



# FCC PART 15.247 TEST REPORT

For

# Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.

Building A2, Shangjinwan Headquarters Economic Park, No.2288, Wuzhong Avenue, Wuzhong Economic Development Zone, Suzhou Jiangsu P.R. China

FCC ID: 2A4GZ-N65IU600

Report Type: **Product Name:** NAVEE Electric Scooter Original Report **Report Number:** RKSA240822001-00A **Report Date:** 2024-11-21 Pard lin Oscar Yo **Reviewed By:** Bard Liu **Approved By:** Oscar Ye Bay Area Compliance Laboratories Corp. (Kunshan) **Prepared By:** No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

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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# Bay Area Compliance Laboratories Corp. (Kunshan) Report No.: RKSA240822001-00A APPLICABLE STANDARD 22 TEST PROCEDURE 22 TEST DATA: SEE APPENDIX 22 FCC §15.247(e) - POWER SPECTRAL DENSITY 23 APPLICABLE STANDARD 23 TEST PROCEDURE 23 TEST DATA: SEE APPENDIX 23 EUT PHOTOGRAPHS 24 TEST SETUP PHOTOGRAPHS 25 APPENDIX - TEST DATA 26 ENVIRONMENTAL CONDITIONS & TEST INFORMATION 26 AC LINE CONDUCTED EMISSIONS 27

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# REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240822001-00A	R1V1	2024-11-21	Initial Release

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#### **GENERAL INFORMATION**

#### **Product Description for Equipment under Test (EUT)**

Applicant:	Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.
Tested Model:	N65i-U
Product Name:	NAVEE Electric Scooter
Power Supply:	DC 46.8V from Battery
RF Function:	BLE
Operating Band/Frequency:	2402-2480MHz
Maximum Output Power:	BLE (1 Mbps): 5.87 dBm BLE (2 Mbps): 5.99 dBm
Channel Number:	40
Channel Separation:	2 MHz
Modulation Type	GFSK
Antenna Type:	PCB Antenna
★Maximum Antenna Gain:	0.2 dBi

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Adapter information Model: FY-5461500

Input: 100-240V~50/60Hz 2.5A

Output: DC 54.6V 1.5A

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: RKSA240822001-1 (Assigned by BACL (Kunshan). The EUT supplied by the applicant was received on 2024-08-22.)

#### **Objective**

This report is prepared for *Brightway Innovation Intelligent Technology (Suzhou) Co., 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 C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and FCC KDB 558074 D01 15.247 Meas Guidance v05r02.

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#### **Measurement Uncertainty**

	Item	Uncertainty
AC Power Line	es Conducted Emissions	3.19 dB
RF conducte	ed test with spectrum	0.9 dB
RF Output Po	wer with Power meter	0.5 dB
	9 kHz~150 kHz	3.8 dB
	150 kHz~30 MHz	3.4 dB
Dedicted emissions	30MHz~1GHz	6.11 dB
Radiated emissions	1GHz~6GHz	4.45 dB
	6GHz~18GHz	5.23 dB
	18GHz~40GHz	5.65 dB
Occupied Bandwidth		0.5 kHz
Temperature		1.0 ℃
	Humidity	6 %

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#### **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.

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# **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	/	/

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EUT was tested with channel 0, 19 and 39.

#### **EUT Exercise Software**

RF Test Tool: RTL8762x\_RFTestTool.exe

★Power level: Default

Note: The power level was declared by the applicant.

#### **Special Accessories**

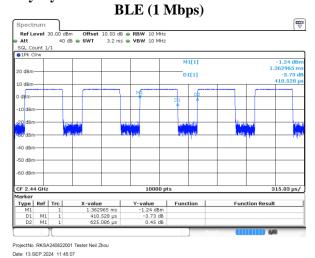
No special accessory.

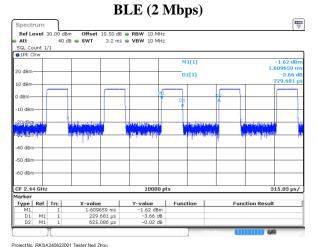
#### **Equipment Modifications**

No modification was made to the EUT tested.

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# **Duty Cycle:**





ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:08:40

Mode	Duty Cycle (%)	Ton(ms)	T <sub>on+off</sub> (ms)	10log(1/x)
BLE (1 Mbps)	65.76	0.411	0.625	1.82
BLE (2 Mbps)	36.80	0.230	0.625	4.34

**Note**: "x" means the Duty Cycle.

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#### **Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
/	/	/	/

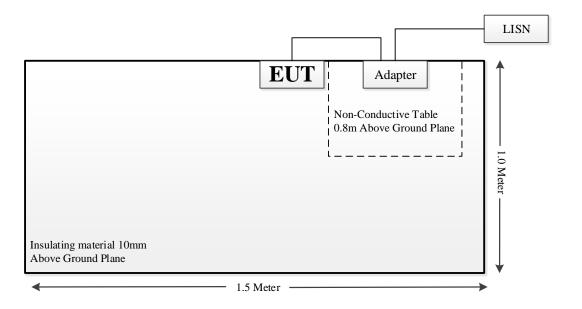
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#### **External I/O Cable**

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

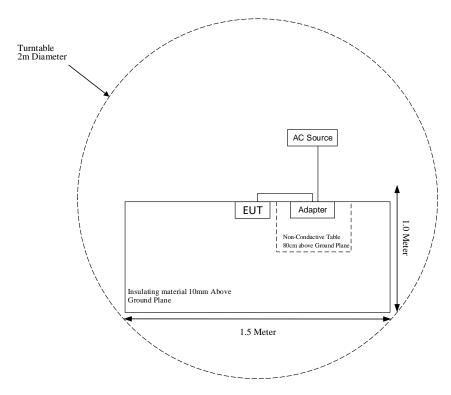
#### **Block Diagram of Test Setup**

For Conducted Emissions:



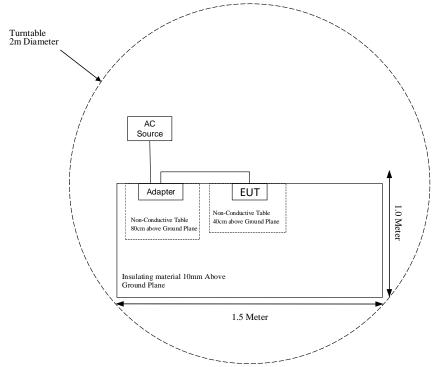
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#### For Radiated Emissions(Below 1GHz):



#### For Radiated Emissions(Above 1GHz):

Note: the EUT Antenna 1.5m above Ground Plane



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# 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	2024-04-23	2025-04-22		
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2023-11-11	2024-11-10		
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08		
Narda	6 dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10		
Sonoma Instrument	Pre-amplifier	310N	171205	2024-04-23	2025-04-22		
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A		
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-23	2025-04-22		
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22		
	Radiated	Emission Test (Cha	mber #2)				
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24		
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01		
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2024-12-07		
A.H.Systems,inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24		
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2024-04-23	2025-04-22		
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22		
SELECTOR	Amplifier	EM18G40G	60726	2024-04-25	2025-04-24		
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A		
MICRO-COAX	Coaxial Cable	Cable-6	006	2024-04-25	2025-04-24		
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24		
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24		
		<b>RF</b> Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	103298	2024-04-24	2025-04-23		
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22		
XHFDZ	RG178 Coaxial Cable	SMA-178	XHF-1102	Each time	N/A		
Conducted Emission Test							
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2024-04-23	2025-04-22		
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22		
Audix	Test Software	e3	V9	N/A	N/A		
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2024-04-23	2025-04-22		
MICRO-COAX	Coaxial Cable	Cable-15	015	2024-04-23	2025-04-22		

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**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).

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# SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§ 1.1307 (b) (3) &§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

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#### 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.

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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  $\leq$  50 mm are determined by:

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

- f(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  $\leq 50$  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**

Mode	Frequency Range (MHz)	Max Tune-up Conducted Power		Calculated Distance	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
	(WIIIZ)	(dBm)	(mW)	(mm)	value	(1-g 5AK)	Exclusion
BLE	2402-2480	6.0	3.98	5.0	1.23	3.0	Yes

Result: So the standalone SAR evaluation is not necessary.

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# 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.

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#### **Antenna Connector Construction**

The EUT has a PCB antenna for BLE, and the antenna gain is 0.2 dBi, which is permanently attached to the unit, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant.

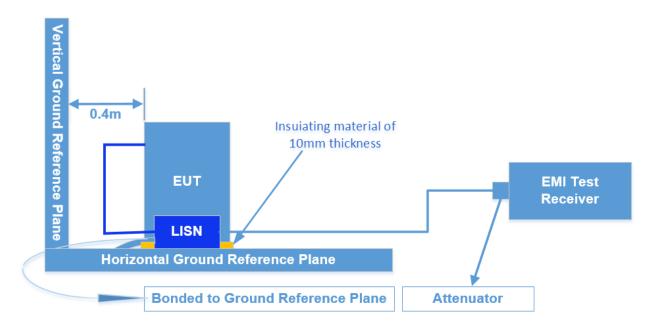
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# FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

#### **Applicable Standard**

FCC §15.207(a)

#### **Test System Setup**



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The measurement procedure of EUT setup is according with ANSI C63.10-2013. 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

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#### **Test Procedure**

ANSI C63.10-2013 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.

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#### **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 (dB\muV) = Read level (dB\muV) + 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 (dB $\mu$ V) - Limit (dB $\mu$ V)

#### **Test Results Summary**

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

**Test Data: See Appendix** 

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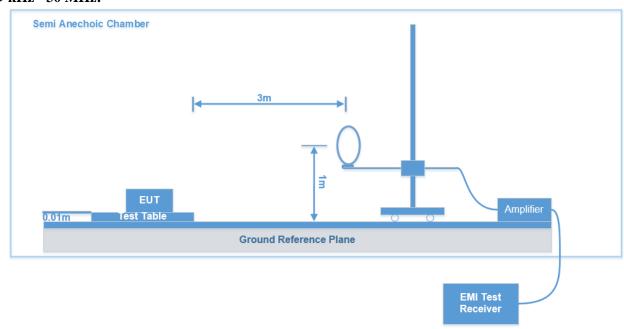
# FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

#### **Applicable Standard**

FCC §15.247 (d); §15.209; §15.205;

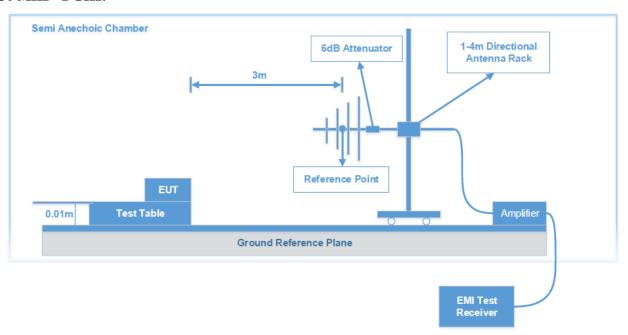
#### **Test System Setup**

#### 9 kHz - 30 MHz:



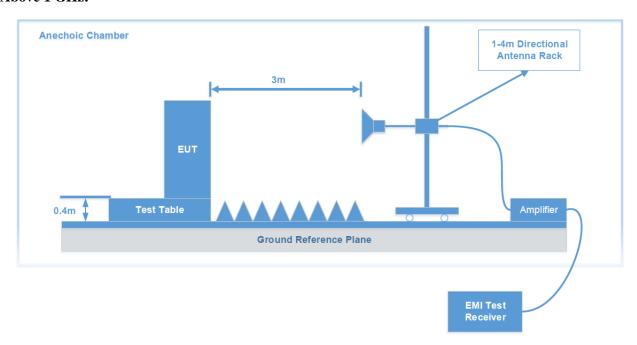
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#### 30 MHz - 1 GHz:



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#### 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 C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

#### **EMI Test Receiver Setup**

The system was investigated from 9 kHz to 25 GHz.

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

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

#### **Test Procedure**

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

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.

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#### **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:

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Corrected Amplitude ( $dB\mu V/m$ ) = Meter Reading ( $dB\mu V$ ) + Antenna Factor (dB/m) + Cable Loss (dB) - 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:

Margin (dB) = Limit (dB $\mu$ V/m) – Corrected Amplitude (dB $\mu$ V/m)

Note: The QuasiPeak ( $dB\mu V/m$ ), MaxPeak ( $dB\mu V/m$ ), Average ( $dB\mu V/m$ ) 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 <u>FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.</u>

**Test Data: See Appendix** 

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# FCC $\S15.247(a)$ (2) – 6 dB EMISSION BANDWIDTH

#### **Applicable Standard**

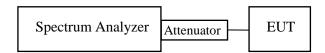
Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

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#### **Test Procedure**

According to ANSI C63.10-2013 sub-clause 11.8.1

- 1. Set RBW = 100 kHz.
- 2. Set the video bandwidth (VBW)  $\geq$  3 \* RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



**Test Data: See Appendix** 

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

#### **Applicable Standard**

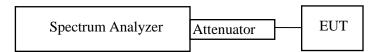
According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted 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.

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#### **Test Procedure**

According to ANSI C63.10-2013 sub-clause 11.9.1.1

- 1. Set the RBW  $\geq$  DTS bandwidth.
- 2. Set  $VBW \ge 3 * RBW$ .
- 3. Set span  $\geq$  3 \* RBW
- 4. Sweep time = auto couple.
- 5. Detector = peak.
- 6. Trace mode = max hold.
- 7. Allow trace to fully stabilize.
- 8. Use peak marker function to determine the peak amplitude level.



**Test Data: See Appendix** 

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#### **FCC §15.247(d) – BAND EDGE**

#### **Applicable Standard**

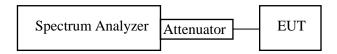
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

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#### **Test Procedure**

According to ANSI C63.10-2013 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.



**Test Data: See Appendix** 

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### 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.

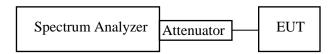
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#### **Test Procedure**

According to ANSI C63.10-2013 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:

- 1. Set the RBW to:  $3kHz \le RBW \le 100 \text{ kHz}$ .
- 2. Set the VBW  $\geq$  3\*RBW.
- 3. Set the span to 1.5 times the DTS bandwidth.
- 4. Detector = peak.
- 5. Sweep time = auto couple.
- 6. Trace mode = max hold.
- 7. Allow trace to fully stabilize.
- 8. Use the peak marker function to determine the maximum amplitude level within the RBW.
- 9. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



**Test Data: See Appendix** 

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# **EUT PHOTOGRAPHS**

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

Report No.: RKSA240822001-00A

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# **TEST SETUP PHOTOGRAPHS**

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

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# APPENDIX - TEST DATA

# **Environmental Conditions & Test Information**

Total Manne	AC LINE		SPURIOUS EMISSI	DUTY CYCLE	
Test Item:	CONDUCTED EMISSIONS	9kHz - 1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz	DUTT CTCLE
Test Date:	2024-09-04	2024-09-07 to 2024-09-08	2024-09-08	2024-09-24	2024-09-13
Temperature:	27.1 °C	25.4 °C - 25 °C	25 ℃	25.8 ℃	24 ℃
Relative Humidity:	56 %	40 % - 44 %	40 %	50 %	52 %
ATM Pressure:	100.9 kPa	100.9 kPa - 101.2 kPa	100.5 kPa	100.3 kPa	101.0 kPa
Test Result:	Pass	Pass	Pass	Pass	/
Test Engineer:	Leah Li	Grace Luo	Klein Zhu	Hugh Wu	Neil Zhou

Report No.: RKSA240822001-00A

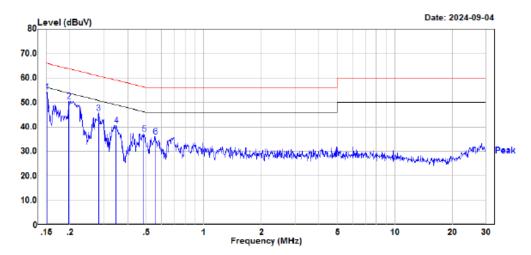
Test Item:	6 DB EMISSION BANDWIDTH	MAXIMUM CONDUCTED OUTPUT POWER	BAND EDGE	POWER SPECTRAL DENSITY
Test Date:	2024-09-13	2024-09-13	2024-09-13 to 2024-09-26	2024-09-13
Temperature:	25.6 °C	25.6 °C	23 °C - 25.6 °C	25.6 ℃
Relative Humidity:	49 %	49 %	45 % - 49 %	49 %
ATM Pressure:	100.6 kPa	100.6 kPa	100.6 kPa – 101.0kPa	100.6 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Neil Zhou	Neil Zhou	Neil Zhou	Neil Zhou

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#### **AC LINE CONDUCTED EMISSIONS**

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

#### **AC 120V/60 Hz, Line**



Site : CE

Condition : limit\FCC PART 15.207

: DET:Peak

Project No. : RKSA240822001

Model : N65i-U Phase : L

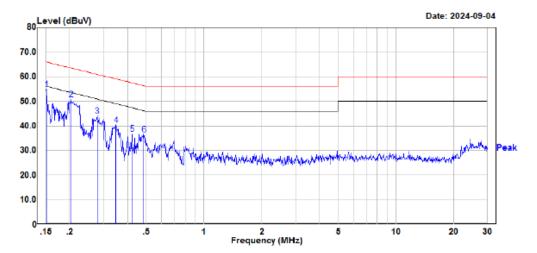
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR
Temperature : 27.1°C
Humidity : 56%

Atmospheric pressure: 100.9kPa Test Engineer : Leah Li

		Read			Limit	over		
	Freq	Level	Factor	Level	Line	Limit	Remark	
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.152	34.34	20.12	54.46	65.92	-11.46	Peak	
2	0.197	30.41	20.11	50.52	63.72	-13.20	Peak	
3	0.282	25.63	20.16	45.79	60.74	-14.95	Peak	
4	0.348	20.50	20.19	40.69	59.00	-18.31	Peak	
5	0.486	17.17	20.16	37.33	56.23	-18.90	Peak	
6	0.556	15.99	20.11	36.10	56.00	-19.90	Peak	

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#### AC 120V/60 Hz, Neutral



Site : CE

Condition : limit\FCC PART 15.207

: DET:Peak

Project No. : RKSA240822001

: N65i-U Model Phase

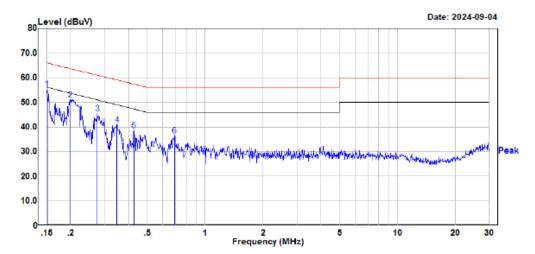
Voltage : 120V/60Hz Mode : BLE 1M Test Equipment : ENV216,ESR Temperature : 27.1℃ Humidity : 56% Atmospheric pressure: 100.9kPa Test Engineer

Read Limit Over Freq Level Factor Level Line Limit Remark dBuV MHZ dB dBuV dBuV dΒ 0.152 20.12 54.84 65.92 -11.08 Peak 34.72 0.203 30.63 20.11 50.74 63.47 -12.73 Peak 0.278 23.77 20.15 43.92 60.87 -16.95 Peak 4 0.348 20.21 20.19 40.40 59.00 -18.60 Peak 5 0.423 16.54 20.21 36.75 57.39 -20.64 Peak 0.486 16.37 20.16 36.53 56.23 -19.70 Peak

: Leah Li

FCC Part 15.247 Page 28 of 57 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. : RKSA240822001

Model : N65i-U Phase : L

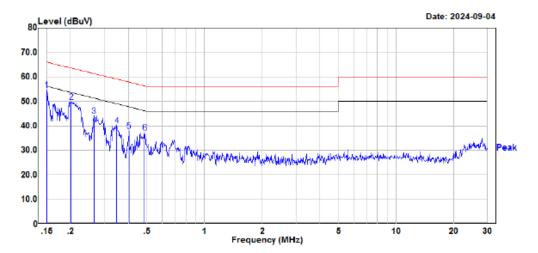
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR
Temperature : 27.1°C
Humidity : 56%

Atmospheric pressure: 100.9kPa Test Engineer : Leah Li

		Read			Limit	0ver	
	Freq	Level	Factor	Level	Line	Limit	Remark
-	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.151	35.26	20.12	55.38	65.96	-10.58	Peak
2	0.198	30.83	20.11	50.94	63.68	-12.74	Peak
3	0.276	25.25	20.15	45.40	60.95	-15.55	Peak
4	0.348	20.78	20.19	40.97	59.00	-18.03	Peak
5	0.427	18.35	20.22	38.57	57.31	-18.74	Peak
6	0.693	16.37	20.07	36.44	56.00	-19.56	Peak

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#### AC 120V/60 Hz, Neutral



Site : CE

Condition : limit\FCC PART 15.207

: DET:Peak

Project No. : RKSA240822001

Model : N65i-U Phase : N

Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR
Temperature : 27.1°C
Humidity : 56%
Atmospheric pressure: 100.9kPa
Test Engineer : Leah Li

		Read			Limit	over	
	Freq	Level	Factor	Level	Line	Limit	Remark
_	MHZ	dBuV	dB	dBuV	dBuV	dB	
1	0.150	34.42	20.12	54.54	66.00	-11.46	Peak
2	0.201	29.60	20.11	49.71	63.56	-13.85	Peak
3	0.265	23.96	20.15	44.11	61.28	-17.17	Peak
4	0.348	19.95	20.19	40.14	59.00	-18.86	Peak
5	0.402	17.78	20.20	37.98	57.80	-19.82	Peak
6	0.486	17.05	20.16	37.21	56.23	-19.02	Peak

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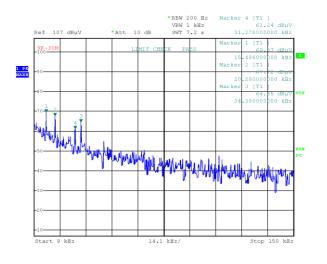
#### **SPURIOUS EMISSIONS**

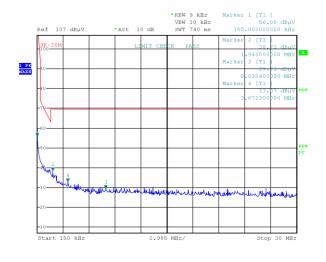
Test Result: Compliant.

EUT operation mode: Transmitting

After pre-scan in the X and Y axes of orientation, the worst case in the X axes of orientation is below:

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





Project No.RKSA240822001 Date: 8.SEP.2024 01:54:57 Tester:Grace Luo

Project No.RKSA240822001 Date: 8.SEP.2024 01:12:05 Tester:Grace Luo

Report No.: RKSA240822001-00A

Frequency	Corrected Amplitude	Detector	Corrected Factor	Limit	Limit	Margin
(MHz)	(dBμV/m) @3m	PK/QP/Ave.	(dB/m)	(dBμV/m @ 30m)	(dBµV/m @ 3m)	(dB)
0.15000	56.00	PK	50.90	64.08	104.08	48.08
1.94100	38.71	PK	13.63	29.54	69.54	30.83
8.03040	29.73	PK	6.39	29.54	69.54	39.81
3.67230	33.07	PK	16.12	29.54	69.54	36.47

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# BLE (1 Mbps) 30 MHz - 1 GHz:

#### Low Channel: 2402 MHz

Report No.: RKSA240822001-00A

# **Common Information**

Project No: RKSA240822001

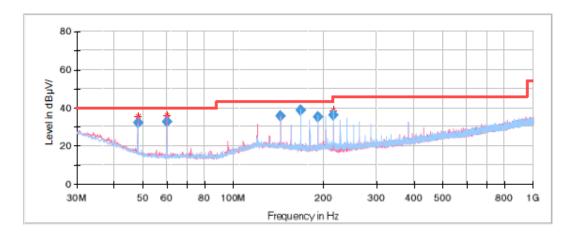
EUT Model: N65i-U

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

Temperature: 25.4℃ Humidity: 44% Barometric Pressure: 101.2kPa Test Engineer: Grace Luo Test Date: 2024/9/7



# **Final Result**

Frequency	QuasiPeak	Limit	Margin	Pol	Corr.
(MHz)	(dB <sub>µ</sub> V/m)	(dB <sub>µ</sub> V/m)	(dB)		(dB/m)
47.998100	32.32	40.00	7.68	V	-15.7
60.012050	32.66	40.00	7.34	V	-17.6
143.544300	35.72	43.50	7.78	V	-11.5
167.539100	38.68	43.50	4.82	Н	-12.5
191.332700	35.21	43.50	8.29	Н	-12.6
215.495600	36.40	43.50	7.10	Н	-13.2

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#### Middle Channel: 2440 MHz

# **Common Information**

Project No: RKSA240822001

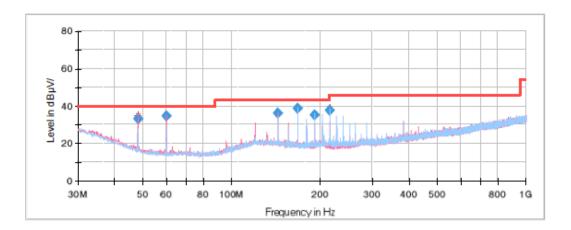
EUT Model: N65i-U

Test Mode: Transmitting in BLE-1M mode middle channel

Standard: FCC Part 15.205 &FCC Part 15.209&FCC Part 15.247

Test Equipment: ESCI, JB3, 310N

Temperature: 25.4 °C Humidity: 44% Barometric Pressure: 101.2kPa Test Engineer: Grace Luo Test Date: 2024/9/7



# **Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
48.005000	33.16	40.00	6.84	V	-15.7
59.991350	34.68	40.00	5.32	V	-17.6
143.513400	36.13	43.50	7.37	V	-11.5
167.467450	38.62	43.50	4.88	Н	-12.5
191.347100	34.97	43.50	8.53	Н	-12.6
215.396300	37.67	43.50	5.83	Н	-13.2

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# High Channel:2480 MHz

Report No.: RKSA240822001-00A

# **Common Information**

Project No: RKSA240822001

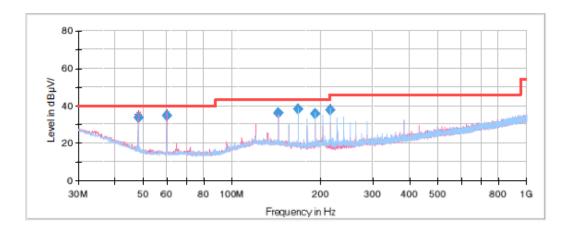
EUT Model: N65i-U

Test Mode: Transmitting in BLE-1M mode high channel

Standard: FCC Part 15.205 &FCC Part 15.209&FCC Part 15.247

Test Equipment: ESCI, JB3, 310N

Temperature: 25.4℃ Humidity: 44% Barometric Pressure: 101.2kPa Test Engineer: Grace Luo Test Date: 2024/9/7



# Final\_Result

Frequency	QuasiPeak	Limit	Margin	Pol	Corr.
(MHz)	(dBμ V/m)	(dBμ V/m)	(dB)		(dB/m)
48.003500	33.50	40.00	6.50	V	-15.7
59.997650	34.84	40.00	5.16	V	-17.6
143.594700	36.32	43.50	7.18	V	-11.5
167.433550	38.34	43.50	5.16	Н	-12.5
191.364850	35.74	43.50	7.76	Н	-12.6
215.253450	37.61	43.50	5.89	Н	-13.2

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# BLE (2 Mbps)

#### 30 MHz - 1 GHz:

#### Low Channel: 2402 MHz

Report No.: RKSA240822001-00A

# **Common Information**

Project No: RKSA240822001

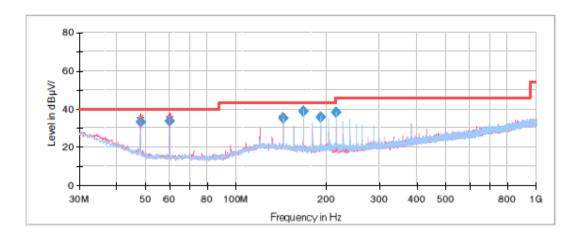
EUT Model: N65i-U

Test Mode: Transmitting in BLE-2M mode low channel

Standard: FCC Part 15.205 &FCC Part 15.209&FCC Part 15.247

Test Equipment: ESCI, JB3, 310N

Temperature: 25.4℃ Humidity: 44% Barometric Pressure: 101.2kPa Test Engineer: Grace Luo Test Date: 2024/9/7



# **Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
47.998400	33.38	40.00	6.62	V	-15.7
59.992550	33.85	40.00	6.15	V	-17.6
143.472300	35.46	43.50	8.04	V	-11.5
167.434150	38.82	43.50	4.68	H	-12.5
191.368450	35.70	43.50	7.80	Н	-12.6
215.260450	38.04	43.50	5.46	Н	-13.2

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#### Middle Channel: 2440 MHz

# **Common Information**

Project No: RKSA240822001

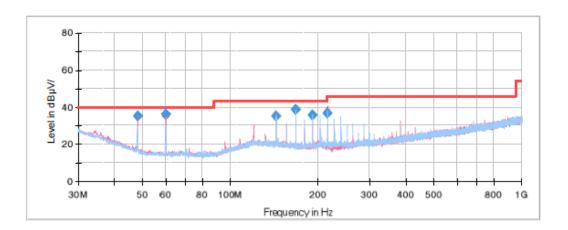
EUT Model: N65i-U

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

Temperature: 25.4°C
Humidity: 44%
Barometric Pressure: 101.2kPa
Test Engineer: Grace Luo
Test Date: 2024/9/7



#### **Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
47.995100	35.20	40.00	4.80	V	-15.7
60.012350	36.13	40.00	3.87	V	-17.6
143.583600	35.30	43.50	8.20	V	-11.5
167.440850	38.81	43.50	4.69	Н	-12.5
191.390050	35.63	43.50	7.87	Н	-12.6
215.335400	36.84	43.50	6.66	Н	-13.2

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### High Channel:2480 MHz

Report No.: RKSA240822001-00A

## **Common Information**

Project No: RKSA240822001

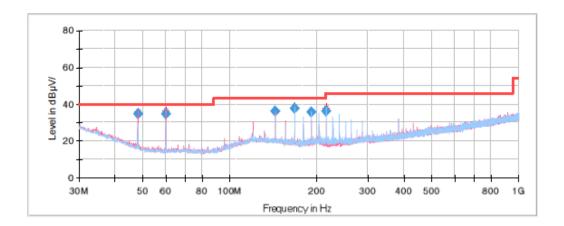
EUT Model: N65i-U

Test Mode: Transmitting in BLE-2M mode high channel

Standard: FCC Part 15.205 &FCC Part 15.209&FCC Part 15.247

Test Equipment: ESCI, JB3, 310N

Temperature: 25.4°C
Humidity: 44%
Barometric Pressure: 101.2kPa
Test Engineer: Grace Luo
Test Date: 2024/9/7



## **Final Result**

Frequency	QuasiPeak	Limit	Margin	Pol	Corr.
(MHz)	(dB <sub>µ</sub> V/m)	(dB <sub>μ</sub> V/m)	(dB)		(dB/m)
47.992100	34.89	40.00	5.11	V	-15.7
60.006350	34.64	40.00	5.36	V	-17.6
143.496350	36.37	43.50	7.13	V	-11.5
167.338750	37.87	43.50	5.63	Н	-12.5
191.482450	35.54	43.50	7.96	Н	-12.5
215.437150	36.30	43.50	7.20	Н	-13.2

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### BLE (1 Mbps) 1 GHz-18 GHz:

Low Channel: 2402 MHz

Report No.: RKSA240822001-00A

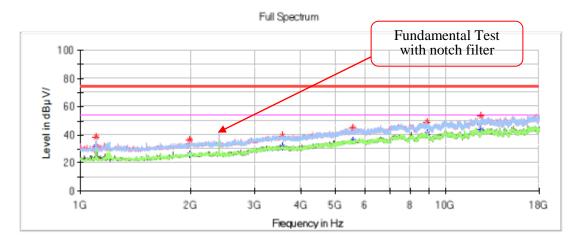
## **Common Information**

Project No.: RKSA240822001

Test Mode: BLE 1M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu



**Critical Freqs** 

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB µ V/m)	(dB µ V/m)	(dB µ V/m)	(dB)		(dB/m)
1102.000000	38.22		74.00	35.78	٧	-15.3
1102.000000		31.58	54.00	22.42	٧	-15.3
1989.400000	36.14	-	74.00	37.86	٧	-11.8
1989.400000		26.06	54.00	27.94	٧	-11.8
3556.800000	39.49	-	74.00	34.51	Н	-6.3
3556.800000		31.52	54.00	22.48	Н	-6.3
5557.700000		35.58	54.00	18.42	٧	-0.3
5557.700000	44.66		74.00	29.34	٧	-0.3
8865.900000	-	40.21	54.00	13.79	٧	5.4
8865.900000	48.67	1	74.00	25.33	٧	5.4
12512.400000	-	43.52	54.00	10.48	٧	9.7
12512.400000	52.94		74.00	21.06	V	9.7

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### Middle Channel: 2440 MHz

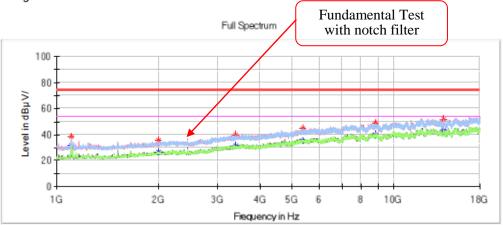
## **Common Information**

Project No.: Test Mode: RKSA240822001

BLE 1M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu



## Critical\_Freqs

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB μ V/m)	(dB µ V/m)	(dB µ V/m)	(dB)		(dB/m)
1102.000000		31.15	54.00	22.85	V	-15.3
1102.000000	38.60		74.00	35.40	V	-15.3
2001.300000		26.32	54.00	27.68	Н	-11.7
2001.300000	35.71		74.00	38.29	Н	-11.7
3398.700000		31.13	54.00	22.87	V	-6.8
3398.700000	39.80		74.00	34.20	V	-6.8
5382.600000		35.20	54.00	18.80	Н	-0.8
5382.600000	44.49		74.00	29.51	Н	-0.8
8809.800000		39.71	54.00	14.29	V	5.4
8809.800000	48.98		74.00	25.02	V	5.4
14049.200000		43.23	54.00	10.77	V	9.8
14049.200000	51.82		74.00	22.18	V	9.8

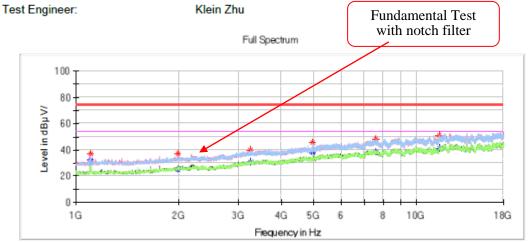
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## High Channel: 2480 MHz

## **Common Information**

Project No.: RKSA240822001 Test Mode: BLE 1M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209



**Critical Freqs** 

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB µ V/m)	(dB µ V/m)	(dB μ V/m)	(dB)		(dB/m)
1102.000000		31.89	54.00	22.11	V	-15.3
1102.000000	37.30		74.00	36.70	V	-15.3
1989.400000		25.44	54.00	28.56	V	-11.8
1989.400000	36.74		74.00	37.26	V	-11.8
3242.300000		30.43	54.00	23.57	Н	-7.4
3242.300000	39.71		74.00	34.29	Н	-7.4
4959.300000	-	37.64	54.00	16.36	Н	-2.6
4959.300000	45.56		74.00	28.44	Н	-2.6
7606.200000		38.24	54.00	15.76	Н	3.9
7606.200000	48.02		74.00	25.98	Н	3.9
11696.400000		41.22	54.00	12.78	Н	8.9
11696.400000	50.99		74.00	23.01	Н	8.9

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### **Restricted Bands Emission:**

### Left Side

Report No.: RKSA240822001-00A

## **Common Information**

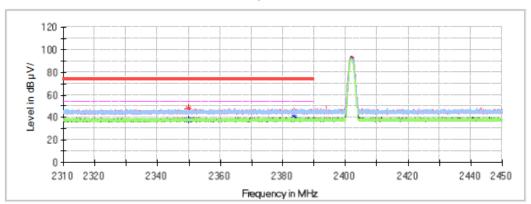
Project No.: Test Mode: Standard: RKSA240822001

BLE 1M

FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu

### Full Spectrum



## Critical\_Freqs

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB µ V/m)	(dB μ V/m)	(dB μ V/m)	(dB)		(dB/m)
2349.956000	47.89		74.00	26.11	V	-0.7
2349.956000		37.52	54.00	16.48	V	-0.7
2383.682000	45.16		74.00	28.84	V	-0.6
2383.682000		40.13	54.00	13.87	V	-0.6

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# Right Side

Report No.: RKSA240822001-00A

## **Common Information**

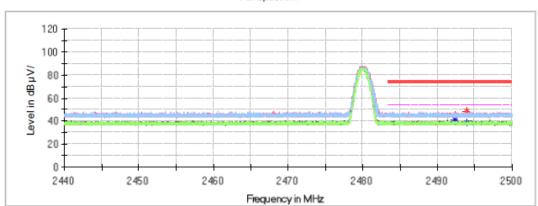
Project No.: RKSA240822001

Test Mode: BLE 1M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu

### Full Spectrum

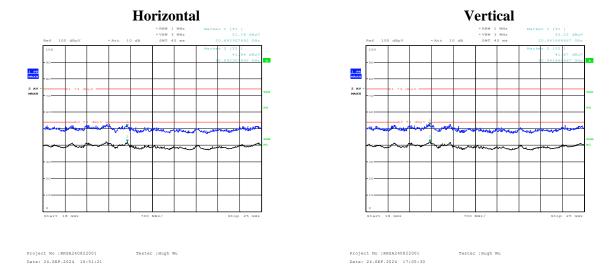


Critical\_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2492.356000		40.96	54.00	13.04	Н	-0.2
2492.356000	45.44		74.00	28.56	Н	-0.2
2493.964000		38.53	54.00	15.47	V	-0.2
2493.964000	48.42		74.00	25.58	V	-0.2

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## 18 GHz - 25 GHz (high channel was worst):



Note: The test distance is 3m. The limit is  $74dB\mu V/m$  (Peak) and  $54dB\mu V/m$  (Average)

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BLE (2 Mbps) 1GHz-18GHz:

Low Channel: 2402 MHz

Report No.: RKSA240822001-00A

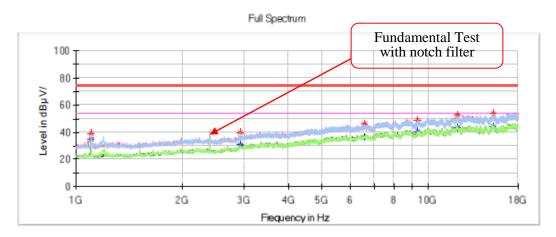
## **Common Information**

Project No.: RKSA240822001

Test Mode: BLE 2M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu



Critical Freqs

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB µ V/m)	(dB µ V/m)	(dB µ V/m)	(dB)		(dB/m)
1102.000000		35.13	54.00	18.87	V	-15.3
1102.000000	38.86		74.00	35.14	V	-15.3
2917.600000		30.75	54.00	23.25	Н	-8.7
2917.600000	39.86		74.00	34.14	Н	-8.7
6570.900000		36.48	54.00	17.52	V	0.8
6570.900000	45.87		74.00	28.13	V	0.8
9355.500000	-	40.58	54.00	13.42	Н	5.4
9355.500000	49.18	-	74.00	24.82	Н	5.4
12121.400000		43.45	54.00	10.55	V	9.1
12121.400000	52.64	-	74.00	21.36	V	9.1
15300.400000		44.32	54.00	9.68	V	9.6
15300.400000	53.70		74.00	20.30	V	9.6

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### Middle Channel: 2440 MHz

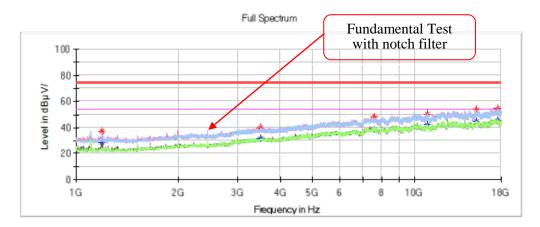
## **Common Information**

Project No.: RKSA240822001

Test Mode: BLE 2M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu



## Critical\_Freqs

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB μ V/m)	(dB µ V/m)	(dB μ V/m)	(dB)		(dB/m)
1192.100000		28.92	54.00	25.08	V	-15.2
1192.100000	37.15	-	74.00	36.85	V	-15.2
3507.500000		31.40	54.00	22.60	Н	-6.3
3507.500000	39.81		74.00	34.19	Н	-6.3
7596.000000		38.69	54.00	15.31	V	3.9
7596.000000	48.04		74.00	25.96	V	3.9
10900.800000		42.24	54.00	11.76	Н	7.3
10900.800000	50.62		74.00	23.38	Н	7.3
15269.800000		44.47	54.00	9.53	V	9.6
15269.800000	54.02		74.00	19.98	V	9.6
17600.500000		45.77	54.00	8.23	Н	11.6
17600.500000	54.33		74.00	19.67	Н	11.6

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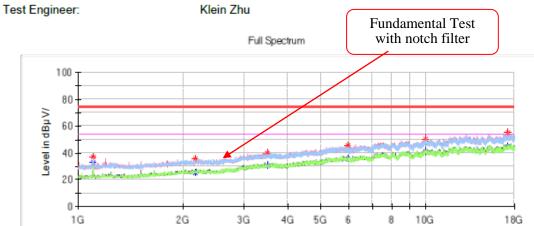
## High Channel: 2480 MHz

## **Common Information**

Project No.: RKSA240822001

Test Mode: BLE 2M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209



Frequency in Hz

Critical Freqs

	MauDaali	A	1 ::4	Mannin	D-I	C
Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(MHz)	(dB µ V/m)	(dB µ V/m)	(dB µ V/m)	(dB)		(dB/m)
1103.700000		32.89	54.00	21.11	V	-15.3
1103.700000	37.30		74.00	36.70	٧	-15.3
2167.900000		25.21	54.00	28.79	٧	-11.2
2167.900000	35.32		74.00	38.68	٧	-11.2
3493.900000		30.77	54.00	23.23	Н	-6.4
3493.900000	40.17		74.00	33.83	Н	-6.4
5984.400000		35.41	54.00	18.59	V	0.0
5984.400000	45.34		74.00	28.66	٧	0.0
9981.100000		41.46	54.00	12.54	Н	7.1
9981.100000	50.11		74.00	23.89	Н	7.1
17206.100000		44.56	54.00	9.44	٧	12.0
17206.100000	55.01		74.00	18.99	٧	12.0

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### **Restricted Bands Emission:**

### Left Side

Report No.: RKSA240822001-00A

### **Common Information**

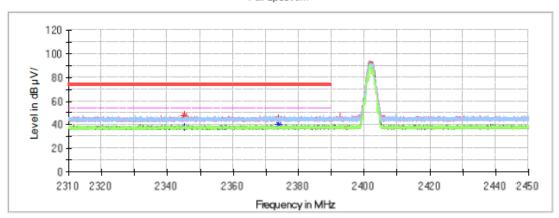
Project No.: RKSA240822001

Test Mode: BLE 2M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu

### 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)
	2345.224000	47.72		74.00	26.28	V	-0.7
Г	2345.224000		37.86	54.00	16.14	V	-0.7
	2373.840000	45.13		74.00	28.87	V	-0.6
	2373.840000		40.34	54.00	13.66	V	-0.6

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## **Right Side**

Report No.: RKSA240822001-00A

## **Common Information**

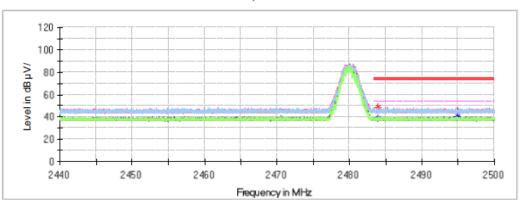
Project No.: RKSA240822001

Test Mode: BLE 2M

Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209

Test Engineer: Klein Zhu

#### Full Spectrum

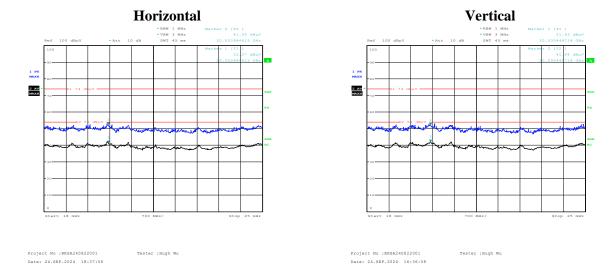


Critical\_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.932000	48.50		74.00	25.50	V	-0.3
2483.932000		38.51	54.00	15.49	V	-0.3
2494.984000	45.15		74.00	28.85	V	-0.2
2494.984000		40.41	54.00	13.59	V	-0.2

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## 18 GHz - 25 GHz (middle channel was worst):



Note: The test distance is 3m. The limit is  $74dB\mu V/m$  (Peak) and  $54dB\mu V/m$  (Average)

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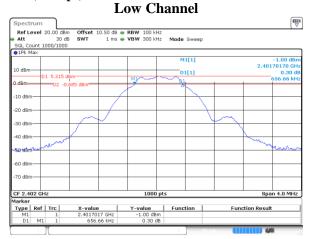
## 6 dB EMISSION BANDWIDTH

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
	Low	2402	0.657	≥0.5
BLE (1 Mbps)	Middle	2440	0.693	≥0.5
	High	2480	0.801	≥0.5
	Low	2402	1.129	≥0.5
BLE (2 Mbps)	Middle	2440	1.109	≥0.5
	High	2480	1.137	≥0.5

Report No.: RKSA240822001-00A

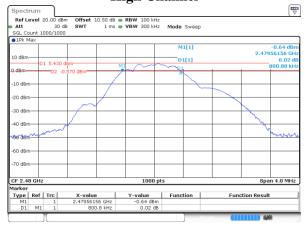
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#### BLE (1 Mbps)



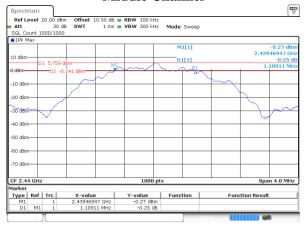
Date: 13.SEP.2024 11:38:42

### **High Channel**



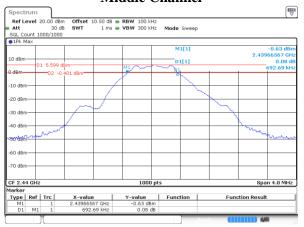
ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 11:46:32

#### **Middle Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:06:58

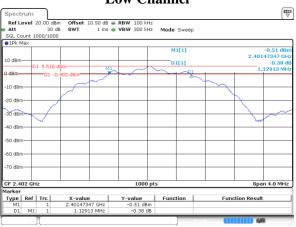
### Middle Channel



Date: 13.SEP.2024 11:43:36

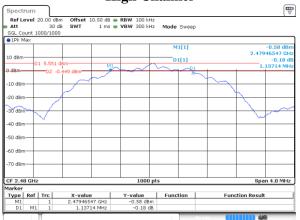
### BLE (2 Mbps)

### **Low Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:04:18

### **High Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou

Date: 13.SEP.2024 13:10:08

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## MAXIMUM CONDUCTED OUTPUT POWER

Test Result: Compliant.

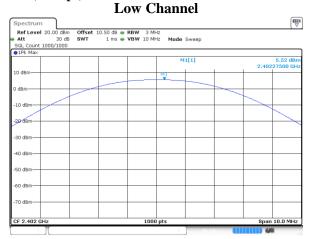
EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Limit (dBm)	Result
BLE (1 Mbps)	Low	2402	5.52	30	Pass
	Middle	2440	5.83	30	Pass
	High	2480	5.87	30	Pass
BLE (2 Mbps)	Low	2402	5.71	30	Pass
	Middle	2440	5.99	30	Pass
	High	2480	5.79	30	Pass

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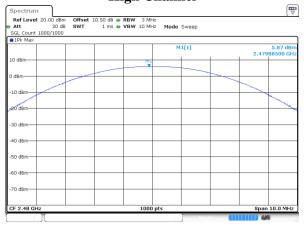
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### BLE (1 Mbps)



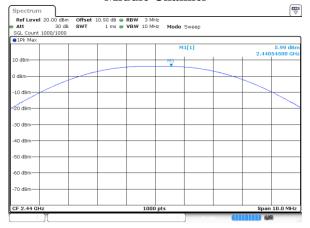
Date: 13.SEP.2024 11:41:59

### **High Channel**



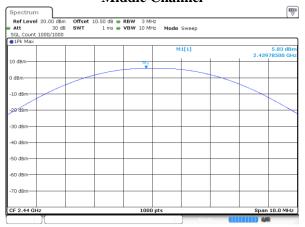
ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:02:30

### **Middle Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:08:51

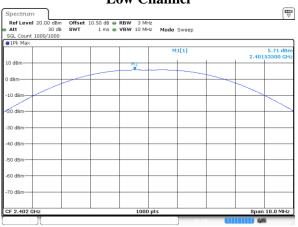
### **Middle Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 11:45:19

### BLE (2 Mbps)

### **Low Channel**



Date: 13.SEP.2024 13:05:50

### **High Channel**



Date: 13.SEP.2024 13:18:44

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## Report No.: RKSA240822001-00A

### **BAND EDGE**

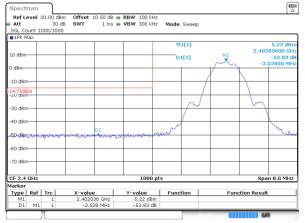
Test Result: Compliant.

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	Result (dBc)	Limit (dBc)	
BLE (1 Mbps)	Low	2402	53.83	20	
	High	2480	53.11		
BLE (2 Mbps)	Low	2402	32.19	20	
	High	2480	53.23	20	

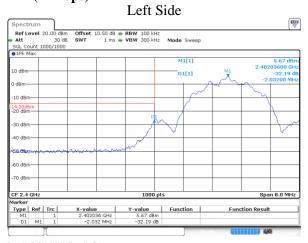
### BLE (1 Mbps)

### **Left Side**



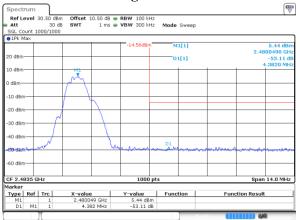
Date: 26.SEP.2024 16:55:27

### BLE (2 Mbps)



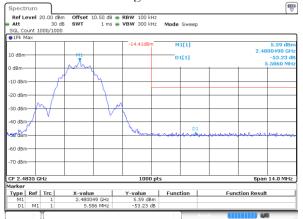
Date: 13.SEP.2024 13:04:05





Date: 13.SEP.2024 11:46:20

### Right Side



Date: 13.SEP.2024 13:09:54

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## POWER SPECTRAL DENSITY

Test Result: Compliant.

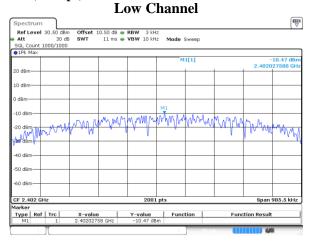
EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
BLE (1 Mbps)	Low	2402	-10.47	≤8
	Middle	2440	-8.90	≤8
	High	2480	-9.43	≤8
BLE (2 Mbps)	Low	2402	-11.98	≤8
	Middle	2440	-11.62	≤8
	High	2480	-11.47	≤8

Report No.: RKSA240822001-00A

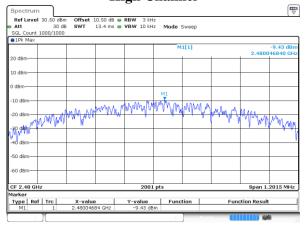
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#### BLE (1 Mbps)



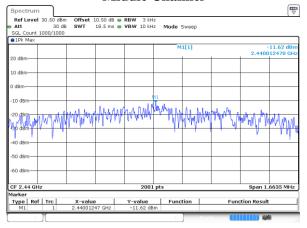
ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 11:42:21

### **High Channel**



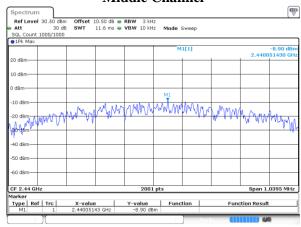
ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:03:27

#### **Middle Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:09:24

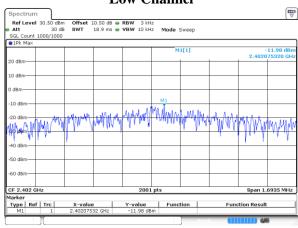
### **Middle Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 11:45:43

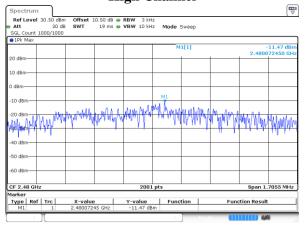
### BLE (2 Mbps)

### **Low Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:06:23

### **High Channel**



ProjectNo.:RKSA240822001 Tester:Neil Zhou Date: 13.SEP.2024 13:19:17

Date: 13.SEP.2024 13:19:1

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### **Declarations**

Report No.: RKSA240822001-00A

- 1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with " $\star$ ".
- 2. The test data was only valid for the test sample(s).
- 3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
- 4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
- 5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k=2 with the 95.45% confidence interval.

\*\*\*\*\* END OF REPORT \*\*\*\*\*

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