

FCC PART 15.247

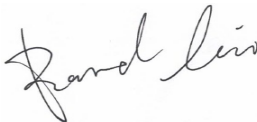
TEST REPORT

For

SPACEWALKER PTE. LTD.

60 PAYA LEBAR ROAD SINGAPORE Singapore

FCC ID: 2BK3M-ST5PROU

Report Type: Original Report	Product Name: Electric Scooter
Report Number: <u>RKSA250509002-00A</u>	
Report Date: <u>2025-08-22</u>	
Reviewed By:	<u>Bard Liu</u> 
Approved By:	<u>Kyle Xu</u> 
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan) 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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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA250509002-00A	R1V1	2025-08-22	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	SPACEWALKER PTE. LTD.
Tested Model:	ST5 Pro US
Product Name:	Electric Scooter
Power Supply:	DC 54.6 V from adapter or DC 46.8 V from battery
RF Function:	BLE
Operating Band/Frequency:	BLE (1 Mbps): 2402-2480 MHz BLE (2 Mbps): 2404-2478 MHz
Maximum Peak Output Power:	BLE (1 Mbps): 7.36 dBm BLE (2 Mbps): 7.44 dBm
Channel Number:	40
Channel Separation:	2 MHz
Modulation Type	GFSK
Antenna Type:	PCB Antenna
★Maximum Antenna Gain:	1.22 dBi

Adapter Information 1

Model: FY-5461500

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

Output: 54.6V, 1.5A

Adapter Information 2

Model: FY1505462450

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

Output: 54.6V, 2.45A

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: RKSA250509002-1/ RKSA250509002-2 (Assigned by BACL (Kunshan). The EUT supplied by the applicant was received on 2025-05-09.)

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 1M 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 was tested with channel 0, 19 and 39.

Channel List for BLE 2M mode:

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

EUT was tested with channel 1, 19 and 38.

EUT Exercise Software

RF Test Tool: RTL8762x_RFTTestTool

★Power level: Default

Note: The power level was declared by the applicant.

Special Accessories

No special accessory.

Equipment Modifications

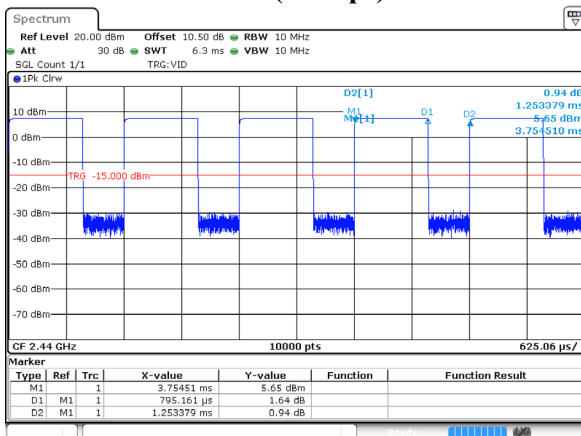
No modification was made to the EUT tested.

Environmental Conditions & Test Information

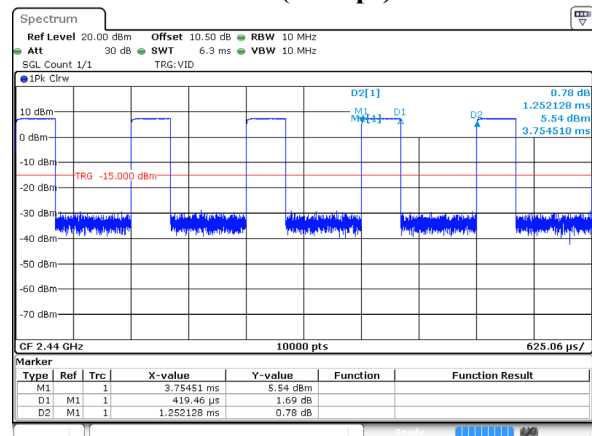
Test Date:	2025-05-19
Temperature:	24.2 °C
Relative Humidity:	49 %
ATM Pressure:	101.0 kPa
Test Result:	Pass
Test Engineer:	Peter Wang

Mode	Duty Cycle (%)	T _{on} (ms)	T _{on+off} (ms)	Duty Cycle Factor(dB)
BLE (1 Mbps)	63.45	0.795	1.253	1.98
BLE (2 Mbps)	33.47	0.419	1.252	4.75

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

Duty Cycle:**BLE (1 Mbps)**

ProjectNo.: RKSA250509002 Tester:Peter Wang
Date: 19 MAY 2025 15:03:35

BLE (2 Mbps)

ProjectNo.: RKSA250509002 Tester:Peter Wang
Date: 19 MAY 2025 15:13:19

Support Equipment List and Details

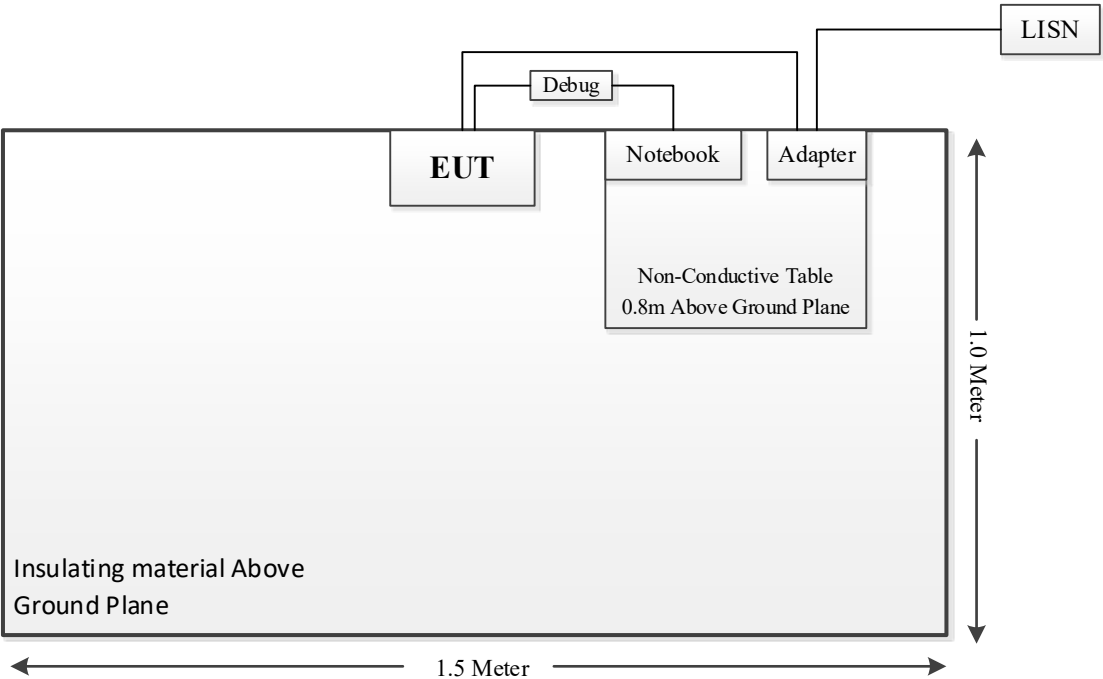
Manufacturer	Description	Model	Serial Number
Lenovo	Notebook	Y700P	PF2B7PL5
/	Debug board	/	/

External I/O Cable

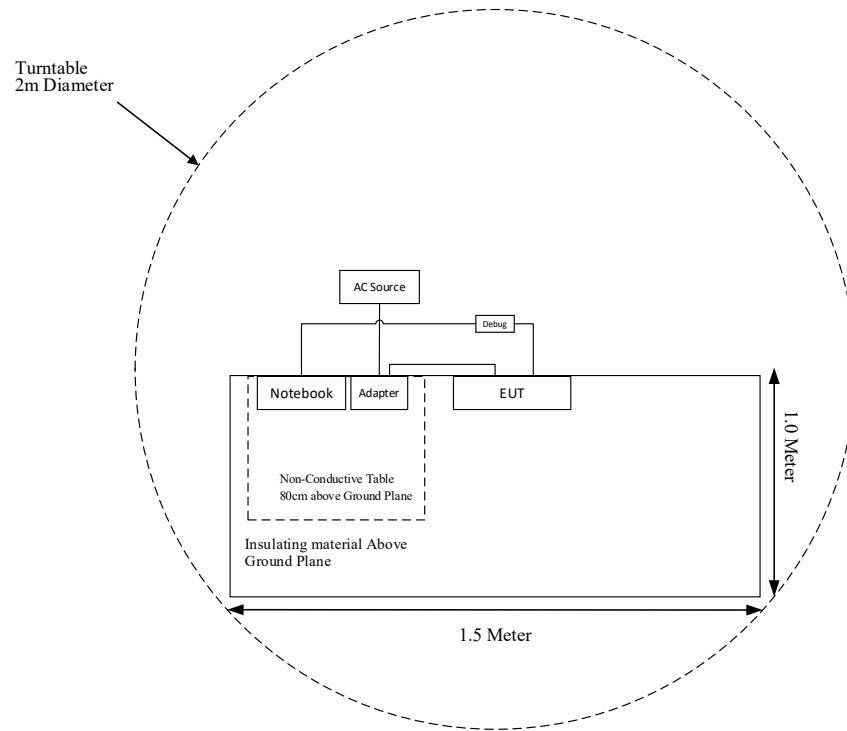
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	LISN/AC Source	Adapter
Power Cable 2	1.5	Adapter	EUT
Data Cable 1	0.2	EUT	Debug board
Data Cable 2	1.5	Debug board	Notebook

Block Diagram of Test Setup

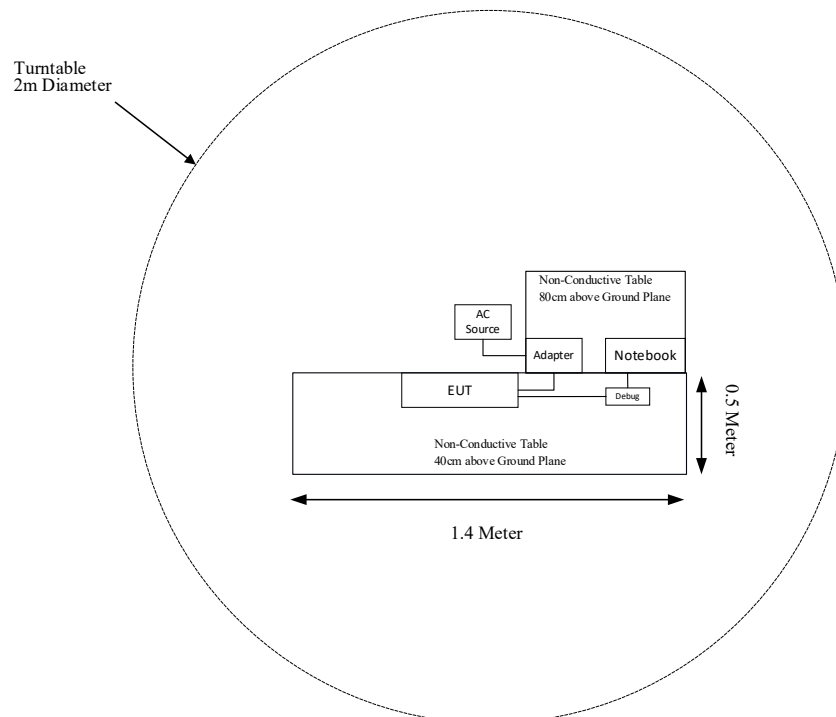
For Conducted Emissions:



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
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2025-04-09	2026-04-08
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	N/A	N/A
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 §2.1093 and §1.1307(b)(1), 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 KDB 447498 D01 General RF Exposure Guidance

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:

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

1. f (GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Measurement Result

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	7.45	5.56	5	1.8	3.0	Yes
BLE 2M	2404-2478	7.45	5.56	5	1.8	3.0	Yes

Result: No SAR test is 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 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.

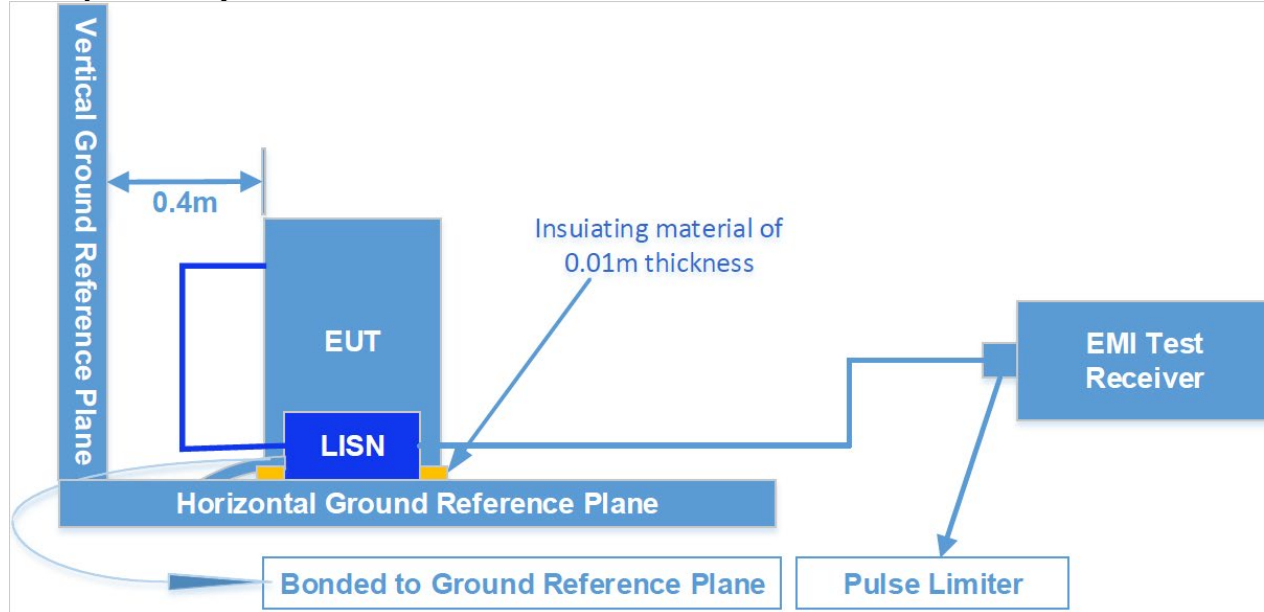
Result: Compliant.

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)

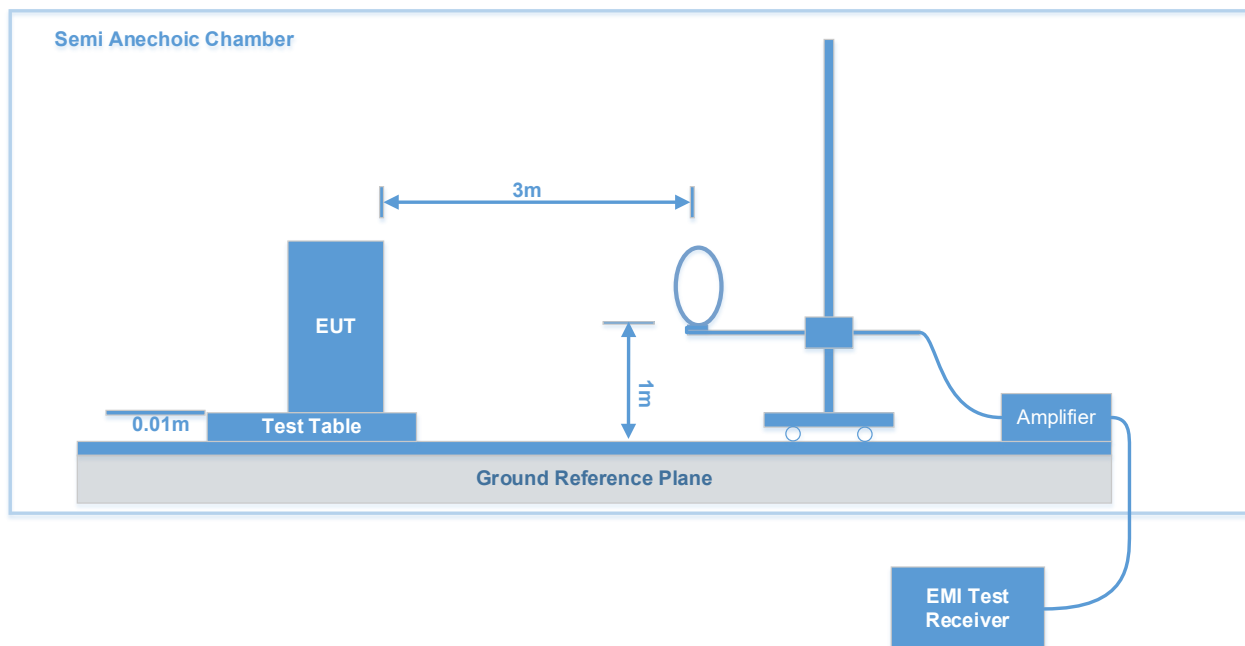
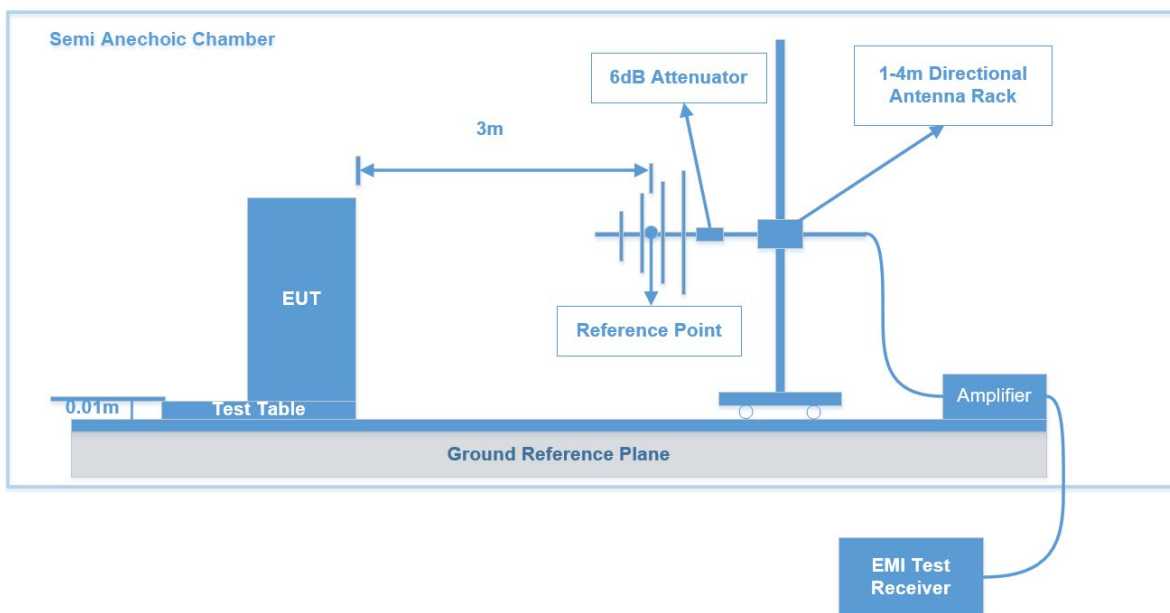
Test Results Summary

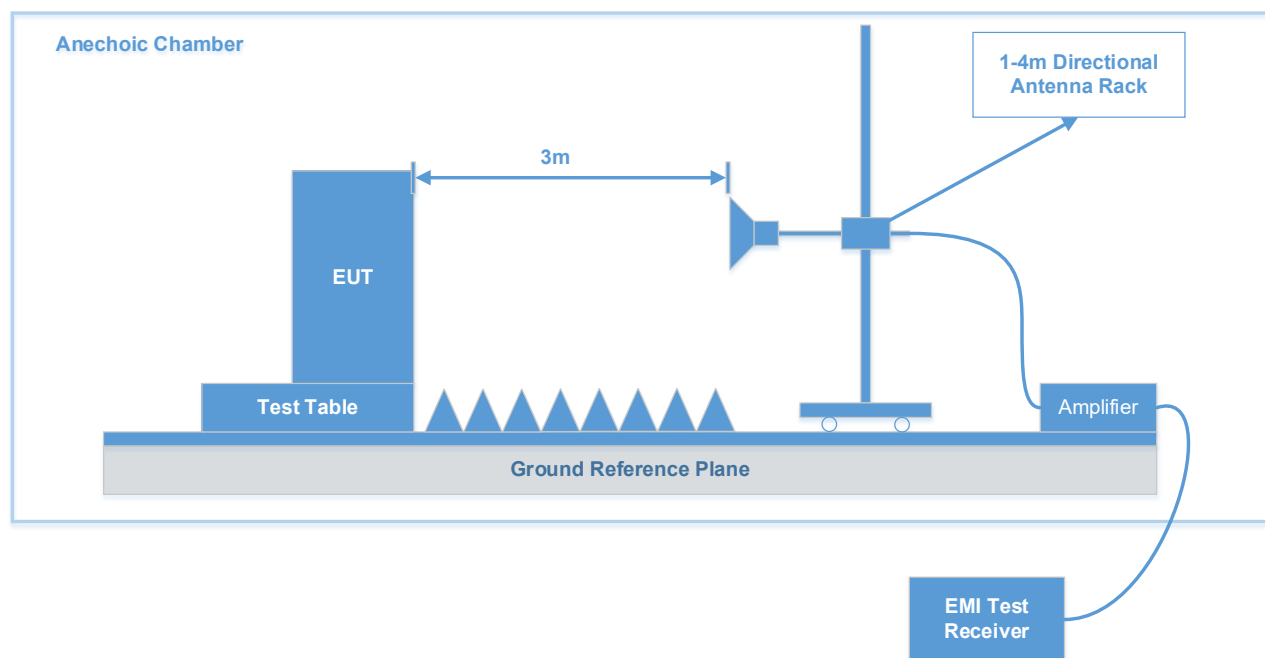
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

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	QP/Peak/Average	QP/Peak/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	QP/Peak/Average	QP/Peak/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:

Corrected Amplitude (dB μ V/m) = Meter Reading (dB μ 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 μ V/m) – Corrected Amplitude (dB μ 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

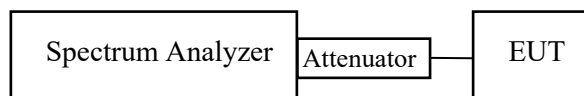
Applicable Standard

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

1. Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 * \text{RBW}$.
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.



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

Test Data: See Appendix

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

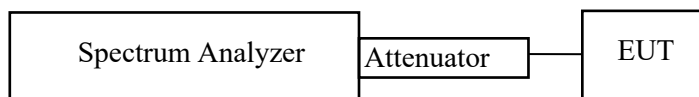
Applicable Standard

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

1. Set the RBW $\geq$ DTS bandwidth.
2. Set VBW $\geq 3 * \text{RBW}$.
3. Set span $\geq 3 * \text{RBW}$
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.



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

Test Data: See Appendix

FCC §15.247(d) – BAND EDGE

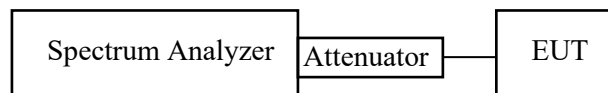
Applicable Standard

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

Test Data: See Appendix

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

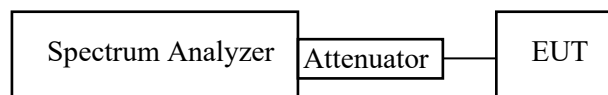
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of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

1. Set the RBW to: $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
2. Set the VBW $\geq 3 * \text{RBW}$.
3. Set the span > 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.



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

Test Data: See Appendix

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

Environmental Conditions & Test Information

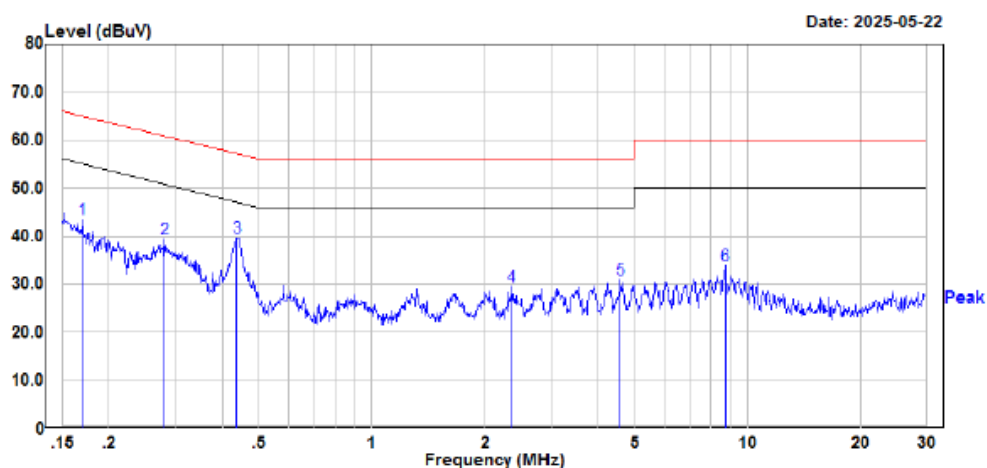
Test Date:	2025-05-22 ~ 2025-06-16
Temperature:	24.6°C ~ 25.3 °C
Relative Humidity:	59 % ~ 69%
ATM Pressure:	100.3 kPa ~ 101.1 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

Adapter 1

1.5A

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

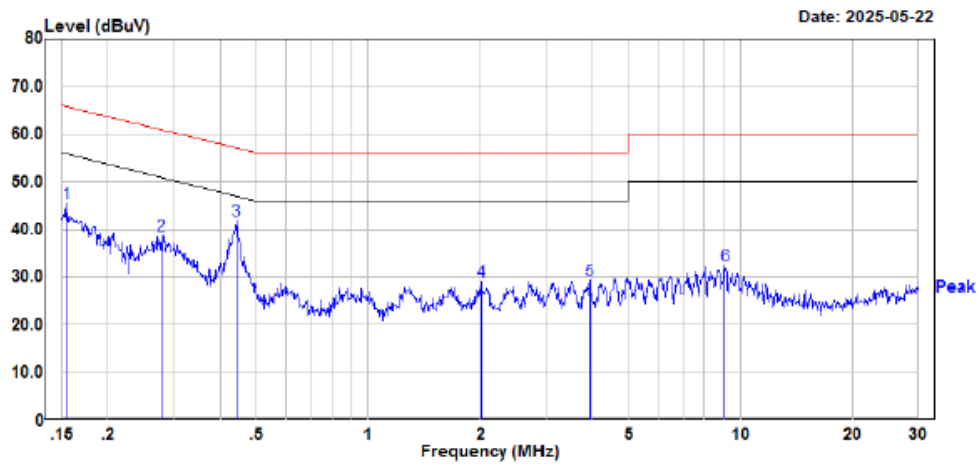
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.3°C
Humidity : 59%
Atmospheric pressure: 101.1kPa
Test Engineer : Myles Miao

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV	dBuV	dB
1	0.170	23.46	20.13	43.59	64.97	-21.38 Peak
2	0.281	19.15	20.19	39.34	60.78	-21.44 Peak
3	0.438	19.49	20.26	39.75	57.10	-17.35 Peak
4	2.350	9.28	20.18	29.46	56.00	-26.54 Peak
5	4.582	10.77	20.23	31.00	56.00	-25.00 Peak
6	8.715	13.77	20.03	33.80	60.00	-26.20 Peak

AC 120V/60 Hz, Neutral

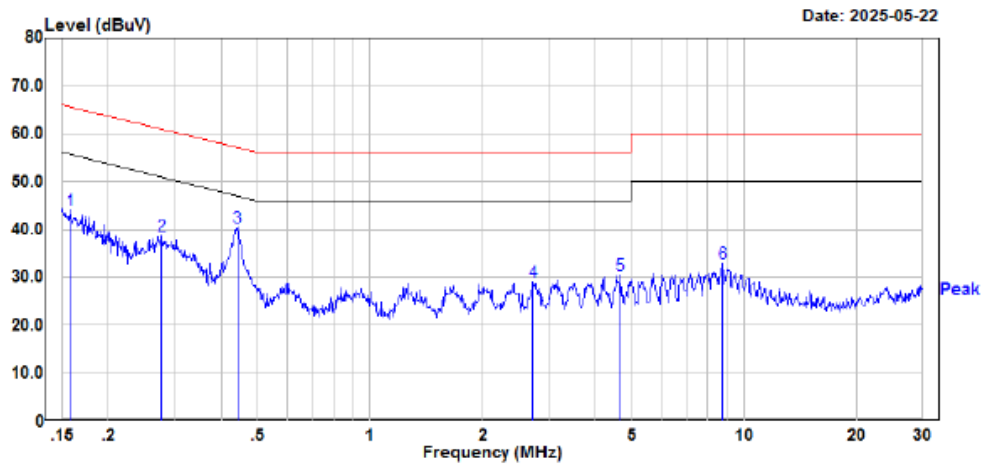


Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.3℃
Humidity : 59%
Atmospheric pressure: 101.1kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.155	25.29	20.13	45.42	65.75	-20.33	Peak
2	0.278	18.43	20.19	38.62	60.87	-22.25	Peak
3	0.442	21.66	20.26	41.92	57.02	-15.10	Peak
4	2.013	8.75	20.16	28.91	56.00	-27.09	Peak
5	3.926	8.94	20.23	29.17	56.00	-26.83	Peak
6	9.070	12.29	20.01	32.30	60.00	-27.70	Peak

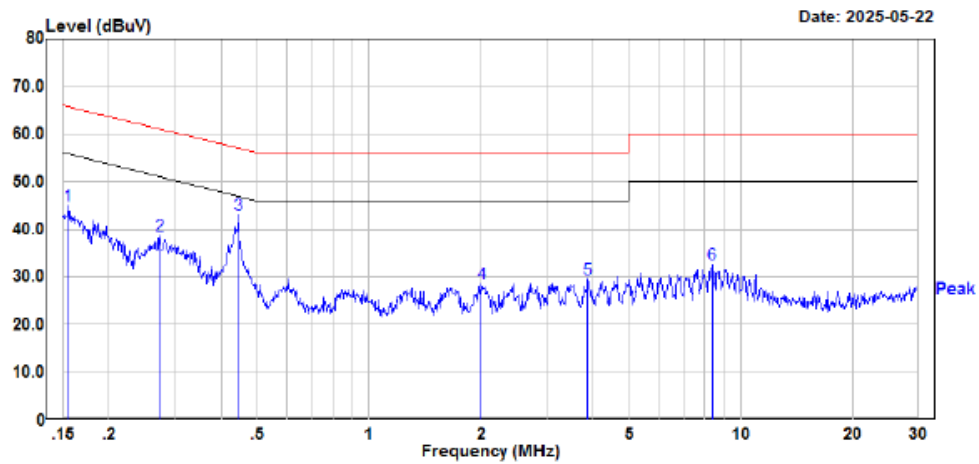
EUT operation mode: Transmitting in BLE (2 Mbps) high channel (maximum output power)

AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216, ESR3
Receiver Setting : RBW: 9 kHz, Sweep Time: Auto
Temperature : 25.3°C
Humidity : 59%
Atmospheric pressure: 101.1kPa
Test Engineer : Myles Miao

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.158	23.83	20.13	43.96	65.54	-21.58	Peak
2	0.277	18.45	20.19	38.64	60.91	-22.27	Peak
3	0.442	20.04	20.26	40.30	57.02	-16.72	Peak
4	2.728	8.73	20.20	28.93	56.00	-27.07	Peak
5	4.651	10.20	20.23	30.43	56.00	-25.57	Peak
6	8.759	12.78	20.03	32.81	60.00	-27.19	Peak

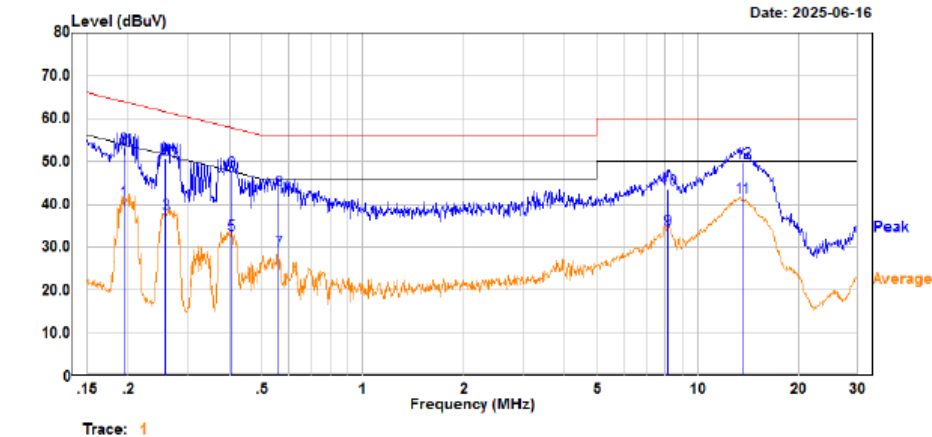
AC 120V/60 Hz, Neutral

Site : CE
Condition : limit\FCC PART 15.207
DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.3℃
Humidity : 59%
Atmospheric pressure: 101.1kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.155	24.87	20.13	45.00	65.71	-20.71	Peak
2	0.274	18.44	20.19	38.63	60.99	-22.36	Peak
3	0.445	22.68	20.26	42.94	56.98	-14.04	Peak
4	2.003	8.47	20.16	28.63	56.00	-27.37	Peak
5	3.868	9.26	20.23	29.49	56.00	-26.51	Peak
6	8.375	12.48	20.04	32.52	60.00	-27.48	Peak

Adapter 2
2.45A

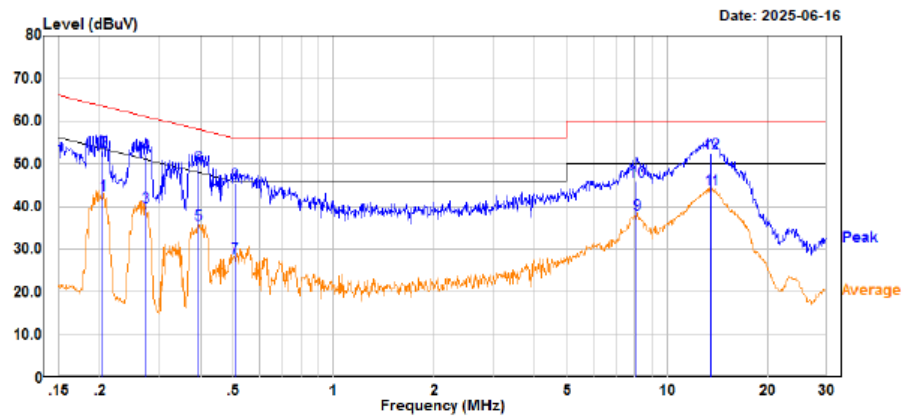
EUT operation mode: Transmitting in BLE (1 Mbps) Middle channel (maximum output power)
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.6°C
Humidity : 69%
Atmospheric pressure: 100.3kPa
Test Engineer : Myles Miao

	Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit
	MHz	dBuV	dB	dBuV	dBuV	dB
1	0.193	20.60	20.15	40.75	53.89	-13.14 Average
2	0.193	33.00	20.15	53.15	63.89	-10.74 QP
3	0.258	17.50	20.18	37.68	51.49	-13.81 Average
4	0.258	30.70	20.18	50.88	61.49	-10.61 QP
5	0.404	12.70	20.24	32.94	47.76	-14.82 Average
6	0.404	27.50	20.24	47.74	57.76	-10.02 QP
7	0.562	9.00	20.18	29.18	46.00	-16.82 Average
8	0.562	23.20	20.18	43.38	56.00	-12.62 QP
9	8.128	14.10	20.06	34.16	50.00	-15.84 Average
10	8.128	23.50	20.06	43.56	60.00	-16.44 QP
11	13.581	21.90	19.75	41.65	50.00	-8.35 Average
12	13.581	30.10	19.75	49.85	60.00	-10.15 QP

AC 120V/60 Hz, Neutral



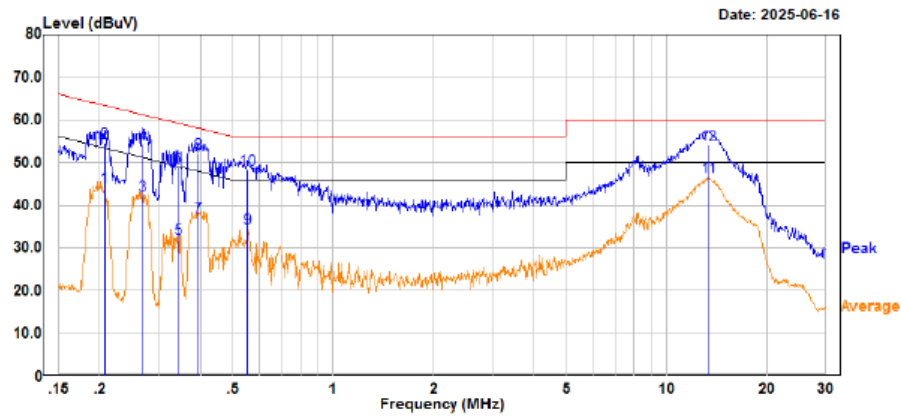
Trace: 1

Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.6℃
Humidity : 69%
Atmospheric pressure: 100.3kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.204	22.70	20.15	42.85	53.43	-10.58	Average
2	0.204	32.80	20.15	52.95	63.43	-10.48	QP
3	0.274	19.80	20.19	39.99	50.99	-11.00	Average
4	0.274	32.00	20.19	52.19	60.99	-8.80	QP
5	0.394	15.50	20.23	35.73	47.97	-12.24	Average
6	0.394	29.40	20.23	49.63	57.97	-8.34	QP
7	0.506	7.90	20.16	28.06	46.00	-17.94	Average
8	0.506	25.30	20.16	45.46	56.00	-10.54	QP
9	8.088	18.11	20.06	38.17	50.00	-11.83	Average
10	8.088	25.91	20.06	45.97	60.00	-14.03	QP
11	13.514	24.30	19.75	44.05	50.00	-5.95	Average
12	13.514	32.60	19.75	52.35	60.00	-7.65	QP

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

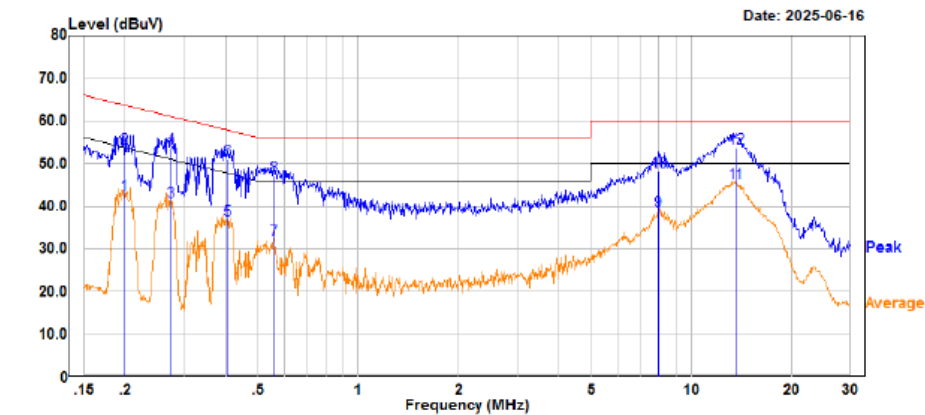
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : L
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.6°C
Humidity : 69%
Atmospheric pressure: 100.3kPa
Test Engineer : Myles Miao

		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV	dBuV	dB
1	0.206	24.10	20.15	44.25	53.35	-9.10 Average
2	0.206	34.50	20.15	54.65	63.35	-8.70 QP
3	0.269	22.20	20.19	42.39	51.16	-8.77 Average
4	0.269	34.30	20.19	54.49	61.16	-6.67 QP
5	0.343	12.00	20.22	32.22	49.13	-16.91 Average
6	0.343	28.70	20.22	48.92	59.13	-10.21 QP
7	0.393	17.00	20.23	37.23	48.01	-10.78 Average
8	0.393	32.10	20.23	52.33	58.01	-5.68 QP
9	0.554	14.30	20.18	34.48	46.00	-11.52 Average
10	0.554	28.20	20.18	48.38	56.00	-7.62 QP
11	13.313	26.89	19.77	46.66	50.00	-3.34 Average
12	13.313	34.49	19.77	54.26	60.00	-5.74 QP

AC 120V/60 Hz, Neutral



Site : CE
Condition : limit\FCC PART 15.207
 : DET:Peak
Project No. : RKSA250509002
Model : ST5 Pro US
Phase : N
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.6℃
Humidity : 69%
Atmospheric pressure: 100.3kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.199	22.70	20.15	42.85	53.64	-10.79	Average
2	0.199	33.40	20.15	53.55	63.64	-10.09	QP
3	0.274	20.80	20.19	40.99	50.99	-10.00	Average
4	0.274	33.40	20.19	53.59	60.99	-7.40	QP
5	0.406	16.50	20.24	36.74	47.72	-10.98	Average
6	0.406	30.80	20.24	51.04	57.72	-6.68	QP
7	0.559	11.90	20.18	32.08	46.00	-13.92	Average
8	0.559	27.00	20.18	47.18	56.00	-8.82	QP
9	7.968	18.90	20.07	38.97	50.00	-11.03	Average
10	7.968	28.10	20.07	48.17	60.00	-11.83	QP
11	13.581	25.60	19.75	45.35	50.00	-4.65	Average
12	13.581	34.00	19.75	53.75	60.00	-6.25	QP

Environmental Conditions & Test Information

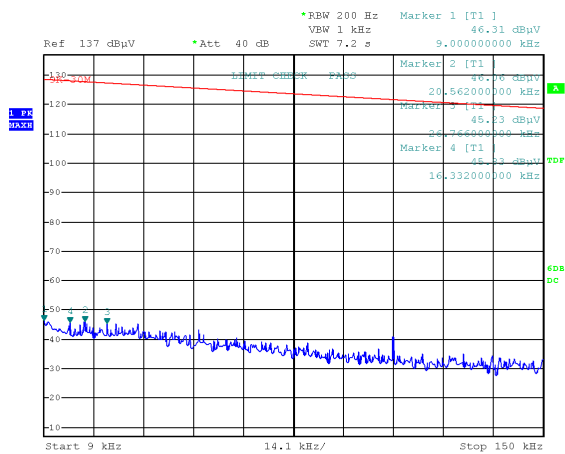
Test Item:	SPURIOUS EMISSIONS			
	9kHz - 1GHz		1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-05-17	2025-06-17	2025-05-20	2025-05-23
Temperature:	26.8 °C	26.4 °C	24.1 °C	25.1 °C
Relative Humidity:	54 %	42 %	48 %	51 %
ATM Pressure:	101.1 kPa	100.6 kPa	100.7 kPa	101.8 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jonathan	Jonathan	Destine Hu	Hugh Wu

Adapter 1

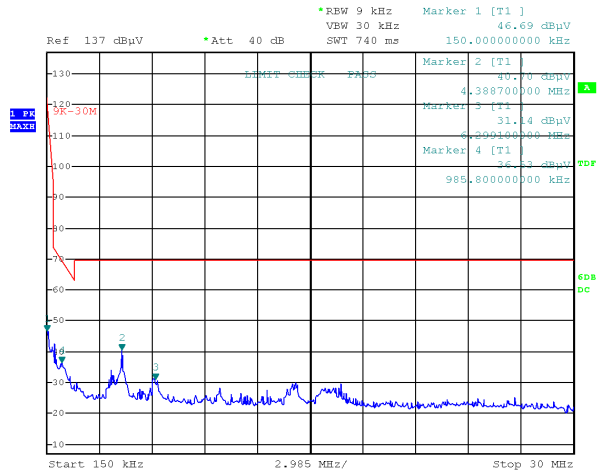
1.5A

9 kHz-30 MHz: (Transmitting in maximum output power BLE (1 Mbps) middle channel)
Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dB μ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB μ V/m) @3m	Margin (dB)
0.009000	46.31	PK	-0.31	128.52	82.21
0.016332	45.83	PK	-0.54	123.34	77.51
0.020560	46.06	PK	-0.56	121.34	75.28
0.026766	45.23	PK	-0.59	119.05	73.82

150kHz-30MHz

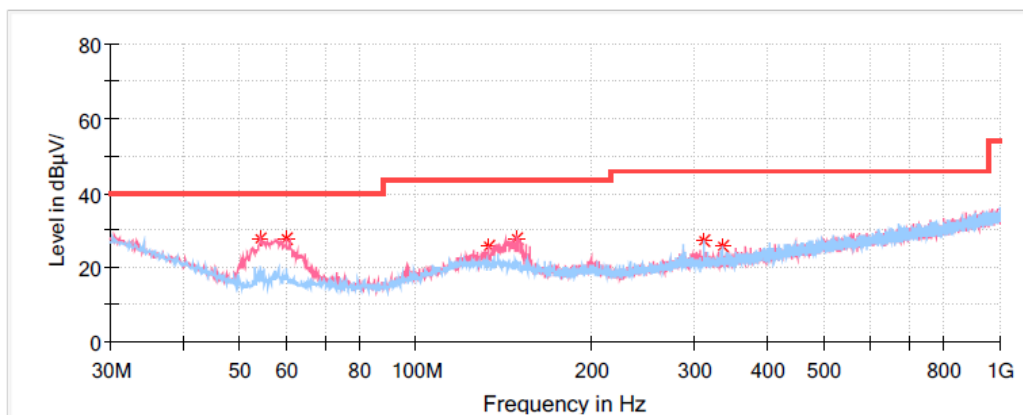
Frequency (MHz)	Corrected Amplitude (dB μ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB μ V/m) @3m	Margin (dB)
0.15000	46.69	PK	-11.34	104.08	57.39
0.98580	36.53	PK	-27.51	47.73	11.20
4.38870	40.70	PK	-31.97	69.54	28.84
6.29910	31.14	PK	-32.26	69.54	38.40

30 MHz - 1 GHz: (Transmitting in maximum output power BLE (1 Mbps) middle channel)

Middle Channel: 2440 MHz

Common Information

Project No: RKSA250509002
EUT Model: ST5 Pro US
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
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 26.8°C
Humidity: 54%
Barometric Pressure: 101.1 kPa
Test Engineer: Jonathan
Test Date: 2025/5/17



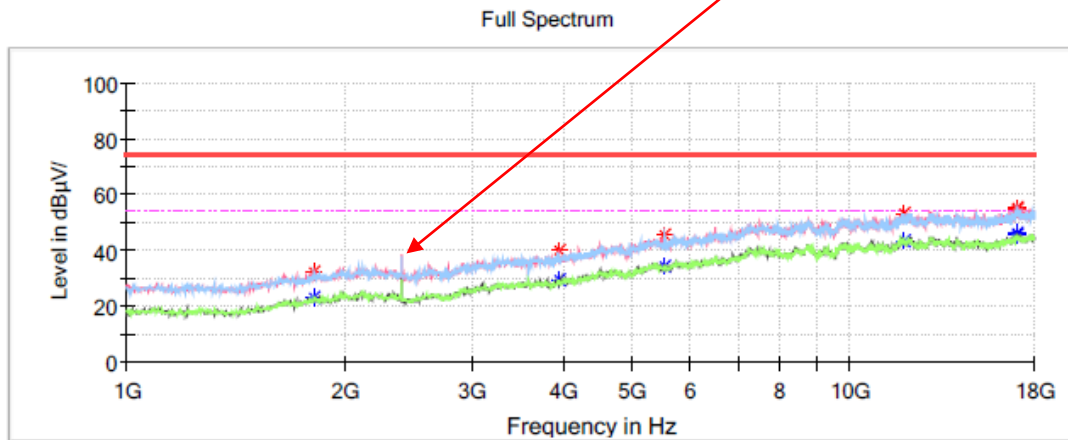
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
54.250000	27.74	40.00	12.26	V	-17.0
59.948750	27.81	40.00	12.19	V	-17.1
132.941250	25.62	43.50	17.88	V	-11.1
149.067500	27.91	43.50	15.59	V	-11.6
312.512500	27.13	46.00	18.87	H	-10.0
335.550000	25.79	46.00	20.21	H	-9.5

1 GHz-18 GHz:**Low Channel: 2402 MHz****Common Information**

Project No.:	RKSA250509002
EUT Model:	ST5 Pro 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:	24.1°C
Humidity:	48%
Atmospheric Pressure:	100.7kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/20

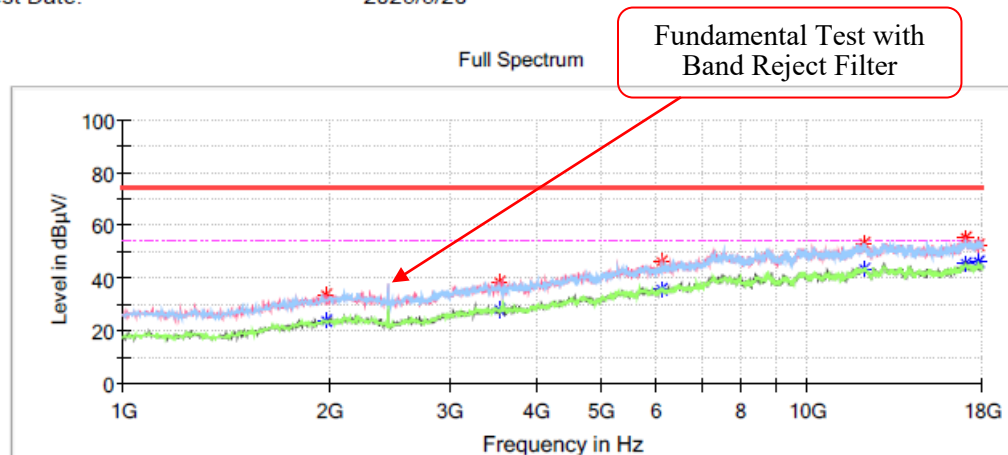
Fundamental Test with
Band Reject Filter

**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)
1819.400000	---	22.82	54.00	31.18	H	-12.0
1819.400000	32.21	---	74.00	41.79	H	-12.0
3968.200000	---	29.17	54.00	24.83	V	-6.5
3968.200000	39.72	---	74.00	34.28	V	-6.5
5556.000000	---	34.52	54.00	19.48	H	-1.5
5556.000000	45.20	---	74.00	28.80	H	-1.5
11849.400000	---	43.70	54.00	10.30	V	7.9
11849.400000	53.22	---	74.00	20.78	V	7.9
16990.200000	---	45.90	54.00	8.10	V	11.2
16990.200000	54.26	---	74.00	19.74	V	11.2
17027.600000	54.96	---	74.00	19.04	H	11.2
17027.600000	---	45.22	54.00	8.78	H	11.2

Middle Channel: 2440 MHz**Common Information**

Project No.: RKSA250509002
 EUT Model: ST5 Pro 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: 24.1°C
 Humidity: 48%
 Atmospheric Pressure: 100.7kPa
 Test Engineer: Destine Hu
 Test Date: 2025/5/20

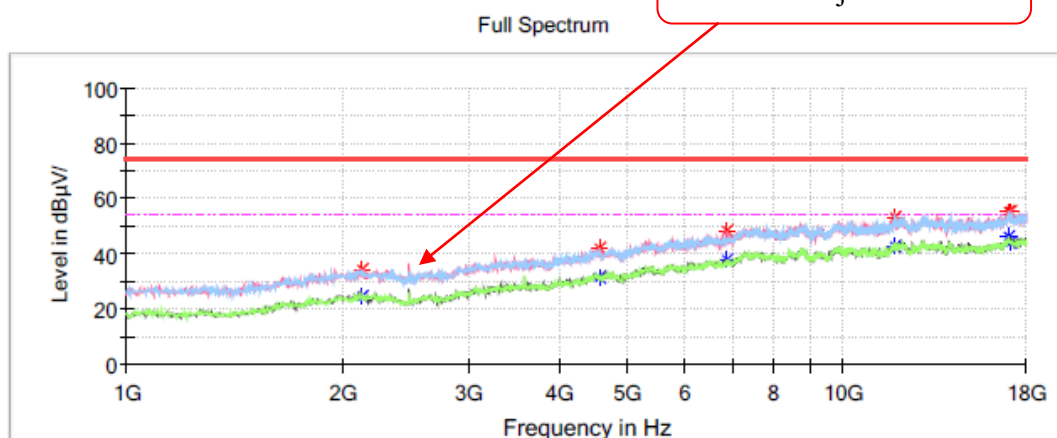
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1979.200000	---	23.91	54.00	30.09	V	-10.7
1979.200000	33.41	---	74.00	40.59	V	-10.7
3546.600000	---	28.10	54.00	25.90	V	-7.2
3546.600000	38.49	---	74.00	35.51	V	-7.2
6130.600000	---	35.59	54.00	18.41	H	-1.0
6130.600000	45.97	---	74.00	28.03	H	-1.0
12101.000000	---	43.33	54.00	10.67	V	8.1
12101.000000	53.17	---	74.00	20.83	V	8.1
17003.800000	55.32	---	74.00	18.68	V	11.3
17003.800000	---	45.43	54.00	8.57	V	11.3
17802.800000	52.45	---	74.00	21.55	H	11.2
17802.800000	---	46.11	54.00	7.89	H	11.2

High Channel: 2480 MHz**Common Information**

Project No.: RKSA250509002
 EUT Model: ST5 Pro 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: 24.1°C
 Humidity: 48%
 Atmospheric Pressure: 100.7kPa
 Test Engineer: Destine Hu
 Test Date: 2025/5/20

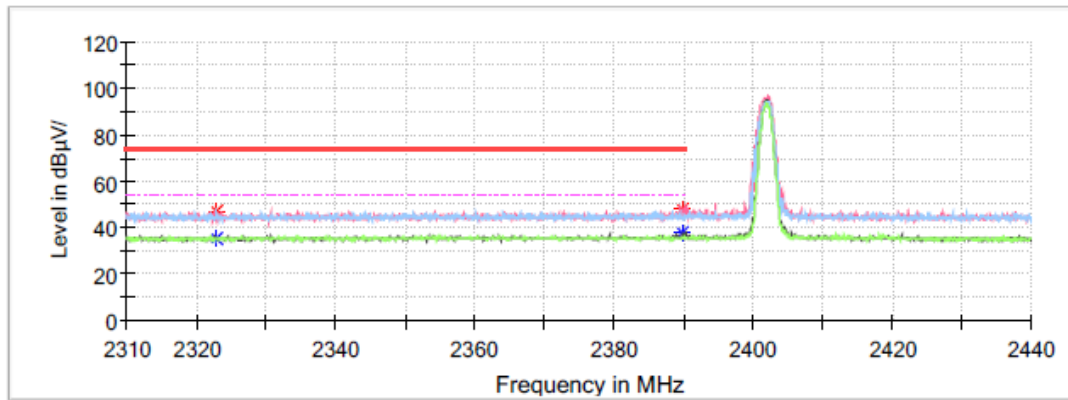
Fundamental Test with
Band Reject Filter

**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)
2128.800000	---	24.80	54.00	29.20	V	-10.4
2128.800000	34.02	---	74.00	39.98	V	-10.4
4566.600000	---	31.34	54.00	22.66	H	-4.7
4566.600000	41.87	---	74.00	32.13	H	-4.7
6892.200000	---	37.78	54.00	16.22	H	1.2
6892.200000	48.21	---	74.00	25.79	H	1.2
11839.200000	---	42.77	54.00	11.23	V	7.9
11839.200000	53.20	---	74.00	20.80	V	7.9
17071.800000	---	45.84	54.00	8.16	V	11.1
17071.800000	54.91	---	74.00	19.09	V	11.1
17122.800000	---	43.82	54.00	10.18	H	11.1
17122.800000	55.19	---	74.00	18.81	H	11.1

Restricted Bands Emission:**Left Side****Common Information**

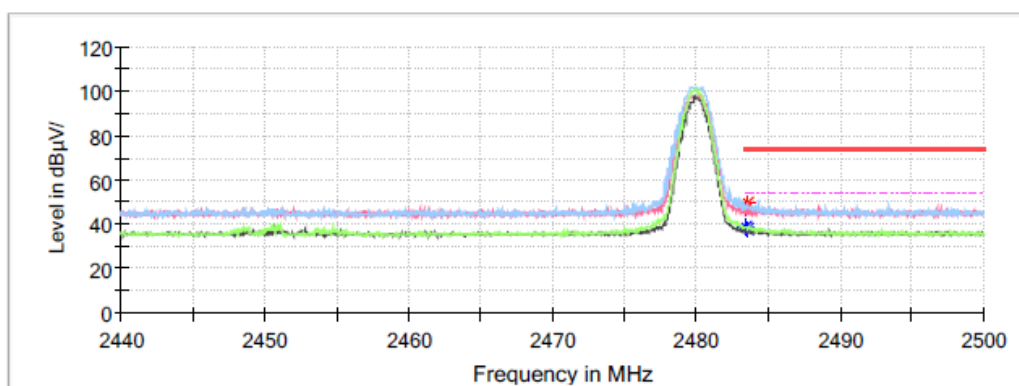
Project No.: RKSA250509002
EUT Model: ST5 Pro US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.1℃
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

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)
2322.896000	---	35.35	54.00	18.65	H	-0.4
2322.896000	46.69	---	74.00	27.31	H	-0.4
2389.924000	48.14	---	74.00	25.86	V	-0.3
2389.924000	---	37.45	54.00	16.55	V	-0.3

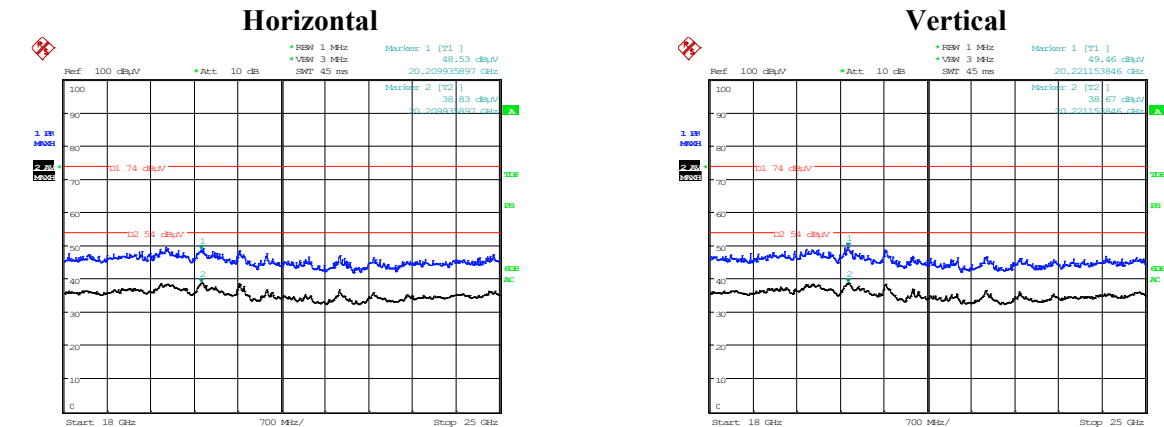
Right Side**Common Information**

Project No.: RKSA250509002
EUT Model: ST5 Pro 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: 24.1°C
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

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)
2483.512000	47.24	---	74.00	26.76	H	-0.2
2483.512000	---	38.66	54.00	15.34	H	-0.2
2483.560000	---	37.88	54.00	16.12	H	-0.2
2483.560000	49.65	---	74.00	24.35	H	-0.2

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



Project No : RKSA250509002
Date: 23.MAY.2025 19:59:32

Tester :Hugh Wu

Project No : RKSA250509002
Date: 23.MAY.2025 20:30:43

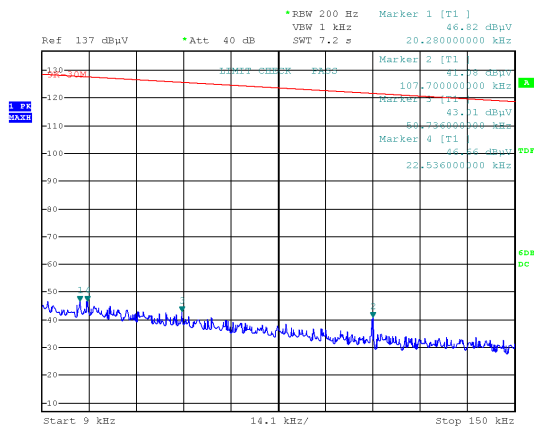
Tester :Hugh Wu

Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(GHz)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dB)		(dB/m)
20.21	---	38.83	54	15.17	H	12.47
20.21	48.53	---	74	25.47	H	12.47
20.22	---	38.67	54	15.33	V	12.48
20.22	49.46	---	74	24.54	V	12.48

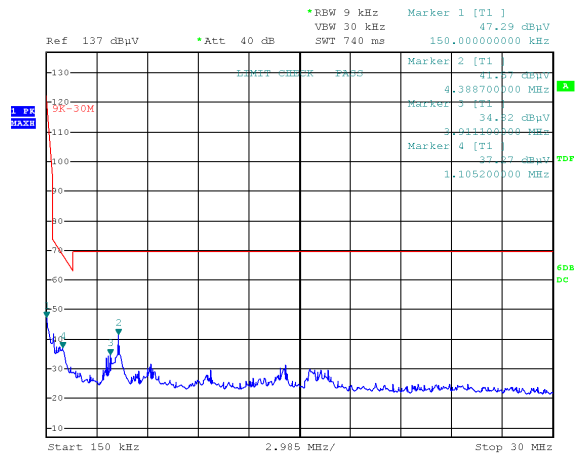
Note: The test distance is 3m. The limit is 74dBμV/m (Peak) and 54dBμV/m (Average)

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

9kHz-150kHz



150kHz-30MHz



Project No: RKSA250509002
 Date: 17.MAY.2025 15:50:11

Tester: Jonathan

Project No: RKSA250509002
 Date: 17.MAY.2025 15:53:41

Tester: Jonathan

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.020280	46.82	PK	-0.56	121.46	74.64
0.022536	46.66	PK	-0.57	120.55	73.89
0.050736	43.01	PK	-3.90	113.50	70.49
0.107700	41.08	PK	-9.54	106.96	65.88

150kHz-30MHz

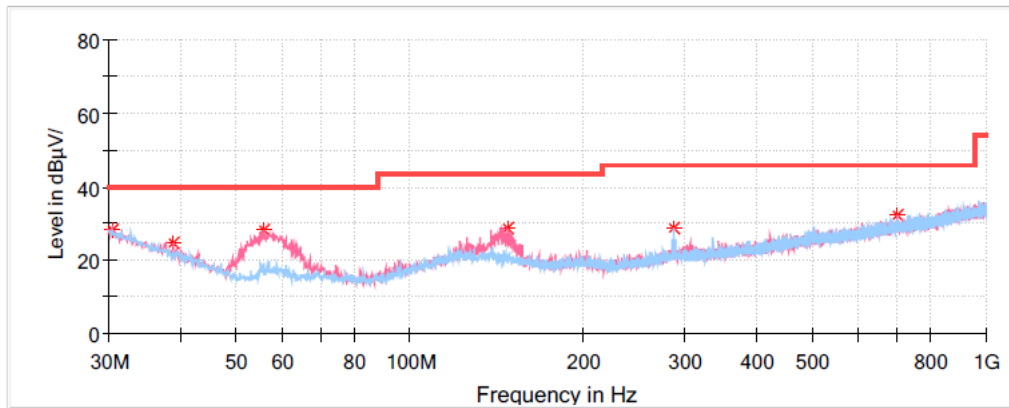
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	47.29	PK	-11.34	104.08	56.79
1.10520	37.27	PK	-27.96	66.74	29.47
3.91110	34.82	PK	-31.87	69.54	34.72
4.38870	41.57	PK	-31.97	69.54	27.97

30 MHz - 1 GHz: (Transmitting in maximum output power BLE (2 Mbps) high channel)

High Channel: 2478MHz

Common Information

Project No: RKSA250509002
EUT Model: ST5 Pro US
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
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 26.8°C
Humidity: 54%
Barometric Pressure: 101.1kPa
Test Engineer: Jonathan
Test Date: 2025/5/17



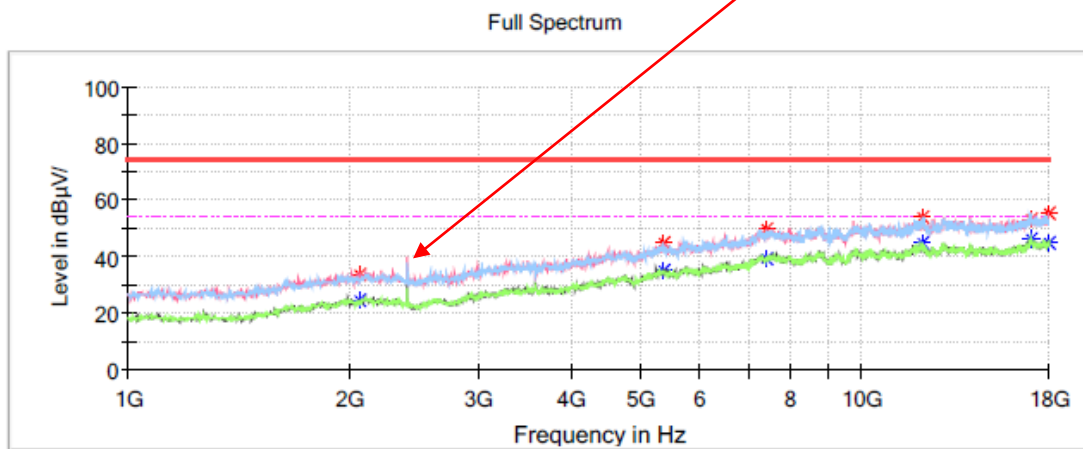
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.363750	28.14	40.00	11.86	V	-5.0
38.851250	24.67	40.00	15.33	V	-10.6
55.826250	28.07	40.00	11.93	V	-17.1
147.855000	28.84	43.50	14.66	V	-11.6
287.535000	28.92	46.00	17.08	H	-10.3
702.452500	32.25	46.00	13.75	V	-2.1

1 GHz-18 GHz:**Low Channel: 2404 MHz****Common Information**

Project No.: RKSA250509002
EUT Model: ST5 Pro 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: 24.1℃
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

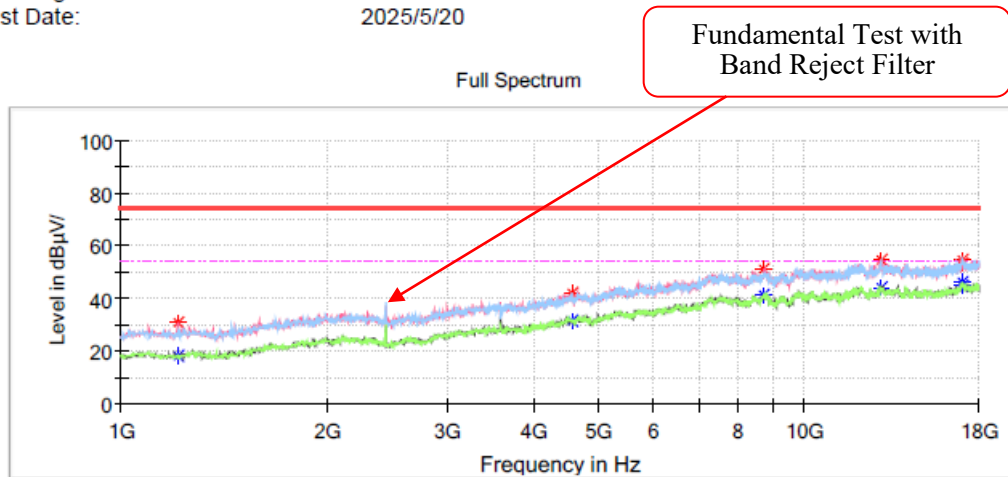
Fundamental Test with
Band Reject Filter

**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)
2071.000000	33.77	---	74.00	40.23	V	-10.5
2071.000000	---	24.23	54.00	29.77	V	-10.5
5362.200000	---	34.99	54.00	19.01	H	-2.1
5362.200000	44.70	---	74.00	29.30	H	-2.1
7398.800000	---	39.39	54.00	14.61	V	2.6
7398.800000	49.47	---	74.00	24.53	V	2.6
12073.800000	---	44.84	54.00	9.16	H	8.1
12073.800000	53.74	---	74.00	20.26	H	8.1
17075.200000	---	46.07	54.00	7.93	H	11.1
17075.200000	53.10	---	74.00	20.90	H	11.1
17972.800000	---	44.96	54.00	9.04	V	11.7
17972.800000	55.16	---	74.00	18.84	V	11.7

Middle Channel: 2440 MHz**Common Information**

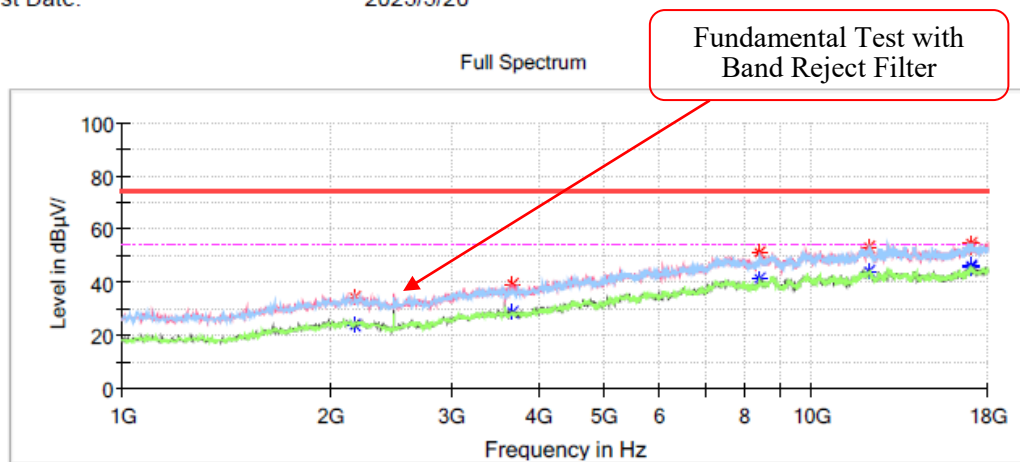
Project No.: RKSA250509002
EUT Model: ST5 Pro US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.1°C
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

**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)
1210.800000	---	18.06	54.00	35.94	V	-15.3
1210.800000	30.69	---	74.00	43.31	V	-15.3
4580.200000	---	31.64	54.00	22.36	H	-4.7
4580.200000	41.76	---	74.00	32.24	H	-4.7
8701.000000	---	41.07	54.00	12.93	V	4.4
8701.000000	51.02	---	74.00	22.98	V	4.4
12961.200000	---	44.01	54.00	9.99	H	8.7
12961.200000	54.21	---	74.00	19.79	H	8.7
17037.800000	---	45.87	54.00	8.13	H	11.2
17037.800000	53.17	---	74.00	20.83	H	11.2
17075.200000	---	45.02	54.00	8.98	H	11.1
17075.200000	54.69	---	74.00	19.31	H	11.1

High Channel: 2478 MHz**Common Information**

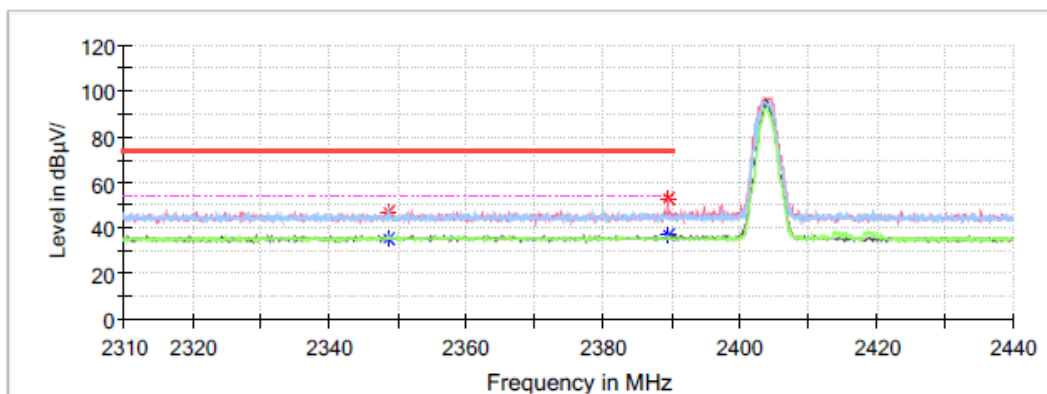
Project No.: RKSA250509002
 EUT Model: ST5 Pro US
 Test Mode: BLE
 Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 24.1°C
 Humidity: 48%
 Atmospheric Pressure: 100.7kPa
 Test Engineer: Destine Hu
 Test Date: 2025/5/20

**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)
2176.400000	34.23	---	74.00	39.77	H	-10.4
2176.400000	---	24.08	54.00	29.92	H	-10.4
3672.400000	---	28.42	54.00	25.58	V	-7.0
3672.400000	38.94	---	74.00	35.06	V	-7.0
8408.600000	50.96	---	74.00	23.04	H	4.1
8408.600000	---	41.25	54.00	12.75	H	4.1
12097.600000	---	43.88	54.00	10.12	V	8.1
12097.600000	53.19	---	74.00	20.81	V	8.1
17014.000000	---	45.39	54.00	8.61	H	11.2
17014.000000	54.62	---	74.00	19.38	H	11.2
17020.800000	---	46.20	54.00	7.80	H	11.2
17020.800000	53.22	---	74.00	20.78	H	11.2

Restricted Bands Emission:**Left Side****Common Information**

Project No.: RKSA250509002
EUT Model: ST5 Pro 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: 24.1℃
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

Full Spectrum**Critical Freqs**

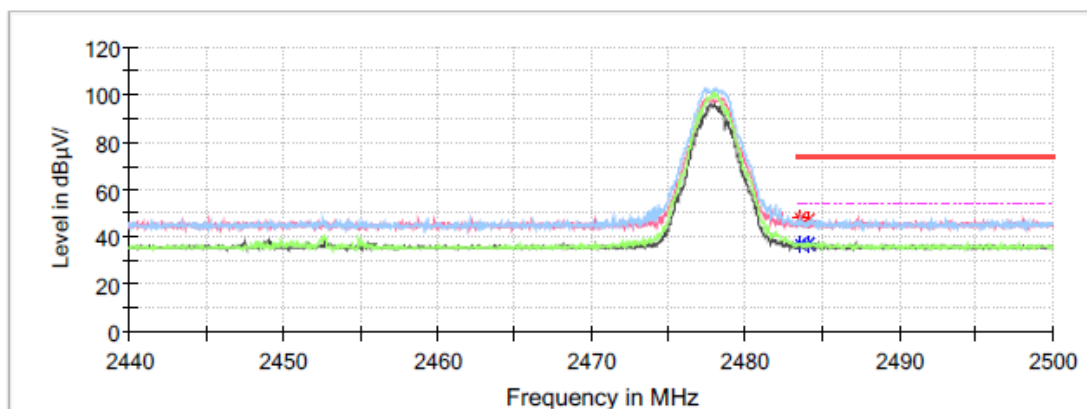
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2348.532000	---	35.14	54.00	18.86	H	-0.4
2348.532000	47.04	---	74.00	26.96	H	-0.4
2389.508000	---	36.92	54.00	17.08	V	-0.3
2389.508000	52.79	---	74.00	21.21	V	-0.3

Right Side

Common Information

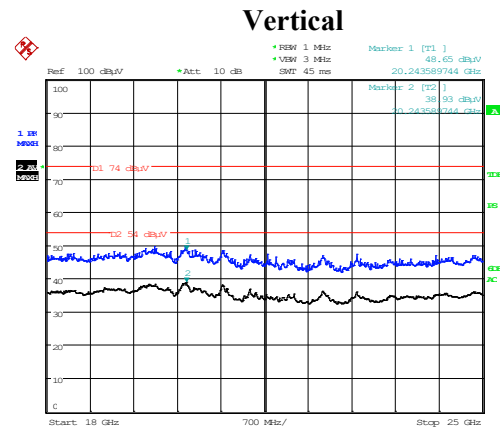
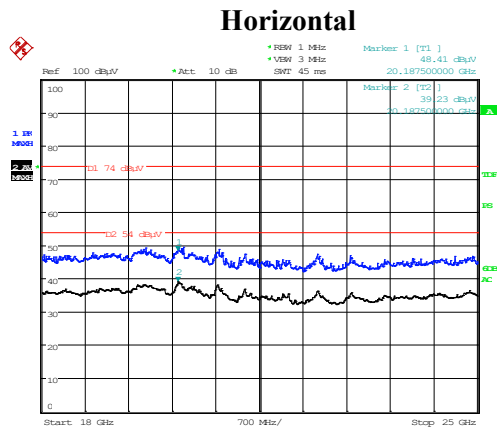
Project No.: RKSA250509002
EUT Model: ST5 Pro US
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.1°C
Humidity: 48%
Atmospheric Pressure: 100.7kPa
Test Engineer: Destine Hu
Test Date: 2025/5/20

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)
2483.536000	48.06	---	74.00	25.94	H	-0.2
2483.536000	---	36.65	54.00	17.35	H	-0.2
2484.088000	46.68	---	74.00	27.32	H	-0.2
2484.088000	---	37.25	54.00	16.75	H	-0.2

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

Project No : RKSA250509002
Date: 23.MAY.2025 21:09:10

Tester :Hugh Wu

Project No : RKSA250509002
Date: 23.MAY.2025 21:43:20

Tester :Hugh Wu

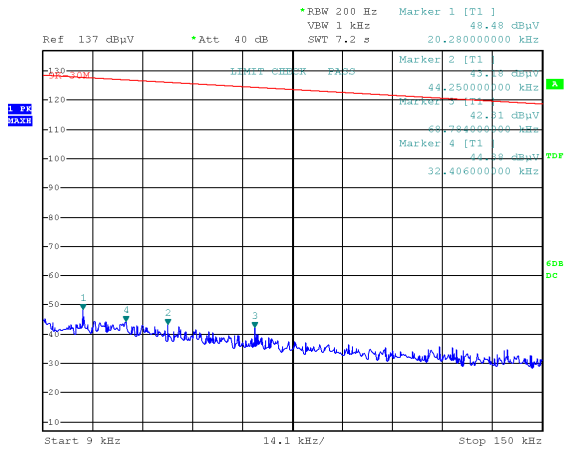
Frequency	MaxPeak	Average	Limit	Margin	Pol	Corr.
(GHz)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dB)		(dB/m)
20.19	---	39.23	54	14.77	H	12.45
20.19	48.41	---	74	25.59	H	12.45
20.24	---	38.93	54	15.07	V	12.5
20.24	48.65	---	74	25.35	V	12.5

Note: The test distance is 3m. The limit is 74dBμV/m (Peak) and 54dBμV/m (Average)

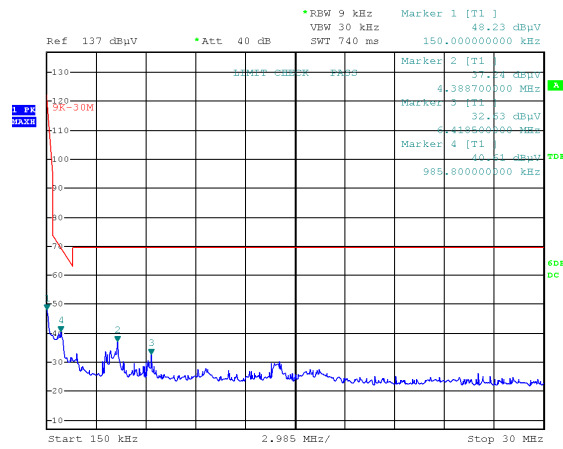
Adapter 2 2.45A

9 kHz-30 MHz: (Transmitting in maximum output power BLE (1 Mbps) middle channel)
Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



Project No.RKSA250509002
Date: 17.JUN.2025 21:21:46

Tester:Jonathan

Project No.RKSA250509002
Date: 17.JUN.2025 21:25:27

Tester:Jonathan

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.020280	48.48	PK	-0.56	121.46	72.981
0.032406	44.38	PK	-1.00	117.39	73.012
0.044250	43.18	PK	-2.89	114.69	71.506
0.068784	42.31	PK	-6.00	110.85	68.544

150kHz-30MHz

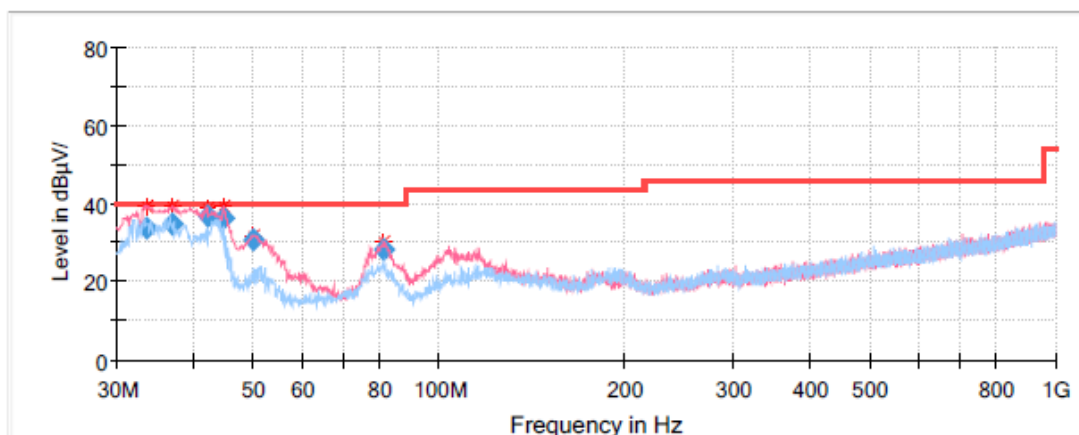
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	48.23	PK	-11.34	104.08	55.85
0.98580	40.61	PK	-27.51	87.73	47.12
4.38870	37.24	PK	-31.97	69.54	32.30
6.41850	32.63	PK	-32.27	69.54	36.91

30 MHz - 1 GHz: (Transmitting in maximum output power BLE (1 Mbps) middle channel)

Middle Channel: 2440 MHz

Common Information

Project No:	RKSA250509002
EUT Model:	ST5 Pro US
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
Receiver Setting:	RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature:	26.4 °C
Humidity:	42%
Barometric Pressure:	100.6 kPa
Test Engineer:	Jonathan
Test Date:	2025/6/17

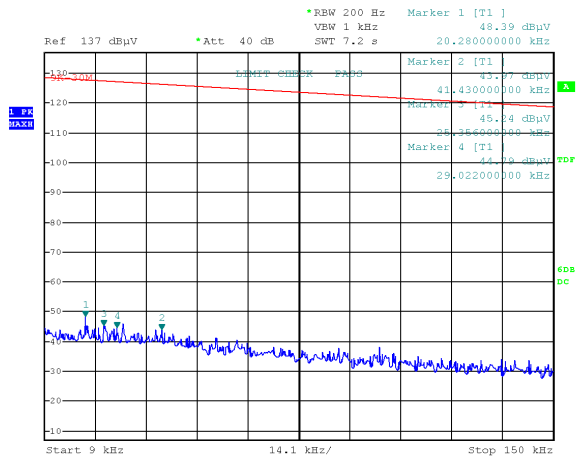


Final_Result

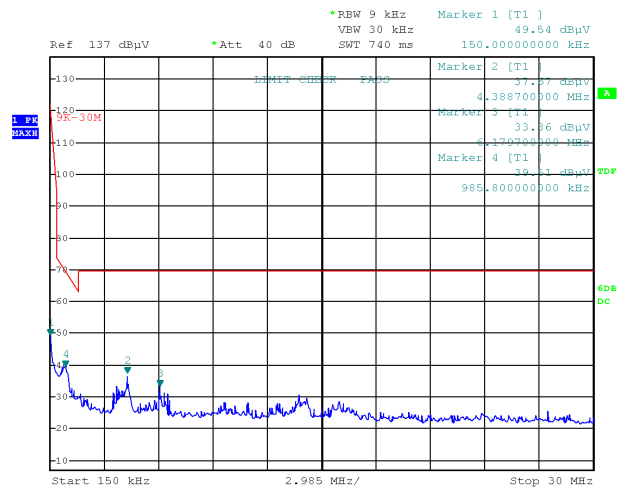
Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
33.395000	33.92	40.00	6.08	V	-6.9
36.911250	34.56	40.00	5.44	V	-7.7
42.003750	36.96	40.00	3.04	V	-8.5
44.550000	36.38	40.00	3.38	V	-13.3
49.763750	30.67	40.00	9.33	V	-16.6
81.531250	28.17	40.00	11.83	V	-17.1

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

9kHz-150kHz



150kHz-30MHz



Project No.RKSA250509002
 Date: 17.JUN.2025 21:29:22

Tester:Jonathan

Project No.RKSA250509002
 Date: 17.JUN.2025 21:32:38

Tester:Jonathan

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.020280	48.39	PK	-0.56	121.46	73.073
0.025356	45.24	PK	-0.59	119.52	74.283
0.029022	44.79	PK	-0.61	118.35	73.56
0.041430	43.97	PK	-2.44	115.26	71.288

150kHz-30MHz

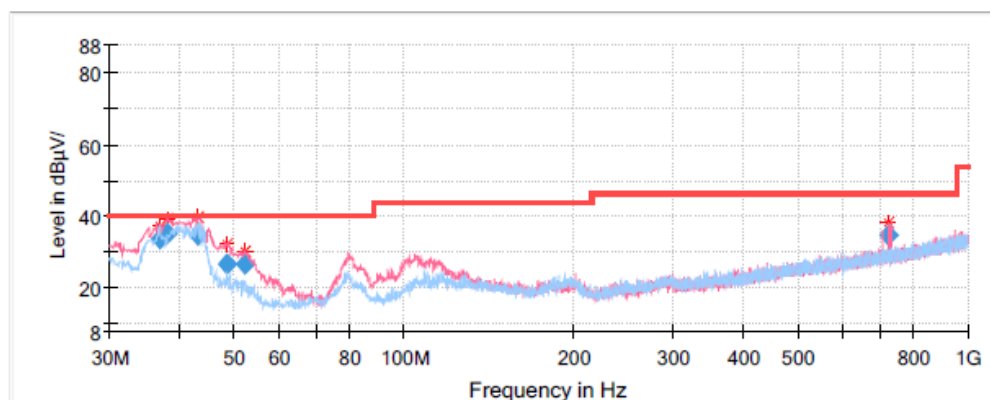
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	49.54	PK	-11.34	104.08	54.54
0.98580	39.51	PK	-27.51	87.73	48.22
4.38870	37.67	PK	-31.97	69.54	31.87
6.17970	33.36	PK	-32.24	69.54	36.18

30 MHz - 1 GHz: (Transmitting in maximum output power BLE (2 Mbps) high channel)

High Channel: 2478MHz

Common Information

Project No:	RKSA250509002
EUT Model:	ST5 Pro US
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
Receiver Setting:	RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature:	26.4 °C
Humidity:	42%
Barometric Pressure:	100.6 kPa
Test Engineer:	Jonathan
Test Date:	2025/6/17



Final Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
36.790000	33.56	40.00	6.44	V	-10.7
38.123750	35.05	40.00	4.95	V	-11.6
42.973750	34.52	40.00	5.48	V	-13.0
48.551250	26.66	40.00	13.34	V	-16.1
52.067500	26.53	40.00	13.47	V	-17.0
723.307500	34.72	46.00	11.28	V	-1.8

6 dB EMISSION BANDWIDTH**Environmental Conditions & Test Information**

Test Date:	2025-05-19	2025-08-22
Temperature:	24.2 °C	24.6°C
Relative Humidity:	49 %	47 %
ATM Pressure:	101.0 kPa	100.9 kPa
Test Result:	Pass	Pass
Test Engineer:	Peter Wang	Peter Wang

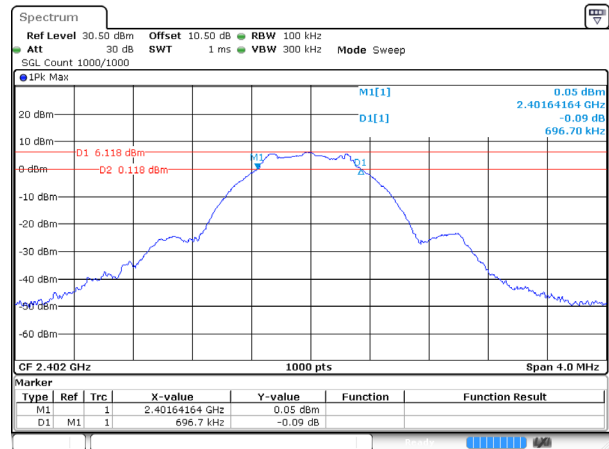
Test Result: Compliant.

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
BLE (1 Mbps)	Low	2402	0.697	≥0.5
	Middle	2440	0.717	≥0.5
	High	2480	0.705	≥0.5
BLE (2 Mbps)	Low	2404	1.128	≥0.5
	Middle	2440	1.128	≥0.5
	High	2478	1.128	≥0.5

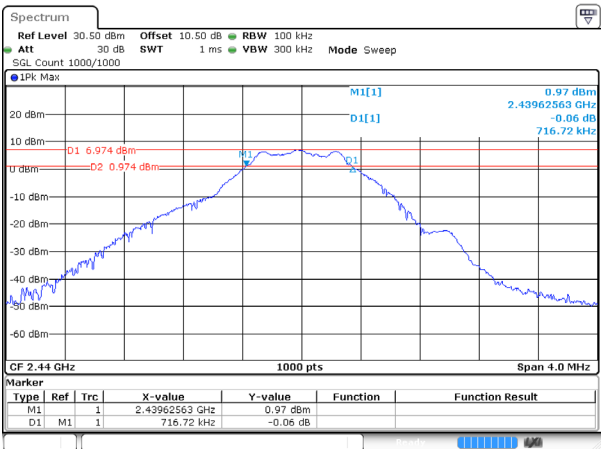
BLE (1 Mbps)

Low Channel



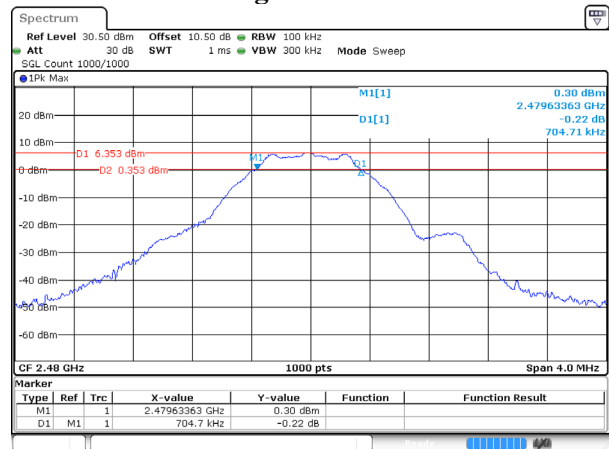
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 14:59:08

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:01:53

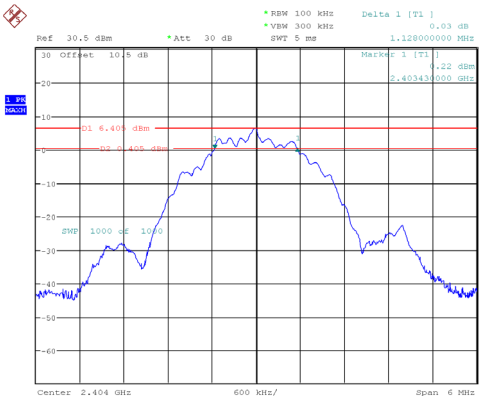
High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:05:11

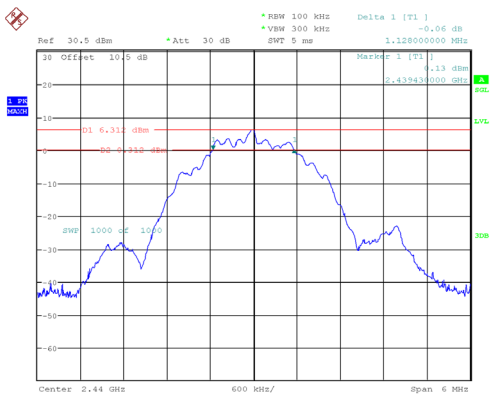
BLE (2 Mbps)

Low Channel



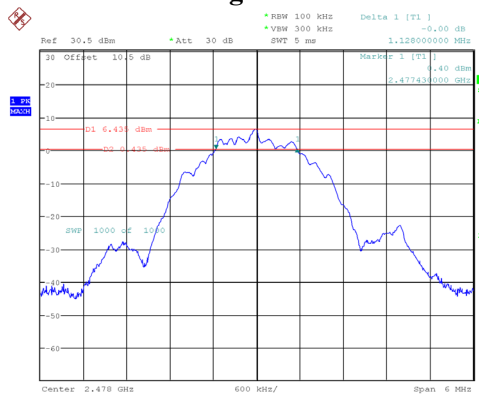
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 23.AUG.2025 11:45:52

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 22.AUG.2025 11:48:46

High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 22.AUG.2025 11:51:22

MAXIMUM CONDUCTED OUTPUT POWER**Environmental Conditions & Test Information**

Test Date:	2025-05-19
Temperature:	24.2 °C
Relative Humidity:	49 %
ATM Pressure:	101.0 kPa
Test Result:	Pass
Test Engineer:	Peter Wang

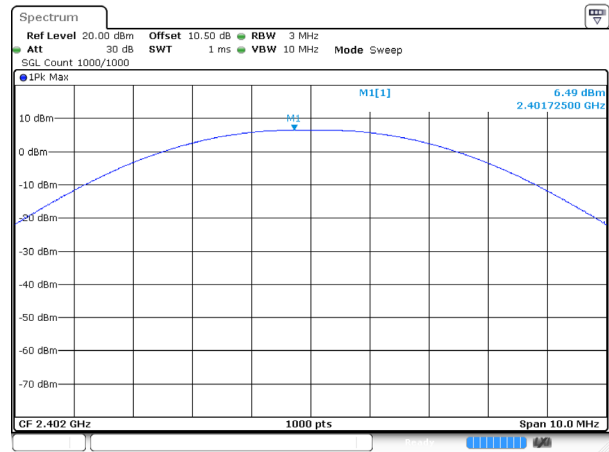
Test Result: Compliant.

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Limit (dBm)	Result
BLE (1 Mbps)	Low	2402	6.49	30	Pass
	Middle	2440	7.36	30	Pass
	High	2480	6.74	30	Pass
BLE (2 Mbps)	Low	2404	7.06	30	Pass
	Middle	2440	7.25	30	Pass
	High	2478	7.44	30	Pass

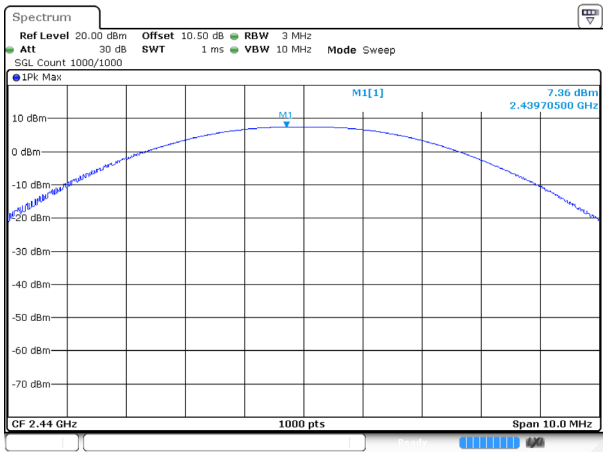
BLE (1 Mbps)

Low Channel



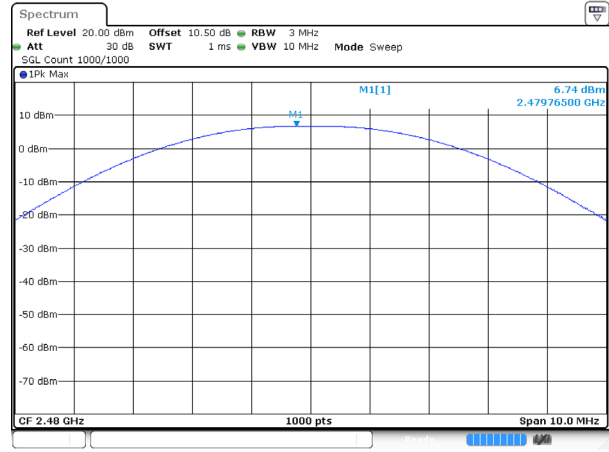
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:00:43

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:03:48

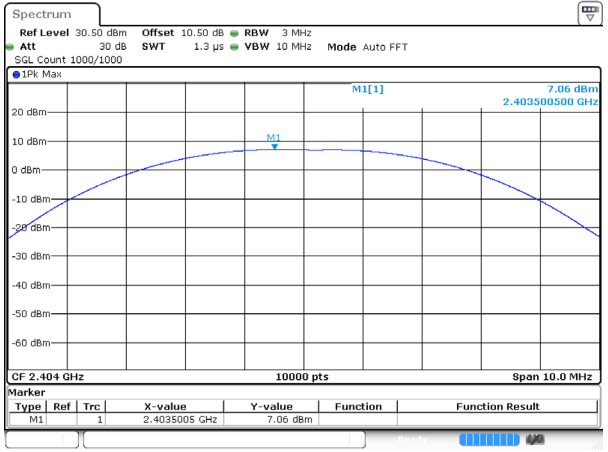
High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:07:28

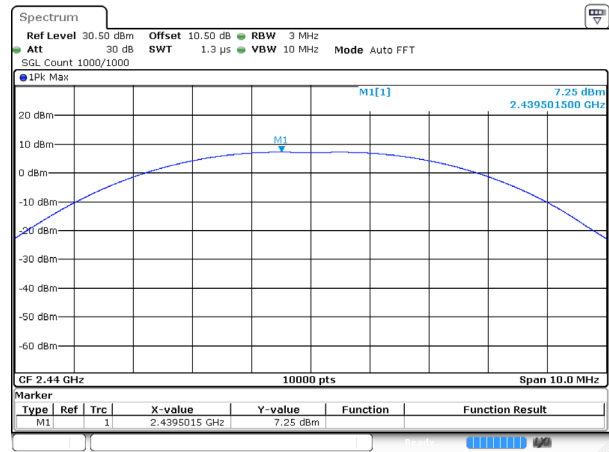
BLE (2 Mbps)

Low Channel



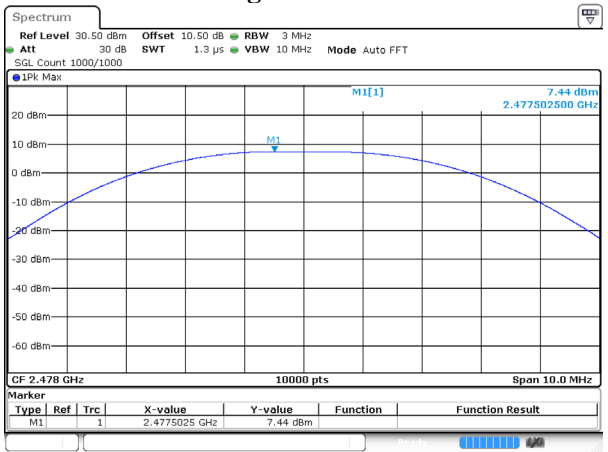
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:30:24

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:29:54

High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:29:25

BAND EDGE**Environmental Conditions & Test Information**

Test Date:	2025-05-19
Temperature:	24.2 °C
Relative Humidity:	49 %
ATM Pressure:	101.0 kPa
Test Result:	Pass
Test Engineer:	Peter Wang

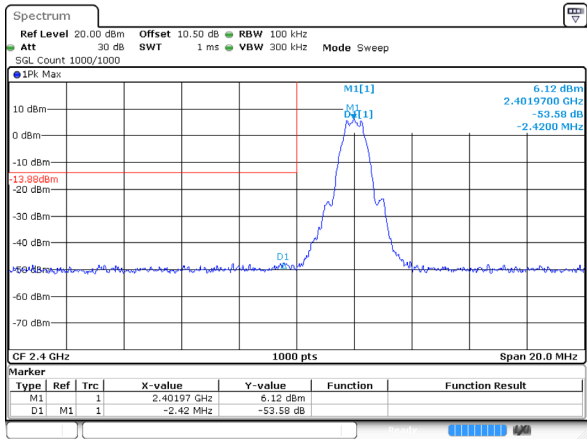
Test Result: Compliant.

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	Result (dBc)	Limit (dBc)
BLE (1 Mbps)	Low	2402	53.58	20
	High	2480	53.30	
BLE (2 Mbps)	Low	2404	54.61	20
	High	2478	55.02	

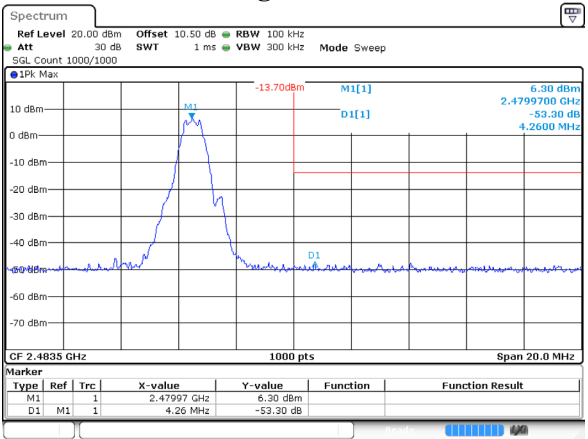
BLE (1 Mbps)

Left Side



ProjectNo.: RKSA250509002 Tester: Peter Wang
Date: 19 MAY 2025 14:59:01

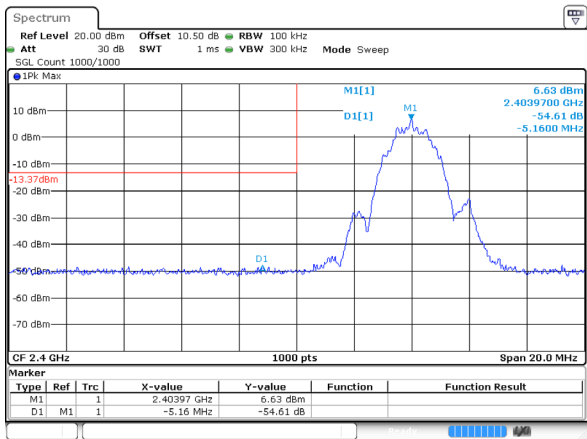
Right Side



ProjectNo.: RKSA250509002 Tester: Peter Wang
Date: 19 MAY 2025 15:05:04

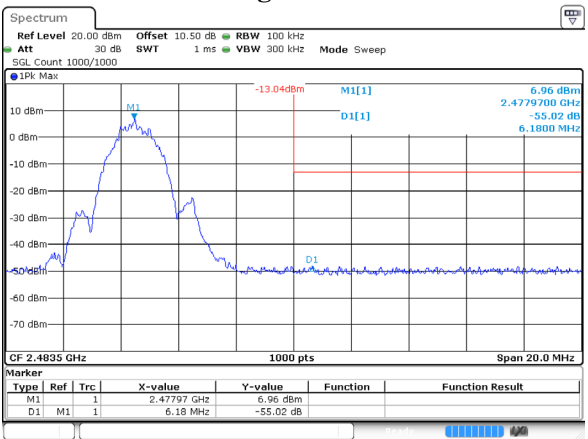
BLE (2 Mbps)

Left Side



ProjectNo.: RKSA250509002 Tester: Peter Wang
Date: 19 MAY 2025 15:08:14

Right Side



ProjectNo.: RKSA250509002 Tester: Peter Wang
Date: 19 MAY 2025 15:14:26

POWER SPECTRAL DENSITY**Environmental Conditions & Test Information**

Test Date:	2025-05-19 ~ 2025-05-20	2025-08-22
Temperature:	24.2 °C ~ 24.6 °C	24.6°C
Relative Humidity:	49 % ~ 52 %	47 %
ATM Pressure:	101.0 kPa ~ 102.1 kPa	100.9 kPa
Test Result:	Pass	Pass
Test Engineer:	Peter Wang	Peter Wang

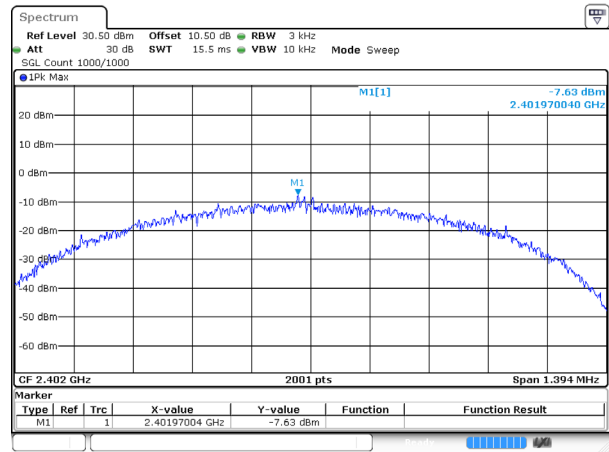
Test Result: Compliant.

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
BLE (1 Mbps)	Low	2402	-7.63	≤8
	Middle	2440	-5.63	≤8
	High	2480	-5.64	≤8
BLE (2 Mbps)	Low	2404	-8.20	≤8
	Middle	2440	-8.80	≤8
	High	2478	-7.57	≤8

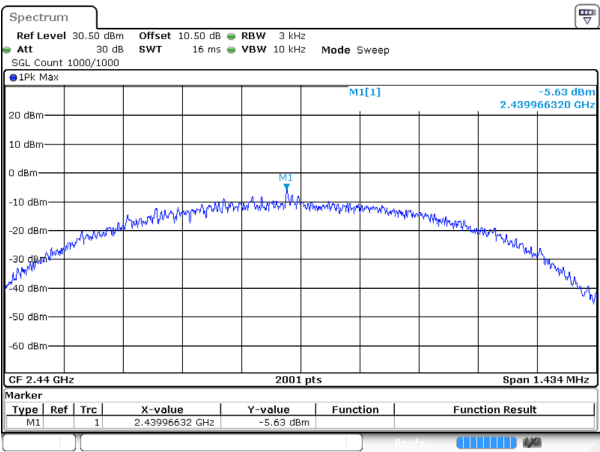
BLE (1 Mbps)

Low Channel



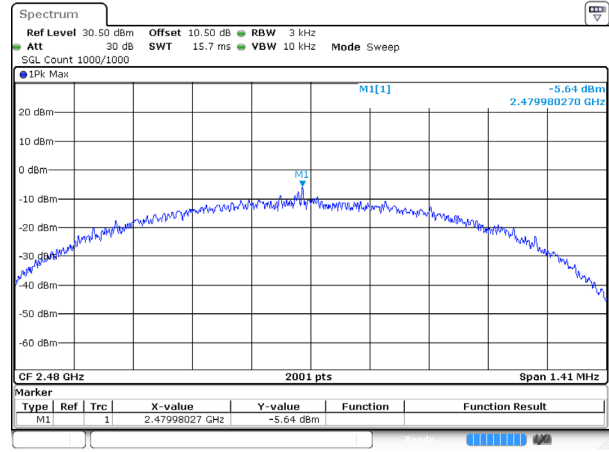
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:01:07

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:04:13

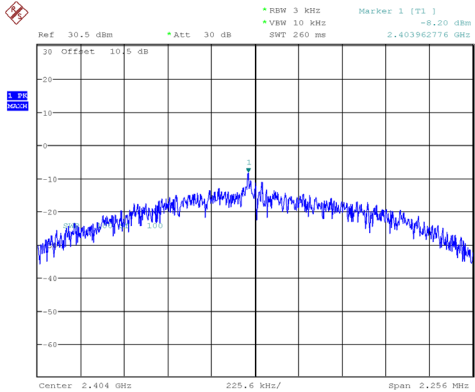
High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 19.MAY.2025 15:07:53

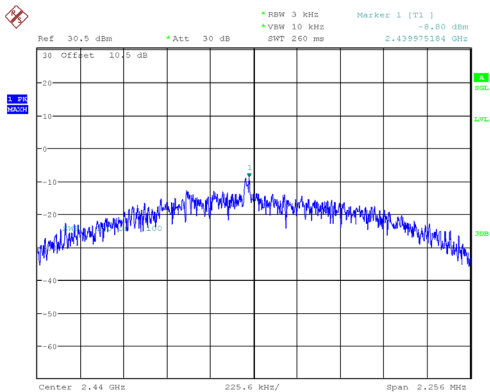
BLE (2 Mbps)

Low Channel



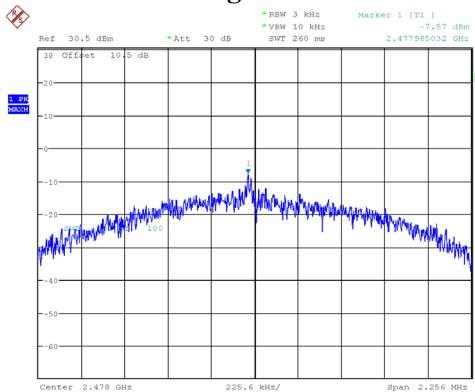
ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 23.AUG.2025 11:47:20

Middle Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 22.AUG.2025 11:49:20

High Channel



ProjectNo.:RKSA250509002 Tester:Peter Wang
Date: 22.AUG.2025 11:52:21

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.

Declarations

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 “★”.
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 *******