

FCC PART 15.247

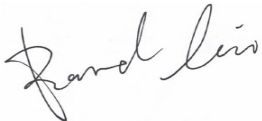
TEST REPORT

For

SPACEWALKER PTE. LTD.

60 PAYA LEBAR ROAD SINGAPORE Singapore

FCC ID: 2BK3M-K100MAXU001

Report Type: Original Report	Product Name: Kids Electric Scooter
Report Number: <u>RKSA250519002-00B</u>	
Report Date: <u>2025-07-30</u>	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA250519002-00B	R1V1	2025-07-30	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	SPACEWALKER PTE. LTD.
Tested Model:	K100 Max US
Product Name:	Kids Electric Scooter
Power Supply:	DC 25.2V from adapter or DC 21.6V from battery
RF Function:	BLE
Operating Band/Frequency:	Module 1: BLE (1 Mbps)/BLE (2 Mbps): 2402-2480 MHz Module 2: BLE (1 Mbps): 2402-2480 MHz BLE (2 Mbps): 2404-2478 MHz
Maximum Output Power:	Module 1: BLE (1 Mbps): -0.11 dBm BLE (2 Mbps): -0.11 dBm Module 2: BLE (1 Mbps): 7.23 dBm BLE (2 Mbps): 7.24 dBm
Channel Number:	40
Channel Separation:	2 MHz
Modulation Type	GFSK
Antenna Type:	PCB Antenna
★Maximum Antenna Gain:	Module 1: 0.31 dBi Module 2: 1.22 dBi

Adapter Information:

Model: GQ24-252100-AU

Input: 100-240V, 50/60Hz, 1.0A Max

Output: 25.2V, 1.0A

Note: The maximum antenna gain was provided by the applicant.

All measurement and tested data in this report was gathered from production sample serial number:

RKSA250519002-1/ RKSA250519002-2 (Assigned by BACL (Kunshan). The EUT supplied by the applicant was received on 2025-05-19.)

Objective

This report is prepared for *SPACEWALKER PTE. LTD.* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communications Commission rules.

The tests were performed in order to determine Compliant with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10:2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and FCC KDB 558074 D01 15.247 Meas Guidance v05r02.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9 dB
RF Output Power with Power meter		0.5 dB
Radiated emissions	9 kHz~150 kHz	3.8 dB
	150 kHz~30 MHz	3.4 dB
	30MHz~1GHz	6.11 dB
	1GHz~6GHz	4.45 dB
	6GHz~18GHz	5.23 dB
	18GHz~40GHz	5.65 dB
Occupied Bandwidth		0.5 kHz
Temperature		1.0 °C
Humidity		6 %

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

Channel List for BLE mode:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
9	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454	/	/
13	2428	27	2456	/	/

EUT module 1 was tested with channel 0, 19 and 39. EUT module 2 BLE 1M was tested with channel 0, 19 and 39, BLE 2M was tested with channel 1, 19 and 38.

EUT Exercise Software

Module 1 RF Test Tool: FCC_assist1.0.4

Module 2 RF Test Tool: RTL8762x_RFTTestTool

★Power level: Default

Note: The power level was declared by the applicant.

Special Accessories

No special accessory.

Equipment Modifications

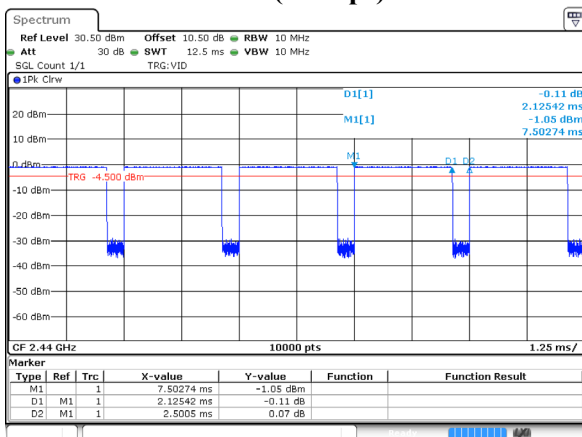
No modification was made to the EUT tested.

Environmental Conditions & Test Information

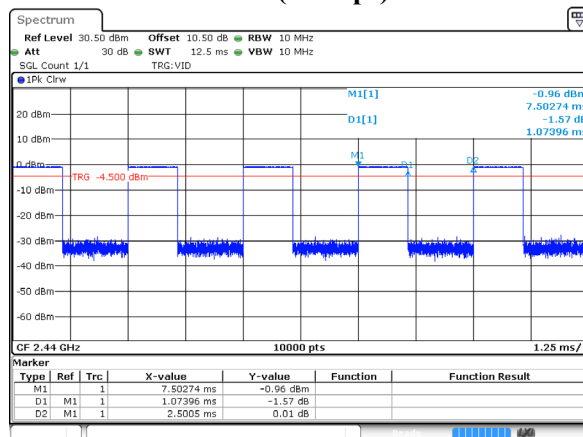
Test Date:	2025-06-04	2025-06-13
Temperature:	23.5 °C	25.5 °C
Relative Humidity:	45 %	63 %
ATM Pressure:	100.9 kPa	100.9 kPa
Test Result:	Pass	Pass
Test Engineer:	Neil Zhou	Neil Zhou

Duty Cycle:
Module 1

BLE (1 Mbps)



BLE (2 Mbps)

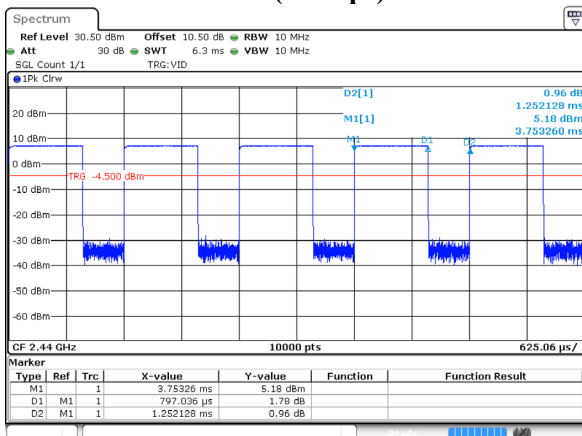


Mode	Duty Cycle (%)	T _{on} (ms)	T _{on+off} (ms)
BLE (1 Mbps)	85.00	2.125	2.500
BLE (2 Mbps)	42.96	1.074	2.500

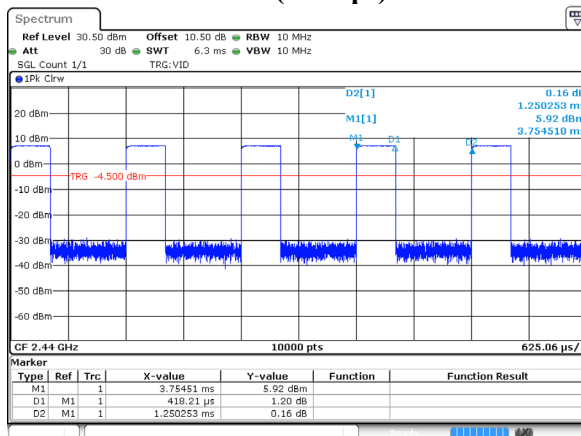
Note: Offset(10.5dB) = Attenuator(10dB)+Cable loss(0.5dB)

Module 2

BLE (1 Mbps)



BLE (2 Mbps)



Mode	Duty Cycle (%)	T _{on} (ms)	T _{on+off} (ms)
BLE (1 Mbps)	63.66	0.797	1.252
BLE (2 Mbps)	33.44	0.418	1.250

Note: Offset(10.5dB) = Attenuator(10dB)+Cable loss(0.5dB)

Support Equipment List and Details

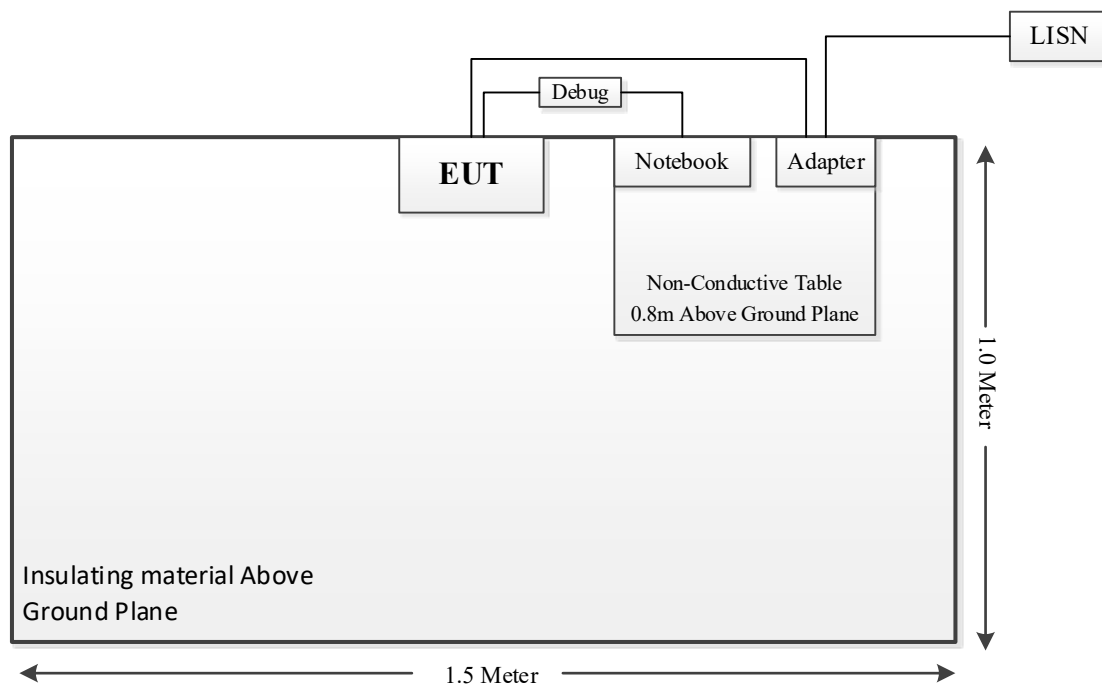
Manufacturer	Description	Model	Serial Number
Lenovo	Notebook	Thinkpad T470S	83ECA1B-E1AF-4053-95DE-2E51B8D188D7
/	Debug board	/	/

External I/O Cable

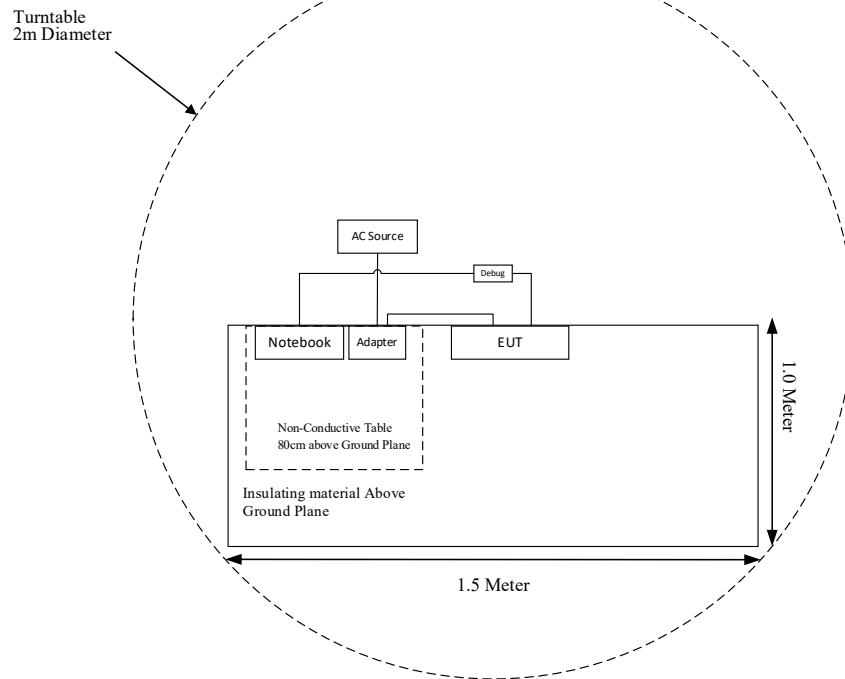
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	LISN/AC Source	Adapter
Power Cable 2	1.5	Adapter	EUT
Data Cable 1	0.2	EUT	Debug board
Data Cable 2	1.5	Debug board	Notebook

Block Diagram of Test Setup

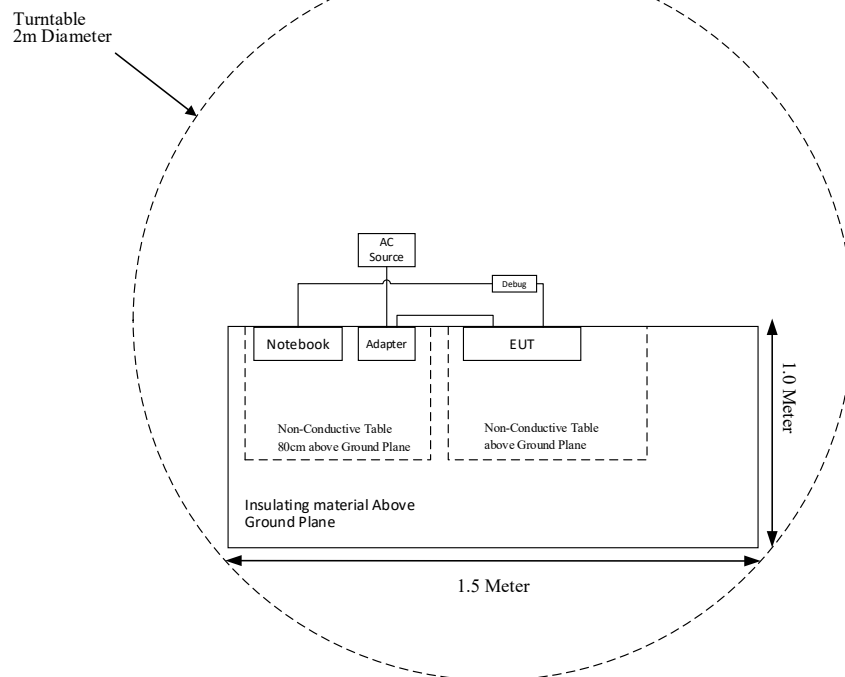
For Conducted Emissions:



For Radiated Emissions(Below 1GHz):



For Radiated Emissions(Above 1GHz):



Note: The EUT Antenna 1.5m above Ground Plane

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2025-04-09	2026-04-08
Sunol Sciences	Hybrid Antenna	JB3	A090314-2	2024-10-29	2027-10-28
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Narda	6 dB Attenuator	771-6	10690812-2-1	2024-10-29	2027-10-28
Sonoma Instrument	Pre-amplifier	310N	171205	2025-04-09	2026-04-08
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-9	009	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3115	9207-3900	2024-11-03	2027-11-02
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
A.H.Systems,inc	Amplifier	PAM-0118P	512	2025-04-09	2026-04-08
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2024-08-05	2025-08-04
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
SELECTOR	Amplifier	EM18G40G	60726	2025-04-09	2026-04-08
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-11	011	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-12	012	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-13	013	2025-04-09	2026-04-08
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	103298	2025-04-08	2026-04-07
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2024-07-28	2025-07-27
Rohde & Schwarz	LISN	ENV216	101115	2025-04-08	2026-04-07
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2025-04-08	2026-04-07
MICRO-COAX	Coaxial Cable	Cable-15	015	2025-04-08	2026-04-07

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307(b) & §2.1093	RF EXPOSURE	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

FCC §1.1307(b) & §2.1093 - RF EXPOSURE

Applicable Standard

According to §15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] [\sqrt{f(\text{GHz})}]$
 ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Measurement Result

Standalone SAR test exclusion

Module 1

Mode	Frequency Range (MHz)	Max Tune-up Conducted Power		Calculated Distance (mm)	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
		(dBm)	(mW)				
BLE 1M	2402-2480	0	1.00	5.0	0.3	3.0	Yes
BLE 2M	2402-2480	0	1.00	5.0	0.3	3.0	Yes
BT	2402-2480	1.5	1.41	5.0	0.4	3.0	Yes

Module 2

Mode	Frequency Range (MHz)	Max Tune-up Conducted Power		Calculated Distance (mm)	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
		(dBm)	(mW)				
BLE 1M	2402-2480	7.4	5.5	5.0	1.7	3.0	Yes
BLE 2M	2404-2478	7.4	5.5	5.0	1.7	3.0	Yes

Standalone SAR estimation:

Module 1

Mode	Frequency Range (MHz)	Max Tune-up Conducted Power		Calculated Distance (mm)	Calculated Value	Estimated 1_g (W/kg)
		(dBm)	(mW)			
BLE 1M	2402-2480	0	1.00	5.0	0.3	0.042
BLE 2M	2402-2480	0	1.00	5.0	0.3	0.042
BT	2402-2480	1.5	1.41	5.0	0.4	0.059

Module 2

Mode	Frequency Range (MHz)	Max Tune-up Conducted Power		Calculated Distance (mm)	Calculated Value	Estimated 1_g (W/kg)
		(dBm)	(mW)			
BLE 1M	2402-2480	7.4	5.5	5.0	1.7	0.23
BLE 2M	2404-2478	7.4	5.5	5.0	1.7	0.23

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$[(\text{max. power of channel, including } \textbf{tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}/x] \text{ W/kg}$ for test separation distances $\leq 50 \text{ mm}$;
where $x = 7.5$ for 1_g SAR.

When the minimum test separation distance is $< 5 \text{ mm}$, a distance of 5 mm is applied to determine SAR test exclusion

Module 1 and module 2 can Simultaneous Transmit

Simultaneous SAR test exclusion considerations:

Mode	Reported SAR (W/kg)		$\Sigma \text{SAR} < 1.6 \text{ W/kg}$
	SAR 1	SAR 2	
Module 1+Module 2	0.059	0.23	0.289

Conclusion: $\Sigma \text{SAR} < 1.6 \text{ W/kg}$ therefore simultaneous transmission SAR is not required.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

The EUT Module 1 has a PCB Antenna for BLE, and the antenna gain is 0.31 dBi, the EUT Module 2 has a PCB Antenna for BLE, and the antenna gain is 1.22 dBi , which is permanently attached to the unit, fulfill the requirement of this section. Please refer to the EUT photos.

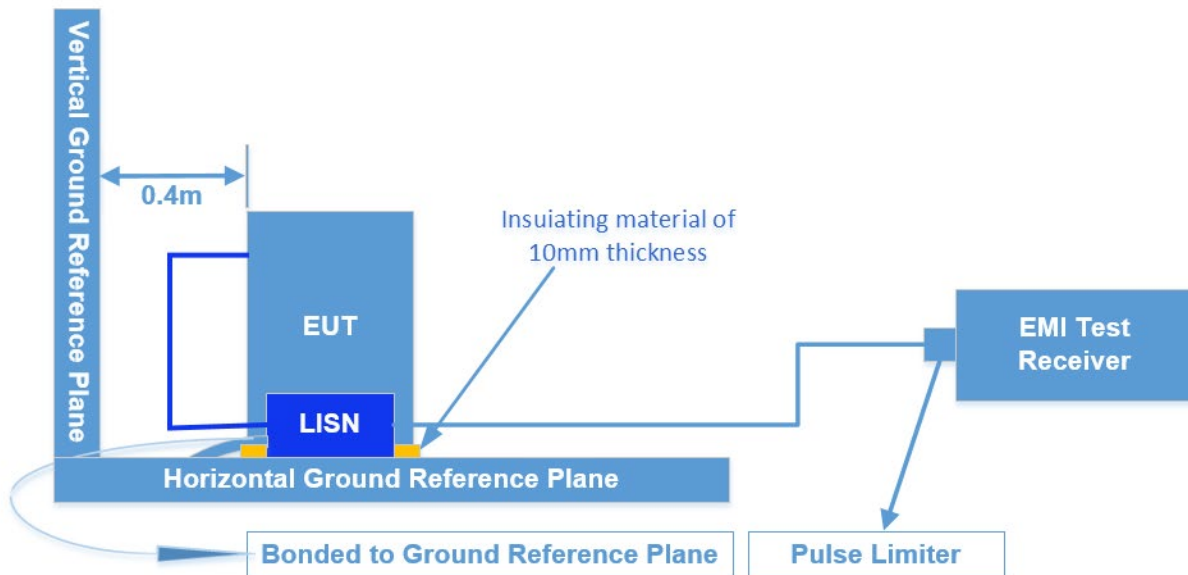
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The measurement procedure of EUT setup is according with ANSI C63.10:2020. The related limit was specified in FCC Part 15.207.

EMI Test Receiver Setup

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

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

Frequency Range	RBW	VBW
150 kHz – 30 MHz	9 kHz	30 kHz

Test Procedure

ANSI C63.10:2020 clause 6.2

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.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)

Level (dBμV) = Read level (dBμV) + Factor (dB)

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 above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

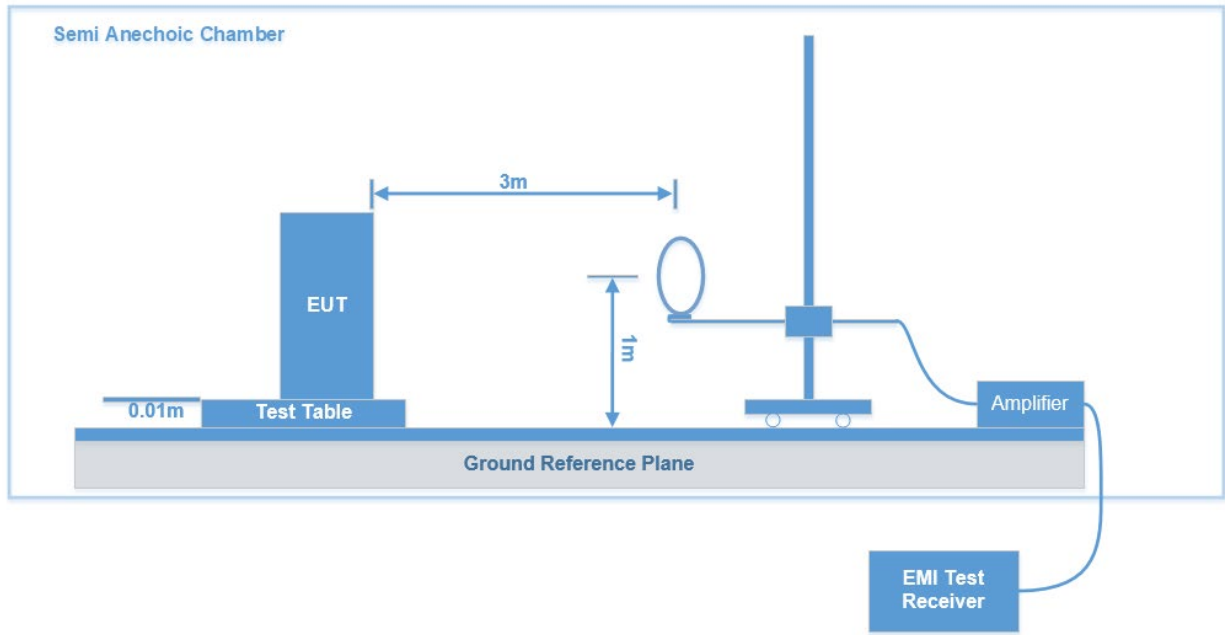
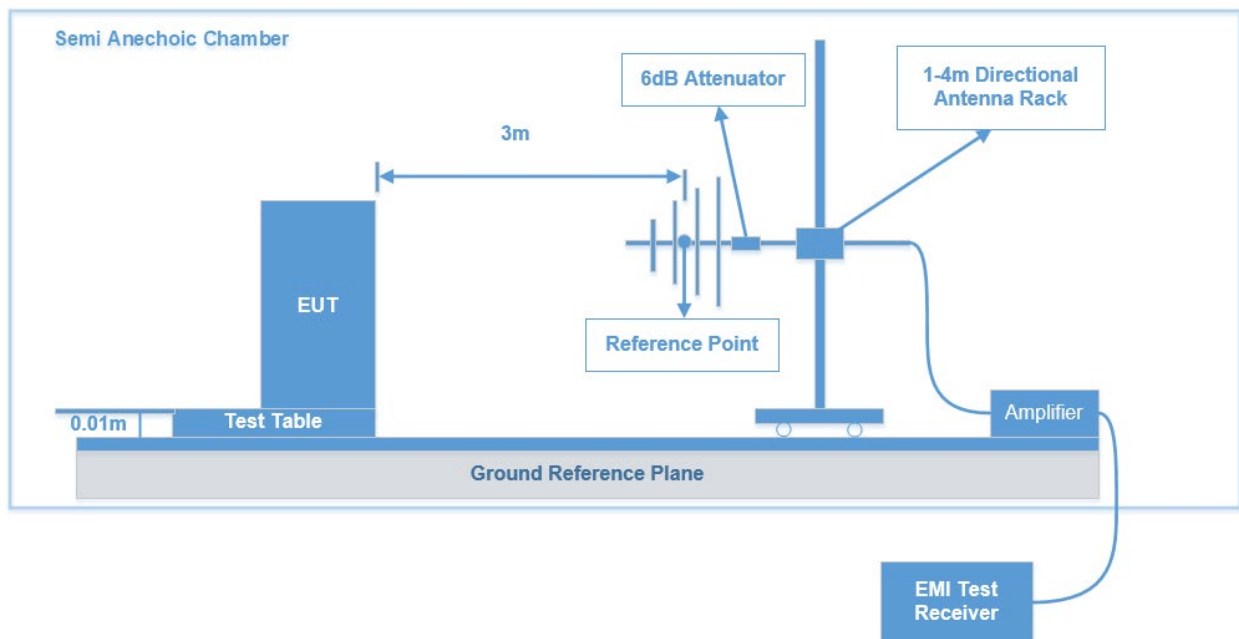
Test Results Summary

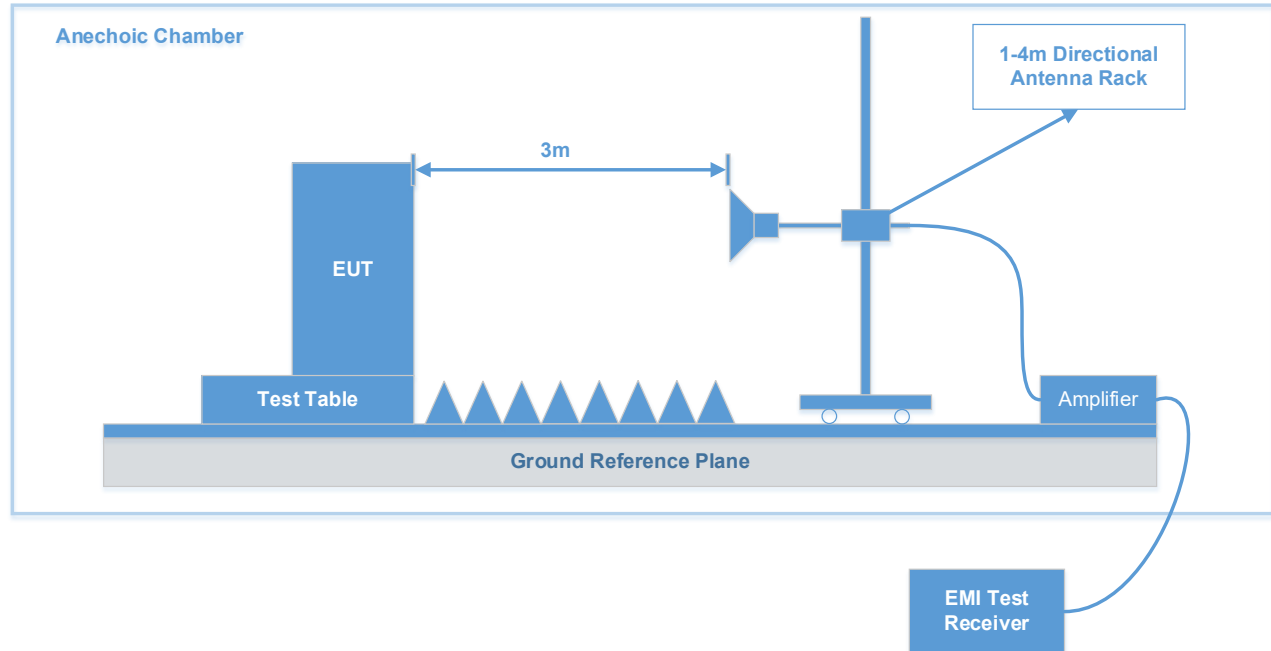
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS**Applicable Standard**

FCC §15.247 (d); §15.209; §15.205;

Test System Setup**9 kHz - 30 MHz:****30 MHz - 1 GHz:**

Above 1 GHz:

Note: The EUT Antenna 1.5m above Ground Plane.

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10:2020. The specification used was the FCC 15.209, and FCC 15.247 limits.

EMI Test Receiver Setup

During the radiated emission test, the EMI test receiver Setup was set with the following configurations:

Frequency Range	RBW	VBW	IF B/W	Measurement	Detector
9 kHz - 150 kHz	200 Hz	1 kHz	200 Hz	Peak/QP/Average	Peak/QP/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	Peak/QP/Average	Peak/QP/Average
30 MHz - 1000 MHz	100 kHz	300 kHz	/	Peak	Peak
	/	/	120 kHz	QP	QP
Above 1GHz	1MHz	3 MHz	/	Peak	Peak
	1MHz	3 MHz	/	Average	Average

Test Procedure

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

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

For 9 kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude 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:

$$\text{Corrected Amplitude (dB}\mu\text{V/m)} = \text{Meter Reading (dB}\mu\text{V)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

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

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Corrected Amplitude (dB}\mu\text{V/m)}$$

Note: The QuasiPeak (dB μ V/m), MaxPeak (dB μ V/m), Average (dB μ V/m) which shown in the data table are all Corrected Amplitude.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

Test Data: See Appendix

FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH

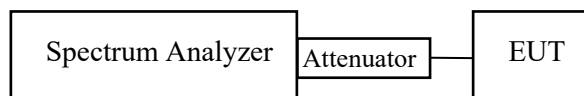
Applicable Standard

Systems using digital modulation techniques 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.

Test Procedure

According to ANSI C63.10:2020 sub-clause 11.8.1

- a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b) Set the VBW $\geq [3 \times \text{RBW}]$.
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.
- g) 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.



Note: the offset=Attenuator (10dB) + Cable loss (0.5dB) has been added in Spectrum Analyzer.

Test Data: See Appendix

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

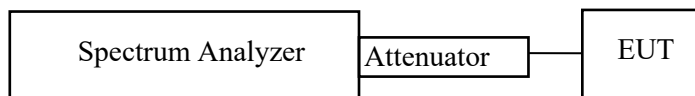
Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

According to ANSI C63.10:2020 sub-clause 11.9.1.1

- a) Set the RBW $\geq$ DTS bandwidth.
- b) Set VBW $\geq [3 \times \text{RBW}]$.
- c) Set span $\geq [3 \times \text{RBW}]$.
- d) Sweep time = No faster than coupled (auto) time.
- e) Detector = peak.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.



Note: the offset=Attenuator (10dB) + Cable loss (0.5dB) has been added in Spectrum Analyzer.

Test Data: See Appendix

FCC §15.247(d) – BAND EDGE

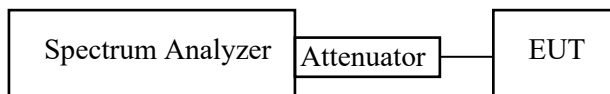
Applicable Standard

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

Test Procedure

According to ANSI C63.10:2020 sub-clause 6.10.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



Note: the offset=Attenuator (10dB) + Cable loss (0.5dB) has been added in Spectrum Analyzer.

Test Data: See Appendix

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

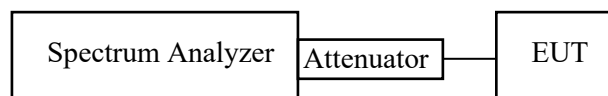
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

According to ANSI C63.10:2020 sub-clause 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- g) Trace mode = max-hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.



Note: the offset=Attenuator (10dB) + Cable loss (0.5dB) has been added in Spectrum Analyzer.

Test Data: See Appendix

EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A-EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B-EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT C-TEST SETUP PHOTOGRAPHS.

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

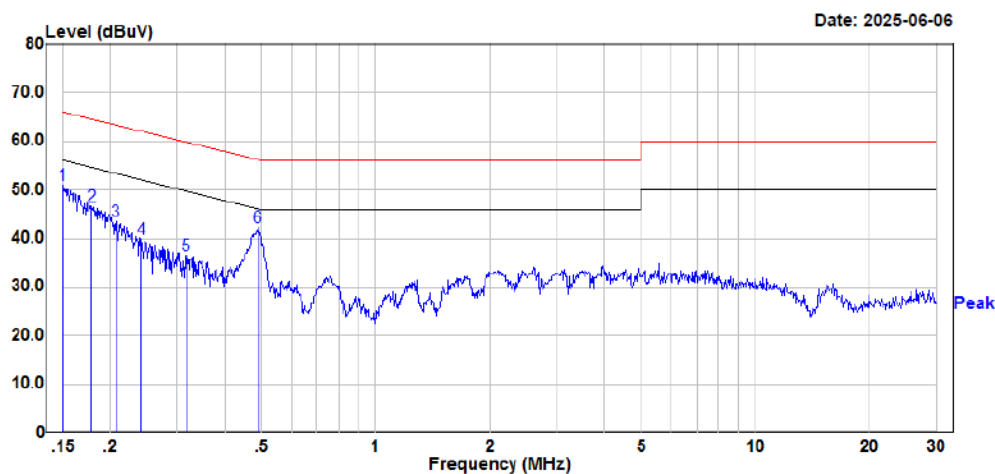
Environmental Conditions & Test Information

Test Date:	2025-06-06
Temperature:	25.1 °C
Relative Humidity:	45 %
ATM Pressure:	100.7 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

Module 1

EUT operation mode: Transmitting in BLE (1 Mbps) low channel (maximum output power)

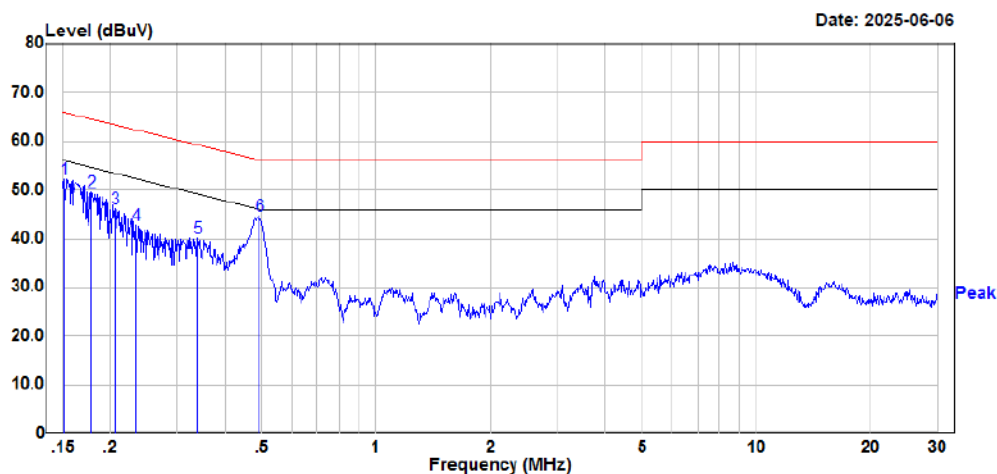
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Read		Limit	Over	
Freq	Level	Factor	Level	Line	Limit Remark
MHz	dBuV	dB	dBuV	dBuV	dB
1	0.150	30.81	20.12	50.93	66.00 -15.07 Peak
2	0.179	26.64	20.14	46.78	64.55 -17.77 Peak
3	0.206	23.30	20.15	43.45	63.35 -19.90 Peak
4	0.241	19.78	20.16	39.94	62.07 -22.13 Peak
5	0.317	16.34	20.21	36.55	59.79 -23.24 Peak
6	0.489	22.07	20.21	42.28	56.19 -13.91 Peak

AC 120V/60 Hz, Neutral

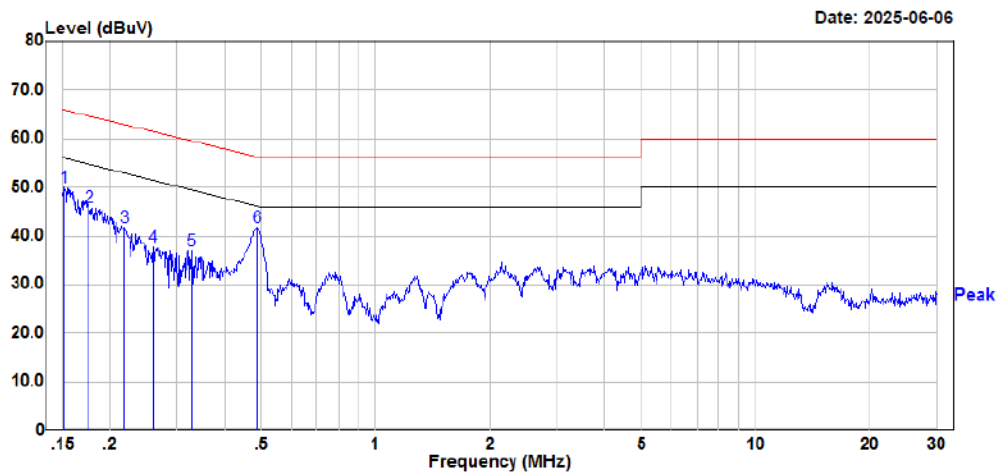


Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV		dB	dBuV	dB	
1	0.152	32.17	20.12	52.29	65.92	-13.63	Peak
2	0.179	29.47	20.14	49.61	64.55	-14.94	Peak
3	0.205	26.10	20.15	46.25	63.39	-17.14	Peak
4	0.234	22.70	20.16	42.86	62.32	-19.46	Peak
5	0.338	19.93	20.22	40.15	59.25	-19.10	Peak
6	0.494	24.42	20.20	44.62	56.11	-11.49	Peak

EUT operation mode: Transmitting in BLE (2 Mbps) low channel (maximum output power)

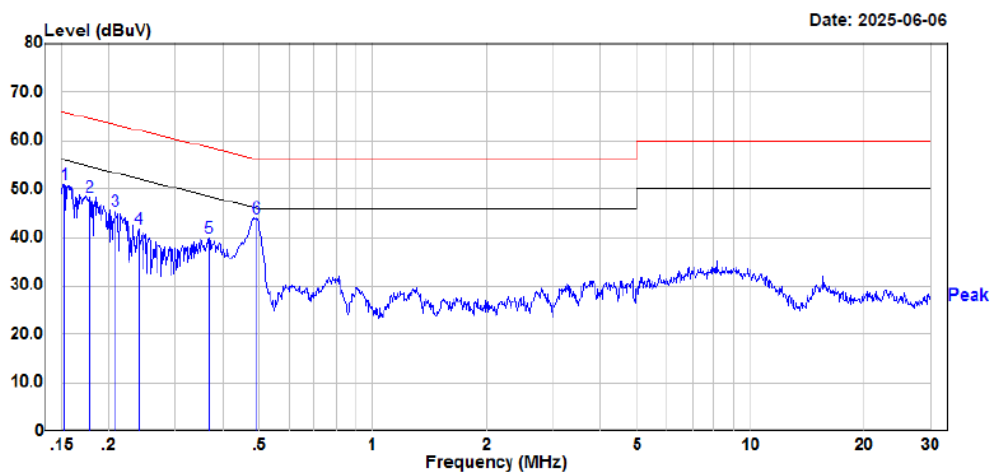
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
Project No. : RKSA250519002
Model : K100 Max US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	29.85	20.12	49.97	65.92	-15.95	Peak
2	0.176	25.85	20.13	45.98	64.68	-18.70	Peak
3	0.218	21.62	20.15	41.77	62.90	-21.13	Peak
4	0.260	17.49	20.17	37.66	61.45	-23.79	Peak
5	0.328	16.87	20.22	37.09	59.50	-22.41	Peak
6	0.486	21.62	20.21	41.83	56.23	-14.40	Peak

AC 120V/60 Hz, Neutral



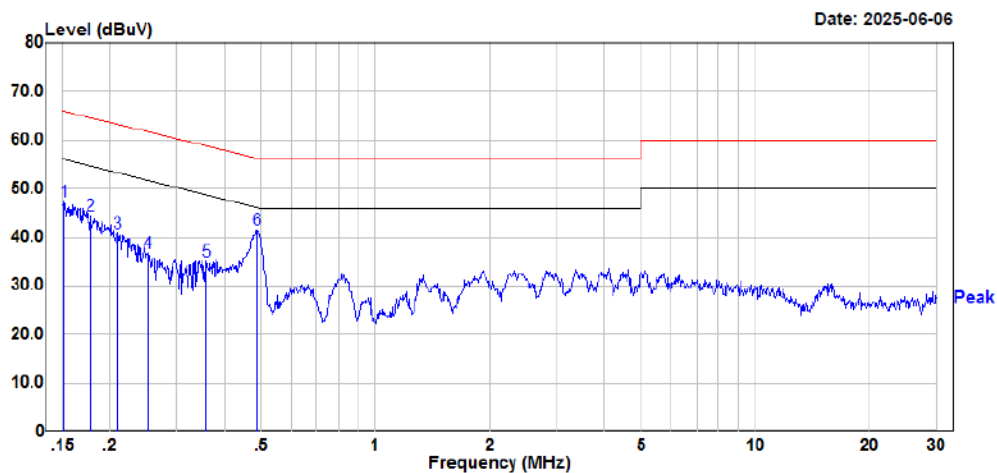
Site : CE
Condition : limit\FCC PART 15.207
DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV		dB	dBuV	dB	
1	0.152	30.84	20.12	50.96	65.88	-14.92	Peak
2	0.178	28.31	20.13	48.44	64.59	-16.15	Peak
3	0.207	25.20	20.16	45.36	63.31	-17.95	Peak
4	0.240	21.58	20.16	41.74	62.11	-20.37	Peak
5	0.368	19.69	20.23	39.92	58.55	-18.63	Peak
6	0.491	23.90	20.21	44.11	56.15	-12.04	Peak

Module 2

EUT operation mode: Transmitting in BLE (1 Mbps) middle channel (maximum output power)

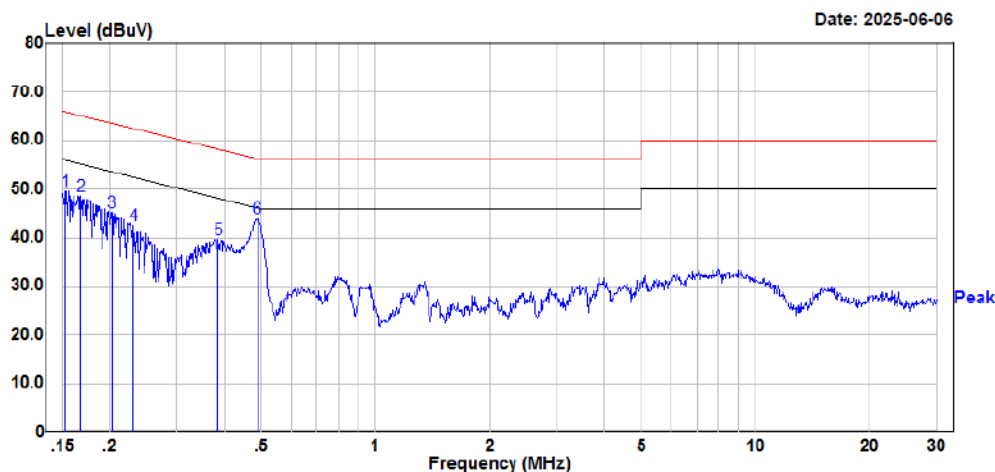
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1℃
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read		Limit	Over	
	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dB	
1	0.152	27.30	20.12	47.42	65.92	-18.50 Peak
2	0.178	24.41	20.13	44.54	64.59	-20.05 Peak
3	0.209	20.73	20.16	40.89	63.23	-22.34 Peak
4	0.252	16.61	20.17	36.78	61.69	-24.91 Peak
5	0.359	14.94	20.23	35.17	58.76	-23.59 Peak
6	0.486	21.36	20.21	41.57	56.23	-14.66 Peak

AC 120V/60 Hz, Neutral

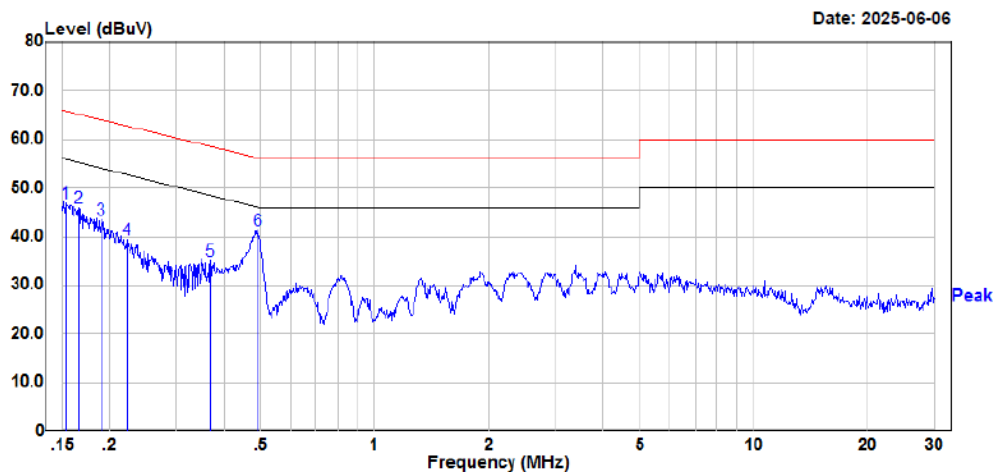


Site : CE
Condition : limit\FCC PART 15.207
DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV		dB	dBuV	dB	
1	0.152	29.50	20.12	49.62	65.88	-16.26	Peak
2	0.167	28.36	20.13	48.49	65.09	-16.60	Peak
3	0.202	25.17	20.15	45.32	63.52	-18.20	Peak
4	0.230	22.29	20.16	42.45	62.44	-19.99	Peak
5	0.385	19.43	20.23	39.66	58.18	-18.52	Peak
6	0.489	23.73	20.21	43.94	56.19	-12.25	Peak

EUT operation mode: Transmitting in BLE (2 Mbps) middle channel (maximum output power)

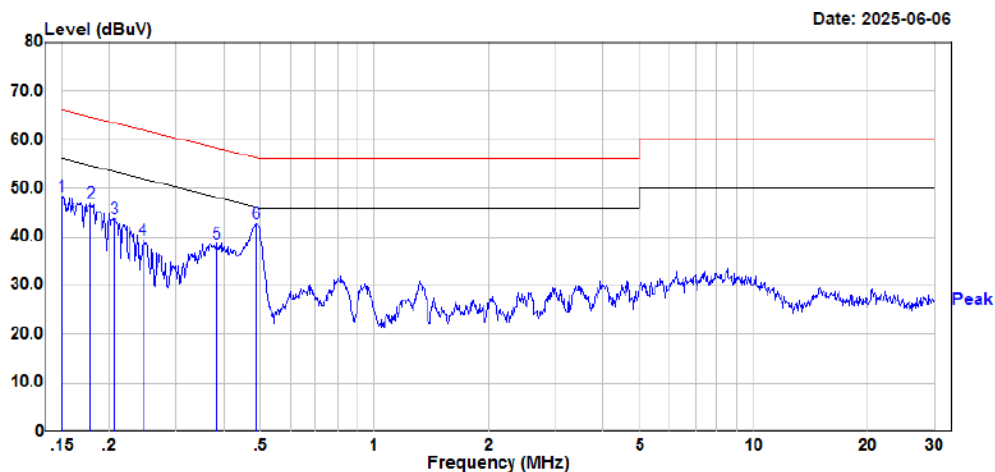
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV		dB	dBuV	dB	
1	0.153	26.79	20.12	46.91	65.83	-18.92	Peak
2	0.166	25.85	20.13	45.98	65.17	-19.19	Peak
3	0.190	23.26	20.15	43.41	64.05	-20.64	Peak
4	0.221	19.27	20.16	39.43	62.77	-23.34	Peak
5	0.368	14.75	20.23	34.98	58.55	-23.57	Peak
6	0.491	21.07	20.21	41.28	56.15	-14.87	Peak

AC 120V/60 Hz, Neutral



Site : CE
Condition : limit\FCC PART 15.207
DET:Peak
Project No. : RKSA250519002
Model : K100 Max US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1°C
Humidity : 45%
Atmospheric pressure: 100.7kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	28.31	20.12	48.43	66.00	-17.57	Peak
2	0.179	26.72	20.14	46.86	64.55	-17.69	Peak
3	0.205	23.64	20.15	43.79	63.39	-19.60	Peak
4	0.244	19.15	20.16	39.31	61.94	-22.63	Peak
5	0.383	18.49	20.23	38.72	58.22	-19.50	Peak
6	0.486	22.65	20.21	42.86	56.23	-13.37	Peak

SPURIOUS EMISSIONS**Environmental Conditions & Test Information**

Frequency Range:	9kHz - 1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-06-04	2025-06-11	2025-06-13
Temperature:	23.5 °C	24.5 °C	25.5 °C
Relative Humidity:	45 %	53 %	63 %
ATM Pressure:	100.9 kPa	101.3 kPa	100.9 kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Jonathan	Danny Zhu	Hugh Wu

Test Result: Compliant.

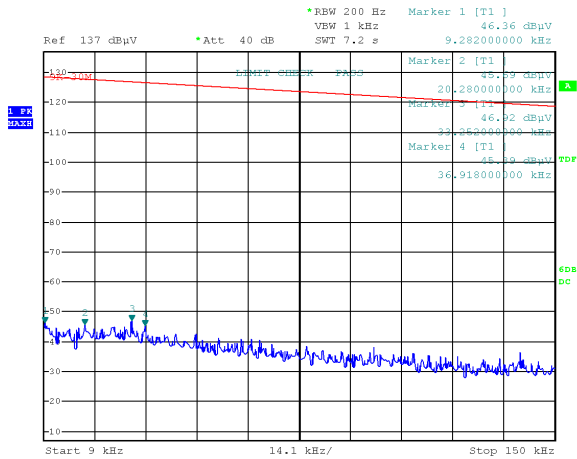
EUT operation mode: Transmitting

Module 1

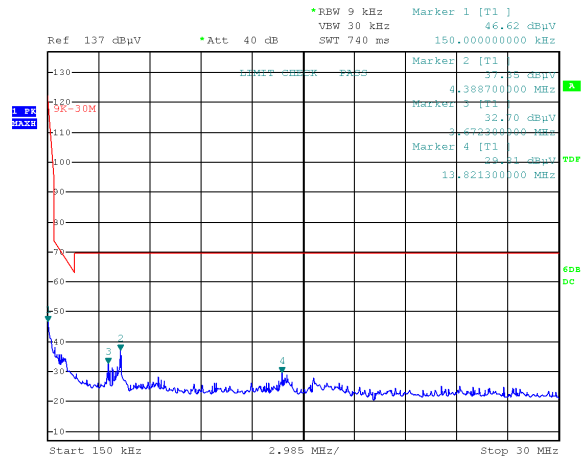
9 kHz-30MHz: *Transmitting in maximum output power mode BLE (2 Mbps) low channel (worse case)*

Parallel(worst case)

9kHz-150kHz



150kHz-30MHz

Project No. RKSA250519002
Date: 4.JUN.2025 16:20:10

Tester: Jonathan

Project No. RKSA250519002
Date: 4.JUN.2025 16:23:09

Tester: Jonathan

9 kHz-150 kHz

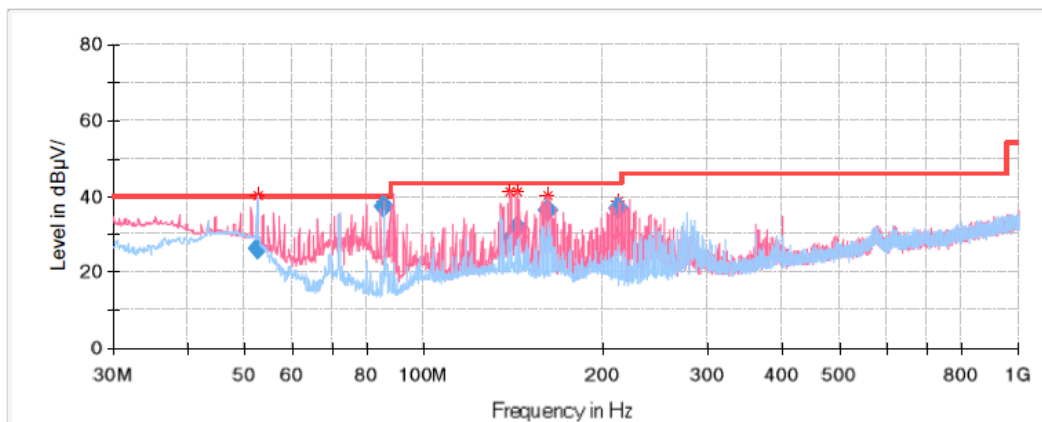
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.009282	46.36	PK	-0.37	128.25	81.89
0.020280	45.69	PK	-0.56	121.46	75.77
0.033252	46.92	PK	-1.13	117.17	70.25
0.036918	45.39	PK	-1.72	116.26	70.87

150 kHz-30 MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	46.62	PK	-11.34	104.08	57.46
3.67230	32.70	PK	-31.75	69.54	36.84
4.38870	37.35	PK	-31.97	69.54	32.19
13.82130	29.81	PK	-33.10	69.54	39.73

30 MHz - 1 GHz:**Transmitting in maximum output power BLE 2M low channel (worse case)****Low Channel: 2402 MHz****Common Information**

Project No: RKSA250519002
EUT Model: K100 Max US
Test Mode: Transmitting in BLE-1M mode low channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 23.5°C
Humidity: 45%
Barometric Pressure: 100.9 kPa
Test Engineer: Jonathan
Test Date: 2025/6/4

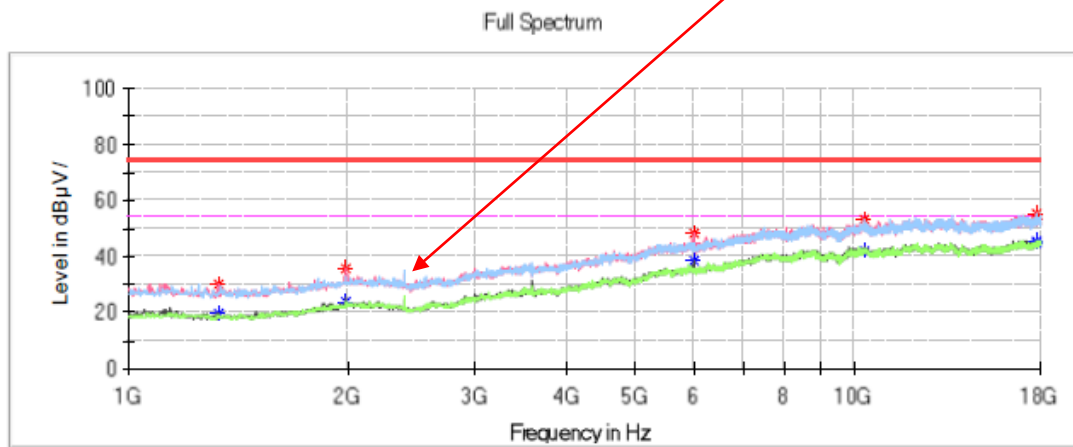
**Final Result**

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.431250	25.98	40.00	14.02	H	-17.0
85.532500	37.24	40.00	2.76	V	-17.0
139.125000	28.11	43.50	15.39	V	-11.2
143.853750	31.57	43.50	11.93	V	-11.4
162.041250	36.01	43.50	7.49	V	-12.2
212.238750	36.53	43.50	6.97	V	-12.9

1 GHz-18 GHz:**BLE (1 Mbps)****Low Channel: 2402 MHz****Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

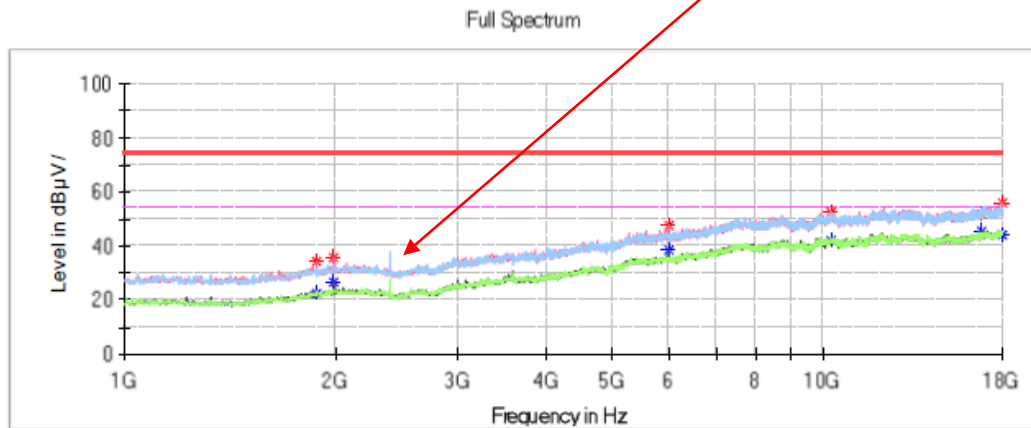
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1326.400000	---	19.72	54.00	34.28	V	-15.1
1326.400000	29.93	---	74.00	44.07	V	-15.1
1992.800000	---	24.01	54.00	29.99	V	-10.6
1992.800000	35.77	---	74.00	38.23	V	-10.6
5998.000000	---	38.40	54.00	15.60	V	-1.1
5998.000000	47.96	---	74.00	26.04	V	-1.1
10282.000000	---	42.29	54.00	11.71	H	6.1
10282.000000	52.98	---	74.00	21.02	H	6.1
17792.600000	---	45.74	54.00	8.26	H	11.2
17792.600000	53.35	---	74.00	20.65	H	11.2
17813.000000	---	44.81	54.00	9.19	V	11.3
17813.000000	55.45	---	74.00	18.55	V	11.3

Middle Channel: 2440 MHz**Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5℃
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

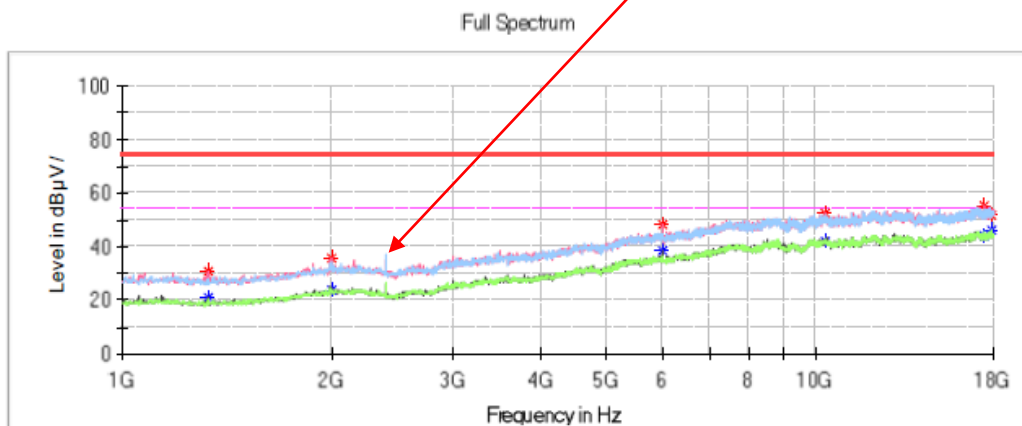
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1880.600000	---	22.17	54.00	31.83	V	-11.5
1880.600000	34.01	---	74.00	39.99	V	-11.5
1996.200000	---	26.63	54.00	27.37	V	-10.5
1996.200000	35.40	---	74.00	38.60	V	-10.5
5998.000000	---	38.71	54.00	15.29	V	-1.1
5998.000000	47.84	---	74.00	26.16	V	-1.1
10261.600000	---	42.18	54.00	11.82	H	6.1
10261.600000	52.49	---	74.00	21.51	H	6.1
16810.000000	---	45.67	54.00	8.33	V	10.7
16810.000000	51.95	---	74.00	22.05	V	10.7
17959.200000	---	44.06	54.00	9.94	H	11.7
17959.200000	55.77	---	74.00	18.23	H	11.7

High Channel: 2480 MHz**Common Information**

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Fundamental Test with
Band Reject Filter

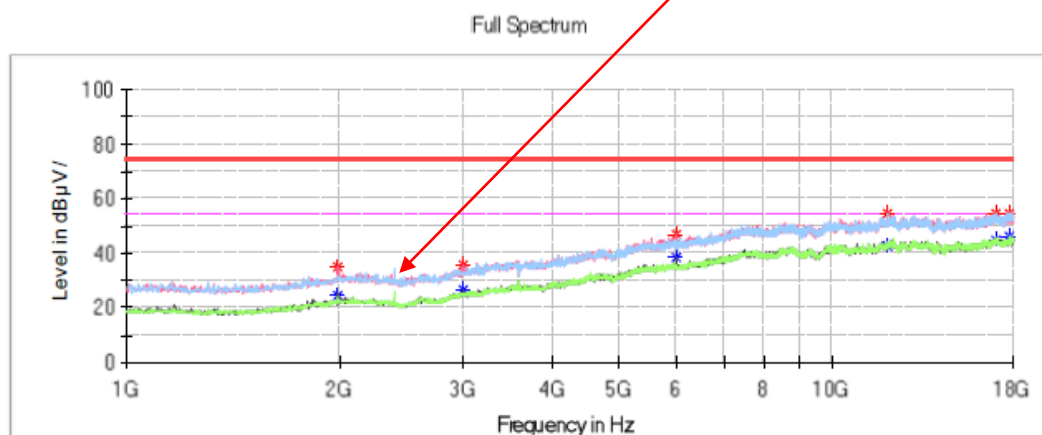
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1326.400000	---	21.20	54.00	32.80	V	-15.1
1326.400000	31.05	---	74.00	42.95	V	-15.1
1999.600000	---	23.67	54.00	30.33	V	-10.5
1999.600000	35.71	---	74.00	38.29	V	-10.5
5998.000000	---	38.71	54.00	15.29	V	-1.1
5998.000000	48.22	---	74.00	25.78	V	-1.1
10292.200000	---	42.22	54.00	11.78	V	6.1
10292.200000	52.41	---	74.00	21.59	V	6.1
17496.800000	54.97	---	74.00	19.03	H	10.4
17496.800000	---	43.86	54.00	10.14	H	10.4
17911.600000	52.06	---	74.00	21.94	H	11.5
17911.600000	---	45.92	54.00	8.08	H	11.5

1 GHz-18 GHz:**BLE (2 Mbps)****Low Channel: 2402 MHz****Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

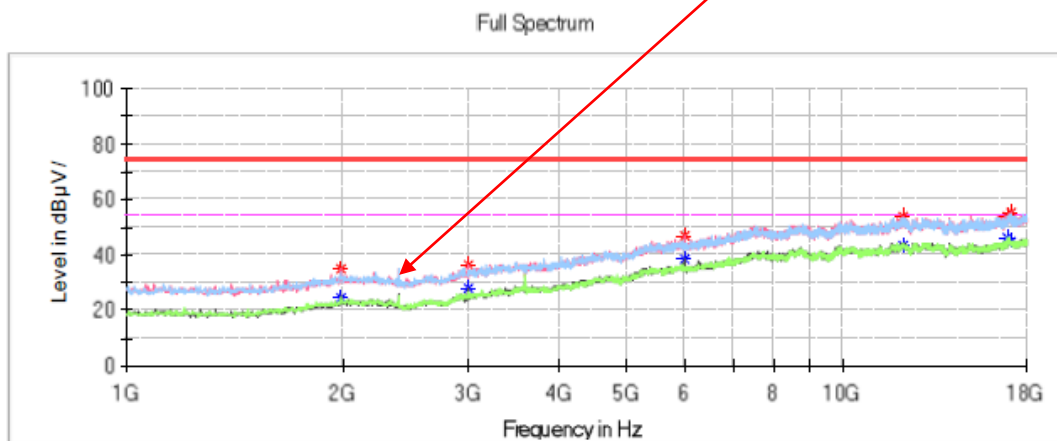
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1992.800000	35.03	---	74.00	38.97	V	-10.6
1992.800000	---	24.73	54.00	29.27	V	-10.6
2992.400000	---	26.52	54.00	27.48	V	-9.1
2992.400000	35.62	---	74.00	38.38	V	-9.1
5998.000000	47.18	---	74.00	26.82	V	-1.1
5998.000000	---	38.37	54.00	15.63	V	-1.1
11975.200000	---	42.43	54.00	11.57	H	8.0
11975.200000	54.63	---	74.00	19.37	H	8.0
17061.600000	54.80	---	74.00	19.20	H	11.2
17061.600000	---	44.81	54.00	9.19	H	11.2
17816.400000	---	46.10	54.00	7.90	V	11.3
17816.400000	54.20	---	74.00	19.80	V	11.3

Middle Channel: 2440 MHz**Common Information**

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Fundamental Test with
Band Reject Filter

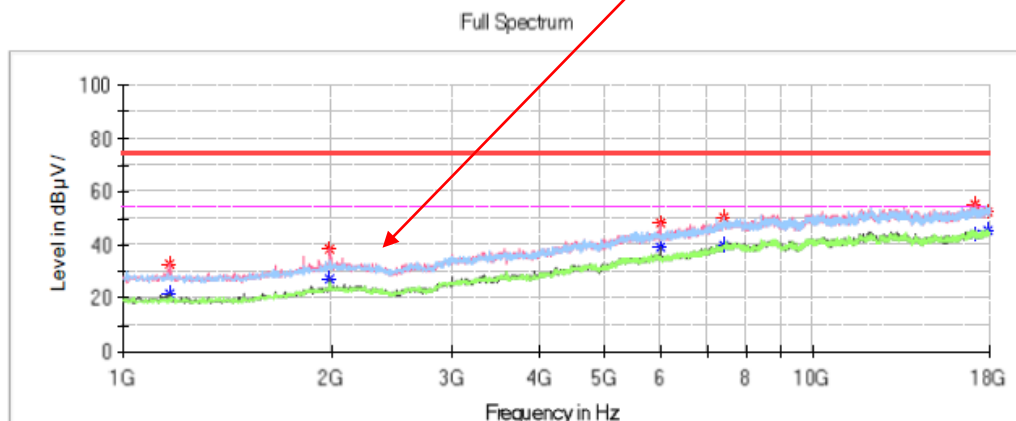
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1989.400000	---	24.42	54.00	29.58	V	-10.6
1989.400000	34.97	---	74.00	39.03	V	-10.6
2989.000000	---	28.19	54.00	25.81	V	-9.1
2989.000000	36.04	---	74.00	37.96	V	-9.1
5998.000000	---	38.53	54.00	15.47	V	-1.1
5998.000000	46.95	---	74.00	27.05	V	-1.1
12080.600000	---	43.33	54.00	10.67	H	8.1
12080.600000	53.50	---	74.00	20.50	H	8.1
16952.800000	---	46.05	54.00	7.95	H	11.1
16952.800000	53.56	---	74.00	20.44	H	11.1
17085.400000	---	44.87	54.00	9.13	V	11.1
17085.400000	55.46	---	74.00	18.54	V	11.1

High Channel: 2480 MHz**Common Information**

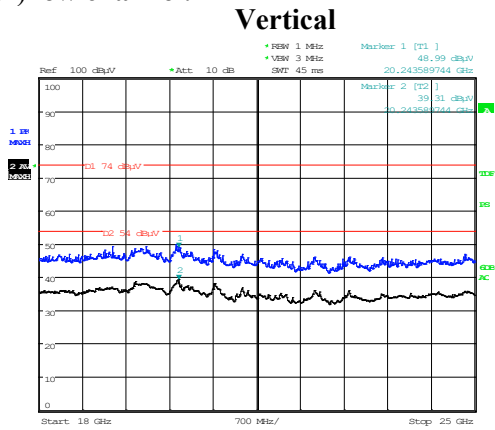
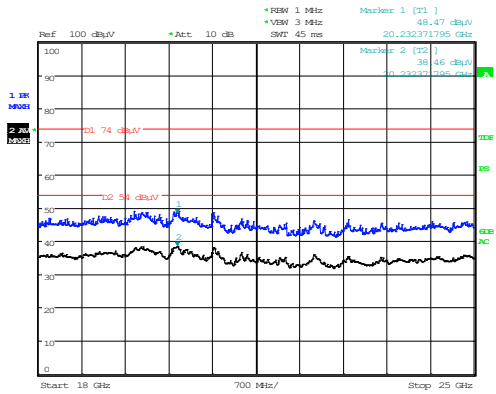
Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5℃
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1170.000000	32.54	---	74.00	41.46	V	-15.4
1170.000000	---	21.94	54.00	32.06	V	-15.4
1992.800000	---	27.10	54.00	26.90	V	-10.6
1992.800000	38.19	---	74.00	35.81	V	-10.6
5998.000000	48.05	---	74.00	25.95	V	-1.1
5998.000000	---	38.91	54.00	15.09	V	-1.1
7412.400000	---	40.11	54.00	13.89	H	2.7
7412.400000	50.66	---	74.00	23.34	H	2.7
17122.800000	55.47	---	74.00	18.53	V	11.1
17122.800000	---	43.95	54.00	10.05	V	11.1
17877.600000	52.40	---	74.00	21.60	V	11.4
17877.600000	---	45.79	54.00	8.21	V	11.4

18 GHz - 25 GHz :
Transmitting in maximum output power BLE (1 Mbps) low channel:



Project No :RKSA250519002
Date: 13.JUN.2025 17:48:33

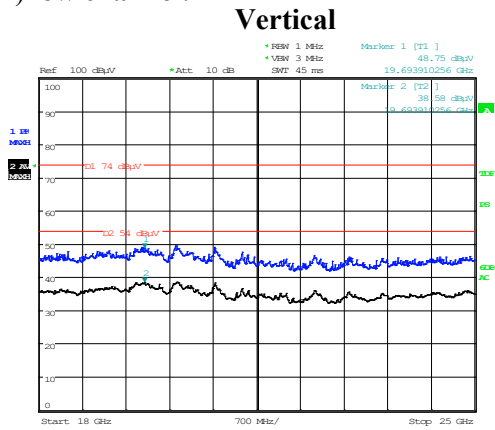
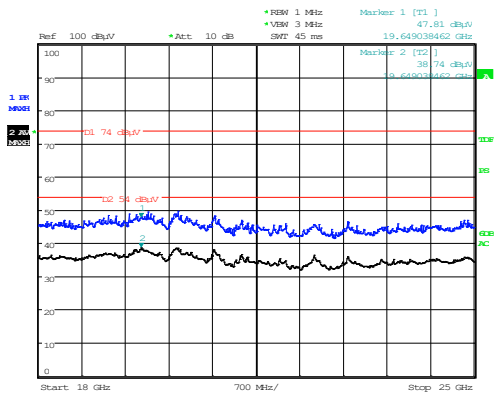
Tester :Rugh Wu

Project No :RKSA250519002
Date: 13.JUN.2025 18:24:14

Tester :Rugh Wu

Frequency (GHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.24	---	39.31	54	14.69	V	12.5
20.24	48.99	---	74	25.01	V	12.5
20.23	---	38.46	54	15.54	H	12.49
20.23	48.47	---	74	25.53	H	12.49

18 GHz - 25 GHz :
Transmitting in maximum output power BLE (2 Mbps) low channel:



Project No.: RKSA250519002
Date: 13.JUN.2025 18:56:39

Tester: Hugh Wu

Project No.: RKSA250519002
Date: 13.JUN.2025 19:32:11

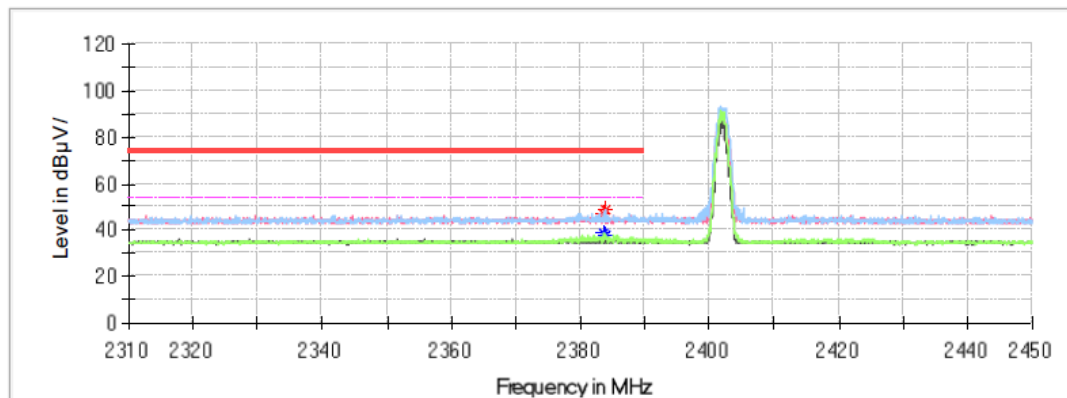
Tester: Hugh Wu

Frequency (GHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
19.69	---	38.58	54	15.42	V	11.38
19.69	48.75	---	74	25.25	V	11.38
19.65	---	38.74	54	15.26	H	11.27
19.65	47.81	---	74	26.19	H	11.27

RESTRICTED BANDS EMISSION:**BLE (1 Mbps)****Left Side****Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Full Spectrum

**Critical_Freqs**

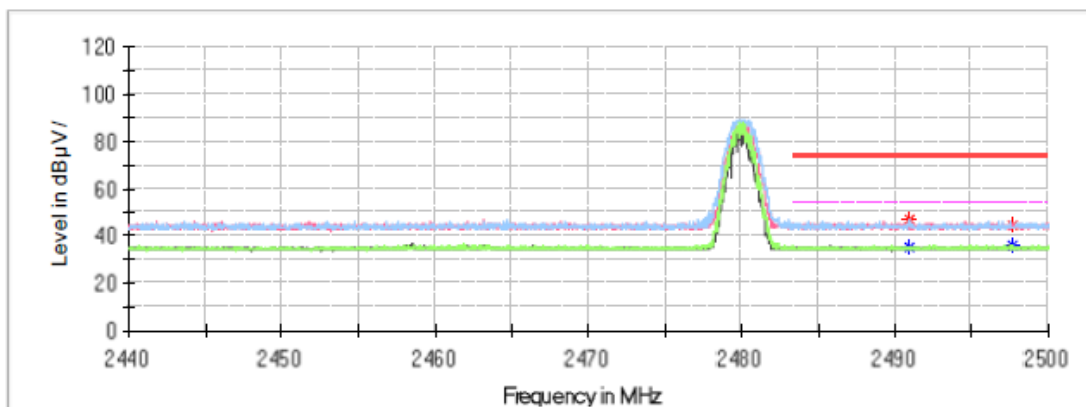
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2383.752000	46.59	---	74.00	27.41	H	-0.3
2383.752000	---	38.28	54.00	15.72	H	-0.3
2383.808000	48.41	---	74.00	25.59	H	-0.3
2383.808000	---	38.13	54.00	15.87	H	-0.3

Right Side

Common Information

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Full Spectrum



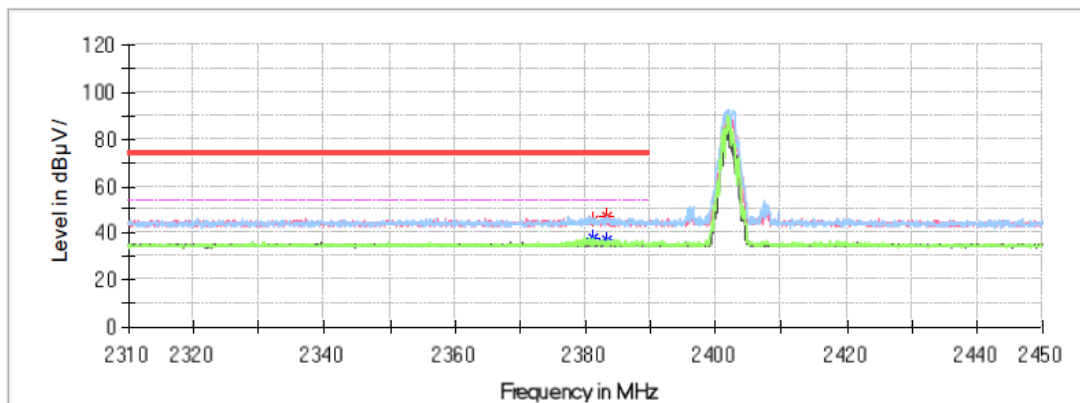
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2490.904000	46.99	---	74.00	27.01	H	-0.2
2490.904000	---	35.61	54.00	18.39	H	-0.2
2497.648000	44.07	---	74.00	29.93	V	-0.2
2497.648000	---	36.43	54.00	17.57	V	-0.2

BLE (2 Mbps)**Left Side****Common Information**

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5℃
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Full Spectrum

**Critical_Freqs**

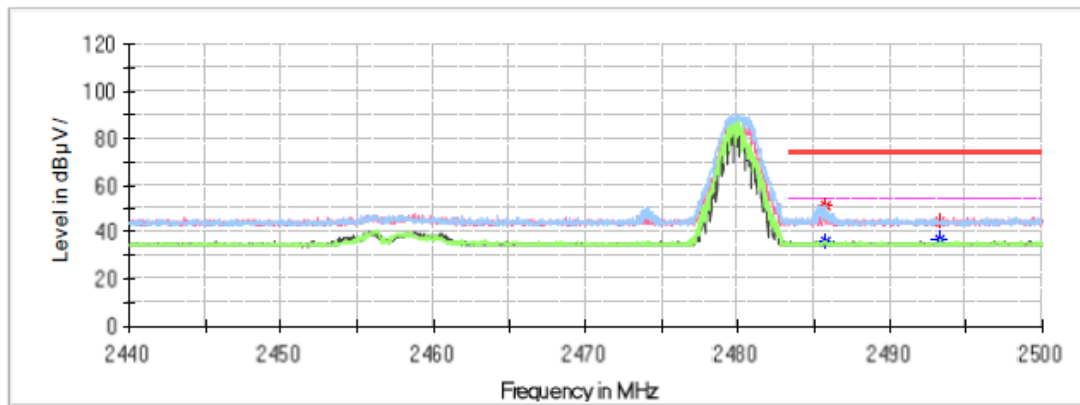
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2381.064000	---	38.06	54.00	15.94	H	-0.3
2381.064000	45.27	---	74.00	28.73	H	-0.3
2383.360000	---	36.76	54.00	17.24	H	-0.3
2383.360000	47.29	---	74.00	26.71	H	-0.3

Right Side

Common Information

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Full Spectrum



Critical Freqs

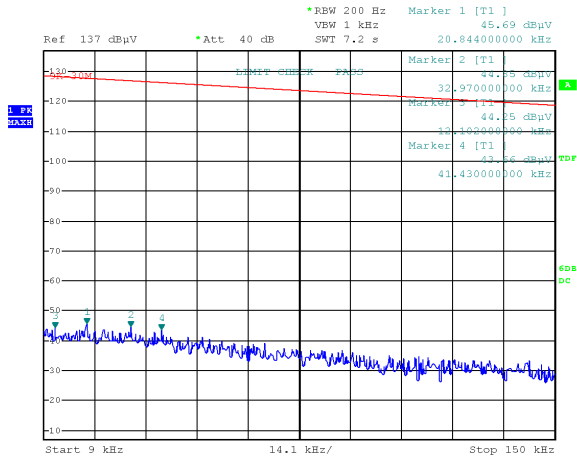
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2485.816000	51.54	---	74.00	22.46	H	-0.2
2485.816000	---	35.78	54.00	18.22	H	-0.2
2493.256000	44.71	---	74.00	29.29	V	-0.2
2493.256000	---	36.56	54.00	17.44	V	-0.2

Module 2

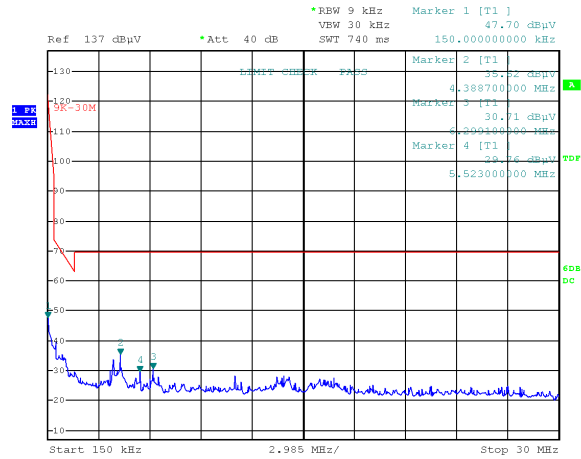
9 kHz-30MHz: Transmitting in maximum output power mode BLE (2 Mbps) middle channel(worst case)

Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



Project No. RKSA250519002
Date: 4.JUN.2025 16:06:33

Tester: Jonathan

Project No. RKSA250519002
Date: 4.JUN.2025 16:09:26

Tester: Jonathan

9 kHz-150 kHz

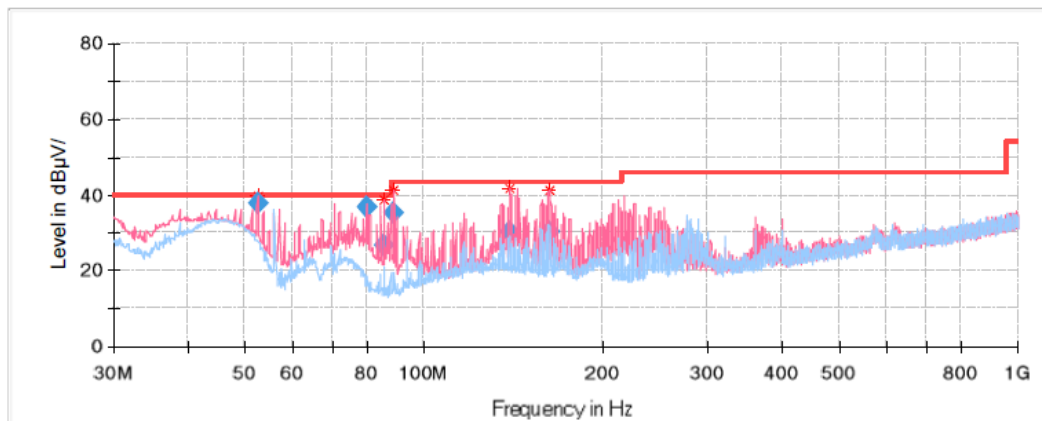
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.012102	44.25	PK	-0.52	125.95	81.70
0.020844	45.69	PK	-0.56	121.23	75.54
0.032970	44.85	PK	-1.09	117.24	72.39
0.041430	43.66	PK	-2.44	115.26	71.60

150 kHz-30 MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	47.7	PK	-11.34	104.08	56.38
4.38870	35.62	PK	-31.97	69.54	33.92
6.29910	30.71	PK	-32.26	69.54	38.83
5.52300	29.76	PK	-32.14	69.54	39.78

30 MHz - 1 GHz:**Transmitting in maximum output power BLE 2M middle channel (worse case)****Middle Channel: 2440 MHz****Common Information**

Project No: RKSA250519002
EUT Model: K100 Max US
Test Mode: Transmitting in BLE-2M mode middle channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 23.5°C
Humidity: 45%
Barometric Pressure: 100.9 kPa
Test Engineer: Jonathan
Test Date: 2025/6/4

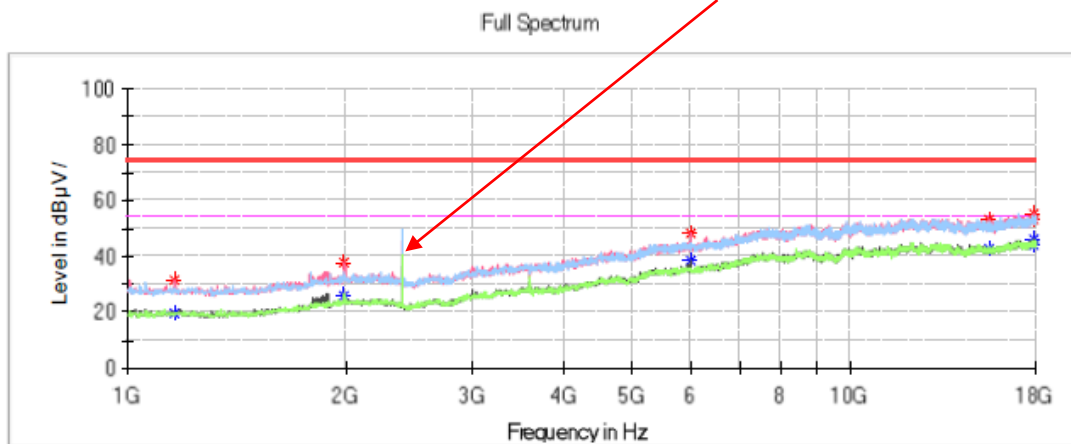
**Final Result**

Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.431250	37.72	40.00	2.28	V	-17.0
79.833750	36.87	40.00	3.13	V	-17.1
85.532500	26.52	40.00	13.48	V	-17.0
89.048750	35.17	43.50	8.33	V	-16.9
139.246250	30.43	43.50	13.07	V	-11.2
162.162500	30.29	43.50	13.21	V	-12.2

1 GHz-18 GHz:**BLE (1 Mbps)****Low Channel: 2402 MHz****Common Information**

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Fundamental Test with
Band Reject Filter

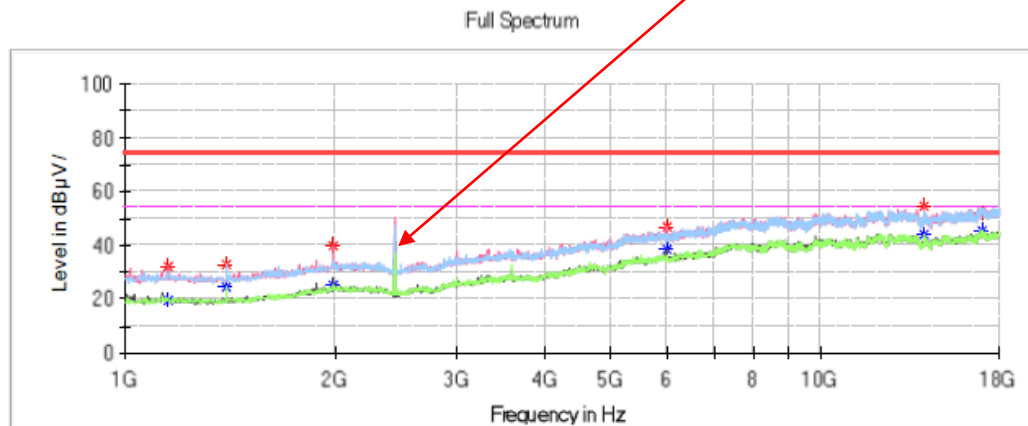
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1163.200000	31.57	---	74.00	42.43	V	-15.4
1163.200000	---	19.73	54.00	34.27	V	-15.4
1992.800000	---	25.55	54.00	28.45	V	-10.6
1992.800000	37.92	---	74.00	36.08	V	-10.6
5998.000000	48.24	---	74.00	25.76	V	-1.1
5998.000000	---	38.35	54.00	15.65	V	-1.1
15490.800000	---	42.43	54.00	11.57	V	8.8
15490.800000	53.47	---	74.00	20.53	V	8.8
17918.400000	53.39	---	74.00	20.61	V	11.5
17918.400000	---	46.07	54.00	7.93	V	11.5
17925.200000	55.22	---	74.00	18.78	H	11.6
17925.200000	---	44.18	54.00	9.82	H	11.6

Middle Channel: 2440 MHz**Common Information**

Project No.: RKSA250519002
EUT Model: K100 Max US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.5°C
Humidity: 53%
Atmospheric Pressure: 101.3kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/11

Fundamental Test with
Band Reject Filter

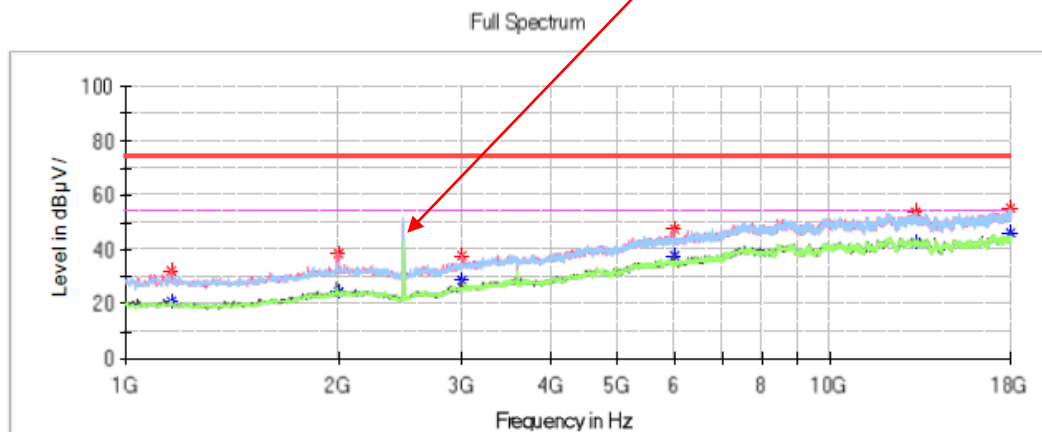
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1156.400000	---	19.52	54.00	34.48	V	-15.4
1156.400000	32.25	---	74.00	41.75	V	-15.4
1397.800000	32.88	---	74.00	41.12	H	-14.9
1397.800000	---	24.40	54.00	29.60	H	-14.9
1989.400000	---	25.28	54.00	28.72	V	-10.6
1989.400000	40.06	---	74.00	33.94	V	-10.6
5998.000000	47.07	---	74.00	26.93	V	-1.1
5998.000000	---	38.45	54.00	15.55	V	-1.1
14018.600000	---	44.17	54.00	9.83	H	8.8
14018.600000	54.35	---	74.00	19.65	H	8.8
17017.400000	52.08	---	74.00	21.92	V	11.2
17017.400000	---	45.47	54.00	8.53	V	11.2

High Channel: 2480 MHz**Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

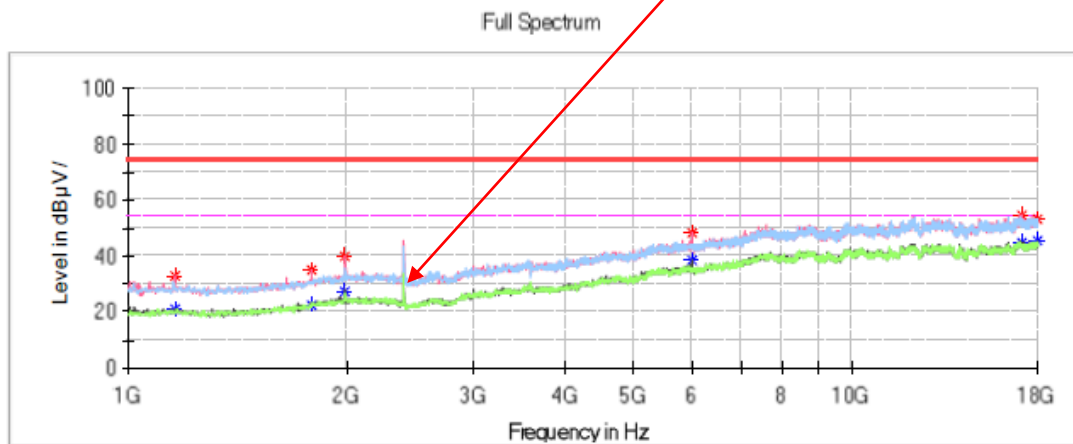
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	---	20.88	54.00	33.12	V	-15.4
1159.800000	32.49	---	74.00	41.51	V	-15.4
1999.600000	38.59	---	74.00	35.41	V	-10.5
1999.600000	---	24.42	54.00	29.58	V	-10.5
2992.400000	37.90	---	74.00	36.10	V	-9.1
2992.400000	---	28.83	54.00	25.17	V	-9.1
5998.000000	---	37.75	54.00	16.25	V	-1.1
5998.000000	47.71	---	74.00	26.29	V	-1.1
13195.800000	---	42.74	54.00	11.26	H	8.6
13195.800000	54.17	---	74.00	19.83	H	8.6
18000.000000	---	45.84	54.00	8.16	V	11.8
18000.000000	55.47	---	74.00	18.53	V	11.8

1 GHz-18 GHz:**BLE (2 Mbps)****Low Channel: 2404 MHz****Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5℃
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

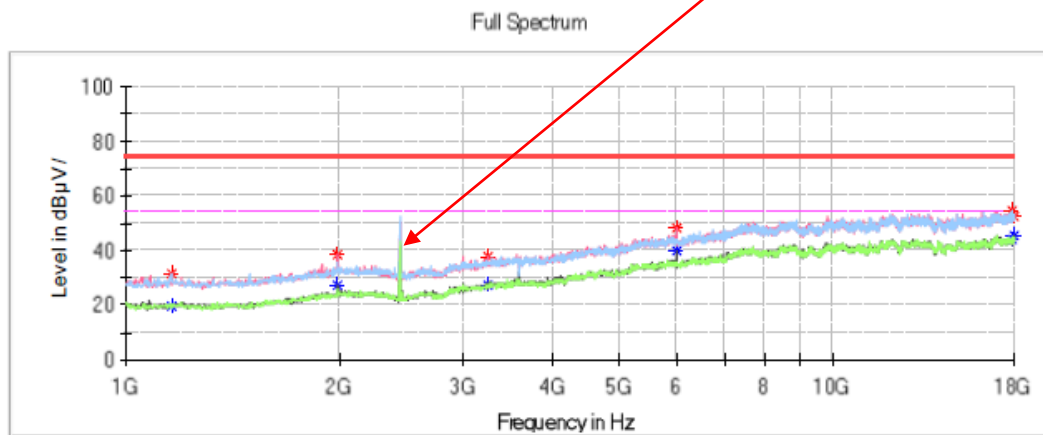
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	32.81	---	74.00	41.19	V	-15.4
1159.800000	---	20.78	54.00	33.22	V	-15.4
1792.200000	---	22.59	54.00	31.41	V	-12.3
1792.200000	34.95	---	74.00	39.05	V	-12.3
1989.400000	39.89	---	74.00	34.11	V	-10.6
1989.400000	---	27.06	54.00	26.94	V	-10.6
5998.000000	---	38.79	54.00	15.21	V	-1.1
5998.000000	48.14	---	74.00	25.86	V	-1.1
17163.600000	54.81	---	74.00	19.19	H	11.0
17163.600000	---	44.66	54.00	9.34	H	11.0
18000.000000	53.26	---	74.00	20.74	V	11.8
18000.000000	---	45.44	54.00	8.56	V	11.8

Middle Channel: 2440 MHz**Common Information**

Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

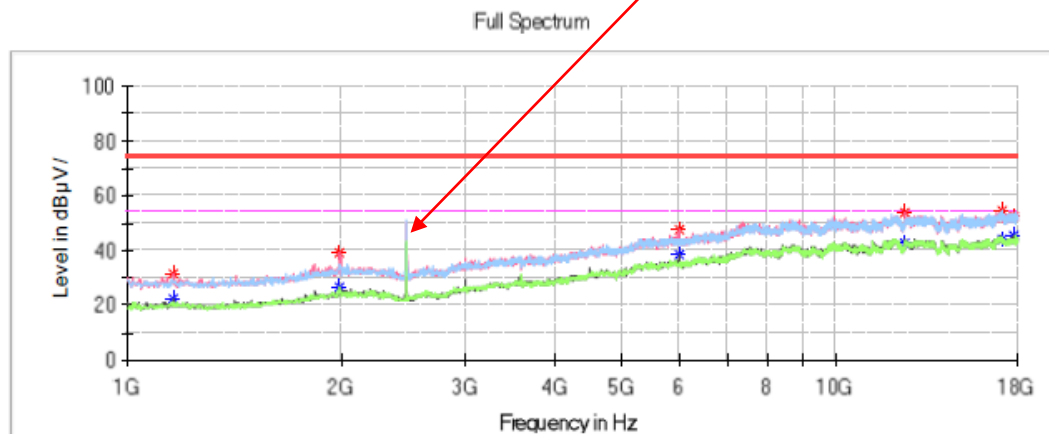
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	31.58	---	74.00	42.42	H	-15.4
1159.800000	---	19.24	54.00	34.76	H	-15.4
1992.800000	---	27.19	54.00	26.81	V	-10.6
1992.800000	38.17	---	74.00	35.83	V	-10.6
3244.000000	38.07	---	74.00	35.93	V	-8.2
3244.000000	---	27.21	54.00	26.79	V	-8.2
5998.000000	---	39.64	54.00	14.36	V	-1.1
5998.000000	48.25	---	74.00	25.75	V	-1.1
17935.400000	54.89	---	74.00	19.11	H	11.6
17935.400000	---	44.35	54.00	9.65	H	11.6
17966.000000	52.19	---	74.00	21.81	V	11.7
17966.000000	---	45.80	54.00	8.20	V	11.7

High Channel: 2478 MHz**Common Information**

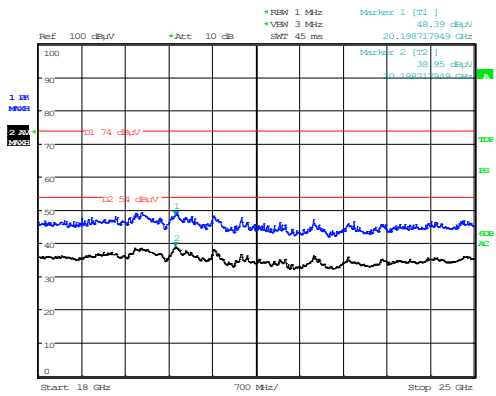
Project No.:	RKSA250519002
EUT Model:	K100 Max US
Test Mode:	BLE
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.5°C
Humidity:	53%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/11

Fundamental Test with
Band Reject Filter

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1163.200000	31.67	---	74.00	42.33	V	-15.4
1163.200000	---	22.52	54.00	31.48	V	-15.4
1992.800000	---	26.42	54.00	27.58	H	-10.6
1992.800000	39.08	---	74.00	34.92	H	-10.6
5998.000000	47.68	---	74.00	26.32	V	-1.1
5998.000000	---	38.76	54.00	15.24	V	-1.1
12515.800000	---	42.70	54.00	11.30	H	8.7
12515.800000	53.81	---	74.00	20.19	H	8.7
17133.000000	54.56	---	74.00	19.44	H	11.0
17133.000000	---	43.84	54.00	10.16	H	11.0
17755.200000	52.25	---	74.00	21.75	V	11.1
17755.200000	---	45.44	54.00	8.56	V	11.1

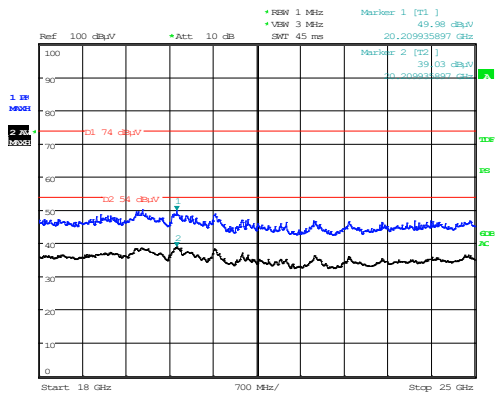
18 GHz - 25 GHz :
Transmitting in maximum output power BLE (1 Mbps) middle channel:
Horizontal



Project No :RKSA250519002
Date: 13.JUN.2025 21:49:32

Tester :Rugh Wu

Vertical



Project No :RKSA250519002
Date: 13.JUN.2025 22:24:14

Tester :Rugh Wu

Frequency (GHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.21	---	39.03	54	14.97	V	12.47
20.21	49.98	---	74	24.02	V	12.47
20.20	---	38.95	54	15.05	H	12.46
20.20	48.39	---	74	25.61	H	12.46