Yoto Ltd.

TEST REPORT

SCOPE OF WORK
FCC TESTING– YM3

REPORT NUMBER
251208012SZN-005

ISSUE DATE	**[REVISED DATE]**
27 July 2026	[----------]

PAGES
29

DOCUMENT CONTROL NUMBER
FCC ID 247_b

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Intertek Report No.: 251208012SZN-005

RF Test Report

Applicant:	Yoto Ltd.
Address of Applicant:	124 City Road, London, EC1V 2NX, United Kingdom
Equipment Under Test (EUT)	
Product Name:	Yoto Mini V2
Model No.:	YM3
Trademark:	yoto
FCC ID:	2AS6W-YM3
Applicable Standards:	FCC CFR Title 47 Part 15C (§15.247)
Date of Test:	17 March 2026 to 19 June 2026
Test Result:	PASS

Prepared and Checked by:

Robin Zhou
Senior Project Engineer

Approved by:

Johnny Wang
Project Engineer
Date: 27 July 2026

1 Revision History

Report No.	Version No.	Description	Issued Date
251208012SZN-005	*01*	*Original*	*27 July 2026*

2 Content

3 Summary of Test Result

TEST ITEM	FCC REFERANCE	RESULT
Duty Cycle	-	Pass
Minimum 6dB Bandwidth	15.247(a)(2)	Pass
Maximum Conducted Output Power	15.247(b)(3)	Pass
Power spectrum density	15.247(e)	Pass
Occupied bandwidth	2.1049	Pass
Emission outside the frequency band	15.247(d)	Pass
Radiated Emission in restricted frequency bands	15.247(d), 15.205, 15.209	Pass
AC Power line conducted emission	15.207(a)	Pass
Antenna requirement	15.203	Pass

4 General Information

4.1 Client Information

Applicant:	Yoto Ltd.
Address:	124 City Road, London, EC1V 2NX, United Kingdom
Manufacturer:	Yoto Ltd.
Address:	124 City Road, London, EC1V 2NX, United Kingdom

4.2 Description of Equipment Under Test (EUT)

Product Name:	Yoto Mini V2
Model No.:	YM3
Description of EUT:	The EUT contains Wi-Fi 2.4G, Wi-Fi 5G, Bluetooth (dual mode) functions. This report is for Wi-Fi 2.4G. The worst data is listed in the report.
Operation Frequency:	2412MHz - 2462MHz
Channel Separation:	5MHz
Channel Numbers:	11 (802.11b, g, n-HT20, ax-HE20)
Type of Modulation:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA(1024-QAM, 256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)
RU:	Supports RU, include 26-tone RU, 52-tone RU, 106-tone RU, 242-tone RU.
Antenna Type:	PCB Antenna
Antenna Gain:	2.02dBi(This information is provided by applicant, and the applicant is responsible for the authenticity of the provided information.)
Antennas Transmit Mode:	1TX, 1RX
Ratings:	Input: 5V⎓1.5A Battery: 3.7Vdc 2000mAh 7.4Wh

Note:

The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

4.3 Description of Test Facility

Name:	Intertek Testing Services Shenzhen Ltd. Longhua Branch
Address:	101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, ShenZhen.
The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0327
	FCC Accredited Lab Designation Number: CN1188
	IC Registration Lab CAB identifier: CN0038

5 Test Specifications

5.1 Standards or Specification

FCC CFR 47 Part 15C
ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
KDB 558074 D01 15.247 Meas Guidance v05r02

5.2 Channels List

Channel List for Bandwidth=20 MHz							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

5.3 Test Channels

Frequency Band (MHz)	Mode	Lowest (MHz)	Middle (MHz)	Highest (MHz)
2400-2483.5	802.11b	2412	2437	2462
	802.11g	2412	2437	2462
	802.11n(HT20)	2412	2437	2462
	802.11ax(HE20)	2412	2437	2462

Data rate and Power setting:

The pre-scan for the conducted power with all rates in each modulation and bands was used, and the worst case was found and used in all test cases. After this pre-scan, we choose the following table of the data rata as the worst case.

Frequency Band (MHz)	Mode	Worst case data rate
2400-2483.5	802.11b	1Mbps
	802.11g	6Mbps
	802.11n(HT20)	MCS0
	802.11ax(HE20)	MCS0

Test Software: wl55572A1_20251024			
	Test Mode: Continuously transmitting		
Mode	**Data Rate**	**Channel**	**power setting**
802.11b	1Mbps	01	13
	1Mbps	06	13
	1Mbps	11	13
802.11g	6Mbps	01	15
	6Mbps	06	15
	6Mbps	11	15
802.11n(HT20)	MCS 0	01	15
	MCS 0	06	15
	MCS 0	11	15
802.11ax(HE20)	MCS 0	01	15
	MCS 0	06	15
	MCS 0	11	15

Test Software: wl55572A1_20251024					
	Test Mode: Continuously transmitting				
Mode	**Data Rate**	**Channel**	**power setting**		
			RU Size	RU Size	RU Size
			26 Tone	52 Tone	106 Tone
802.11ax(HE20)	MCS 0	01	7	10	13
	MCS 0	06	7	10	13
	MCS 0	11	7	10	13

5.4 Support Equipment List and Description

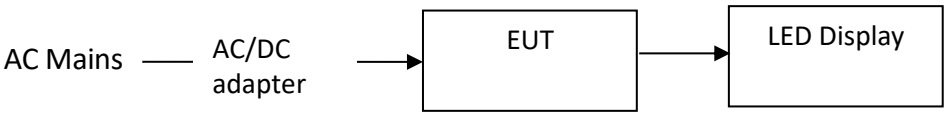
Description	Manufacturer	Model No.
AC Adapter	Ten Pao Electronics Co., Ltd.	Model: S030AXC2000150(Input: 100-240V~,50/60Hz,1.2A Max; Output: 5V⎓3A, 9V⎓3A, 12V⎓2.25A, 15V⎓2A, 20V⎓1.5A)
C to C cable	Shenzhen Daytone Electronics Co., Ltd.	Model: 1.0202.021.0036 (1m length, unshielded, without ferrite core)
NFC card	Shenzhen Union Smart Card Co., Ltd.	Model: USC-YT-011
Headphones with Aux in cable	Yoto Ltd.	Model: PRACXX0423 (Aux in cable 1.35m length, unshielded, without ferrite core)

5.5 Test environment condition

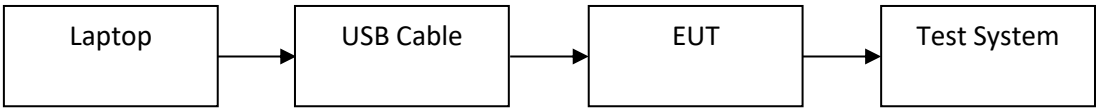
Environment Parameter	Selected Values During Tests		
Test Condition	Ambient		
	Temperature (°C)	Voltage (V)	Relative Humidity (%)
NT/NV	+15 to +35	120	20 to 75
Remark: 1) NV: Normal Voltage; NT: Normal Temperature			

5.6 Block Diagram Showing the Configuration of System Tested

Conducted Test & Radiated Test



Conducted Measurements Test



This example is connection diagram of EUT Test Setups.
For detail, please refer to test mode configuration and setup photographs for each test item.

5.7 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	2025-04-21 2026-04-13	2026-04-21 2027-04-13
SZ182-02-01	Pulse Power Sensor	Anritsu	MA2411B	1207429	2025-04-21 2026-04-13	2026-04-21 2027-04-13
SZ056-06	Signal Analyzer	R&S	FSV 40	101101	2025-12-01	2026-12-01
SZ061-13	BiConiLog Antenna	ETS	3142E	00217919	2025-05-29	2028-05-29
SZ061-08	Horn Antenna	ETS	3115	00092346	2024-09-13	2027-09-13
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	2024-05-05	2027-05-05
SZ061-07	Pyramidal Horn Antenna	ETS	3160-09	00083067	2025-09-11	2028-09-11
SZ185-03	EMI Receiver	R&S	ESR7	101975	2025-04-13 2026-04-10	2026-04-13 2027-04-10
SZ056-05	Signal Analyzer	R&S	FSV40	US40522113	2025-12-01	2026-12-01
SZ181-08	Microwave System Amplifier	keysight	83017A	MY57280108	2025-07-30	2026-07-30
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	015	2025-04-21 2026-04-13	2026-04-21 2027-04-13
SZ067-06	Combline Bandpass Filter	Micro-Tronics	BPC50413-02	001	2025-07-30	2026-07-30
SZ188-05	Anechoic Chamber	ETS	FACT 3-2.0	CT001880-Q13914102	2025-06-18	2028-06-18
SZ062-23	RF Cable	HUBER+SUHNER	SF104PE-1M	MY4262/4PE	2025-09-15	2026-09-15
SZ062-40	RF Cable	Talent Microwave	A50-3.5M3.5M-4.5M	22012932	2025-09-15	2026-09-15
SZ062-38	RF Cable	Talent Microwave	A50-3.5M3.5M-8M	21051695	2025-09-15	2026-09-15
SZ067-25	Notch Filter	Micro-Tronics	BRM50716	076	2025-02-22 2026-02-08	2026-02-22 2027-02-08
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	015	2025-04-21 2026-04-13	2026-04-21 2027-04-13
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	2025-06-30	2026-06-30
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	2025-04-25 2026-04-10	2026-04-25 2027-04-10
SZ188-03	Shielding Room	ETS	RFD-100	4100	2022-12-20	2027-12-20
SZ062-16	RF Cable	HUBER+SUHNER	CBL2-BN-1m	110127-2231000	2025-06-30	2026-06-30

5.8 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

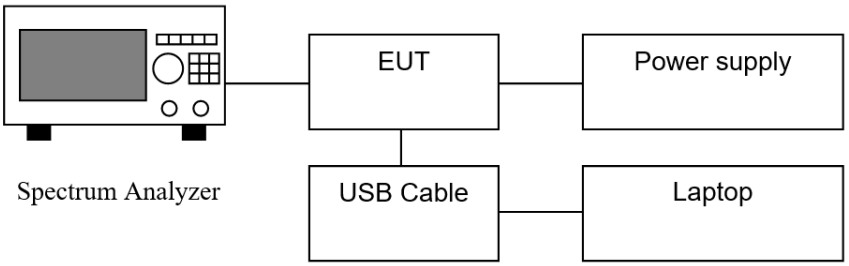
Measurement Uncertainty	Uncertainty
Channel Bandwidth	±3.46%
RF Output Power	±0.31dB
Conducted Unwanted Emission	±0.55dB
Spurious emission (Above 18GHz)	±5.3dB
Spurious emission (6GHz to 18GHz)	±5.1dB
Radiated emission (1GHz to 6GHz)	±4.8dB
Radiated emission (Up to 1GHz)	±4.8dB
AC Conducted emission	±3.2 dB
Temperature	±1°C
Humidity	±5%

6 Duty Cycle

6.1 Limit

None; for reporting purposes only.

6.2 Test Setup



6.3 Test Procedure

ANSI C63.10-2020+Cor 1-2023 Section 11.6
The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
1) Set the center frequency of the instrument to the center frequency of the transmission.
2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ RBW. Set detector = peak or average.
4) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if T ≤ 16.7 µs.)

6.4 Test Results of Duty Cycle

Please refer the Appendix of 251208012SZN-005.

7 Antenna Requirement

7.1 Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the party responsible is used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

1. The antennas of the EUT are permanently attached.
2. There are no provisions for connection to an external antenna.

7.2 Conclusion:

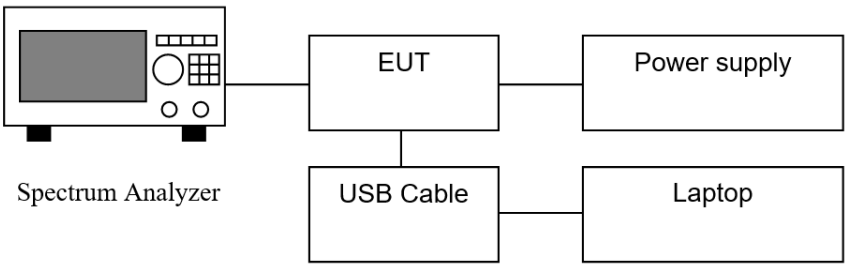
Therefore, this E.U.T complies with the requirement of Part 15.203

8 Minimum 6dB bandwidth

8.1 Limit

For systems using digital modulation techniques that may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz and 5725 - 5850 MHz bands, the minimum 6 dB bandwidth shall be at least 500 kHz.

8.2 Test Setup



8.3 Test Procedure

- ANSI C63.10-2020+Cor 1-2023 – Section 11.8.1

a) The steps for the first option are as follows:
b) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
c) Set the VBW ≥ [3 x RBW].
d) Detector = peak.
e) Trace mode = max-hold.
f) Sweep = No faster than coupled (auto) time.
g) Allow the trace to stabilize.
h) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

8.4 Test Results of Minimum 6dB bandwidth

Please refer the Appendix of 251208012SZN-005.

9 Maximum Conducted Output Power

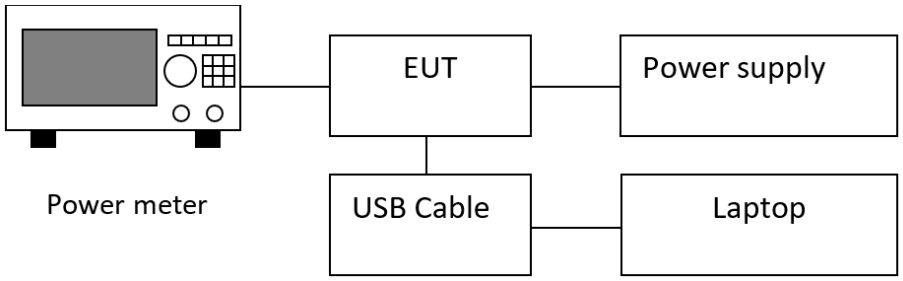
9.1 Limit

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 W.
If the transmitting antenna of directional gain greater than 6dBi is used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. If there have a beam forming type, the limit should be the minimum of 30dBm and 30+ (6 –antenna gain-beam forming gain).

9.2 Test Procedure

- ANSI C63.10-2020+Cor 1-2023 – Section 11.9.1.2
PKPM1 Peak power meter method
The maximum peak conducted output power may be measured using a broadband peak RF power meter.

9.3 Test Setup



9.4 Test Results of Maximum conducted output power

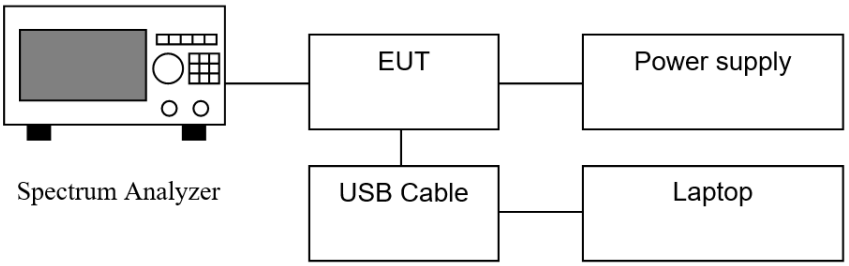
Please refer the Appendix of 251208012SZN-005.

10 Power spectrum density

10.1 Limit

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

10.2 Test Setup



10.3 Test Procedure

- ANSI C63.10-2020+Cor 1-2023 – Section 11.10.2
Set analyzer center frequency to DTS channel center frequency.
Set the span to 1.5 times the DTS bandwidth.
Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
Set the VBW ≥ 3 × RBW.
Detector = peak.
Sweep time = auto couple.
Trace mode = max hold.
Allow trace to fully stabilize.
Use the peak marker function to determine the maximum amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

10.4 Test Results of Power spectrum density

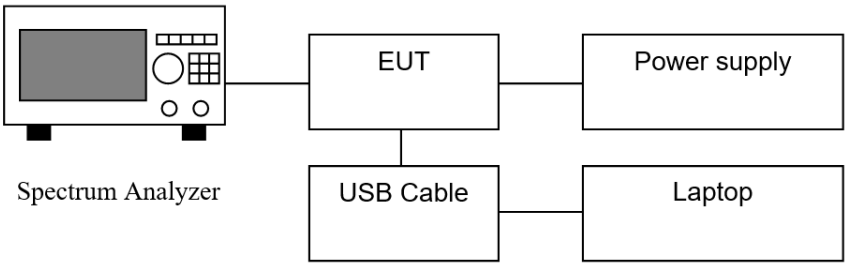
Please refer the Appendix of 251208012SZN-005.

11 Occupied Bandwidth

11.1 Limit

None, for reporting purposes only

11.2 Test Setup



11.3 Test Procedure

- ANSI C63.10-2020+Cor 1-2023 – Section 6.9.3

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

11.4 Test Results of Occupied Bandwidth

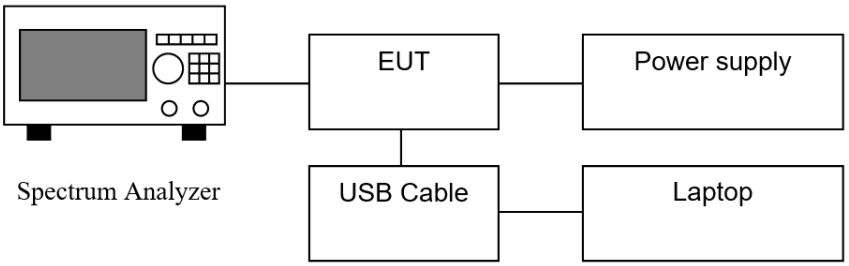
Please refer the Appendix of 251208012SZN-005.

12 Emission outside the frequency band

12.1 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

12.2 Test Setup



12.3 Test procedure and test setup

- ANSI C63.10-2020+Cor 1-2023 – Section 11.11

Reference level measurement

Establish a reference level by using the following procedure:

a) Set instrument center frequency to DTS channel center frequency.
b) Set the span to ≥ 1.5 times the DTS bandwidth.
c) Set the RBW = 100 kHz.
d) Set the VBW ≥ 3 x RBW.
e) Detector = peak.
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum PSD level.

Emission level measurement

a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.
c) Set the VBW ≥ 3 x RBW.
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum amplitude level.

12.4 Test Results of Emission outside the frequency band

Please refer the Appendix of 251208012SZN-005.

13 Radiated Emissions in restricted frequency bands

13.1 Limit

Part 15.247(d), Part 15.205, Part 15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of Part 15.247 the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Part 15.209

Frequency (MHz)	FCC Limit (uV/m)	Measurement Distance (m)
0.009 – 0.490	2 400 / F (kHz)	300
0.490 – 1.705	24 000 / F (kHz)	30
1.705 – 30.0	30	30

Frequency (MHz)	FCC Limit (uV/m)	Measurement Distance (m)
30 ~ 88	100 **	3
88 ~ 216	150 **	3
216 ~ 960	200 **	3
Above 960	500	3

**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 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §15.231 and 15.241.

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1] 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

13.2 Test Procedure

- ANSI C63.10-2020+Cor 1-2023 – Section 11.12

For Radiated emission below 30MHz:

a) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. For the floor-standing devices, the EUT was placed on the top of a rotating table 0.1 meters above the ground at 3 meters chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c) Both X and Y axes of the antenna are set to make the measurement.
d) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz).

For Radiated emission above 30MHz:

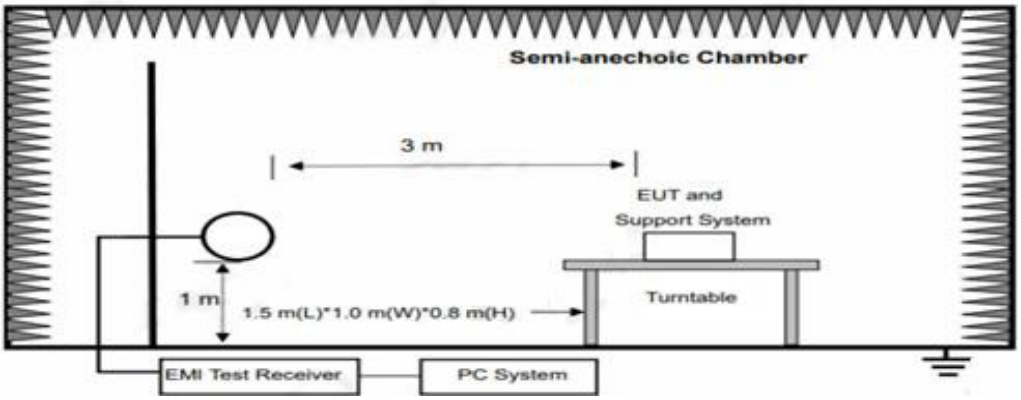
The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meters chamber room for test. For the floor-standing devices, the EUT was placed on the top of a rotating table 0.1 meters above the ground at 3 meters chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
The test-receiver system was set to peak and average detector function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

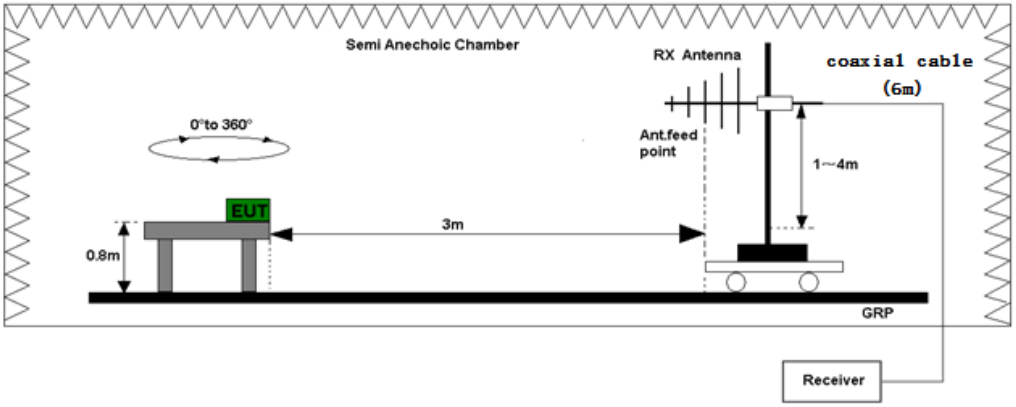
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 3 x RBW (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes have been tested, but only the worst data was recorded in the report.

13.3 Test Setup

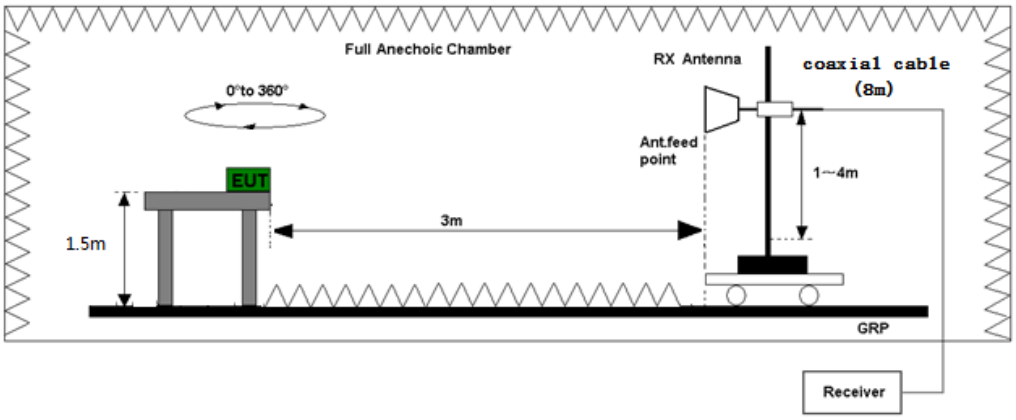
For Radiated emission below 30MHz:



For Radiated emission 30MHz to 1GHz:



For Radiated emission above 1GHz:

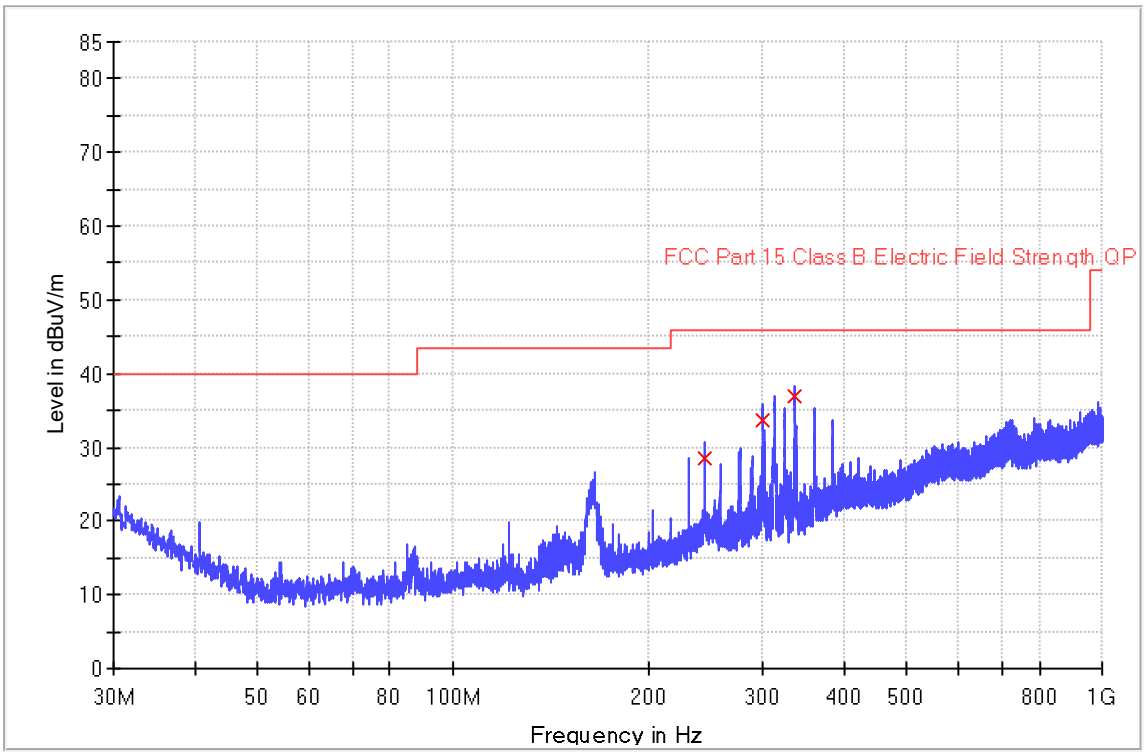


13.4 Test Results of Radiated Emissions

Below 1GHz:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Product Name:	Yoto Mini V2	**Product Model:**	YM3
Test By:	Robin Zhou	**Worst Test mode:**	2.4G Wi-Fi mode OFDMA 802.11ax20
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Horizontal
Test Voltage:	AC 120V, 60Hz		

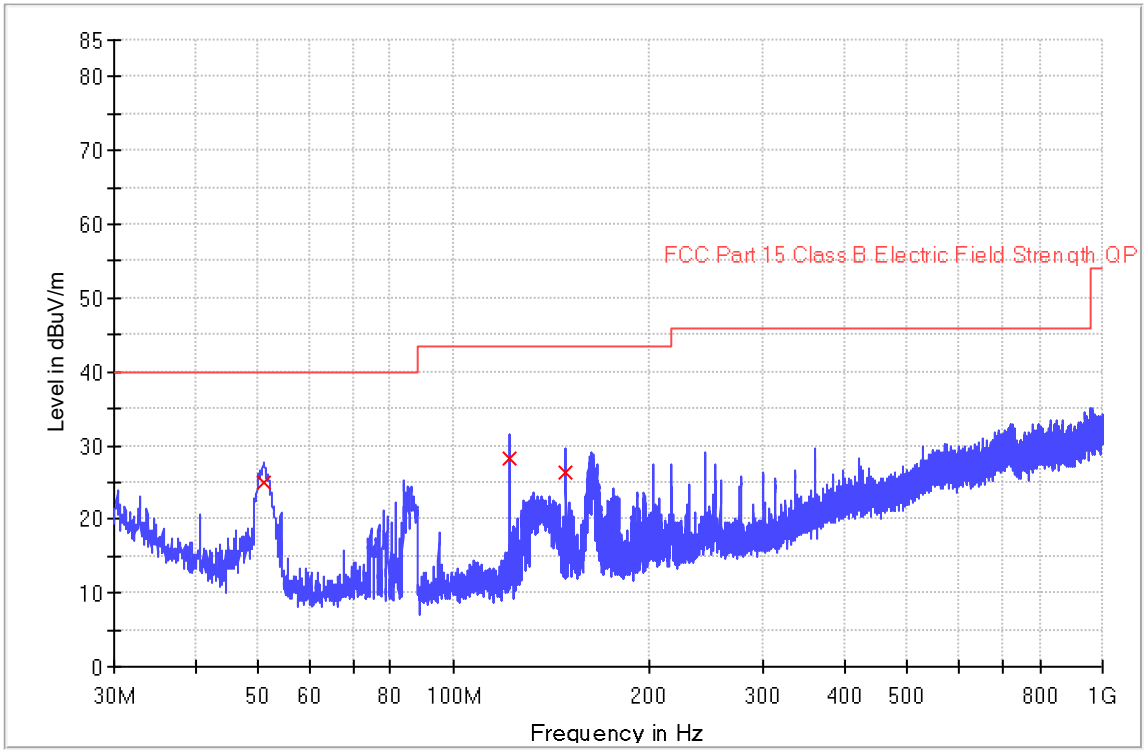


Limit and Margin

Frequency (MHz)	Quasi Peak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
244.046667	28.5	1000.0	120.000	H	19.5	17.5	46.0
300.597667	33.6	1000.0	120.000	H	20.3	12.4	46.0
336.714000	36.9	1000.0	120.000	H	22.3	9.1	46.0

Remark:
1. Corr. (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)
2. Quasi Peak (dBµV/m) = Corr. (dB/m) + Read Level (dBµV)
3. Margin (dB) = Limit QPK (dBµV/m) – Quasi Peak (dBµV/m)

Product Name:	Yoto Mini V2	**Product Model:**	YM3
Test By:	Robin Zhou	**Worst Test mode:**	2.4G Wi-Fi mode OFDMA 802.11ax20
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	AC 120V, 60Hz		



Limit and Margin

Frequency (MHz)	Quasi Peak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
51.049000	24.9	1000.0	120.000	V	13.2	15.1	40.0
122.020667	28.1	1000.0	120.000	V	14.5	15.4	43.5
149.148333	26.4	1000.0	120.000	V	16.4	17.1	43.5

Remark:
1. Corr. (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)
2. Quasi Peak (dBµV/m) = Corr. (dB/m) + Read Level (dBµV)
3. Margin (dB) = Limit QPK (dBµV/m) – Quasi Peak (dBµV/m)

Above 1GHz:
Worst-case Results:
Worst Case Operating Mode: Transmitting (DSSS 802.11b-Channel 01)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	51.1	36.8	33.5	47.8	74.0	-26.2
Horizontal	*2390.000	66.2	36.4	29.1	58.9	74.0	-15.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	40.0	36.8	33.5	36.7	54.0	-17.3
Horizontal	*2390.000	56.3	36.4	29.1	49.0	54.0	-5.0

Worst Case Operating Mode: Transmitting (DSSS 802.11b-Channel 06)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	49.3	36.7	33.4	46.0	74.0	-28.0
Horizontal	*7311.000	44.1	36.6	35.8	43.3	74.0	-30.7

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	40.9	36.7	33.4	37.6	54.0	-16.4
Horizontal	*7311.000	35.4	36.6	35.8	34.6	54.0	-19.4

Worst Case Operating Mode: Transmitting (DSSS 802.11b-Channel 11)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	49.9	36.8	33.3	46.4	74.0	-27.6
Horizontal	*2483.500	66.3	36.5	29.3	59.1	74.0	-14.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	41.6	36.8	33.3	38.1	54.0	-15.9
Horizontal	*2483.500	55.9	36.5	29.3	48.7	54.0	-5.3

Worst Case Operating Mode: Transmitting (OFDM 802.11n20-Channel 01)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	49.0	36.8	33.5	45.7	74.0	-28.3
Horizontal	*2390.000	69.2	36.4	29.1	61.9	74.0	-12.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	42.0	36.8	33.5	38.7	54.0	-15.3
Horizontal	*2390.000	57.6	36.4	29.1	50.3	54.0	-3.7

Worst Case Operating Mode: Transmitting (OFDM 802.11n20-Channel 06)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	49.4	36.7	33.4	46.1	74.0	-27.9
Horizontal	*7311.000	42.9	36.6	35.8	42.1	74.0	-31.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	40.9	36.7	33.4	37.6	54.0	-16.4
Horizontal	*7311.000	33.4	36.6	35.8	32.6	54.0	-21.4

Worst Case Operating Mode: Transmitting (OFDM 802.11n20-Channel 11)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	49.5	36.8	33.3	46.0	74.0	-28.0
Horizontal	*2483.500	67.9	36.5	29.3	60.7	74.0	-13.3

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	40.6	36.8	33.3	37.1	54.0	-16.9
Horizontal	*2483.500	56.8	36.5	29.3	49.6	54.0	-4.4

Worst Case Operating Mode: Transmitting (OFDMA 802.11ax20-Channel 01)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	50.7	36.8	33.5	47.4	74.0	-26.6
Horizontal	*2390.000	68.5	36.4	29.1	61.2	74.0	-12.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9648.000	42.3	36.8	33.5	39.0	54.0	-15.0
Horizontal	*2390.000	58.0	36.4	29.1	50.7	54.0	-3.3

Worst Case Operating Mode: Transmitting (OFDMA 802.11ax20-Channel 06)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	50.4	36.7	33.4	47.1	74.0	-26.9
Horizontal	*7311.000	49.3	36.6	35.8	48.5	74.0	-25.5

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9748.000	41.1	36.7	33.4	37.8	54.0	-16.2
Horizontal	*7311.000	38.7	36.6	35.8	37.9	54.0	-16.1

Worst Case Operating Mode: Transmitting (OFDMA 802.11ax20-Channel 11)
Worst-case Polarization: Horizontal

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	49.7	36.8	33.3	46.2	74.0	-27.8
Horizontal	*2483.500	67.8	36.5	29.3	60.6	74.0	-13.4

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	9848.000	40.6	36.8	33.3	37.1	54.0	-16.9
Horizontal	*2483.500	57.2	36.5	29.3	50.0	54.0	-4.0

NOTES:

1. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
2. Negative value in the margin column shows emission below limit.
3. Horn antenna used for the emission over 1000MHz.
4. All modes have been tested, but only the worst data was recorded in the report.
5. Tests were conducted in both the horizontal and vertical directions, but only worst-case data record in report.
6. 802.11ax mode supports RU, including 26-tone RU, 52-tone RU, 106-tone RU, 242-tone RU. Only the worst-case full RU (242-tone) mode was reported.

* Emissions within restricted bands comply with applicable regulatory requirements. The corresponding limits are based on quasi-peak measurements for frequencies below 1000 MHz and average measurements for frequencies above 1000 MHz. Furthermore, for radio frequency emissions above 1 GHz, the measured peak level using a peak detector also meets the permitted limit, which is 20 dB above the average limit.

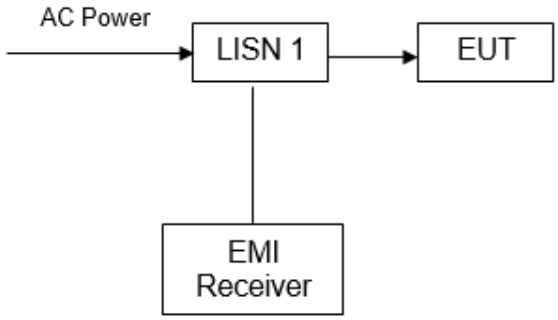
14 AC Power line conducted emission

14.1 Limit

Freq. (MHz)	Conducted Limit (dBµV)	
	Q.P.	Ave.
0.15~0.5	66 – 56*	56 – 46*
0.50~5.0	56	46
5.00~30.0	60	50

* Decreases with the logarithm of the frequency.

14.2 Test Setup

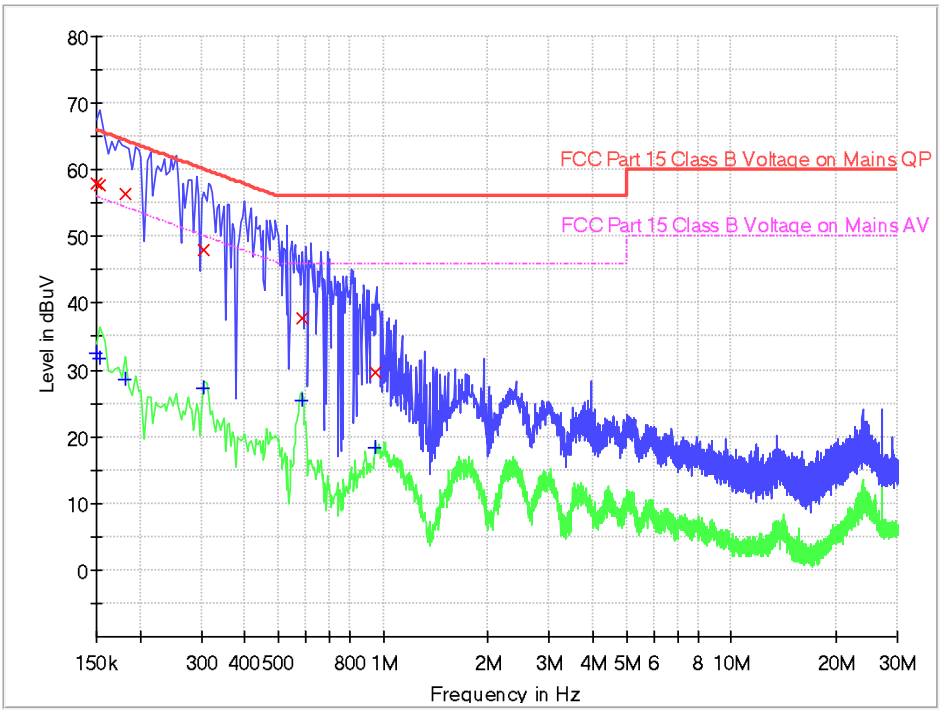


14.3 Test Procedure

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESCI) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2020+Cor 1-2023. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

14.4 Test Results of AC Power line conducted emission

Product Name:	Yoto Mini V2	**Product Model:**	YM3
Test By:	Robin Zhou	**Worst Test mode:**	2.4G Wi-Fi mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Line
Test voltage:	AC 120V, 60Hz		



Limit and Margin QP

Frequency (MHz)	Quasi Peak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	58.0	9.000	L1	9.8	8.0	66.0
0.154000	57.7	9.000	L1	9.8	8.1	65.8
0.182000	56.3	9.000	L1	9.8	8.1	64.4
0.306000	48.0	9.000	L1	9.8	12.1	60.1
0.582000	37.8	9.000	L1	9.8	18.2	56.0
0.946000	29.7	9.000	L1	9.8	26.3	56.0

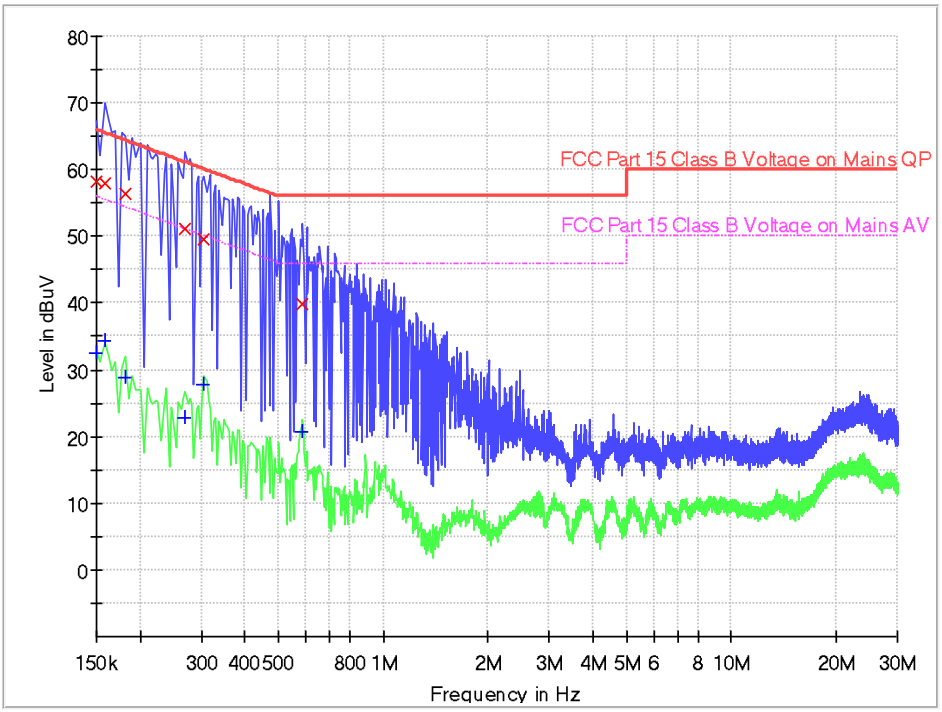
Limit and Margin AV

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	32.4	9.000	L1	9.8	23.6	56.0
0.154000	31.7	9.000	L1	9.8	24.1	55.8
0.182000	28.5	9.000	L1	9.8	25.9	54.4
0.306000	27.3	9.000	L1	9.8	22.8	50.1
0.582000	25.4	9.000	L1	9.8	20.6	46.0
0.946000	18.4	9.000	L1	9.8	27.6	46.0

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Limit (dBµV) – Quasi Peak/Average (dBµV)

Product Name:	Yoto Mini V2	**Product Model:**	YM3
Test By:	Robin Zhou	**Worst Test mode:**	2.4G Wi-Fi mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Neutral
Test voltage:	AC 120V, 60Hz		



Limit and Margin QP

Frequency (MHz)	Quasi Peak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	58.3	9.000	N	9.7	7.7	66.0
0.158000	57.8	9.000	N	9.7	7.8	65.6
0.182000	56.4	9.000	N	9.7	8.0	64.4
0.270000	51.2	9.000	N	9.7	9.9	61.1
0.306000	49.5	9.000	N	9.7	10.6	60.1
0.586000	39.9	9.000	N	9.7	16.1	56.0

Limit and Margin AV

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	32.4	9.000	N	9.7	23.6	56.0
0.158000	34.4	9.000	N	9.7	21.2	55.6
0.182000	28.8	9.000	N	9.7	25.6	54.4
0.270000	22.9	9.000	N	9.7	28.2	51.1
0.306000	27.8	9.000	N	9.7	22.3	50.1
0.586000	20.7	9.000	N	9.7	25.3	46.0

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Limit (dBµV) – Quasi Peak/Average (dBµV)

********** End of Report**********