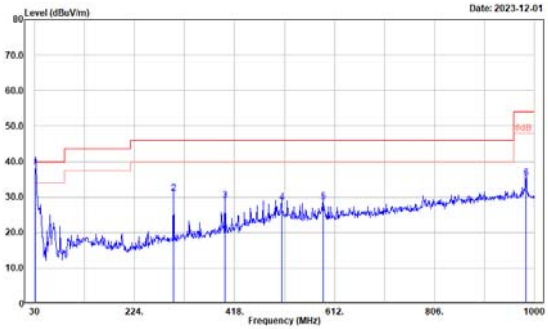
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	41.78	-4.45	37.33	40.00	-2.67	100	132	QP
299.660	39.03	-9.14	29.89	46.00	-16.11	100	108	QP
399.570	36.05	-7.02	29.03	46.00	-16.97	100	301	QP
520.820	33.94	-4.50	29.44	46.00	-16.56	100	247	QP
589.690	33.70	-3.48	30.22	46.00	-15.78	100	235	QP
982.540	36.65	2.58	39.23	54.00	-14.77	100	309	QP

5725~5850 MHz

(Worst case is 802.11ac 80 Mode, 5775 MHz)	
Horizontal	**Vertical**



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.20	-9.14	35.06	46.00	-10.94	100	168	QP
399.570	38.33	-7.02	31.31	46.00	-14.69	100	172	QP
641.100	31.61	-2.79	28.82	46.00	-17.18	100	0	QP
676.990	30.39	-2.15	28.24	46.00	-17.76	100	12	QP
825.460	29.88	0.48	30.36	46.00	-15.64	100	339	QP
997.090	28.93	2.81	31.74	54.00	-22.26	100	78	QP



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	42.55	-4.45	38.10	40.00	-1.90	100	124	QP
299.660	40.20	-9.14	31.06	46.00	-14.94	100	104	QP
399.570	36.08	-7.02	29.06	46.00	-16.94	100	359	QP
509.180	33.00	-4.61	28.39	46.00	-17.61	100	169	QP
589.690	32.16	-3.48	28.68	46.00	-17.32	100	239	QP
983.510	32.65	2.59	35.24	54.00	-18.76	100	323	QP

Level = Reading + Factor.

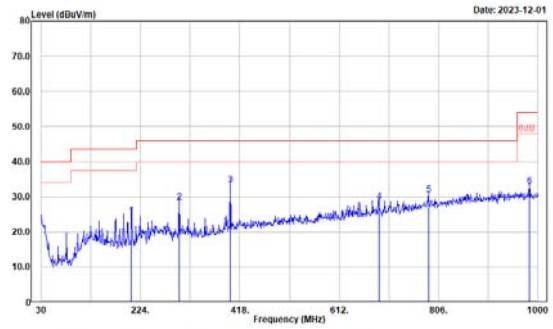
Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

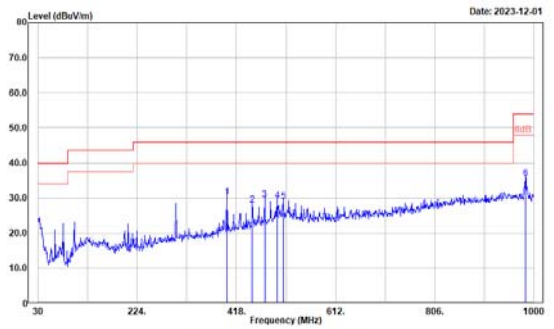
PoE Mode:

5150~5250 MHz

(Worst case is 802.11ac 80 Mode, 5210 MHz)	
Horizontal	**Vertical**



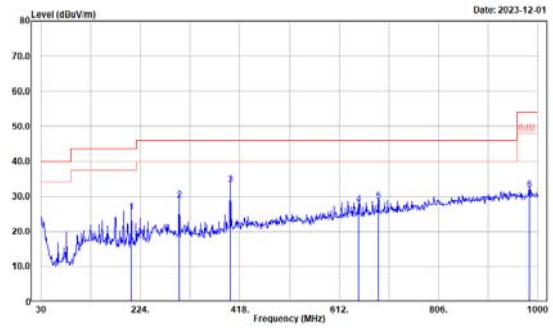
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
206.540	36.78	-12.27	24.51	43.50	-18.99	100	2	QP
299.660	37.45	-9.14	28.31	46.00	-17.69	100	330	QP
399.570	40.30	-7.02	33.28	46.00	-12.72	100	172	QP
689.600	30.64	-2.03	28.61	46.00	-17.39	100	179	QP
786.600	30.66	-0.13	30.53	46.00	-15.47	100	346	QP
983.510	30.36	2.59	32.95	54.00	-21.05	100	204	QP



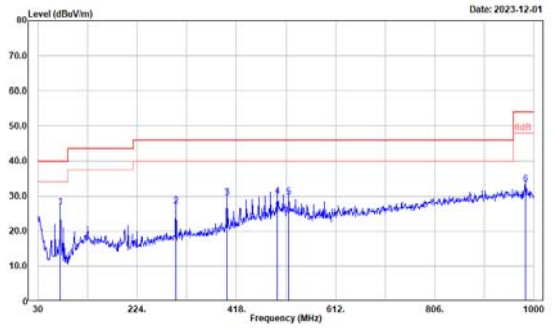
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
399.570	37.35	-7.02	30.33	46.00	-15.67	100	240	QP
449.040	33.57	-5.56	28.01	46.00	-17.99	100	185	QP
473.290	34.80	-5.28	29.52	46.00	-16.48	100	170	QP
497.540	33.96	-4.78	29.18	46.00	-16.82	100	146	QP
509.180	33.65	-4.61	29.04	46.00	-16.96	100	244	QP
983.510	32.97	2.59	35.56	54.00	-18.44	100	265	QP

5250~5350 MHz

(Worst case is 802.11ac 80 Mode, 5290 MHz)	
Horizontal	**Vertical**



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
206.540	37.84	-12.27	25.57	43.50	-17.93	100	192	QP
299.660	37.89	-9.14	28.75	46.00	-17.25	100	328	QP
399.570	40.50	-7.02	33.48	46.00	-12.52	100	169	QP
649.830	30.37	-2.63	27.74	46.00	-18.26	100	324	QP
688.630	30.64	-2.03	28.61	46.00	-17.39	100	157	QP
983.510	29.28	2.59	31.87	54.00	-22.13	100	157	QP

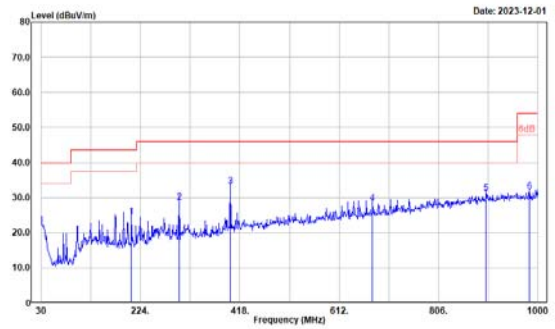


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
73.650	42.75	-15.80	26.95	40.00	-13.05	100	63	QP
299.660	36.25	-9.14	27.11	46.00	-18.89	100	59	QP
399.570	36.58	-7.02	29.56	46.00	-16.44	100	236	QP
497.540	34.68	-4.78	29.90	46.00	-16.10	100	155	QP
520.820	34.21	-4.50	29.71	46.00	-16.29	100	163	QP
983.510	30.78	2.59	33.37	54.00	-20.63	100	0	QP

5470~5725 MHz

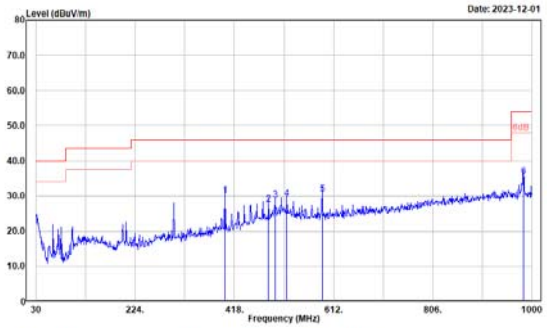
(Worst case is 802.11ac 80 Mode, 5530 MHz)

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
206.540	36.74	-12.27	24.47	43.50	-19.03	100	3	QP
299.660	37.81	-9.14	28.67	46.00	-17.33	100	334	QP
399.570	40.15	-7.02	33.13	46.00	-12.87	100	208	QP
676.990	30.63	-2.15	28.48	46.00	-17.52	100	181	QP
899.120	29.38	1.93	31.31	46.00	-14.69	100	32	QP
983.510	28.99	2.59	31.58	54.00	-22.42	100	197	QP

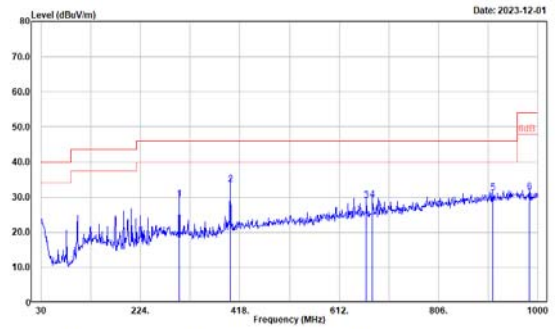
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
399.570	37.23	-7.02	30.21	46.00	-15.79	100	245	QP
484.930	32.50	-5.04	27.46	46.00	-18.54	100	147	QP
497.540	33.58	-4.78	28.80	46.00	-17.20	100	160	QP
520.820	33.69	-4.50	29.19	46.00	-16.81	100	199	QP
589.690	34.12	-3.48	30.64	46.00	-15.36	100	316	QP
983.510	32.97	2.59	35.56	54.00	-18.44	100	284	QP

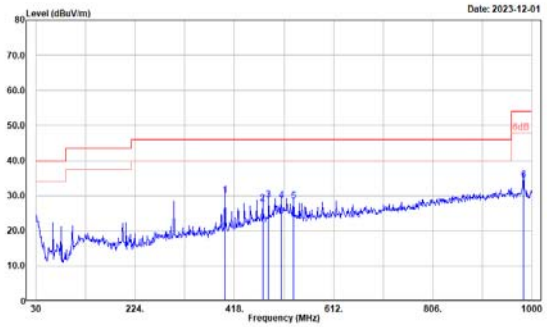
(Worst case is 802.11ac 80 Mode, 5610 MHz)

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	38.59	-9.14	29.45	46.00	-16.55	100	342	QP
399.570	40.65	-7.02	33.63	46.00	-12.37	100	166	QP
665.350	31.49	-2.34	29.15	46.00	-16.85	100	217	QP
676.990	31.40	-2.15	29.25	46.00	-16.75	100	201	QP
912.700	29.19	1.98	31.17	46.00	-14.83	100	229	QP
983.510	28.86	2.59	31.45	54.00	-22.55	100	201	QP

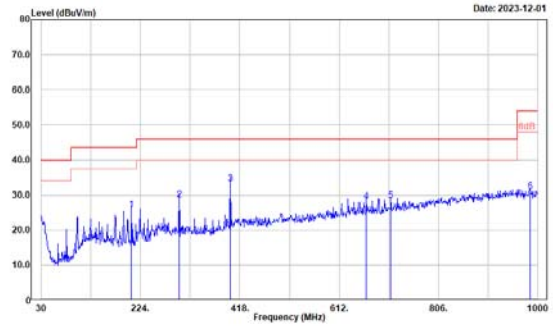
Vertical



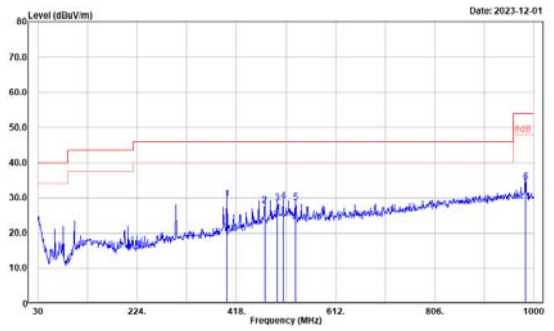
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
399.570	37.06	-7.02	30.04	46.00	-15.96	100	230	QP
473.290	33.10	-5.28	27.82	46.00	-18.18	100	144	QP
484.930	33.98	-5.04	28.94	46.00	-17.06	100	184	QP
509.180	33.27	-4.61	28.66	46.00	-17.34	100	226	QP
533.430	32.94	-4.56	28.38	46.00	-17.62	100	195	QP
983.510	31.95	2.59	34.54	54.00	-19.46	100	265	QP

5725~5850 MHz

(Worst case is 802.11ac 80 Mode, 5775 MHz)	
Horizontal	**Vertical**



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
206.540	38.07	-12.27	25.80	43.50	-17.70	100	360	QP
299.660	37.67	-9.14	28.53	46.00	-17.47	100	330	QP
399.570	40.10	-7.02	33.08	46.00	-12.92	100	180	QP
665.350	30.56	-2.34	28.22	46.00	-17.78	100	176	QP
712.880	29.83	-1.43	28.40	46.00	-17.60	100	242	QP
984.480	28.32	2.59	30.91	54.00	-23.09	100	152	QP



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
399.570	36.67	-7.02	29.65	46.00	-16.35	100	258	QP
473.290	33.13	-5.28	27.85	46.00	-18.15	100	143	QP
497.540	33.26	-4.78	28.48	46.00	-17.52	100	155	QP
509.180	33.61	-4.61	29.00	46.00	-17.00	100	208	QP
533.430	33.28	-4.56	28.72	46.00	-17.28	100	121	QP
983.510	31.85	2.59	34.44	54.00	-19.56	100	246	QP

Level = Reading + Factor.

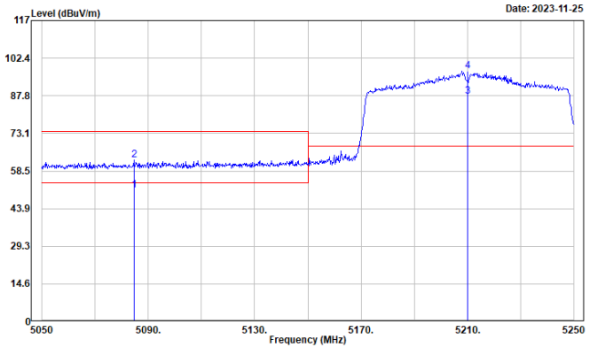
Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

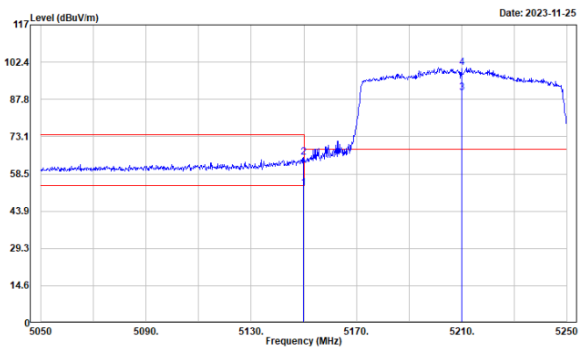
Band-Edge

(Worst case is 802.11ac 80 Mode)

5210MHz	
Horizontal	**Vertical**



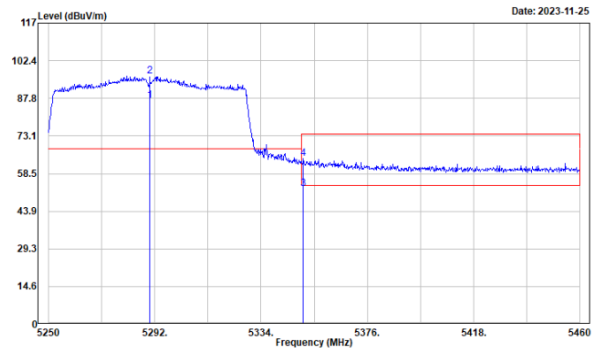
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5084.600	54.99	-3.90	51.09	54.00	-2.91	269	180	Average
5084.600	66.82	-3.90	62.92	74.00	-11.08	269	180	Peak
5210.000	91.82	-4.17	87.65			269	180	Average
5210.000	101.37	-4.17	97.20			269	180	Peak



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5149.800	56.91	-3.84	53.07	54.00	-0.93	118	45	Average
5149.800	68.75	-3.84	64.91	74.00	-9.09	118	45	Peak
5210.000	94.66	-4.17	90.49			118	45	Average
5210.000	104.40	-4.17	100.23			118	45	Peak

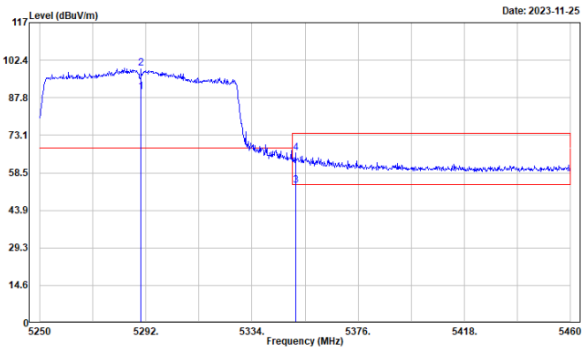
5290MHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5290.000	91.11	-4.16	86.95			265	192	Average
5290.000	100.48	-4.16	96.32			265	192	Peak
5350.800	56.80	-4.31	52.49	54.00	-1.51	265	192	Average
5350.800	68.72	-4.31	64.41	74.00	-9.59	265	192	Peak

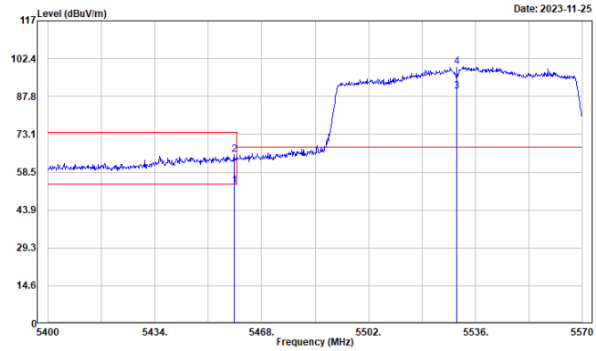
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5290.000	94.23	-4.16	90.07			108	42	Average
5290.000	103.54	-4.16	99.38			108	42	Peak
5351.220	57.81	-4.32	53.49	54.00	-0.51	108	42	Average
5351.220	70.73	-4.32	66.41	74.00	-7.59	108	42	Peak

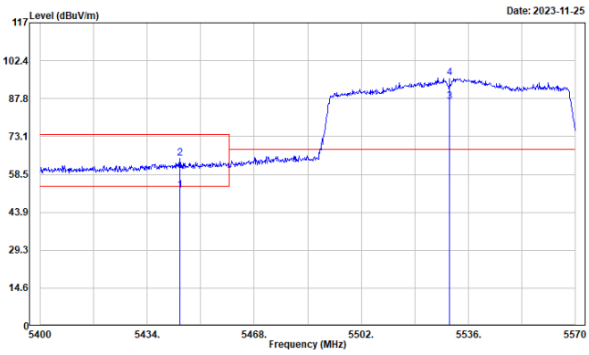
5530MHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5459.160	58.22	-4.81	53.41	54.00	-0.59	267	198	Average
5459.160	70.09	-4.81	65.28	74.00	-8.72	267	198	Peak
5530.000	94.55	-4.70	89.85			267	198	Average
5530.000	103.91	-4.70	99.21			267	198	Peak

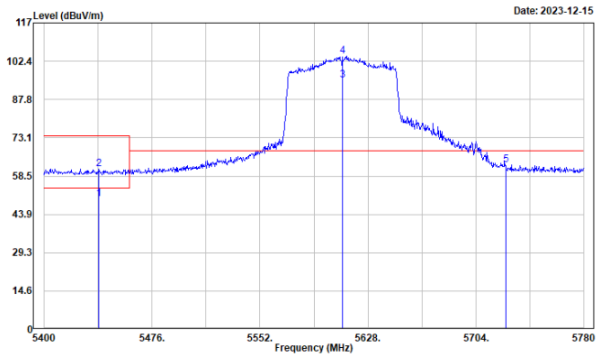
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5444.370	56.98	-4.80	52.18	54.00	-1.82	134	42	Average
5444.370	69.54	-4.80	64.74	74.00	-9.26	134	42	Peak
5530.000	91.20	-4.70	86.50			134	42	Average
5530.000	100.38	-4.70	95.68			134	42	Peak

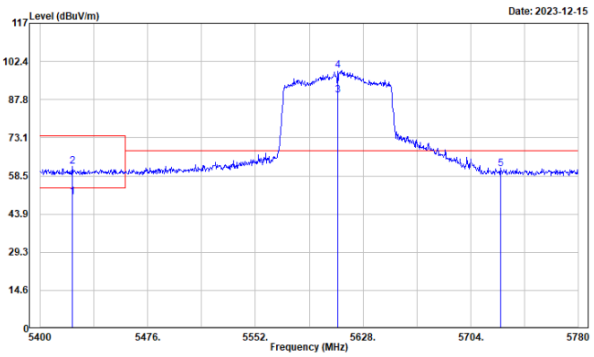
5610MHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5438.760	54.69	-4.76	49.93	54.00	-4.07	106	201	Average
5438.760	66.09	-4.76	61.33	74.00	-12.67	106	201	Peak
5610.000	99.88	-4.78	95.10			106	201	Average
5610.000	109.10	-4.78	104.32			106	201	Peak
5725.000	68.10	-5.27	62.83	68.20	-5.37	106	201	Peak

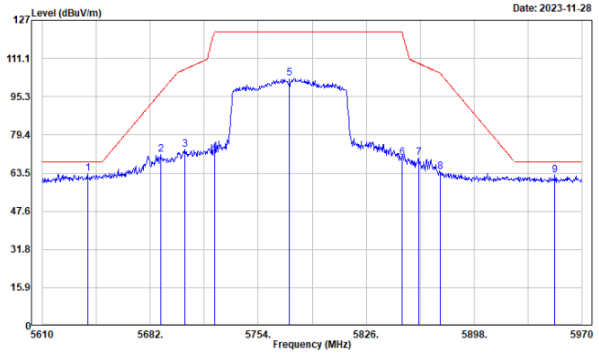
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5422.800	54.99	-4.69	50.30	54.00	-3.70	146	43	Average
5422.800	66.93	-4.69	62.24	74.00	-11.76	146	43	Peak
5610.000	94.10	-4.78	89.32			146	43	Average
5610.000	103.55	-4.78	98.77			146	43	Peak
5725.000	66.51	-5.27	61.24	68.20	-6.96	146	43	Peak

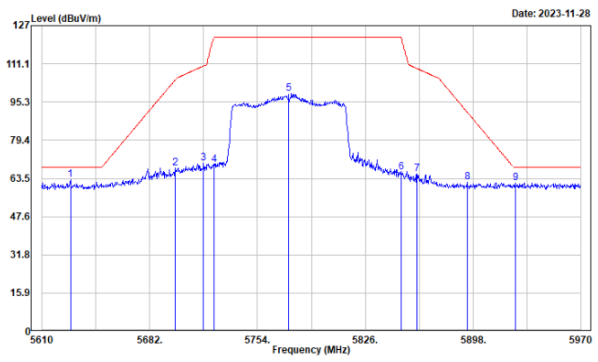
5775MHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5640.240	68.08	-4.89	63.19	68.20	-5.01	104	171	Peak
5688.840	76.43	-5.22	71.21	96.97	-25.76	104	171	Peak
5705.040	78.63	-5.30	73.33	106.61	-33.28	104	171	Peak
5725.000	77.61	-5.27	72.34	122.20	-49.86	104	171	Peak
5775.000	108.24	-5.20	103.04			104	171	Peak
5850.000	75.01	-5.11	69.90	122.20	-52.30	104	171	Peak
5860.920	75.02	-5.04	69.98	109.14	-39.16	104	171	Peak
5875.680	69.00	-4.94	64.06	104.69	-40.63	104	171	Peak
5952.000	66.79	-4.28	62.51	68.20	-5.69	104	171	Peak

Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5629.080	67.75	-4.84	62.91	68.20	-5.29	112	50	Peak
5699.280	73.09	-5.31	67.78	104.67	-36.89	112	50	Peak
5718.000	75.19	-5.28	69.91	110.24	-40.33	112	50	Peak
5725.000	74.52	-5.27	69.25	122.20	-52.95	112	50	Peak
5775.000	104.06	-5.20	98.86			112	50	Peak
5850.000	71.12	-5.11	66.01	122.20	-56.19	112	50	Peak
5860.560	70.48	-5.05	65.43	109.24	-43.81	112	50	Peak
5894.040	66.62	-4.82	61.80	91.07	-29.27	112	50	Peak
5926.080	66.25	-4.51	61.74	68.20	-6.46	112	50	Peak

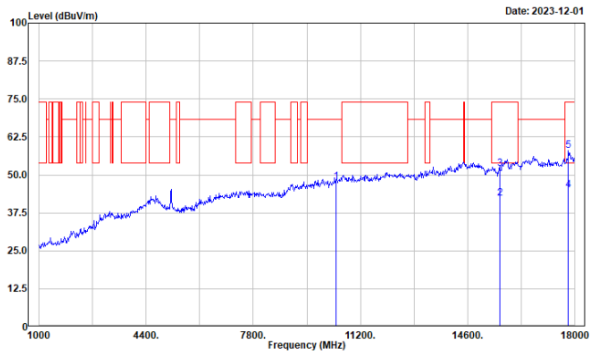
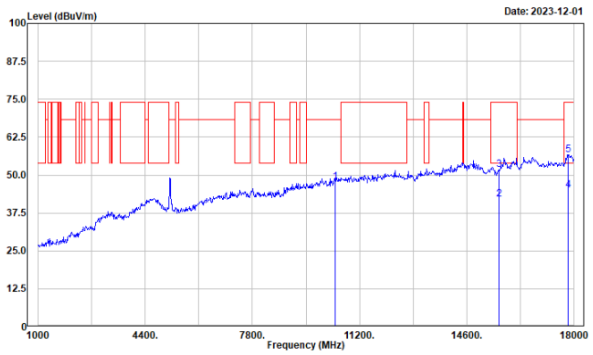
Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

1GHz-18GHz:

(Worst case is 802.11ac 80 Mode 5210MHz)

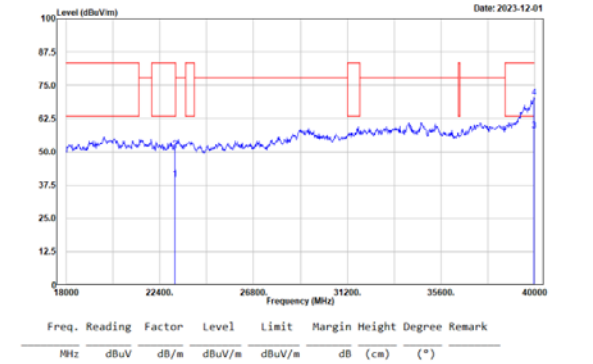
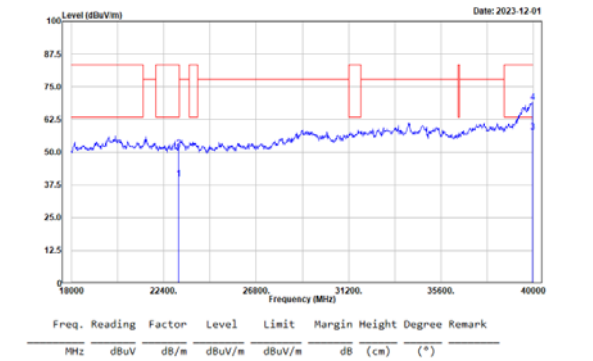
Horizontal	Vertical
	

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10420.000	41.76	5.99	47.75	68.20	-20.45	158	95	Peak
15630.000	33.31	8.93	42.24	54.00	-11.76	151	161	Average
15630.000	43.07	8.93	52.00	74.00	-22.00	151	161	Peak
17796.000	32.10	12.85	44.95	54.00	-9.05	150	168	Average
17796.000	45.16	12.85	58.01	74.00	-15.99	150	168	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10420.000	41.61	5.99	47.60	68.20	-20.60	154	195	Peak
15630.000	33.05	8.93	41.98	54.00	-12.02	153	72	Average
15630.000	42.92	8.93	51.85	74.00	-22.15	153	72	Peak
17830.000	32.13	12.99	45.12	54.00	-8.88	150	176	Average
17830.000	43.67	12.99	56.66	74.00	-17.34	150	176	Peak

18GHz-40GHz:

(Worst case is 802.11ac 80 Mode 5775MHz)

Horizontal	Vertical
	

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
23100.000	37.53	2.27	39.80	63.50	-23.70	157	297	Average
23100.000	48.67	2.27	50.94	83.50	-32.56	157	297	Peak
39978.000	43.91	13.98	57.89	63.50	-5.61	150	107	Average
39978.000	56.47	13.98	70.45	83.50	-13.05	150	107	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
23100.000	37.51	2.27	39.78	63.50	-23.72	151	215	Average
23100.000	49.22	2.27	51.49	83.50	-32.01	151	215	Peak
39978.000	43.83	13.98	57.81	63.50	-5.69	150	322	Average
39978.000	55.05	13.98	69.03	83.50	-14.47	150	322	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Above 1GHz:

5150-5250MHz

802.11a Mode:

5180 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5147.000	54.26	-3.83	50.43	54.00	-3.57	158	198	Average
5147.000	70.07	-3.83	66.24	74.00	-7.76	158	198	Peak
5180.000	97.55	-4.05	93.50			158	198	Average
5180.000	106.96	-4.05	102.91			158	198	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10360.000	42.59	5.72	48.31	68.20	-19.89	157	210	Peak
15540.000	30.43	8.79	39.22	54.00	-14.78	153	65	Average
15540.000	41.82	8.79	50.61	74.00	-23.39	153	65	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5149.200	56.72	-3.84	52.88	54.00	-1.12	132	41	Average
5149.200	73.75	-3.84	69.91	74.00	-4.09	132	41	Peak
5180.000	102.73	-4.05	98.68			132	41	Average
5180.000	112.17	-4.05	108.12			132	41	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10360.000	45.65	5.72	51.37	68.20	-16.83	151	180	Peak
15540.000	30.36	8.79	39.15	54.00	-14.85	149	246	Average
15540.000	41.90	8.79	50.69	74.00	-23.31	149	246	Peak

5200 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5200.000	98.51	-4.19	94.32			252	180	Average
5200.000	107.94	-4.19	103.75			252	180	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10400.000	43.03	5.96	48.99	68.20	-19.21	151	68	Peak
15600.000	32.05	8.78	40.83	54.00	-13.17	158	22	Average
15600.000	42.47	8.78	51.25	74.00	-22.75	158	22	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5200.000	102.22	-4.19	98.03			121	46	Average
5200.000	111.38	-4.19	107.19			121	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10400.000	44.84	5.96	50.80	68.20	-17.40	157	186	Peak
15600.000	31.63	8.78	40.41	54.00	-13.59	150	154	Average
15600.000	44.01	8.78	52.79	74.00	-21.21	150	154	Peak

5240 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5240.000	98.21	-4.14	94.07			233	194	Average
5240.000	107.45	-4.14	103.31			233	194	Peak
5453.440	53.41	-4.82	48.59	54.00	-5.41	233	194	Average
5453.440	66.50	-4.82	61.68	74.00	-12.32	233	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10480.000	41.47	6.09	47.56	68.20	-20.64	154	145	Peak
15720.000	33.94	9.44	43.38	54.00	-10.62	152	350	Average
15720.000	43.84	9.44	53.28	74.00	-20.72	152	350	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5240.000	102.31	-4.14	98.17			108	46	Average
5240.000	111.56	-4.14	107.42			108	46	Peak
5350.120	53.31	-4.31	49.00	54.00	-5.00	108	46	Average
5350.120	66.08	-4.31	61.77	74.00	-12.23	108	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10480.000	42.61	6.09	48.70	68.20	-19.50	151	84	Peak
15720.000	32.65	9.44	42.09	54.00	-11.91	152	343	Average
15720.000	44.47	9.44	53.91	74.00	-20.09	152	343	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT20 Mode:

5180 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5149.800	53.98	-3.84	50.14	54.00	-3.86	160	195	Average
5149.800	68.33	-3.84	64.49	74.00	-9.51	160	195	Peak
5180.000	96.50	-4.05	92.45			160	195	Average
5180.000	106.80	-4.05	102.75			160	195	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10360.000	42.14	5.72	47.86	68.20	-20.34	150	91	Peak
15540.000	30.36	8.79	39.15	54.00	-14.85	150	40	Average
15540.000	41.15	8.79	49.94	74.00	-24.06	150	40	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5149.600	55.72	-3.84	51.88	54.00	-2.12	130	42	Average
5149.600	70.28	-3.84	66.44	74.00	-7.56	130	42	Peak
5180.000	102.08	-4.05	98.03			130	42	Average
5180.000	111.85	-4.05	107.80			130	42	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10360.000	44.39	5.72	50.11	68.20	-18.09	150	187	Peak
15540.000	30.04	8.79	38.83	54.00	-15.17	151	248	Average
15540.000	41.27	8.79	50.06	74.00	-23.94	151	248	Peak

5200 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5200.000	98.41	-4.19	94.22			252	180	Average
5200.000	108.15	-4.19	103.96			252	180	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10400.000	42.74	5.96	48.70	68.20	-19.50	154	206	Peak
15600.000	32.30	8.78	41.08	54.00	-12.92	159	305	Average
15600.000	42.39	8.78	51.17	74.00	-22.83	159	305	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5200.000	101.63	-4.19	97.44			118	47	Average
5200.000	111.02	-4.19	106.83			118	47	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10400.000	44.61	5.96	50.57	68.20	-17.63	154	188	Peak
15600.000	31.60	8.78	40.38	54.00	-13.62	150	165	Average
15600.000	43.38	8.78	52.16	74.00	-21.84	150	165	Peak

5240 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5240.000	98.53	-4.14	94.39			286	181	Average
5240.000	108.07	-4.14	103.93			286	181	Peak
5364.060	53.52	-4.38	49.14	54.00	-4.86	286	181	Average
5364.060	66.76	-4.38	62.38	74.00	-11.62	286	181	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10480.000	42.05	6.09	48.14	68.20	-20.06	151	0	Peak
15720.000	33.02	9.44	42.46	54.00	-11.54	154	360	Average
15720.000	44.80	9.44	54.24	74.00	-19.76	154	360	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5240.000	101.33	-4.14	97.19			126	46	Average
5240.000	110.81	-4.14	106.67			126	46	Peak
5398.500	53.35	-4.56	48.79	54.00	-5.21	126	46	Average
5398.500	66.35	-4.56	61.79	74.00	-12.21	126	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10480.000	42.94	6.09	49.03	68.20	-19.17	156	355	Peak
15720.000	32.44	9.44	41.88	54.00	-12.12	158	0	Average
15720.000	43.80	9.44	53.24	74.00	-20.76	158	0	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT40 Mode:

5190 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5147.800	54.04	-3.84	50.20	54.00	-3.80	150	196	Average
5147.800	68.68	-3.84	64.84	74.00	-9.16	150	196	Peak
5180.000	94.32	-4.05	90.27			150	196	Average
5180.000	104.05	-4.05	100.00			150	196	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10380.000	42.66	5.84	48.50	68.20	-19.70	154	44	Peak
15570.000	31.88	8.78	40.66	54.00	-13.34	151	24	Average
15570.000	43.01	8.78	51.79	74.00	-22.21	151	24	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5145.200	56.82	-3.83	52.99	54.00	-1.01	129	43	Average
5145.200	74.35	-3.83	70.52	74.00	-3.48	129	43	Peak
5190.000	99.64	-4.11	95.53			129	43	Average
5190.000	109.14	-4.11	105.03			129	43	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10380.000	42.27	5.84	48.11	68.20	-20.09	157	357	Peak
15570.000	32.14	8.78	40.92	54.00	-13.08	153	276	Average
15570.000	42.47	8.78	51.25	74.00	-22.75	153	276	Peak

5230 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5230.000	95.51	-4.15	91.36			265	196	Average
5230.000	104.72	-4.15	100.57			265	196	Peak
5421.050	53.44	-4.68	48.76	54.00	-5.24	265	196	Average
5421.050	66.81	-4.68	62.13	74.00	-11.87	265	196	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10460.000	41.28	6.06	47.34	68.20	-20.86	152	57	Peak
15690.000	32.79	9.23	42.02	54.00	-11.98	155	182	Average
15690.000	42.96	9.23	52.19	74.00	-21.81	155	182	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5230.000	99.25	-4.15	95.10			112	44	Average
5230.000	108.96	-4.15	104.81			112	44	Peak
5444.420	53.58	-4.80	48.78	54.00	-5.22	112	44	Average
5444.420	67.20	-4.80	62.40	74.00	-11.60	112	44	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10460.000	42.39	6.06	48.45	68.20	-19.75	154	186	Peak
15690.000	32.34	9.23	41.57	54.00	-12.43	154	69	Average
15690.000	43.76	9.23	52.99	74.00	-21.01	154	69	Peak

802.11ac VHT80 Mode:

5210 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5084.600	54.99	-3.90	51.09	54.00	-2.91	269	180	Average
5084.600	66.82	-3.90	62.92	74.00	-11.08	269	180	Peak
5210.000	91.82	-4.17	87.65			269	180	Average
5210.000	101.37	-4.17	97.20			269	180	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10420.000	41.76	5.99	47.75	68.20	-20.45	158	95	Peak
15630.000	33.31	8.93	42.24	54.00	-11.76	151	161	Average
15630.000	43.07	8.93	52.00	74.00	-22.00	151	161	Peak
17796.000	32.10	12.85	44.95	54.00	-9.05	150	168	Average
17796.000	45.16	12.85	58.01	74.00	-15.99	150	168	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5149.800	56.91	-3.84	53.07	54.00	-0.93	118	45	Average
5149.800	68.75	-3.84	64.91	74.00	-9.09	118	45	Peak
5210.000	94.66	-4.17	90.49			118	45	Average
5210.000	104.40	-4.17	100.23			118	45	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
10420.000	41.61	5.99	47.60	68.20	-20.60	154	195	Peak
15630.000	33.05	8.93	41.98	54.00	-12.02	153	72	Average
15630.000	42.92	8.93	51.85	74.00	-22.15	153	72	Peak
17830.000	32.13	12.99	45.12	54.00	-8.88	150	176	Average
17830.000	43.67	12.99	56.66	74.00	-17.34	150	176	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

5250-5350MHz

802.11a Mode:

5260 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5138.970	53.30	-3.83	49.47	54.00	-4.53	237	179	Average
5138.970	66.23	-3.83	62.40	74.00	-11.60	237	179	Peak
5260.000	98.55	-4.13	94.42			237	179	Average
5260.000	107.73	-4.13	103.60			237	179	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10520.000	42.26	6.15	48.41	68.20	-19.79	158	217	Peak
15780.000	35.78	9.90	45.68	54.00	-8.32	154	209	Average
15780.000	45.67	9.90	55.57	74.00	-18.43	154	209	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5119.700	53.52	-3.81	49.71	54.00	-4.29	151	41	Average
5119.700	66.51	-3.81	62.70	74.00	-11.30	151	41	Peak
5260.000	101.74	-4.13	97.61			151	41	Average
5260.000	111.07	-4.13	106.94			151	41	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10520.000	42.52	6.15	48.67	68.20	-19.53	150	181	Peak
15780.000	33.68	9.90	43.58	54.00	-10.42	153	74	Average
15780.000	44.14	9.90	54.04	74.00	-19.96	153	74	Peak

5300 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5300.000	99.17	-4.16	95.01			245	194	Average
5300.000	108.57	-4.16	104.41			245	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10600.000	30.59	6.29	36.88	54.00	-17.12	151	74	Average
10600.000	42.34	6.29	48.63	68.20	-19.57	151	74	Peak
15900.000	36.68	10.02	46.70	54.00	-7.30	169	62	Average
15900.000	46.04	10.02	56.06	74.00	-17.94	169	62	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5300.000	101.95	-4.16	97.79			122	46	Average
5300.000	111.28	-4.16	107.12			122	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10600.000	30.88	6.29	37.17	54.00	-16.83	148	140	Average
10600.000	43.46	6.29	49.75	68.20	-18.45	148	140	Peak
15900.000	33.94	10.02	43.96	54.00	-10.04	157	360	Average
15900.000	45.40	10.02	55.42	74.00	-18.58	157	360	Peak

5320 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5320.000	100.12	-4.22	95.90			258	192	Average
5320.000	109.54	-4.22	105.32			258	192	Peak
5350.690	55.52	-4.31	51.21	54.00	-2.79	258	192	Average
5350.690	68.44	-4.31	64.13	74.00	-9.87	258	192	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10640.000	30.84	6.14	36.98	54.00	-17.02	157	146	Average
10640.000	42.44	6.14	48.58	74.00	-25.42	157	146	Peak
15960.000	35.97	10.34	46.31	54.00	-7.69	158	349	Average
15960.000	44.52	10.34	54.86	74.00	-19.14	158	349	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5320.000	101.71	-4.22	97.49			136	42	Average
5320.000	111.08	-4.22	106.86			136	42	Peak
5350.860	56.13	-4.32	51.81	54.00	-2.19	136	42	Average
5350.860	70.18	-4.32	65.86	74.00	-8.14	136	42	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10640.000	30.71	6.14	36.85	54.00	-17.15	150	132	Average
10640.000	42.35	6.14	48.49	74.00	-25.51	150	132	Peak
15960.000	33.61	10.34	43.95	54.00	-10.05	159	359	Average
15960.000	44.48	10.34	54.82	74.00	-19.18	159	359	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT20 Mode:

5260 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5120.110	53.26	-3.81	49.45	54.00	-4.55	277	199	Average
5120.110	66.98	-3.81	63.17	74.00	-10.83	277	199	Peak
5260.000	98.44	-4.13	94.31			277	199	Average
5260.000	107.88	-4.13	103.75			277	199	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10520.000	41.83	6.15	47.98	68.20	-20.22	155	2	Peak
15780.000	34.01	9.90	43.91	54.00	-10.09	151	1	Average
15780.000	44.09	9.90	53.99	74.00	-20.01	151	1	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5105.760	53.49	-3.80	49.69	54.00	-4.31	124	47	Average
5105.760	65.67	-3.80	61.87	74.00	-12.13	124	47	Peak
5260.000	101.40	-4.13	97.27			124	47	Average
5260.000	110.78	-4.13	106.65			124	47	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10520.000	43.13	6.15	49.28	68.20	-18.92	157	181	Peak
15780.000	33.11	9.90	43.01	54.00	-10.99	155	21	Average
15780.000	44.00	9.90	53.90	74.00	-20.10	155	21	Peak

5300 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5300.000	98.57	-4.16	94.41			243	194	Average
5300.000	108.84	-4.16	104.68			243	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10600.000	30.62	6.29	36.91	54.00	-17.09	154	135	Average
10600.000	42.50	6.29	48.79	68.20	-19.41	154	135	Peak
15900.000	34.81	10.02	44.83	54.00	-9.17	152	357	Average
15900.000	45.84	10.02	55.86	74.00	-18.14	152	357	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5300.000	101.13	-4.16	96.97			135	43	Average
5300.000	110.79	-4.16	106.63			135	43	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10600.000	30.62	6.29	36.91	54.00	-17.09	154	179	Average
10600.000	42.70	6.29	48.99	68.20	-19.21	154	179	Peak
15900.000	33.30	10.02	43.32	54.00	-10.68	158	350	Average
15900.000	42.48	10.02	52.50	74.00	-21.50	158	350	Peak

5320 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5320.000	99.60	-4.22	95.38			259	194	Average
5320.000	109.65	-4.22	105.43			259	194	Peak
5350.010	54.53	-4.31	50.22	54.00	-3.78	259	194	Average
5350.010	69.00	-4.31	64.69	74.00	-9.31	259	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10640.000	30.68	6.14	36.82	54.00	-17.18	155	334	Average
10640.000	42.79	6.14	48.93	74.00	-25.07	155	334	Peak
15960.000	35.74	10.34	46.08	54.00	-7.92	151	345	Average
15960.000	44.82	10.34	55.16	74.00	-18.84	151	345	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5320.000	101.05	-4.22	96.83			110	41	Average
5320.000	111.00	-4.22	106.78			110	41	Peak
5352.050	54.98	-4.32	50.66	54.00	-3.34	110	41	Average
5352.050	69.37	-4.32	65.05	74.00	-8.95	110	41	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10640.000	30.71	6.14	36.85	54.00	-17.15	157	50	Average
10640.000	42.44	6.14	48.58	74.00	-25.42	157	50	Peak
15960.000	33.45	10.34	43.79	54.00	-10.21	152	7	Average
15960.000	43.13	10.34	53.47	74.00	-20.53	152	7	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT40 Mode:

5270 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5140.200	53.38	-3.83	49.55	54.00	-4.45	264	194	Average
5140.200	66.18	-3.83	62.35	74.00	-11.65	264	194	Peak
5270.000	95.09	-4.14	90.95			264	194	Average
5270.000	104.74	-4.14	100.60			264	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10540.000	41.94	6.19	48.13	68.20	-20.07	159	4	Peak
15810.000	34.44	10.06	44.50	54.00	-9.50	154	2	Average
15810.000	44.57	10.06	54.63	74.00	-19.37	154	2	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5097.970	53.68	-3.80	49.88	54.00	-4.12	107	40	Average
5097.970	66.69	-3.80	62.89	74.00	-11.11	107	40	Peak
5270.000	98.80	-4.14	94.66			107	40	Average
5270.000	108.29	-4.14	104.15			107	40	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10540.000	42.82	6.19	49.01	68.20	-19.19	153	174	Peak
15810.000	33.51	10.06	43.57	54.00	-10.43	151	298	Average
15810.000	43.82	10.06	53.88	74.00	-20.12	151	298	Peak

5310 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5310.000	95.16	-4.20	90.96			257	191	Average
5310.000	104.84	-4.20	100.64			257	191	Peak
5352.390	56.57	-4.33	52.24	54.00	-1.76	257	191	Average
5352.390	73.42	-4.33	69.09	74.00	-4.91	257	191	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10620.000	31.41	6.22	37.63	54.00	-16.37	155	140	Average
10620.000	42.27	6.22	48.49	74.00	-25.51	155	140	Peak
15930.000	31.37	10.18	41.55	54.00	-12.45	152	0	Average
15930.000	44.81	10.18	54.99	74.00	-19.01	152	0	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5310.000	97.16	-4.20	92.96			104	43	Average
5310.000	106.60	-4.20	102.40			104	43	Peak
5350.010	57.51	-4.31	53.20	54.00	-0.80	104	43	Average
5350.010	74.03	-4.31	69.72	74.00	-4.28	104	43	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10620.000	31.21	6.22	37.43	54.00	-16.57	150	201	Average
10620.000	42.11	6.22	48.33	74.00	-25.67	150	201	Peak
15930.000	32.06	10.18	42.24	54.00	-11.76	157	95	Average
15930.000	42.89	10.18	53.07	74.00	-20.93	157	95	Peak

802.11ac VHT80 Mode:

5290 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5290.000	91.11	-4.16	86.95			265	192	Average
5290.000	100.48	-4.16	96.32			265	192	Peak
5350.800	56.80	-4.31	52.49	54.00	-1.51	265	192	Average
5350.800	68.72	-4.31	64.41	74.00	-9.59	265	192	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10580.000	41.69	6.26	47.95	68.20	-20.25	158	194	Peak
15870.000	34.26	10.03	44.29	54.00	-9.71	152	40	Average
15870.000	42.68	10.03	52.71	74.00	-21.29	152	40	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5290.000	94.23	-4.16	90.07			108	42	Average
5290.000	103.54	-4.16	99.38			108	42	Peak
5351.220	57.81	-4.32	53.49	54.00	-0.51	108	42	Average
5351.220	70.73	-4.32	66.41	74.00	-7.59	108	42	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
10580.000	42.81	6.26	49.07	68.20	-19.13	151	305	Peak
15870.000	34.06	10.03	44.09	54.00	-9.91	156	96	Average
15870.000	43.34	10.03	53.37	74.00	-20.63	156	96	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

5470-5725MHz

802.11a Mode:

5500 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5459.840	54.93	-4.81	50.12	54.00	-3.88	122	196	Average
5459.840	68.78	-4.81	63.97	74.00	-10.03	122	196	Peak
5500.000	104.01	-4.78	99.23			122	196	Average
5500.000	113.58	-4.78	108.80			122	196	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11000.000	30.70	6.84	37.54	54.00	-16.46	150	56	Average
11000.000	41.89	6.84	48.73	74.00	-25.27	150	56	Peak
16500.000	56.07	11.78	67.85	68.20	-0.35	170	21	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5459.500	54.61	-4.81	49.80	54.00	-4.20	136	42	Average
5459.500	68.25	-4.81	63.44	74.00	-10.56	136	42	Peak
5500.000	100.35	-4.78	95.57			136	42	Average
5500.000	109.93	-4.78	105.15			136	42	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11000.000	30.58	6.84	37.42	54.00	-16.58	155	78	Average
11000.000	42.69	6.84	49.53	74.00	-24.47	155	78	Peak
16500.000	49.34	11.78	61.12	68.20	-7.08	186	360	Peak

5580 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5580.000	104.31	-4.71	99.60			112	198	Average
5580.000	113.83	-4.71	109.12			112	198	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11160.000	30.76	6.96	37.72	54.00	-16.28	154	182	Average
11160.000	42.39	6.96	49.35	74.00	-24.65	154	182	Peak
16740.000	55.90	11.62	67.52	68.20	-0.68	136	360	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5580.000	100.68	-4.71	95.97			131	44	Average
5580.000	110.23	-4.71	105.52			131	44	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11160.000	30.51	6.96	37.47	54.00	-16.53	153	123	Average
11160.000	43.08	6.96	50.04	74.00	-23.96	153	123	Peak
16740.000	47.28	11.62	58.90	68.20	-9.30	151	318	Peak

5700 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5700.000	106.19	-5.31	100.88			122	201	Average
5700.000	115.69	-5.31	110.38			122	201	Peak
5725.000	70.30	-5.27	65.03	68.20	-3.17	122	201	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11400.000	31.77	7.15	38.92	54.00	-15.08	151	244	Average
11400.000	41.99	7.15	49.14	74.00	-24.86	151	244	Peak
17100.000	53.51	11.65	65.16	68.20	-3.04	145	10	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5700.000	98.91	-5.31	93.60			129	38	Average
5700.000	108.34	-5.31	103.03			129	38	Peak
5725.000	67.21	-5.27	61.94	68.20	-6.26	129	38	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11400.000	30.86	7.15	38.01	54.00	-15.99	157	90	Average
11400.000	41.82	7.15	48.97	74.00	-25.03	157	90	Peak
17100.000	52.35	11.65	64.00	68.20	-4.20	174	25	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT20 Mode:

5500 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5458.820	55.06	-4.81	50.25	54.00	-3.75	123	195	Average
5458.820	70.11	-4.81	65.30	74.00	-8.70	123	195	Peak
5500.000	103.49	-4.78	98.71			123	195	Average
5500.000	113.22	-4.78	108.44			123	195	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11000.000	30.88	6.84	37.72	54.00	-16.28	159	52	Average
11000.000	41.65	6.84	48.49	74.00	-25.51	159	52	Peak
16500.000	55.07	11.78	66.85	68.20	-1.35	165	1	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5459.330	54.33	-4.81	49.52	54.00	-4.48	116	43	Average
5459.330	68.66	-4.81	63.85	74.00	-10.15	116	43	Peak
5500.000	99.94	-4.78	95.16			116	43	Average
5500.000	109.84	-4.78	105.06			116	43	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11000.000	31.17	6.84	38.01	54.00	-15.99	151	103	Average
11000.000	43.30	6.84	50.14	74.00	-23.86	151	103	Peak
16500.000	45.52	11.78	57.30	68.20	-10.90	153	357	Peak

5580 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5580.000	103.69	-4.71	98.98			113	197	Average
5580.000	113.77	-4.71	109.06			113	197	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11160.000	30.84	6.96	37.80	54.00	-16.20	158	336	Average
11160.000	42.22	6.96	49.18	74.00	-24.82	158	336	Peak
16740.000	54.77	11.62	66.39	68.20	-1.81	143	360	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5580.000	99.26	-4.71	94.55			148	41	Average
5580.000	109.37	-4.71	104.66			148	41	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11160.000	30.54	6.96	37.50	54.00	-16.50	152	27	Average
11160.000	41.80	6.96	48.76	74.00	-25.24	152	27	Peak
16740.000	45.68	11.62	57.30	68.20	-10.90	155	179	Peak

5700 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5700.000	104.77	-5.31	99.46			122	201	Average
5700.000	114.82	-5.31	109.51			122	201	Peak
5725.000	72.07	-5.27	66.80	68.20	-1.40	122	201	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11400.000	31.58	7.15	38.73	54.00	-15.27	158	1	Average
11400.000	42.10	7.15	49.25	74.00	-24.75	158	1	Peak
17100.000	53.11	11.65	64.76	68.20	-3.44	146	22	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5700.000	97.10	-5.31	91.79			129	40	Average
5700.000	107.23	-5.31	101.92			129	40	Peak
5725.000	67.64	-5.27	62.37	68.20	-5.83	129	40	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11400.000	30.91	7.15	38.06	54.00	-15.94	154	224	Average
11400.000	42.02	7.15	49.17	74.00	-24.83	154	224	Peak
17100.000	46.80	11.65	58.45	68.20	-9.75	159	0	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT40 Mode:

5510 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5453.720	58.09	-4.83	53.26	54.00	-0.74	275	197	Average
5453.720	70.91	-4.83	66.08	74.00	-7.92	275	197	Peak
5510.000	100.82	-4.76	96.06			275	197	Average
5510.000	110.24	-4.76	105.48			275	197	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11020.000	30.78	6.83	37.61	54.00	-16.39	157	170	Average
11020.000	41.58	6.83	48.41	74.00	-25.59	157	170	Peak
16530.000	50.63	11.90	62.53	68.20	-5.67	169	3	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5459.670	57.00	-4.81	52.19	54.00	-1.81	160	41	Average
5459.670	70.11	-4.81	65.30	74.00	-8.70	160	41	Peak
5510.000	97.28	-4.76	92.52			160	41	Average
5510.000	107.26	-4.76	102.50			160	41	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11020.000	31.17	6.83	38.00	54.00	-16.00	156	190	Average
11020.000	41.86	6.83	48.69	74.00	-25.31	156	190	Peak
16530.000	45.31	11.90	57.21	68.20	-10.99	158	359	Peak

5550 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5550.000	99.19	-4.65	94.54			161	176	Average
5550.000	108.84	-4.65	104.19			161	176	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11100.000	29.85	6.78	36.63	54.00	-17.37	152	195	Average
11100.000	41.62	6.78	48.40	74.00	-25.60	152	195	Peak
16650.000	43.10	11.92	55.02	68.20	-13.18	148	9	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5550.000	95.36	-4.65	90.71			241	18	Average
5550.000	104.94	-4.65	100.29			241	18	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11100.000	29.79	6.78	36.57	54.00	-17.43	154	158	Average
11100.000	40.80	6.78	47.58	74.00	-26.42	154	158	Peak
16650.000	42.65	11.92	54.57	68.20	-13.63	147	39	Peak

5670 MHz

Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5670.000	102.46	-5.07	97.39			109	199	Average
5670.000	112.36	-5.07	107.29			109	199	Peak
5725.000	71.10	-5.27	65.83	68.20	-2.37	109	199	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11340.000	31.08	7.07	38.15	54.00	-15.85	153	84	Average
11340.000	41.86	7.07	48.93	74.00	-25.07	153	84	Peak
17010.000	49.47	11.47	60.94	68.20	-7.26	144	4	Peak

Vertical

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
5670.000	95.89	-5.07	90.82			137	39	Average
5670.000	105.84	-5.07	100.77			137	39	Peak
5725.000	67.63	-5.27	62.36	68.20	-5.84	137	39	Peak

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
11340.000	30.85	7.07	37.92	54.00	-16.08	155	273	Average
11340.000	41.72	7.07	48.79	74.00	-25.21	155	273	Peak
17010.000	45.17	11.47	56.64	68.20	-11.56	147	356	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT80 Mode:

5530 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5459.160	58.22	-4.81	53.41	54.00	-0.59	267	198	Average
5459.160	70.09	-4.81	65.28	74.00	-8.72	267	198	Peak
5530.000	94.55	-4.70	89.85			267	198	Average
5530.000	103.91	-4.70	99.21			267	198	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11060.000	31.68	6.80	38.48	54.00	-15.52	157	299	Average
11060.000	41.37	6.80	48.17	74.00	-25.83	157	299	Peak
16590.000	46.66	12.13	58.79	68.20	-9.41	151	4	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5444.370	56.98	-4.80	52.18	54.00	-1.82	134	42	Average
5444.370	69.54	-4.80	64.74	74.00	-9.26	134	42	Peak
5530.000	91.20	-4.70	86.50			134	42	Average
5530.000	100.38	-4.70	95.68			134	42	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11060.000	31.46	6.80	38.26	54.00	-15.74	156	0	Average
11060.000	42.96	6.80	49.76	74.00	-24.24	156	0	Peak
16590.000	45.16	12.13	57.29	68.20	-10.91	150	253	Peak

5610 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5438.760	54.69	-4.76	49.93	54.00	-4.07	106	201	Average
5438.760	66.09	-4.76	61.33	74.00	-12.67	106	201	Peak
5610.000	99.88	-4.78	95.10			106	201	Average
5610.000	109.10	-4.78	104.32			106	201	Peak
5725.000	68.10	-5.27	62.83	68.20	-5.37	106	201	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11220.000	31.95	7.07	39.02	54.00	-14.98	156	0	Average
11220.000	41.73	7.07	48.80	74.00	-25.20	156	0	Peak
16830.000	46.95	11.47	58.42	68.20	-9.78	146	14	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5422.800	54.99	-4.69	50.30	54.00	-3.70	146	43	Average
5422.800	66.93	-4.69	62.24	74.00	-11.76	146	43	Peak
5610.000	94.10	-4.78	89.32			146	43	Average
5610.000	103.55	-4.78	98.77			146	43	Peak
5725.000	66.51	-5.27	61.24	68.20	-6.96	146	43	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11220.000	31.71	7.07	38.78	54.00	-15.22	151	254	Average
11220.000	42.71	7.07	49.78	74.00	-24.22	151	254	Peak
16830.000	43.03	11.47	54.50	68.20	-13.70	157	309	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

5725-5850MHz

802.11a Mode:

5745 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5629.440	66.00	-4.85	61.15	68.20	-7.05	106	151	Peak
5699.280	67.36	-5.31	62.05	104.67	-42.62	106	151	Peak
5720.160	77.05	-5.28	71.77	111.17	-39.40	106	151	Peak
5725.000	78.11	-5.27	72.84	122.20	-49.36	106	151	Peak
5745.000	113.93	-5.24	108.69			106	151	Peak
5850.000	64.76	-5.11	59.65	122.20	-62.55	106	151	Peak
5859.840	66.70	-5.05	61.65	109.44	-47.79	106	151	Peak
5922.120	65.63	-4.55	61.08	70.32	-9.24	106	151	Peak
5940.120	65.96	-4.38	61.58	68.20	-6.62	106	151	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11490.000	31.44	7.23	38.67	54.00	-15.33	156	0	Average
11490.000	41.92	7.23	49.15	74.00	-24.85	156	0	Peak
17235.000	44.44	11.80	56.24	68.20	-11.96	156	30	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5618.280	65.43	-4.81	60.62	68.20	-7.58	112	50	Peak
5677.680	66.22	-5.14	61.08	88.72	-27.64	112	50	Peak
5720.160	72.28	-5.28	67.00	111.17	-44.17	112	50	Peak
5725.000	73.74	-5.27	68.47	122.20	-53.73	112	50	Peak
5745.000	109.48	-5.24	104.24			112	50	Peak
5850.000	64.04	-5.11	58.93	122.20	-63.27	112	50	Peak
5868.840	66.05	-4.98	61.07	106.92	-45.85	112	50	Peak
5896.920	66.06	-4.79	61.27	88.94	-27.67	112	50	Peak
5931.480	66.17	-4.46	61.71	68.20	-6.49	112	50	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11490.000	30.54	7.23	37.77	54.00	-16.23	152	103	Average
11490.000	41.43	7.23	48.66	74.00	-25.34	152	103	Peak
17235.000	41.46	11.80	53.26	68.20	-14.94	158	19	Peak

5785 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5624.760	65.87	-4.83	61.04	68.20	-7.16	106	153	Peak
5697.480	66.40	-5.29	61.11	103.34	-42.23	106	153	Peak
5709.360	66.40	-5.29	61.11	107.82	-46.71	106	153	Peak
5725.000	63.85	-5.27	58.58	122.20	-63.62	106	153	Peak
5785.000	114.21	-5.18	109.03			106	153	Peak
5850.000	65.11	-5.11	60.00	122.20	-62.20	106	153	Peak
5854.800	66.18	-5.08	61.10	111.26	-50.16	106	153	Peak
5922.840	66.41	-4.54	61.87	69.79	-7.92	106	153	Peak
5962.440	66.00	-4.21	61.79	68.20	-6.41	106	153	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11570.000	32.59	7.19	39.78	54.00	-14.22	155	5	Average
11570.000	42.12	7.19	49.31	74.00	-24.69	155	5	Peak
17355.000	47.56	12.35	59.91	68.20	-8.29	152	350	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5622.240	65.95	-4.82	61.13	68.20	-7.07	103	46	Peak
5668.680	66.75	-5.06	61.69	82.06	-20.37	103	46	Peak
5705.400	65.22	-5.30	59.92	106.71	-46.79	103	46	Peak
5725.000	64.16	-5.27	58.89	122.20	-63.31	103	46	Peak
5785.000	109.42	-5.18	104.24			103	46	Peak
5850.000	65.97	-5.11	60.86	122.20	-61.34	103	46	Peak
5872.080	65.79	-4.96	60.83	106.02	-45.19	103	46	Peak
5914.560	66.12	-4.63	61.49	75.90	-14.41	103	46	Peak
5961.720	66.60	-4.21	62.39	68.20	-5.81	103	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11570.000	31.46	7.19	38.65	54.00	-15.35	151	86	Average
11570.000	42.81	7.19	50.00	74.00	-24.00	151	86	Peak
17355.000	42.34	12.35	54.69	68.20	-13.51	153	24	Peak

5825 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5612.520	65.88	-4.80	61.08	68.20	-7.12	106	150	Peak
5664.360	66.44	-5.04	61.40	78.86	-17.46	106	150	Peak
5713.680	65.55	-5.29	60.26	109.03	-48.77	106	150	Peak
5725.000	64.62	-5.27	59.35	122.20	-62.85	106	150	Peak
5825.000	114.13	-5.14	108.99			106	150	Peak
5850.000	71.18	-5.11	66.07	122.20	-56.13	106	150	Peak
5858.040	68.92	-5.06	63.86	109.95	-46.09	106	150	Peak
5875.320	66.89	-4.95	61.94	104.96	-43.02	106	150	Peak
5960.280	66.92	-4.22	62.70	68.20	-5.50	106	150	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11650.000	32.95	7.20	40.15	54.00	-13.85	156	200	Average
11650.000	41.65	7.20	48.85	74.00	-25.15	156	200	Peak
17475.000	42.81	11.89	54.70	68.20	-13.50	153	1	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5612.160	65.55	-4.78	60.77	68.20	-7.43	124	46	Peak
5677.680	66.24	-5.14	61.10	88.72	-27.62	124	46	Peak
5717.280	66.49	-5.29	61.20	110.04	-48.84	124	46	Peak
5725.000	64.69	-5.27	59.42	122.20	-62.78	124	46	Peak
5825.000	109.16	-5.14	104.02			124	46	Peak
5850.000	68.17	-5.11	63.06	122.20	-59.14	124	46	Peak
5855.880	67.56	-5.07	62.49	110.55	-48.06	124	46	Peak
5875.320	66.30	-4.95	61.35	104.96	-43.61	124	46	Peak
5963.160	66.00	-4.20	61.80	68.20	-6.40	124	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11650.000	31.55	7.20	38.75	54.00	-15.25	166	193	Average
11650.000	43.10	7.20	50.30	74.00	-23.70	166	193	Peak
17475.000	42.13	11.89	54.02	68.20	-14.18	154	67	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT20 Mode:

5745 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5612.880	67.13	-4.80	62.33	68.20	-5.87	105	153	Peak
5699.280	68.81	-5.31	63.50	104.67	-41.17	105	153	Peak
5720.160	74.63	-5.28	69.35	111.17	-41.82	105	153	Peak
5725.000	78.23	-5.27	72.96	122.20	-49.24	105	153	Peak
5745.000	113.38	-5.24	108.14			105	153	Peak
5850.000	64.89	-5.11	59.78	122.20	-62.42	105	153	Peak
5859.840	66.18	-5.05	61.13	109.44	-48.31	105	153	Peak
5919.240	66.04	-4.58	61.46	72.45	-10.99	105	153	Peak
5966.760	66.37	-4.18	62.19	68.20	-6.01	105	153	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11490.000	30.88	7.23	38.11	54.00	-15.89	154	1	Average
11490.000	40.75	7.23	47.98	74.00	-26.02	154	1	Peak
17235.000	44.29	11.80	56.09	68.20	-12.11	152	353	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5612.160	65.53	-4.78	60.75	68.20	-7.45	113	39	Peak
5699.280	66.47	-5.31	61.16	104.67	-43.51	113	39	Peak
5717.280	68.42	-5.29	63.13	110.04	-46.91	113	39	Peak
5725.000	73.50	-5.27	68.23	122.20	-53.97	113	39	Peak
5745.000	107.53	-5.24	102.29			113	39	Peak
5850.000	64.83	-5.11	59.72	122.20	-62.48	113	39	Peak
5863.800	66.25	-5.02	61.23	108.33	-47.10	113	39	Peak
5900.160	66.26	-4.77	61.49	86.54	-25.05	113	39	Peak
5943.000	65.94	-4.35	61.59	68.20	-6.61	113	39	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11490.000	30.38	7.23	37.61	54.00	-16.39	157	143	Average
11490.000	40.93	7.23	48.16	74.00	-25.84	157	143	Peak
17235.000	41.76	11.80	53.56	68.20	-14.64	152	72	Peak

5785 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5629.440	65.92	-4.85	61.07	68.20	-7.13	107	197	Peak
5653.200	65.73	-4.95	60.78	70.58	-9.80	107	197	Peak
5708.640	66.22	-5.29	60.93	107.62	-46.69	107	197	Peak
5725.000	64.29	-5.27	59.02	122.20	-63.18	107	197	Peak
5785.000	113.24	-5.18	108.06			107	197	Peak
5850.000	64.80	-5.11	59.69	122.20	-62.51	107	197	Peak
5869.200	66.12	-4.98	61.14	106.82	-45.68	107	197	Peak
5883.600	66.83	-4.88	61.95	98.81	-36.86	107	197	Peak
5962.080	66.92	-4.21	62.71	68.20	-5.49	107	197	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11570.000	31.45	7.19	38.64	54.00	-15.36	156	357	Average
11570.000	42.00	7.19	49.19	74.00	-24.81	156	357	Peak
17355.000	43.92	12.35	56.27	68.20	-11.93	154	66	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5611.080	66.24	-4.78	61.46	68.20	-6.74	101	48	Peak
5669.040	66.03	-5.06	60.97	82.33	-21.36	101	48	Peak
5718.000	66.56	-5.28	61.28	110.24	-48.96	101	48	Peak
5725.000	64.21	-5.27	58.94	122.20	-63.26	101	48	Peak
5785.000	108.94	-5.18	103.76			101	48	Peak
5850.000	64.22	-5.11	59.11	122.20	-63.09	101	48	Peak
5859.120	66.53	-5.06	61.47	109.64	-48.17	101	48	Peak
5925.000	65.81	-4.52	61.29	68.20	-6.91	101	48	Peak
5959.200	66.91	-4.23	62.68	68.20	-5.52	101	48	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11570.000	30.34	7.19	37.53	54.00	-16.47	155	75	Average
11570.000	42.37	7.19	49.56	74.00	-24.44	155	75	Peak
17355.000	41.12	12.35	53.47	68.20	-14.73	159	322	Peak

5825 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5622.600	66.19	-4.83	61.36	68.20	-6.84	146	194	Peak
5696.040	66.07	-5.29	60.78	102.28	-41.50	146	194	Peak
5706.120	65.40	-5.30	60.10	106.92	-46.82	146	194	Peak
5725.000	64.16	-5.27	58.89	122.20	-63.31	146	194	Peak
5825.000	112.55	-5.14	107.41			146	194	Peak
5850.000	71.58	-5.11	66.47	122.20	-55.73	146	194	Peak
5855.880	68.58	-5.07	63.51	110.55	-47.04	146	194	Peak
5915.640	66.60	-4.62	61.98	75.10	-13.12	146	194	Peak
5969.280	65.89	-4.16	61.73	68.20	-6.47	146	194	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11650.000	32.46	7.20	39.66	54.00	-14.34	155	6	Average
11650.000	42.28	7.20	49.48	74.00	-24.52	155	6	Peak
17475.000	44.28	11.89	56.17	68.20	-12.03	153	14	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5640.960	65.95	-4.89	61.06	68.20	-7.14	150	45	Peak
5699.280	65.90	-5.31	60.59	104.67	-44.08	150	45	Peak
5705.400	66.21	-5.30	60.91	106.71	-45.80	150	45	Peak
5725.000	64.91	-5.27	59.64	122.20	-62.56	150	45	Peak
5825.000	108.73	-5.14	103.59			150	45	Peak
5850.000	68.25	-5.11	63.14	122.20	-59.06	150	45	Peak
5854.800	66.90	-5.08	61.82	111.26	-49.44	150	45	Peak
5897.280	65.95	-4.79	61.16	88.67	-27.51	150	45	Peak
5962.800	67.11	-4.20	62.91	68.20	-5.29	150	45	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11650.000	31.44	7.20	38.64	54.00	-15.36	152	80	Average
11650.000	43.10	7.20	50.30	74.00	-23.70	152	80	Peak
17475.000	42.64	11.89	54.53	68.20	-13.67	155	0	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11ac VHT40 Mode:

5755 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5621.880	66.19	-4.82	61.37	68.20	-6.83	100	198	Peak
5698.920	71.71	-5.30	66.41	104.40	-37.99	100	198	Peak
5718.000	81.50	-5.28	76.22	110.24	-34.02	100	198	Peak
5725.000	80.07	-5.27	74.80	122.20	-47.40	100	198	Peak
5755.000	111.43	-5.23	106.20			100	198	Peak
5850.000	66.25	-5.11	61.14	122.20	-61.06	100	198	Peak
5857.680	67.62	-5.06	62.56	110.05	-47.49	100	198	Peak
5922.120	66.32	-4.55	61.77	70.32	-8.55	100	198	Peak
5947.320	67.41	-4.31	63.10	68.20	-5.10	100	198	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11510.000	30.86	7.22	38.08	54.00	-15.92	157	6	Average
11510.000	42.02	7.22	49.24	74.00	-24.76	157	6	Peak
17265.000	42.83	11.88	54.71	68.20	-13.49	152	330	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5637.000	66.25	-4.87	61.38	68.20	-6.82	127	48	Peak
5698.920	68.60	-5.30	63.30	104.40	-41.10	127	48	Peak
5714.400	76.24	-5.29	70.95	109.23	-38.28	127	48	Peak
5725.000	73.92	-5.27	68.65	122.20	-53.55	127	48	Peak
5755.000	106.68	-5.23	101.45			127	48	Peak
5850.000	65.75	-5.11	60.64	122.20	-61.56	127	48	Peak
5868.840	66.32	-4.98	61.34	106.92	-45.58	127	48	Peak
5919.960	66.14	-4.57	61.57	71.92	-10.35	127	48	Peak
5946.240	66.94	-4.31	62.63	68.20	-5.57	127	48	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11510.000	30.09	7.22	37.31	54.00	-16.69	155	87	Average
11510.000	42.13	7.22	49.35	74.00	-24.65	155	87	Peak
17265.000	41.51	11.88	53.39	68.20	-14.81	158	242	Peak

5795 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5622.960	65.58	-4.83	60.75	68.20	-7.45	100	172	Peak
5697.840	66.37	-5.30	61.07	103.61	-42.54	100	172	Peak
5719.080	68.54	-5.28	63.26	110.54	-47.28	100	172	Peak
5725.000	67.71	-5.27	62.44	122.20	-59.76	100	172	Peak
5795.000	111.13	-5.17	105.96			100	172	Peak
5850.000	68.36	-5.11	63.25	122.20	-58.95	100	172	Peak
5858.040	67.80	-5.06	62.74	109.95	-47.21	100	172	Peak
5919.240	67.31	-4.58	62.73	72.45	-9.72	100	172	Peak
5968.560	66.29	-4.17	62.12	68.20	-6.08	100	172	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11590.000	31.37	7.18	38.55	54.00	-15.45	151	145	Average
11590.000	41.98	7.18	49.16	74.00	-24.84	151	145	Peak
17385.000	41.51	12.56	54.07	68.20	-14.13	156	333	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5641.680	65.88	-4.89	60.99	68.20	-7.21	127	46	Peak
5685.240	66.70	-5.19	61.51	94.31	-32.80	127	46	Peak
5719.080	66.40	-5.28	61.12	110.54	-49.42	127	46	Peak
5725.000	65.43	-5.27	60.16	122.20	-62.04	127	46	Peak
5795.000	107.29	-5.17	102.12			127	46	Peak
5850.000	65.75	-5.11	60.64	122.20	-61.56	127	46	Peak
5867.760	66.62	-4.99	61.63	107.23	-45.60	127	46	Peak
5908.440	66.18	-4.68	61.50	80.42	-18.92	127	46	Peak
5952.360	66.62	-4.27	62.35	68.20	-5.85	127	46	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11590.000	30.39	7.18	37.57	54.00	-16.43	152	209	Average
11590.000	41.24	7.18	48.42	74.00	-25.58	152	209	Peak
17385.000	41.26	12.56	53.82	68.20	-14.38	156	209	Peak

802.11ac VHT80 Mode:

5775 MHz

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5640.240	68.08	-4.89	63.19	68.20	-5.01	104	171	Peak
5688.840	76.43	-5.22	71.21	96.97	-25.76	104	171	Peak
5705.040	78.63	-5.30	73.33	106.61	-33.28	104	171	Peak
5725.000	77.61	-5.27	72.34	122.20	-49.86	104	171	Peak
5775.000	108.24	-5.20	103.04			104	171	Peak
5850.000	75.01	-5.11	69.90	122.20	-52.30	104	171	Peak
5860.920	75.02	-5.04	69.98	109.14	-39.16	104	171	Peak
5875.680	69.00	-4.94	64.06	104.69	-40.63	104	171	Peak
5952.000	66.79	-4.28	62.51	68.20	-5.69	104	171	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11550.000	31.81	7.21	39.02	54.00	-14.98	154	211	Average
11550.000	41.47	7.21	48.68	74.00	-25.32	154	211	Peak
17325.000	42.54	12.13	54.67	68.20	-13.53	152	3	Peak

Vertical

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
5629.080	67.75	-4.84	62.91	68.20	-5.29	112	50	Peak
5699.280	73.09	-5.31	67.78	104.67	-36.89	112	50	Peak
5718.000	75.19	-5.28	69.91	110.24	-40.33	112	50	Peak
5725.000	74.52	-5.27	69.25	122.20	-52.95	112	50	Peak
5775.000	104.06	-5.20	98.86			112	50	Peak
5850.000	71.12	-5.11	66.01	122.20	-56.19	112	50	Peak
5860.560	70.48	-5.05	65.43	109.24	-43.81	112	50	Peak
5894.040	66.62	-4.82	61.80	91.07	-29.27	112	50	Peak
5926.080	66.25	-4.51	61.74	68.20	-6.46	112	50	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
11550.000	31.76	7.21	38.97	54.00	-15.03	151	92	Average
11550.000	41.56	7.21	48.77	74.00	-25.23	151	92	Peak
17325.000	40.88	12.13	53.01	68.20	-15.19	159	26	Peak

Level = Reading + Factor.

Margin = Level – Limit.

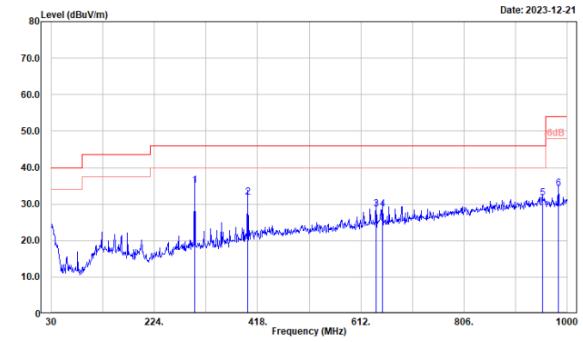
Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Transmitting simultaneously test:

The worst case of WIFI 5GHz and BT mode transmitting simultaneously:

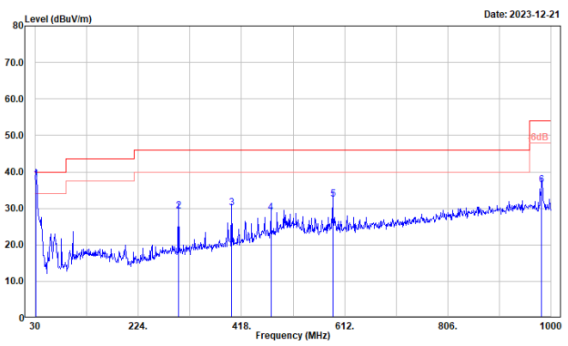
30MHz-1GHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
299.660	44.20	-9.14	35.06	46.00	-10.94	100	161	QP
399.570	38.86	-7.02	31.84	46.00	-14.16	100	195	QP
641.100	31.48	-2.79	28.69	46.00	-17.31	100	11	QP
652.740	31.10	-2.56	28.54	46.00	-17.46	100	0	QP
953.440	28.90	2.79	31.69	46.00	-14.31	100	30	QP
983.510	31.77	2.59	34.36	54.00	-19.64	100	301	QP

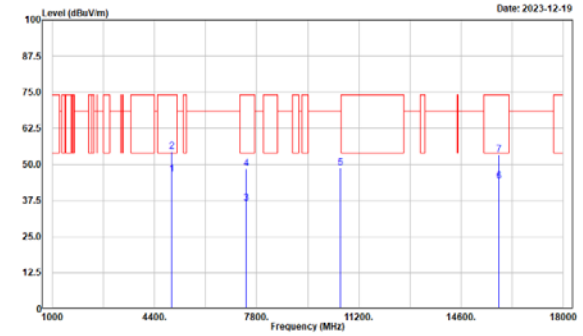
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	42.31	-4.45	37.86	40.00	-2.14	100	218	QP
299.660	38.50	-9.14	29.36	46.00	-16.64	100	103	QP
399.570	37.23	-7.02	30.21	46.00	-15.79	100	25	QP
473.290	34.11	-5.28	28.83	46.00	-17.17	100	167	QP
589.690	35.94	-3.48	32.46	46.00	-13.54	100	14	QP
982.540	33.76	2.58	36.34	54.00	-17.66	100	0	QP

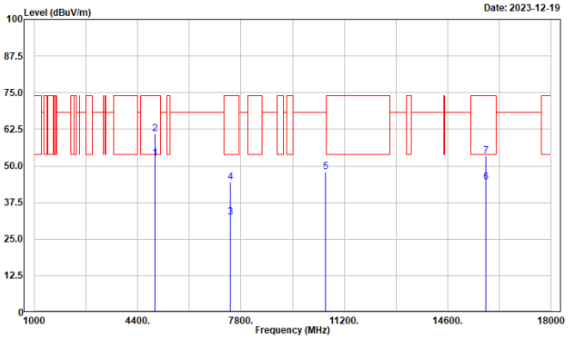
1GHz-18GHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4960.000	50.41	-3.77	46.64	54.00	-7.36	147	2	Average
4960.000	58.34	-3.77	54.57	74.00	-19.43	147	2	Peak
7440.000	36.08	0.61	36.69	54.00	-17.31	151	357	Average
7440.000	47.94	0.61	48.55	74.00	-25.45	151	357	Peak
10580.000	42.45	6.26	48.71	68.20	-19.49	158	311	Peak
15870.000	34.17	10.03	44.20	54.00	-9.80	156	69	Average
15870.000	43.48	10.03	53.51	74.00	-20.49	156	69	Peak

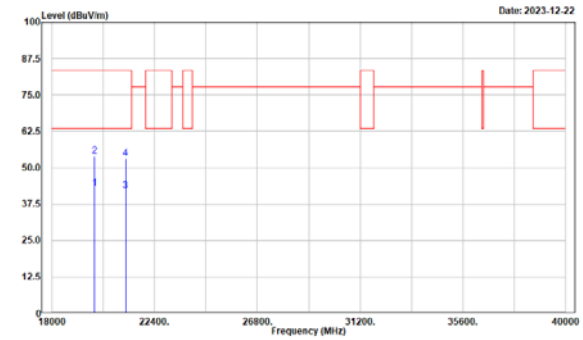
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4960.000	56.40	-3.77	52.63	54.00	-1.37	132	44	Average
4960.000	64.85	-3.77	61.08	74.00	-12.92	132	44	Peak
7440.000	31.78	0.61	32.39	54.00	-21.61	147	235	Average
7440.000	43.89	0.61	44.50	74.00	-29.50	147	235	Peak
10580.000	41.67	6.26	47.93	68.20	-20.27	156	345	Peak
15870.000	34.31	10.03	44.34	54.00	-9.66	151	348	Average
15870.000	43.25	10.03	53.28	74.00	-20.72	151	348	Peak

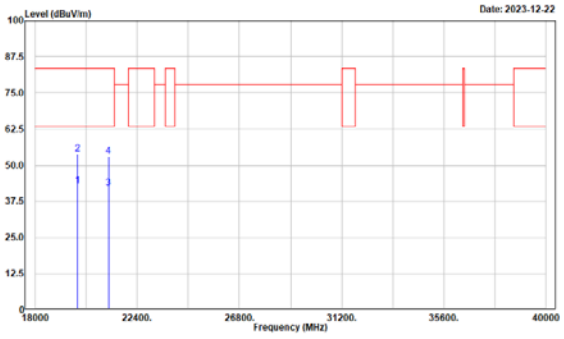
18GHz-40GHz

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19840.000	41.10	1.72	42.82	63.50	-20.68	152	64	Average
19840.000	52.11	1.72	53.83	83.50	-29.67	152	64	Peak
21160.000	39.91	2.11	42.02	63.50	-21.48	156	57	Average
21160.000	50.91	2.11	53.02	83.50	-30.48	156	57	Peak

Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19840.000	41.13	1.72	42.85	63.50	-20.65	151	284	Average
19840.000	52.17	1.72	53.89	83.50	-29.61	151	284	Peak
21160.000	39.97	2.11	42.08	63.50	-21.42	154	338	Average
21160.000	50.92	2.11	53.03	83.50	-30.47	154	338	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

10 RSS-247 §6.2.1.2 – 26dB Attenuated Below The Channel Power

10.1 Applicable Standard

RSS-247 Clause 6.2.1.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

10.2 Test Procedure

1. Set RBW = 1%~5% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = RMS.
4. Trace mode = max hold
5. Measure the emission attenuated below the channel power

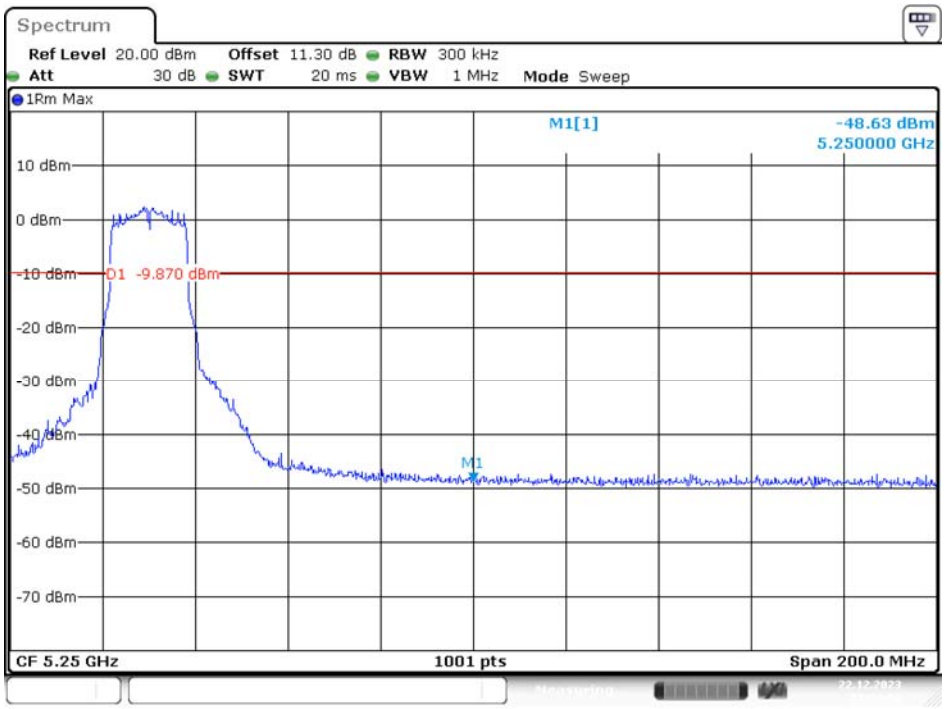
10.3 Test Results

The requirement is for 5150-5250 MHz band. The channel power please refer to the power test result in section 12.3.

Transmitting Mode:

IEEE 802.11a Mode / 5150 ~ 5250MHz

5180MHz



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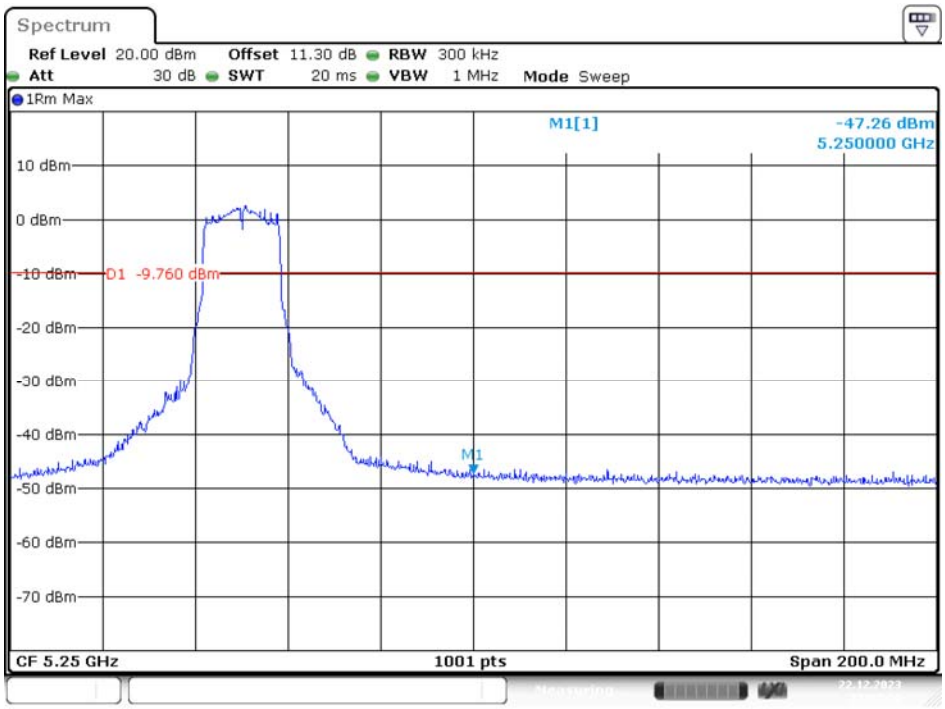
5200MHz



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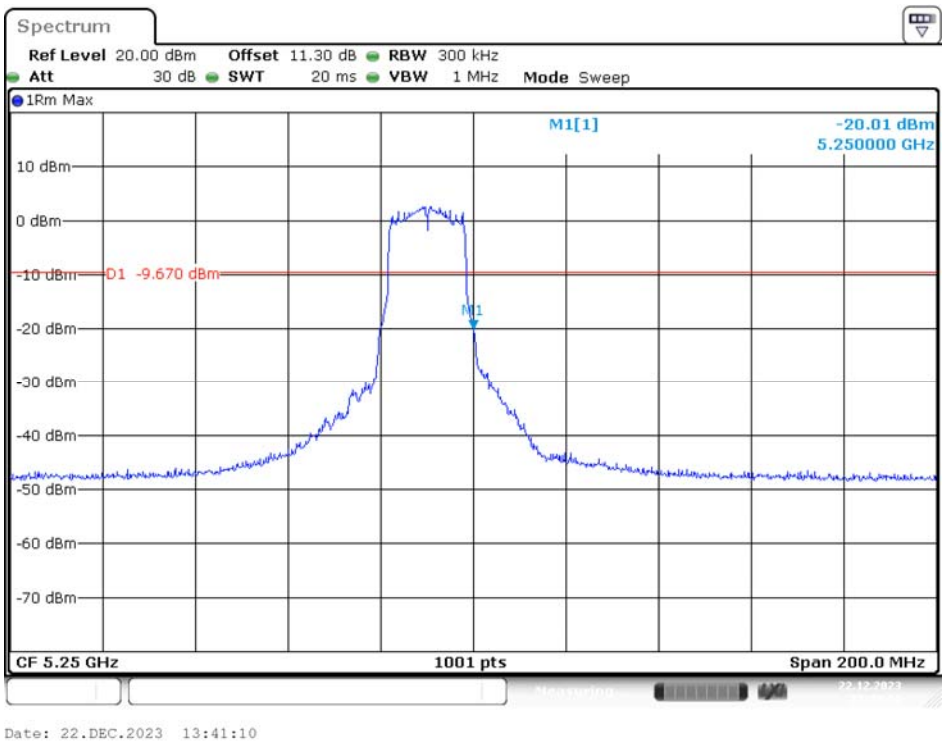
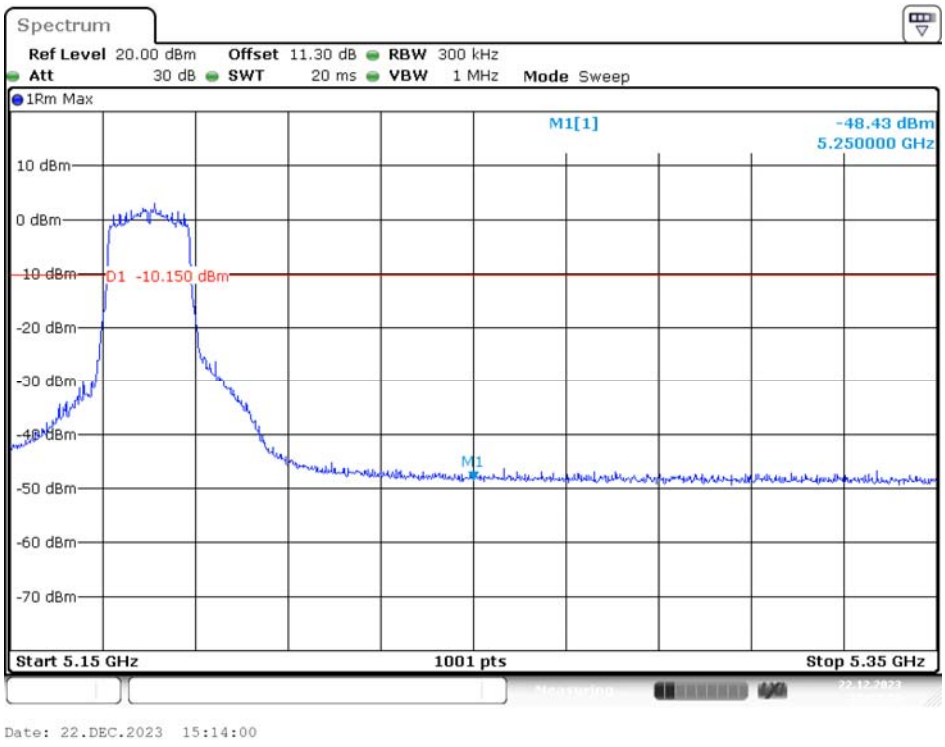
5240MHz

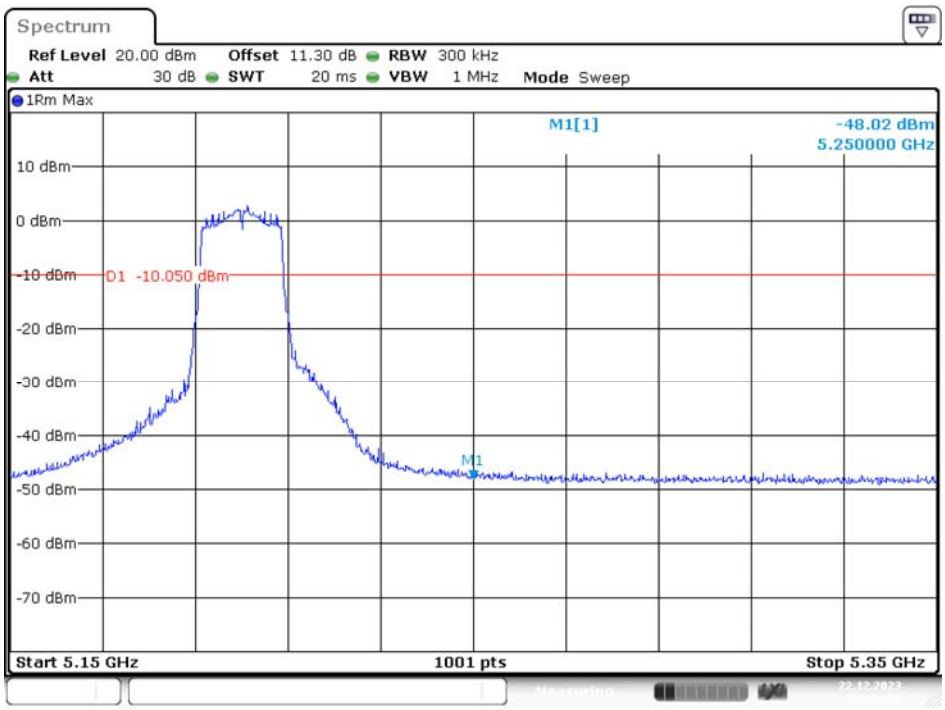


IEEE 802.11ac VHT20 Mode / 5150 ~ 5250MHz

5180MHz



5200MHz



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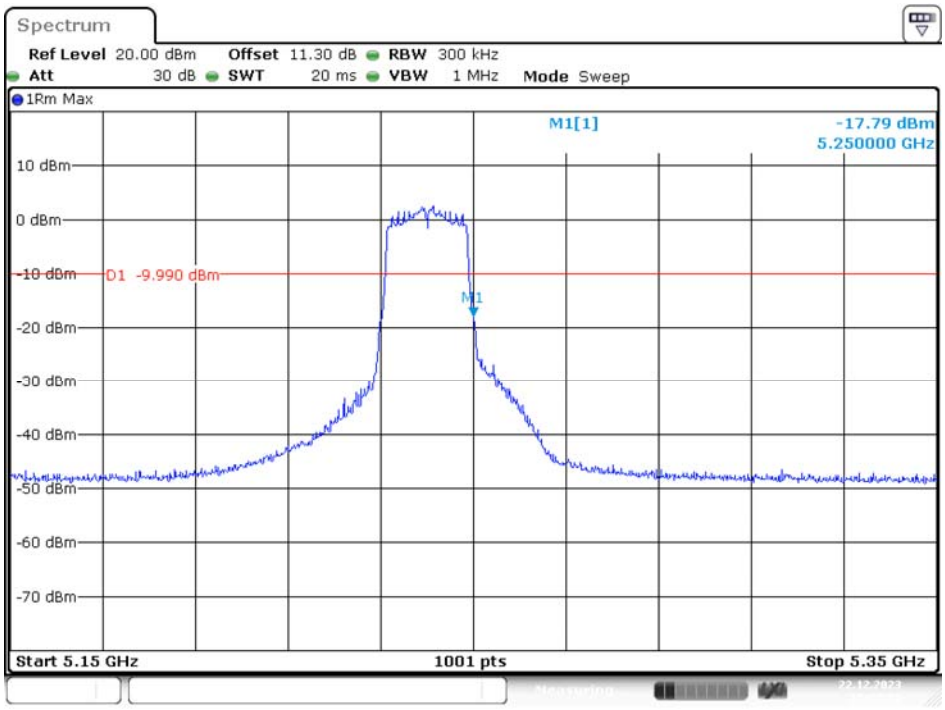
5240MHz



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