

Prüfbericht-Nr.: <i>Test report no.:</i>	CN264ZYT 001	Auftrags-Nr.: <i>Order no.:</i>	27219487	Seite 1 von 27 Page 1 of 27
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2026-01-26	
Auftraggeber: <i>Client:</i>	Shenzhen RAKwireless Technology Co.,Ltd. Room 506, Building B, New Compark, Pingshan First Road, Taoyuan Street, Nanshan District, Shenzhen, Guangdong, P.R. China			
Prüfgegenstand: <i>Test item:</i>	Wisblock Wireless			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	RAK13302 (Trademark: )			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	CFR Title 47 FCC Part 15.247 RSS-247 Issue4 July 2025 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2026-01-27	(Please refer to Photo Document)		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A004314138-001 A004314138-002			
Prüfzeitraum: <i>Testing period:</i>	2026-01-27 - 2026-07-08			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	 Hardy Suo		genehmigt von: <i>authorized by:</i>	 Lin Lin
Datum: <i>Date:</i>	2026-07-08		Ausstellungsdatum: <i>Issue date:</i>	2026-07-08
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / <i>Other:</i>	FCC ID: 2AF6B-13302 IC: 25908-13302, HVIN: RAK13302			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
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Anmerkungen
Remarks

- | | |
|----------|--|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.
Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
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| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.
Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i>
<i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p> |

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM CONDUCTED OUTPUT POWER

5.1.3 POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 20dB BANDWIDTH

RESULT: Pass

5.1.7 CARRIER FREQUENCY SEPARATION

RESULT: Pass

5.1.8 NUMBER OF HOPPING FREQUENCY

RESULT: Pass

5.1.9 TIME OF OCCUPANCY

RESULT: Pass

5.1.10 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.11 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.12 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of LoRa FHSS

Appendix B: Test Results of LoRa DTS

Appendix C: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

A2LA Certificate Number: 5162.01

FCC Test Site Number: CN1260

ISED Test Lab CAB identifier: CN0078

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)						
Equip. No.	Description	Manufacturer	Model	Serial No.	Cal. Date (DD.MM.YYYY)	Cal. until (DD.MM.YYYY)
G1825795	Signal Analyzer	R&S	FSV 40	101441	23.09.2025	22.09.2026
G1825797	Signal Generator	R&S	SMB100A	115186	23.09.2025	22.09.2026
9039442	Automation Control Unit	Tonscend	JS0806-2	21C8060396	23.09.2025	22.09.2026
NA	Control PC	Lenovo	1HH43Q4	F807B09DD5F1	N/A	N/A
NA	Test Software	Tonscend	JS1120-3	N/A	N/A	N/A
G1825801	Power Meter	R&S	NRP2	107105	30.10.2025	29.10.2026
G1829620	Power Sensor	R&S	NRP-Z81	105677	23.09.2025	22.09.2026
G1826431	Shielding Room	Albatross	SR1	APC17151-SR1	14.09.2024	13.09.2027
Unwanted Emission Testing (TS9975)						
Equip. No.	Description	Manufacturer	Model	Serial No.	Cal. Date (DD.MM.YYYY)	Cal. until (DD.MM.YYYY)
G1826021	EMI Test Receiver	R&S	ESR 7	102021	22.09.2025	21.09.2026
G1826023	Signal Analyzer	R&S	FSV 40	101439	22.09.2025	21.09.2026
G1826024	System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A
G1826025	Filterbank	R&S	Wlan	100759	22.09.2025	21.09.2026
G1826026	OSP	R&S	OSP 120	102040	N/A	N/A
G1826028	Pre-amplifier	R&S	SCU08F1	08320031	22.09.2025	21.09.2026
G1826029	Amplifier	R&S	SCU-18F	180070	22.09.2025	21.09.2026
G1826030	Amplifier	R&S	SCU40A	100475	22.09.2025	21.09.2026
G1826031	Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	28.09.2024	27.09.2026
G1826032	Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	28.09.2024	27.09.2026
G1826033	Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	28.09.2024	27.09.2026
G1826034	Active Loop Antenna	Schwarzbeck	FMZB 1513	302	28.09.2024	27.09.2026
G1826036	Test software	R&S	EMC32 (V10.60.10)	N/A	N/A	N/A

G1826037	Control PC	Dell	OptiPlex 7050	36NV9P2	N/A	N/A
G1826433	3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	14.09.2024	13.09.2027

AC Conducted Emissions					
Equip. No.	Equipment	Manufacturer	M/N	S/N	Calibrated Until
GC-SZ 001009	EMI Test Receiver	R&S	ESR3	102428	2026-07-18
GC-SZ 004634	Artificial Mains Network	R&S	ENV432	101546	2027-02-03
GC-SZ 001011	Artificial Mains Network	R&S	ENV432	101411	2026-07-18
GC-SZ 024285	AC-AMN(LISN)	Schwarzbeck	NNLK 8130 RC	05219	2027-03-20

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	±4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

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2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The Product is a Wisblock Wireless that supports 915 MHz LoRa.

RAK13302 has two different types of transmitter antenna that have the same power level.

- 1) One PCB ANT with 0.7dBi (declared by RAK), model: S2B1OD3A1L01000
- 2) One Dipole ANT with 1.89 dBi (declared by RAK), model: 81800V294, 81800V296 (81800V294 and 81800V296 are identical except the color of appearance)

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT		Value	
Kind of Equipment:		Wisblock Wireless	
Type Designation:		RAK13302	
Trademark:			
FCC ID:		2AF6B-13302	
IC:		25908-13302	
HVIN:		RAK13302	
Operating Voltage:		DC 5V	
Testing Voltage:		DC 5V (powered by computer) or AC 120V/60Hz (DC 5V powered by computer)	
Technical Specification of LoRa FHSS			
Operating Frequency:		902.3 MHz - 914.9 MHz	
Type of Modulation:		LoRa	
Data Rate:	Data Rate	Configuration	Indicative physical bit rate [bit/sec]
	0	LoRa Modulation: SF10 / Bandwidth 125 kHz	980
	1	LoRa Modulation: SF9 / Bandwidth 125 kHz	1760
	2	LoRa Modulation: SF8 / Bandwidth 125 kHz	3125
	3	LoRa Modulation: SF7 / Bandwidth 125 kHz	5470
Channel Number:		64	
Channel Separation:		200 kHz	
Occupied Bandwidth:		125 kHz	
Antenna Type:		PCB ANT or Dipole ANT	
Antenna Number:		1	
Antenna Gain:		PCB ANT with 0.7 dBi (declared by RAK) Dipole ANT with 1.89 dBi (declared by RAK)	
The type of wideband data transmission equipment:		FHSS	
Technical Specification of LoRa DTS			

Operating Frequency:	903.0 MHz - 914.2 MHz		
Type of Modulation:	LoRa		
Data Rate:	Data Rate	Configuration	Indicative physical bit rate [bit/sec]
	4	LoRa Modulation: SF8 / Bandwidth 500 kHz	12500
Channel Number:	8		
Channel Separation:	1.6 MHz		
Occupied Bandwidth:	500 kHz		
Antenna Type:	PCB ANT or Dipole ANT		
Antenna Number:	1		
Antenna Gain:	PCB ANT with 0.7 dBi (declared by RAK) Dipole ANT with 1.89 dBi (declared by RAK)		
The type of wideband data transmission equipment:	DTS		
Remark: LoRa FHSS and LoRa DTS share the same one transmitter port and cannot transmit simultaneously.			

Table 4: RF Channel and Frequency of LoRa FHSS

Channel Number	Frequency (MHz)
1	902.3
2	902.5
3	902.7
4	902.9
5	903.1
6	903.3
...	...+200 kHz
64	914.9

Table 5: RF Channel and Frequency of LoRa DTS

Channel Number	Frequency (MHz)
1	903
2	904.6
3	906.2
4	907.8
5	909.4
6	911.0
7	912.6
8	914.2

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, LoRa FHSS wireless
 - 1 Transmitting (Low / Middle / High channel)
 - 2 Bluetooth Hopping mode
- B. On, LoRa DTS wireless
 - 1 Transmitting (Low / Middle / High channel)
- C. On, Normal Link

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|------------------------------|-------------------------|
| - Application Form | - User Manual |
| - ID Label and Location Info | - Operation Description |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024. According to clause 3.1, all tests were performed on model RAK13302 in this report. Pre-testing on all data rates, the worst case was recorded in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 6: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	Remark
Laptop	Lenovo	T480	S/N: PF-16A6N8

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

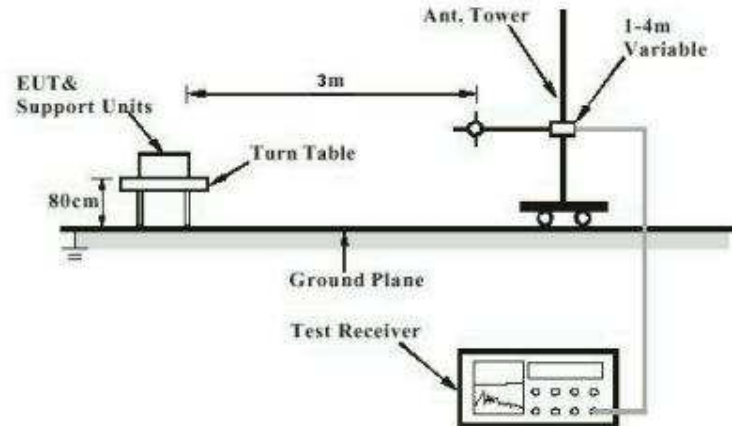


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

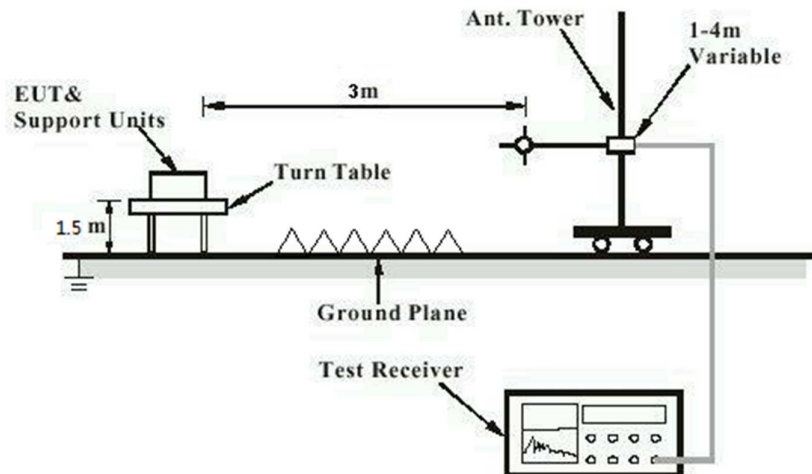


Diagram of Measurement Configuration for Mains Conduction Measurement

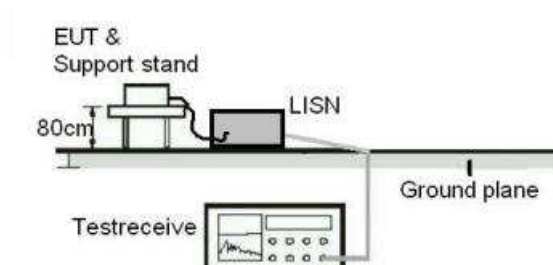
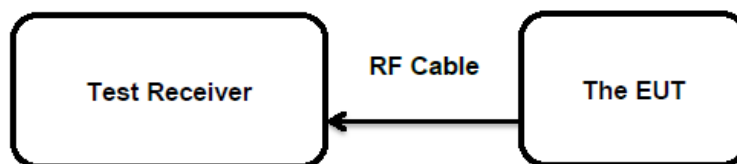


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen Clause 6.8

According to the manufacturer declared, the EUT has a unique IPEX connector for PCB ANT and Dipole ANT, the max. gain of PCB ANT is 0.7dBi, the max. gain of Dipole ANT is 1.89dBi.

PCB ANT has a unique IPEX connector used with EUT;
Dipole ANT has a reversed SMA connector and a unique IPEX connector used with EUT.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Conducted Output Power

Test Specification

Test standard	: FCC Part 15.247(b)(1)&(3) RSS-247 Clause 6.2.3.2, Clause 6.3.2
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits	: FHSS < 0.125 Watts, DTS < 1.0 Watts
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-01-27 - 2026-07-07
Input voltage	: DC 5V
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: 22.5 °C
Relative humidity	: 54.5 %
Atmospheric pressure	: 101 kPa

Table 7: Test Result of Maximum Conducted Output Power, LoRa FHSS

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
LoRa FHSS	SF 7	902.3	24.34	0.2716	< 1.0
		908.7	24.62	0.2897	
		914.9	24.22	0.2642	
LoRa FHSS	SF 10	902.3	23.83	0.2415	
		908.7	24.24	0.2655	
		914.9	24.22	0.2642	
Maximum Measured Value			24.62	0.2897	
Max. e.i.r.p.=24.62dBm+1.89dBi=26.51dBm, which is less than 36dBm=4W.					

Table 8: Test Result of Maximum Conducted Output Power, LoRa DTS

Test Mode	Data Rate	Test Channel (MHz)	Measured Average Power		Limit (W)
			(dBm)	(W)	
LoRa DTS	SF 8	903.0	24.52	0.2831	< 1.0
		907.8	24.37	0.2735	
		914.2	24.49	0.2812	
Maximum Measured Value		24.52	0.2831		
Max. e.i.r.p.=24.52dBm+1.89dBi=26.41dBm, which is less than 36dBm=4W.					

Note:

- 1) The cable loss is taken into account in results.
- 2) Max. Antenna gain(G):
0.7 dBi for PCB ANT
1.89 dBi for Dipole ANT
- 3) Identical power level for PCB ANT and Dipole ANT

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5.1.3 Power Spectral Density

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(e)
RSS-247 Clause 6.3.1 (b)
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits : < 8 dBm / 3kHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : B
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 9: Test Result of Maximum Peak Power Spectral Density, Lora DTS

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
LoRa DTS	SF 8	903.0	-0.59	< 8
		907.8	-0.77	
		914.2	-0.41	
		Maximum Measured Value		-0.41

5.1.4 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(2)
RSS-247 Clause 6.3.1 (b)
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits : > 500 KHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : B
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 10: Test Result of 6dB Bandwidth, Lora DTS

Test Mode	Data Rate	Test Channel (MHz)	6dB Bandwidth (kHz)	Limit (kHz)
LoRa DTS	SF 8	903.0	636.800	< 500
		907.8	636.800	
		914.2	640.400	
Minimum Measured Value			636.800	

5.1.5 99% Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)
RSS-Gen Clause 6.7
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : A, B
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A, B.

Table 11: Test Result of 99% Bandwidth, Lora FHSS

Test Mode	Data Rate	Test Channel (MHz)	99% Bandwidth (kHz)	F _L (MHz)	F _H (MHz)	Limit (kHz)
LoRa FHSS	SF 7	902.3	126.628	902.237	902.363	Within assigned Band 902-928MHz
		908.7	126.628	908.637	908.763	
		914.9	126.628	914.837	914.963	
Maximum Measured Value						

Table 12: Test Result of 99% Bandwidth, Lora DTS

Test Mode	Data Rate	Test Channel (MHz)	99% Bandwidth (kHz)	F _L (MHz)	F _H (MHz)	Limit (kHz)
LoRa DTS	SF 8	903.0	506.512	902.756	903.253	Within assigned Band 902-928MHz
		907.8	506.512	907.546	908.053	
		914.2	506.512	913.946	914.453	
Maximum Measured Value			506.512	902.756	914.453	

5.1.6 20dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(1)
RSS-247 Clause 6.2.3.1 (a)
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 13: Test Result of 20dB Bandwidth, Lora FHSS

Test Mode	Data Rate	Test Channel (MHz)	20dB Bandwidth (kHz)	Limit
LoRa FHSS	SF 7	902.3	141.820	< 500 kHz
		908.7	142.550	
		914.9	140.380	
Maximum Measured Value			142.550	

5.1.7 Carrier Frequency Separation

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(1)
RSS-247 Clause 6.2.3.1 (a)
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits : $\geq 25\text{kHz}$ or 2/3 of 20dB bandwidth, whichever is greater
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 14: Test Result of Carrier Frequency Separation, Lora FHSS

Test Mode	Data Rate	Test Channel (MHz)	Measured Channel Separation (kHz)	Limit (kHz)
LoRa FHSS	SF 7	Low Channel	200.720	≥ 20dB bandwidth
		Adjacency Channel		
		Middle Channel	200.720	
		Adjacency Channel		
		High Channel	200.720	
		Adjacency Channel		

Note:

The limit is more than maximum 20 dB bandwidth: 142.550 kHz.

5.1.8 Number of Hopping Frequency

RESULT:

Pass

Test Specification

Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 6.2.3.1 (a)

Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-
2023 + Amendment 1-2024

Limits : ≥ 15 non-overlapping channels

Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07

Input voltage : DC 5V

Operation mode : A

Ambient temperature : Low / Middle / High

Relative humidity : 22.5 °C

Atmospheric pressure : 54.5 %

For details refer to following test result.

Table 15: Test Result of hopping channel number, Lora FHSS

Test Mode	20dB Bandwidth(kHz)	Hopping frequencies	Limit
LoRa FHSS	20dB Bandwidth < 250	64	> 50

5.1.9 Time of Occupancy

RESULT:**Pass****Test Specification**

Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 6.2.3.1 (b)
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits : < 0.4s
Kind of test site : Shielded Room

Test Setup

Date of testing : 2026-01-27 - 2026-07-07
Input voltage : DC 5V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.5 °C
Relative humidity : 54.5 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

Table 16: Test Result of hopping channel number, Lora FHSS

Test Mode	20dB Bandwidth(kHz)	Period (s)	Channel Occupancy Time (ms)	Limit (ms)
LoRa FHSS	20dB Bandwidth < 250	20	329	400

5.1.10 Conducted Spurious Emissions Measured in 100 kHz Bandwidth**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-01-27 - 2026-07-07
Input voltage	: DC 5V
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: 22.5 °C
Relative humidity	: 54.5 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A, B.

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5.1.11 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1- 2023 + Amendment 1-2024
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Section 8.9 & 8.10
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2026-01-27 - 2026-07-07
Input voltage	: DC 5V
Operation mode	: A, B
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A, B.

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5.1.12 Conducted Emission on AC Mains**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020 + Corrigendum 1-2023 + Amendment 1-2024
Frequency range	: 0.15 – 30MHz
Classification	: Class B
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2026-07-08
Input voltage	: AC 120V, 60Hz
Operation mode	: C
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A, B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix C.

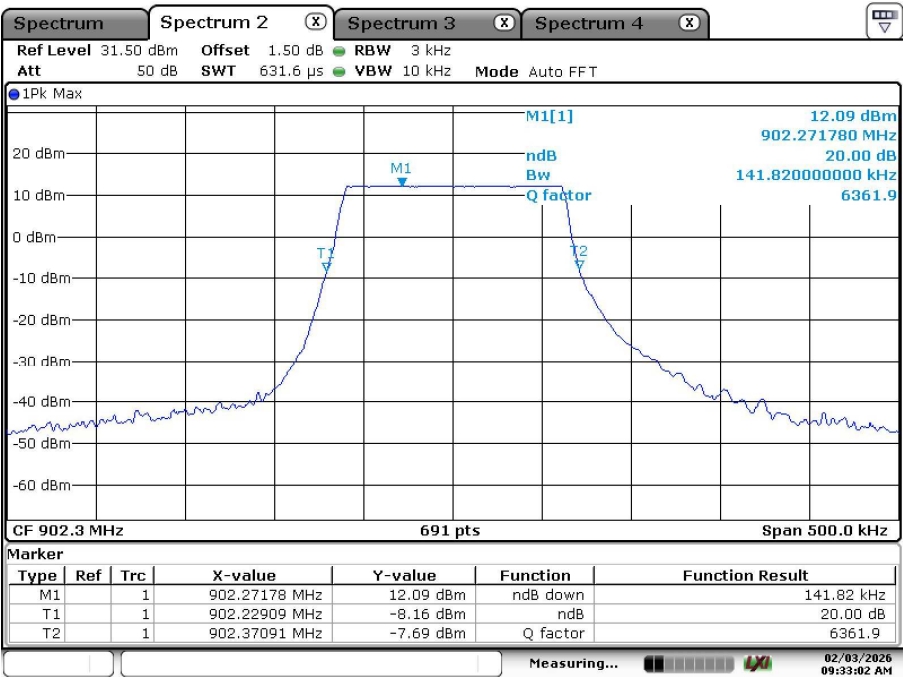
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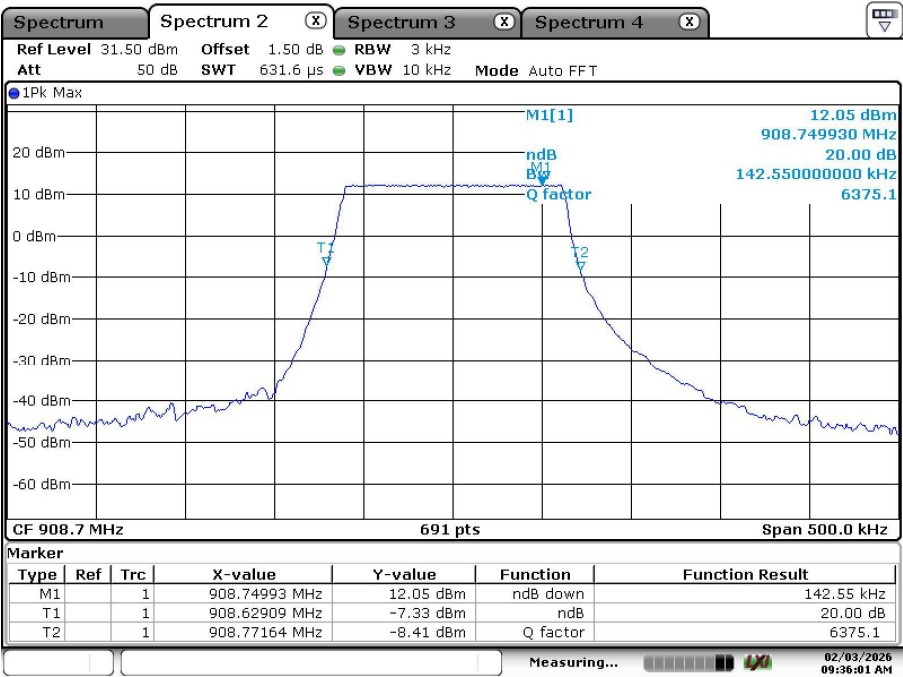
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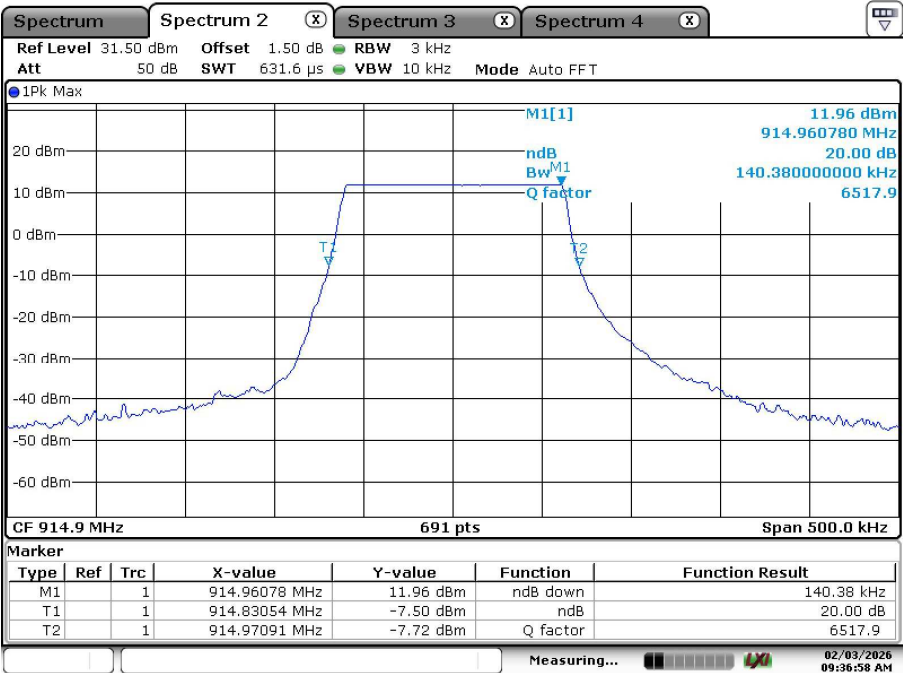
Appendix A.1: Test Results of 20dB Bandwidth



Date: 3.FEB.2026 09:33:01

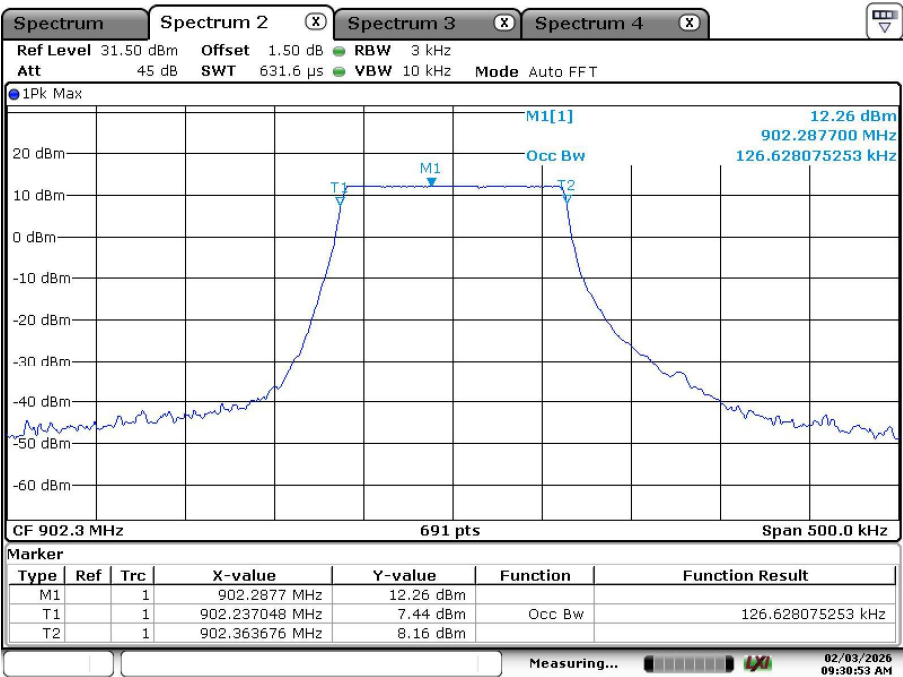


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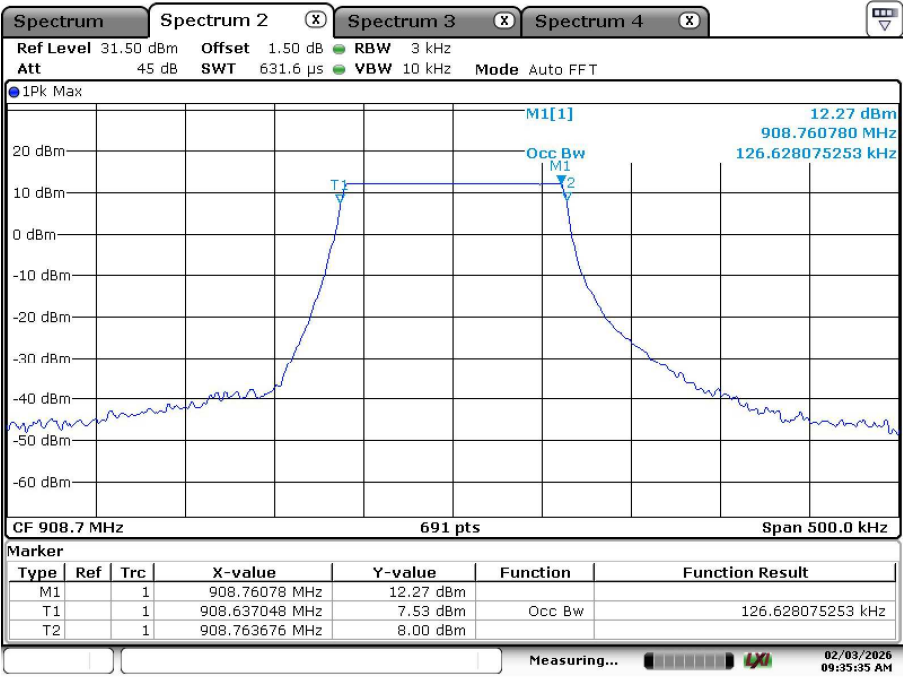


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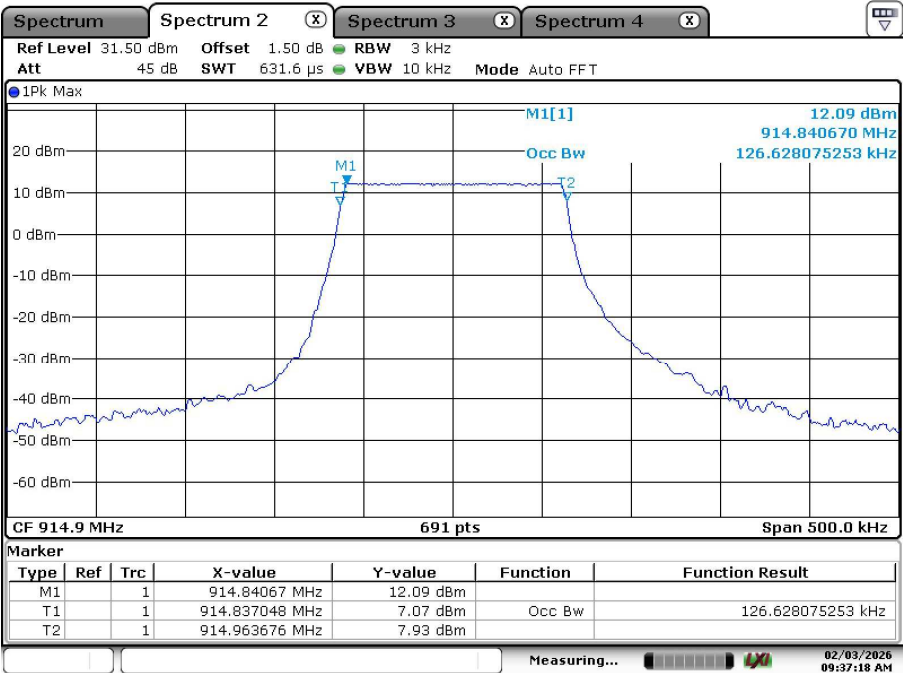
Appendix A.2: Test Results of 99% Bandwidth



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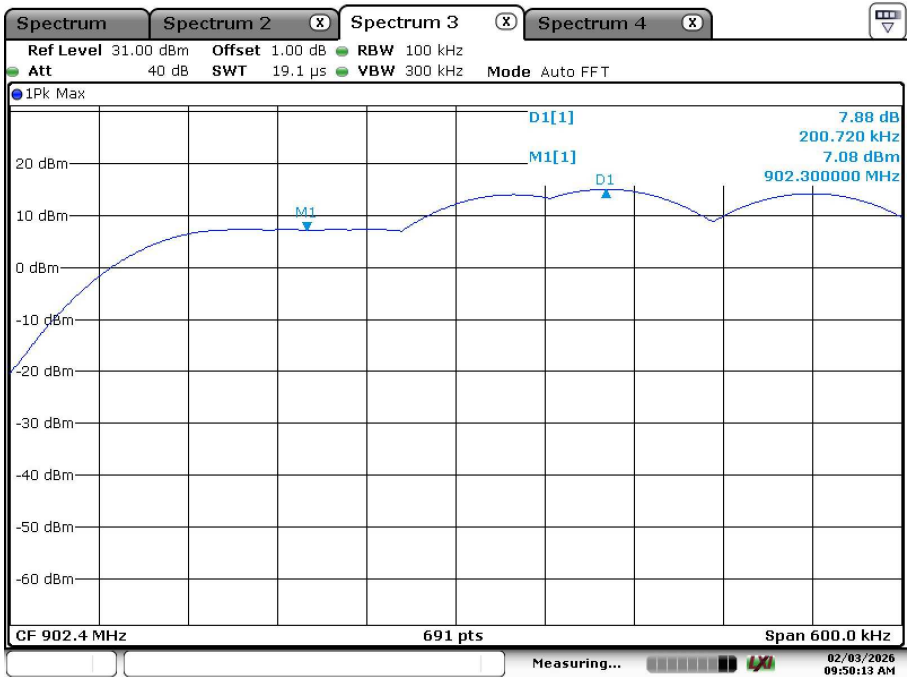


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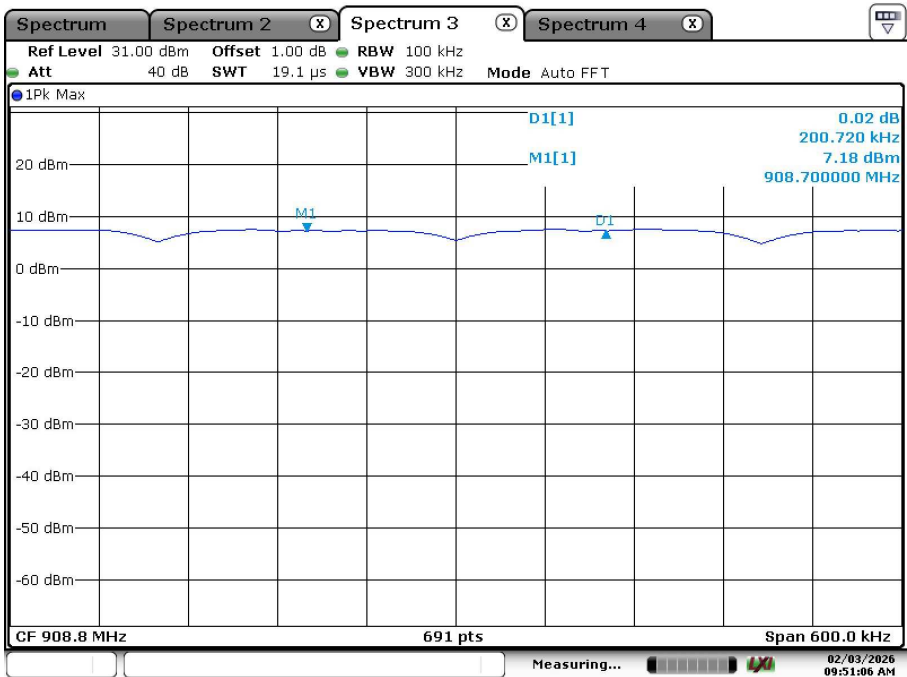


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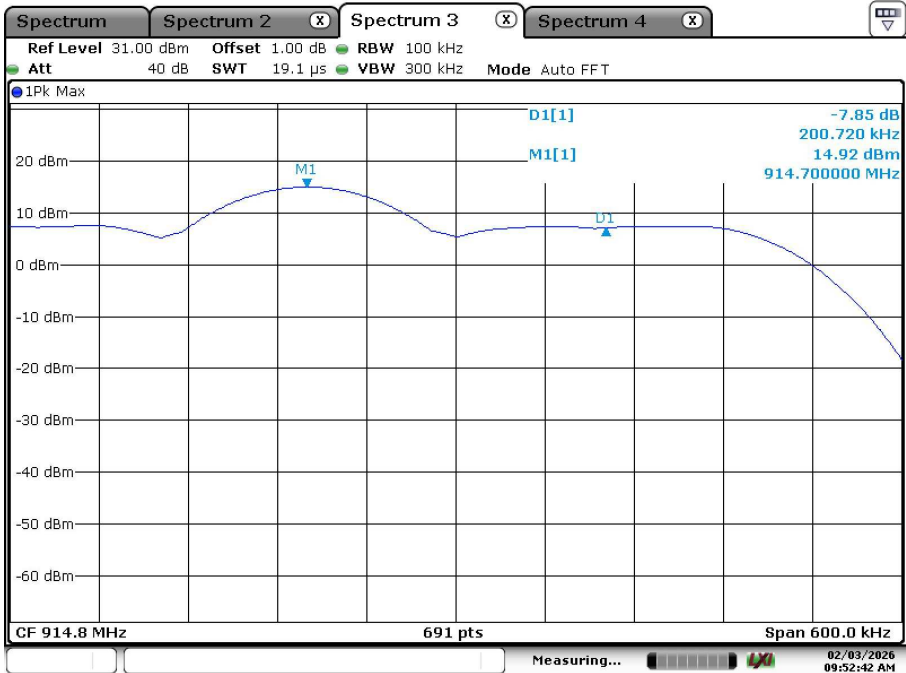
Appendix A.3: Test Results of Carrier Frequency Separation



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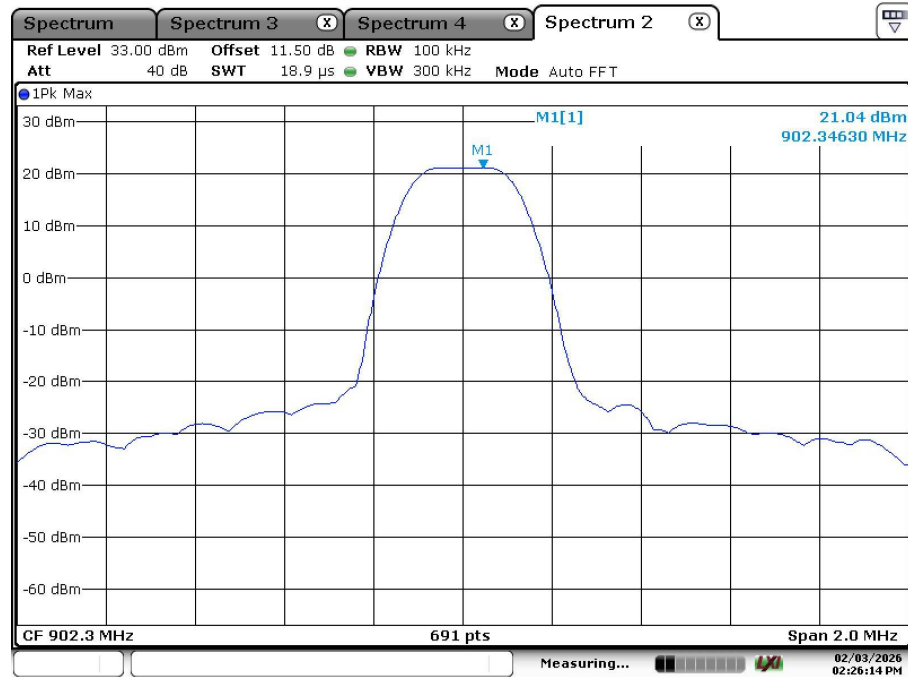
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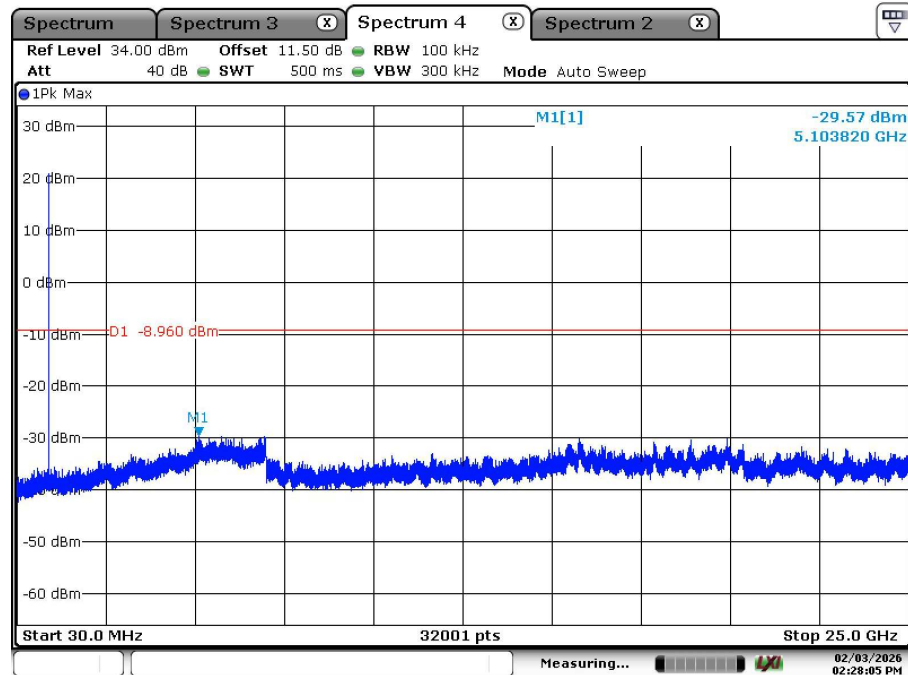
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Appendix A.4: Test Results of Conducted Spurious Emission

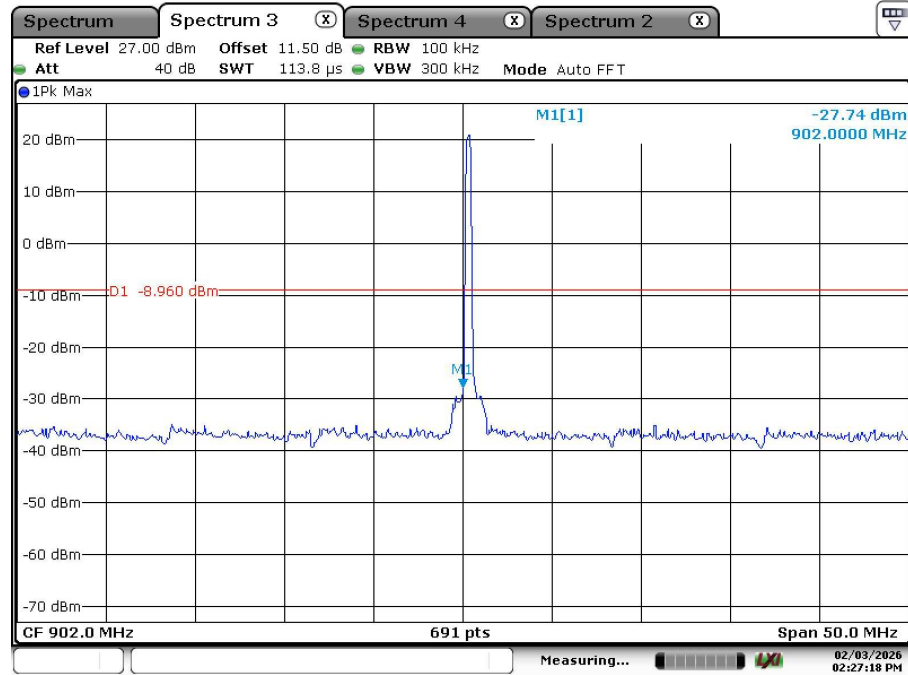
non hopping mode



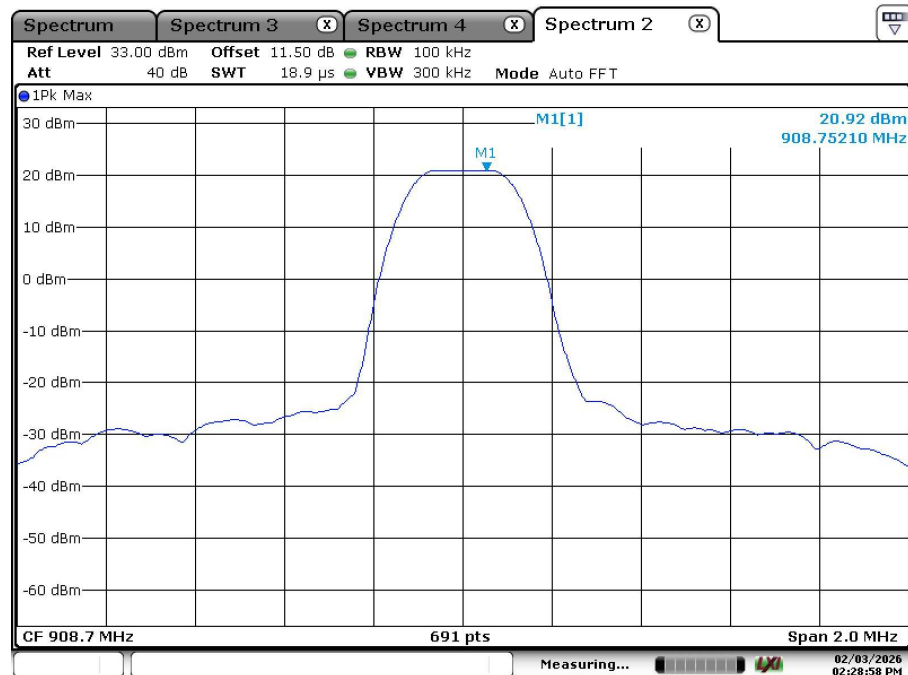
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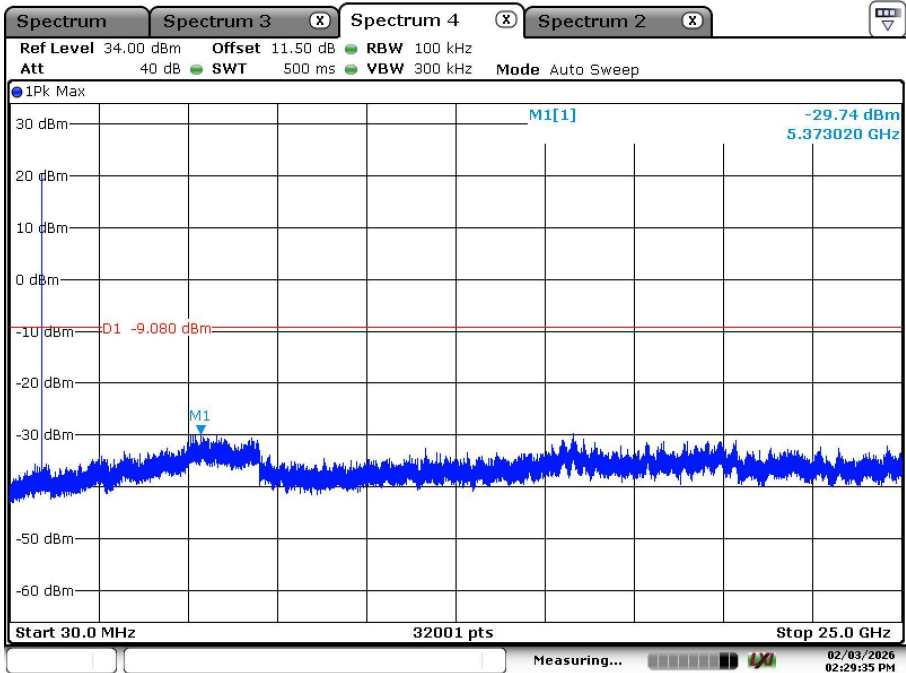
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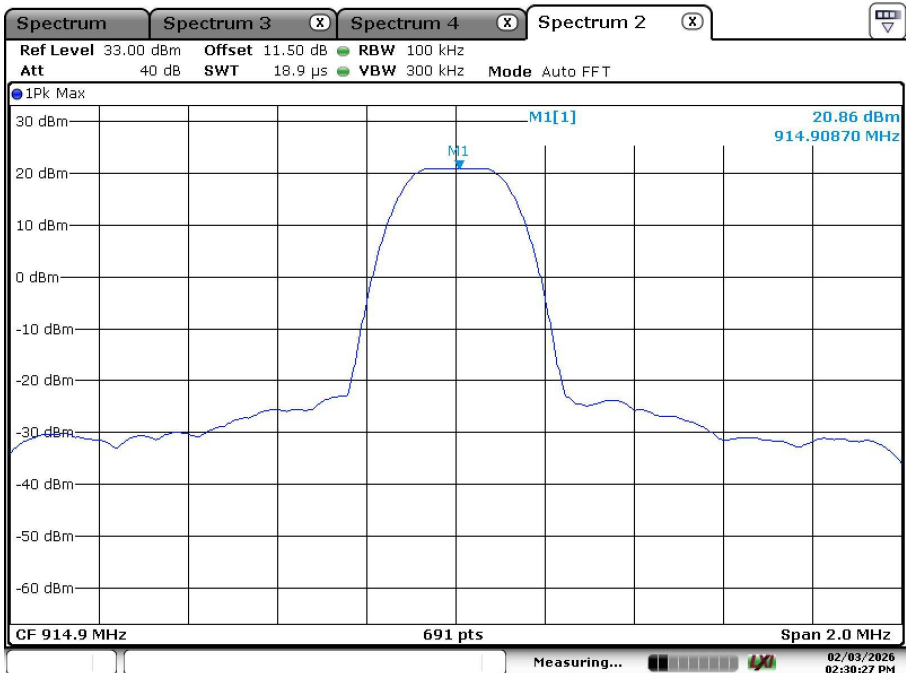
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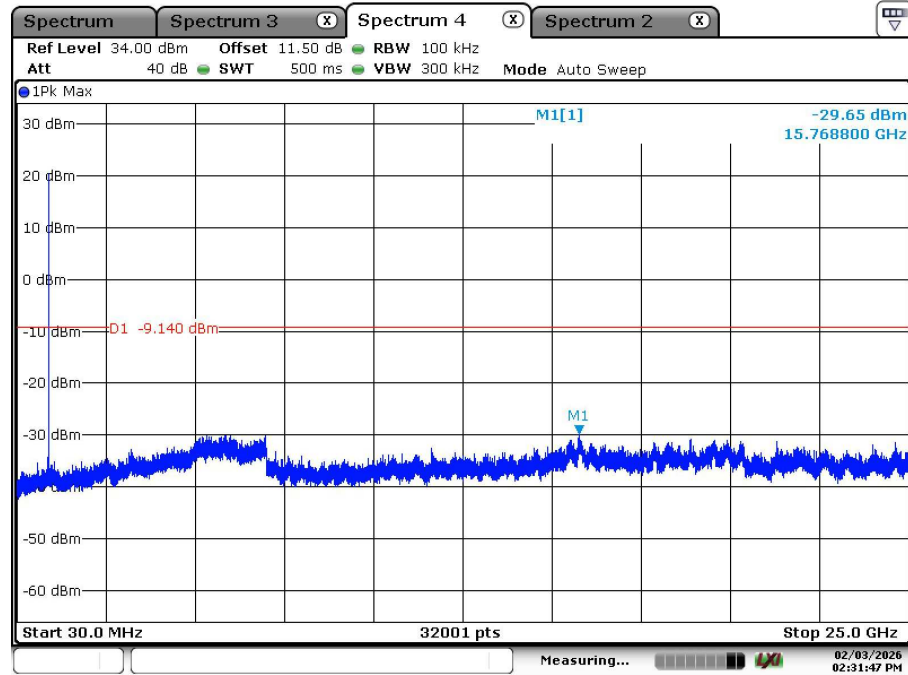
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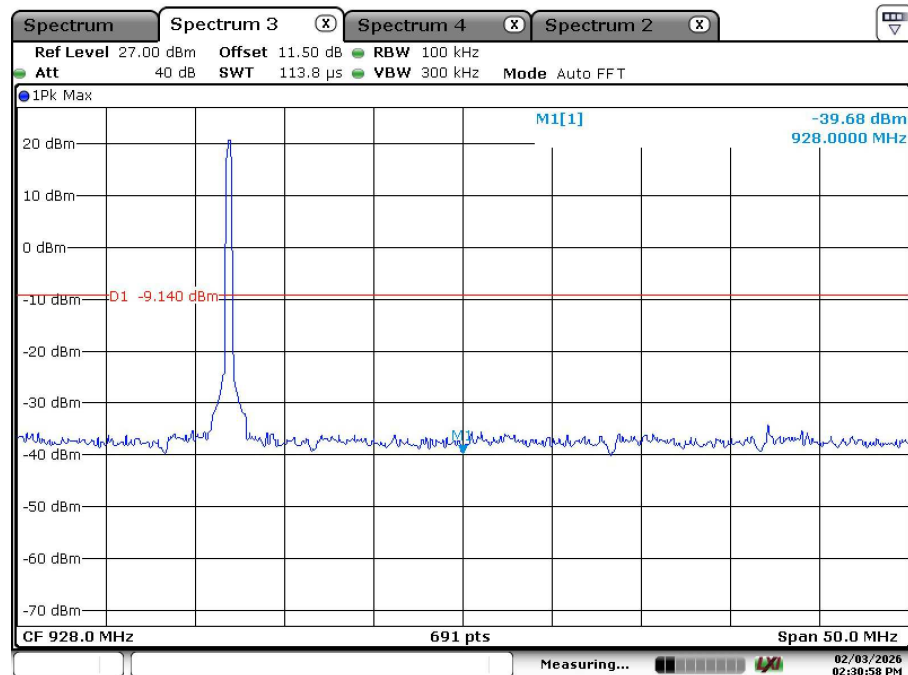
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Date: 3.FEB.2026 14:30:27

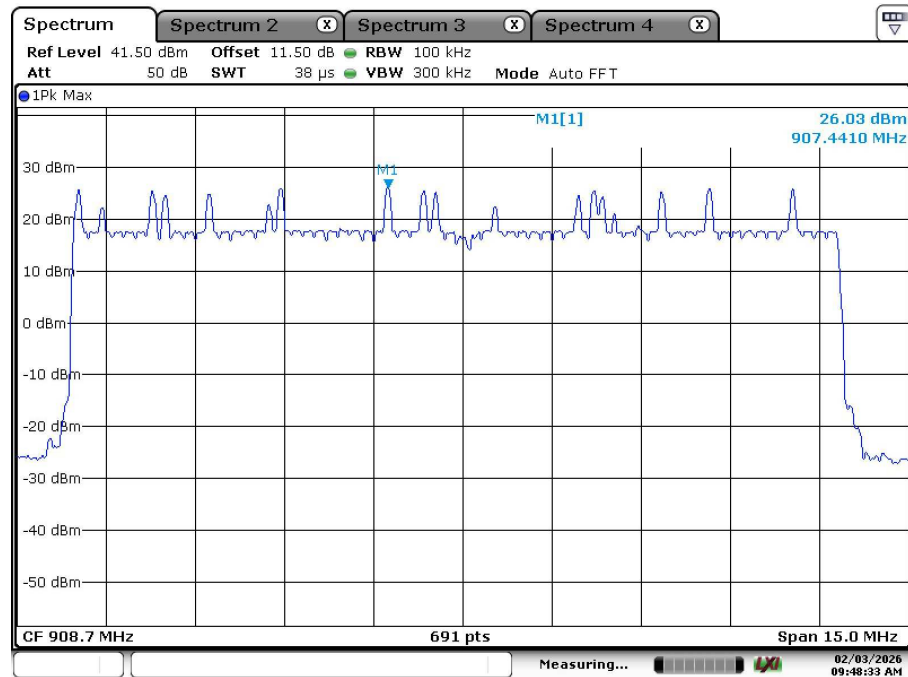


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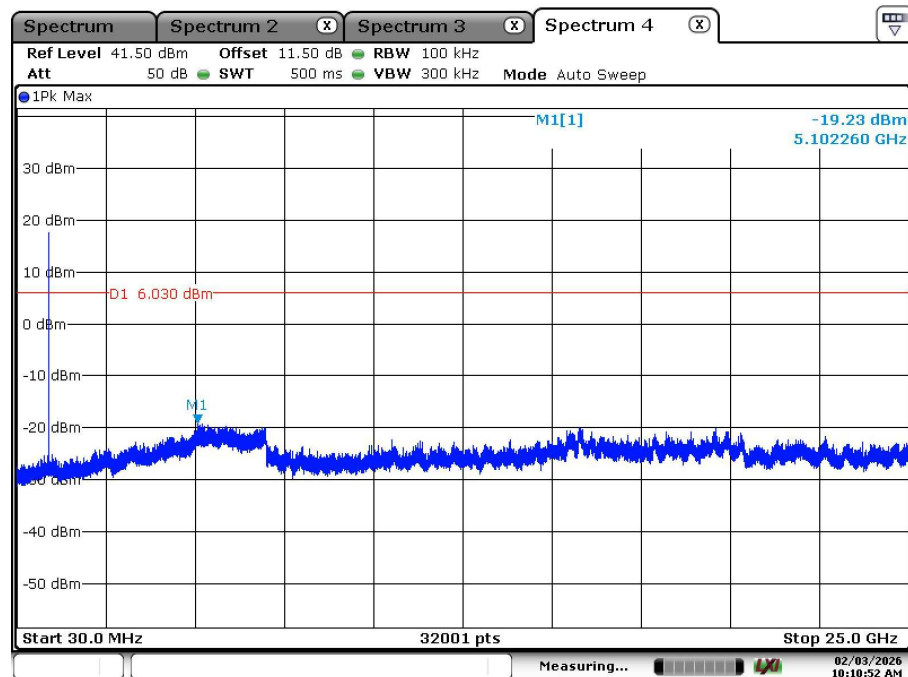


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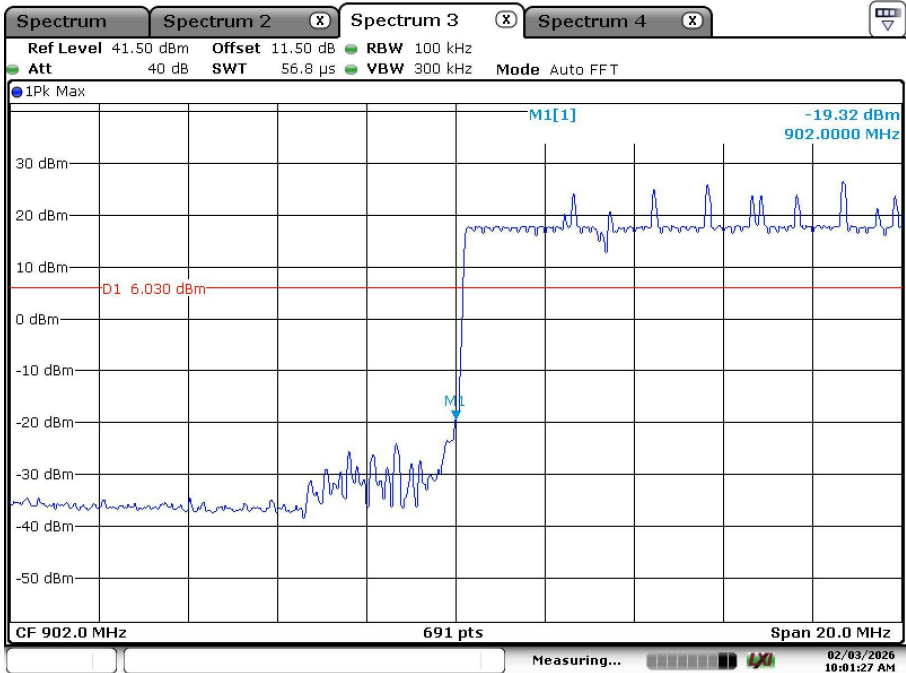
hopping mode



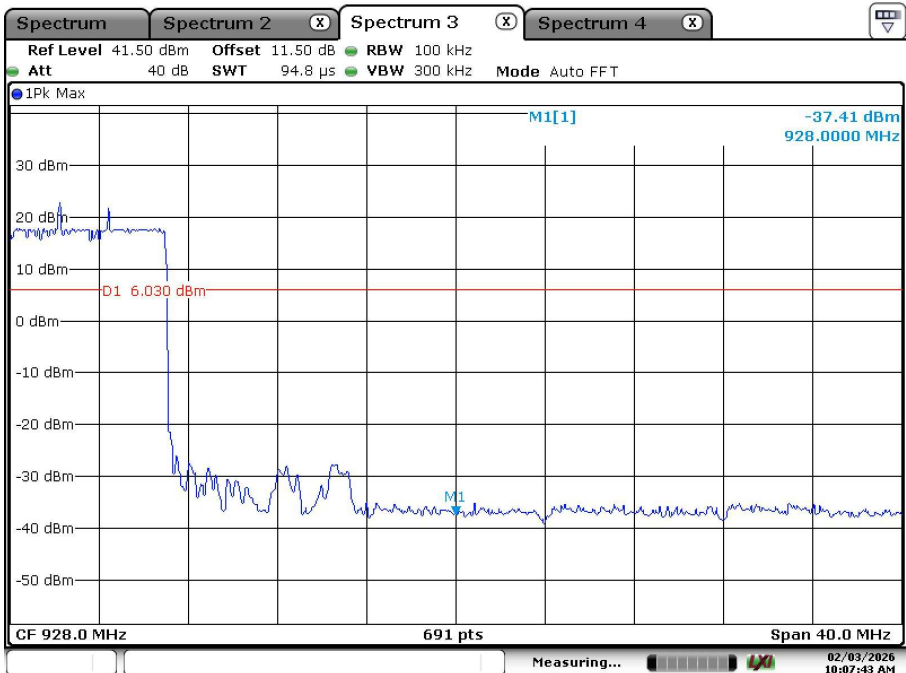
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Date: 3.FEB.2026 10:10:52



Date: 3.FEB.2026 10:01:27



Date: 3.FEB.2026 10:07:43

Appendix A.5: Test Results of Radiated Spurious Emissions

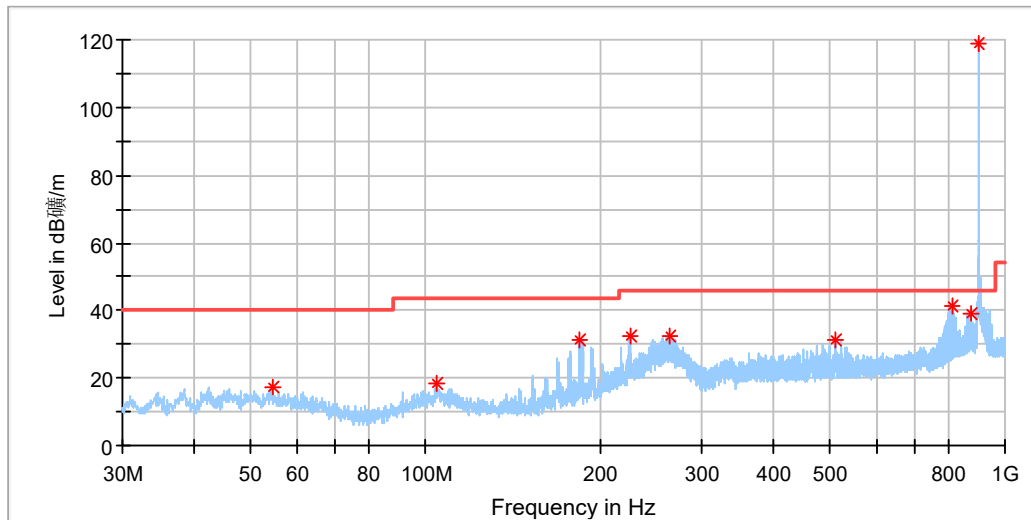
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 10GHz were reported.

30 MHz - 1GHz for PCB ANT

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_902.3MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

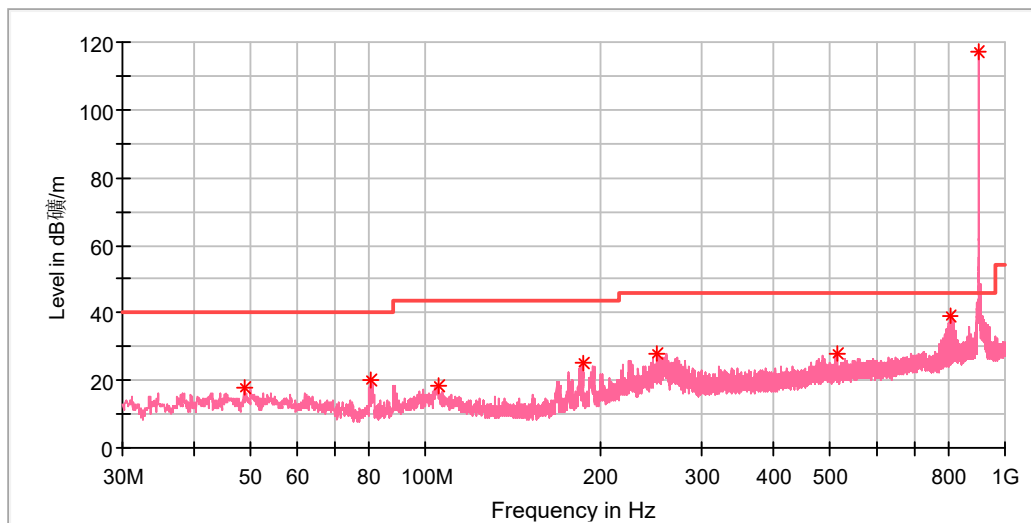
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
54.465556	17.03	40.00	22.97	100.0	H	192.0	-18.5
104.690000	18.28	43.50	25.22	100.0	H	124.0	-18.9
184.822778	31.53	43.50	11.97	100.0	H	287.0	-20.1
225.077778	32.10	46.00	13.90	100.0	H	250.0	-18.4
265.171111	32.31	46.00	13.70	100.0	H	287.0	-17.0
509.395556	31.14	46.00	14.86	100.0	H	116.0	-11.7
808.209444	41.42	46.00	4.58	100.0	H	234.0	-6.0
874.546667	38.83	46.00	7.17	100.0	H	40.0	-5.1
902.299444	118.69	---	---	100.0	H	162.0	-4.8

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_902.3MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

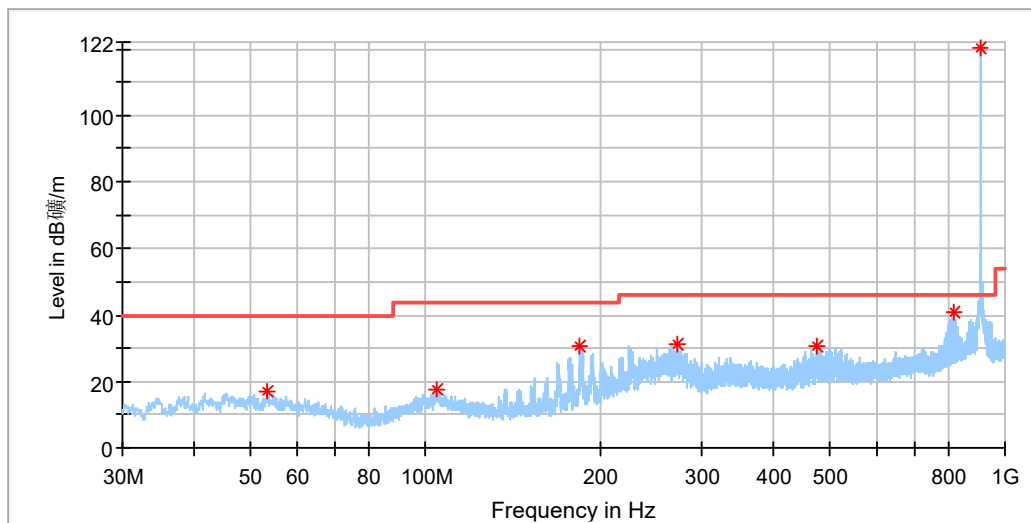
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.591667	17.82	40.00	22.18	100.0	V	156.0	-18.5
80.547778	20.15	40.00	19.85	100.0	V	81.0	-23.5
105.282778	18.15	43.50	25.35	100.0	V	20.0	-18.9
186.816667	24.91	43.50	18.59	100.0	V	277.0	-19.9
250.782778	28.13	46.00	17.87	100.0	V	36.0	-17.3
514.892222	27.90	46.00	18.10	100.0	V	130.0	-11.6
803.036111	38.81	46.00	7.19	100.0	V	342.0	-6.1
902.407222	117.27	---	---	100.0	V	277.0	-4.8

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

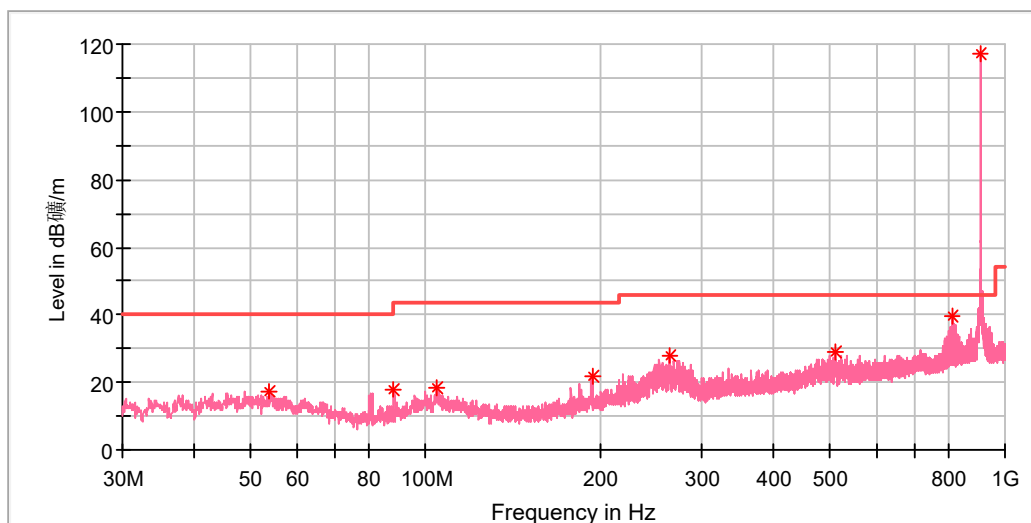
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.549444	17.20	40.00	22.80	100.0	H	27.0	-18.5
104.205000	17.42	43.50	26.08	100.0	H	69.0	-18.9
185.253889	30.53	43.50	12.97	100.0	H	76.0	-20.1
273.038889	31.01	46.00	14.99	100.0	H	253.0	-16.9
473.775000	30.48	46.00	15.52	100.0	H	319.0	-12.3
816.077222	40.79	46.00	5.21	100.0	H	253.0	-5.9
908.712222	120.06	---	---	100.0	H	170.0	-4.7

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

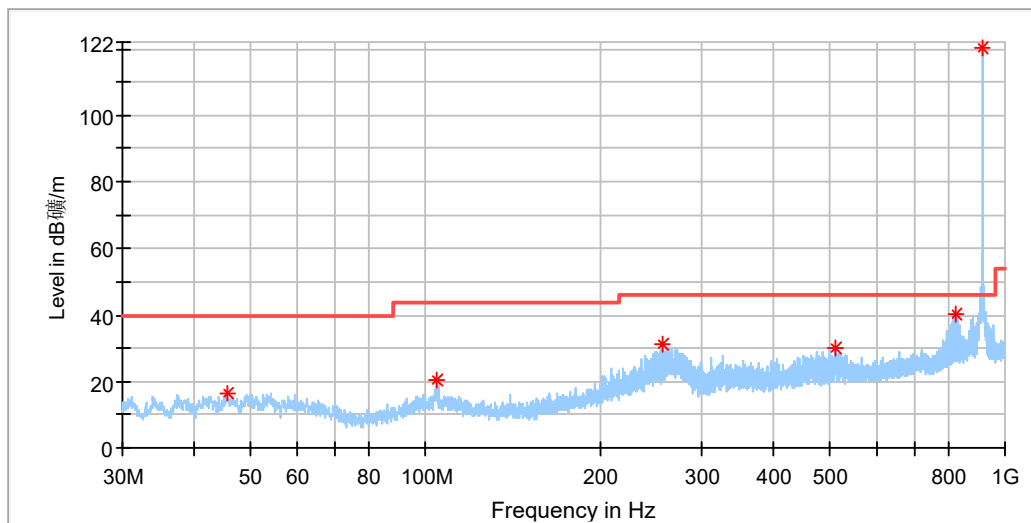
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.765000	17.19	40.00	22.81	100.0	V	277.0	-18.5
88.361667	17.96	43.50	25.54	100.0	V	358.0	-21.6
104.474444	18.66	43.50	24.84	100.0	V	338.0	-18.9
194.307222	21.59	43.50	21.91	100.0	V	0.0	-19.3
263.608333	27.88	46.00	18.12	100.0	V	134.0	-17.1
511.227778	29.21	46.00	16.79	100.0	V	119.0	-11.7
812.682222	39.39	46.00	6.61	100.0	V	330.0	-5.9
908.712222	117.06	---	---	100.0	V	315.0	-4.7

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_914.9MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

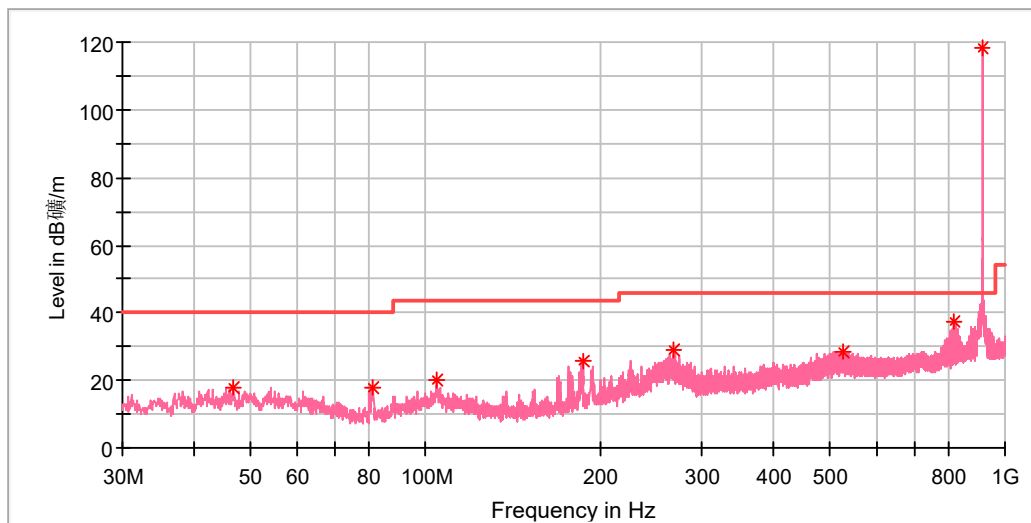
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.573889	16.67	40.00	23.33	100.0	H	279.0	-18.8
104.636111	20.24	43.50	23.26	100.0	H	296.0	-18.9
257.303333	30.96	46.00	15.04	100.0	H	70.0	-17.2
511.120000	29.87	46.00	16.13	100.0	H	343.0	-11.7
823.244444	40.26	46.00	5.74	100.0	H	234.0	-5.7
914.963333	120.44	---	---	100.0	H	166.0	-4.6

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_914.9MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.705556	17.96	40.00	22.04	100.0	V	195.0	-18.7
81.356111	18.00	40.00	22.00	100.0	V	294.0	-23.3
104.797778	20.20	43.50	23.30	100.0	V	40.0	-18.9
186.924444	25.49	43.50	18.01	100.0	V	164.0	-19.9
269.212778	28.78	46.00	17.22	100.0	V	96.0	-17.0
525.508333	28.54	46.00	17.46	100.0	V	32.0	-11.3
820.065000	37.23	46.00	8.77	100.0	V	272.0	-5.8
914.963333	118.10	---	---	100.0	V	279.0	-4.6

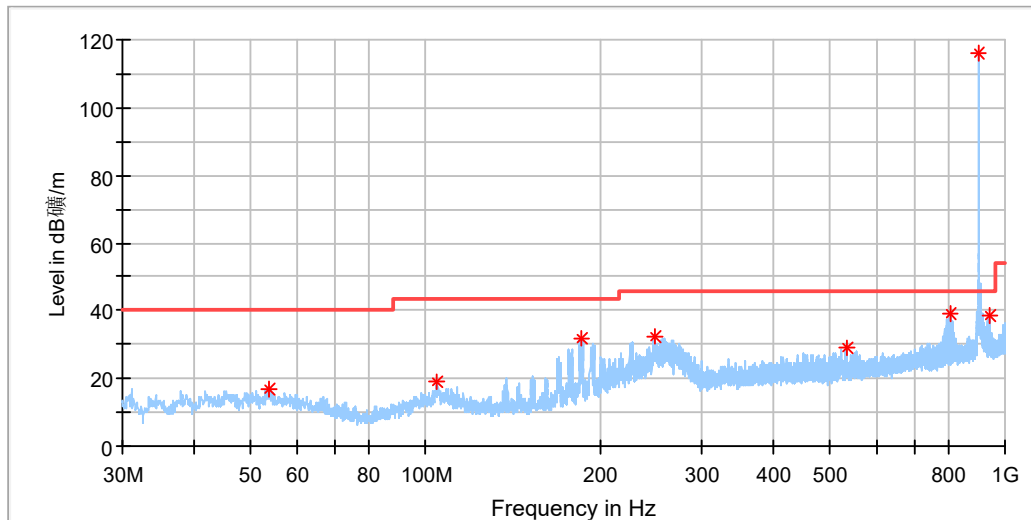
Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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30 MHz - 1GHz for Dipole ANT

EUT Information

EUT Name: Wisblock Wireless
Model: RAK13302
Test Mode: FHSS 125K_SF10_902.3MHz
Order No/Sample No: 27219487/A004314138-002
Test Voltage: Battery
Remark: Temp 23.8°C Humi:57%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

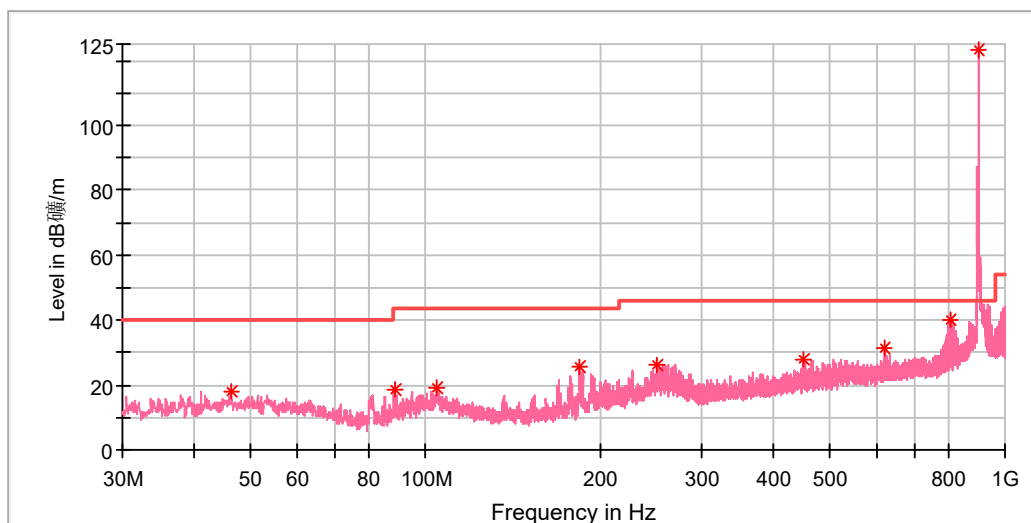
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.603333	16.66	40.00	23.34	100.0	H	153.0	-18.5
104.851667	18.74	43.50	24.76	100.0	H	74.0	-18.9
186.008333	31.96	43.50	11.54	100.0	H	252.0	-20.0
248.681111	32.62	46.00	13.38	100.0	H	291.0	-17.4
533.807222	29.28	46.00	16.72	100.0	H	140.0	-11.1
803.898333	39.29	46.00	6.71	100.0	H	147.0	-6.1
902.353333	115.82	---	---	100.0	H	140.0	-4.8
940.398889	38.68	46.00	7.32	100.0	H	140.0	-4.4

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name: Wisblock Wireless
Model: RAK13302
Test Mode: FHSS 125K_SF10_902.3MHz
Order No/Sample No: 27219487/A004314138-002
Test Voltage: Battery
Remark: Temp 23.8°C Humi:57%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

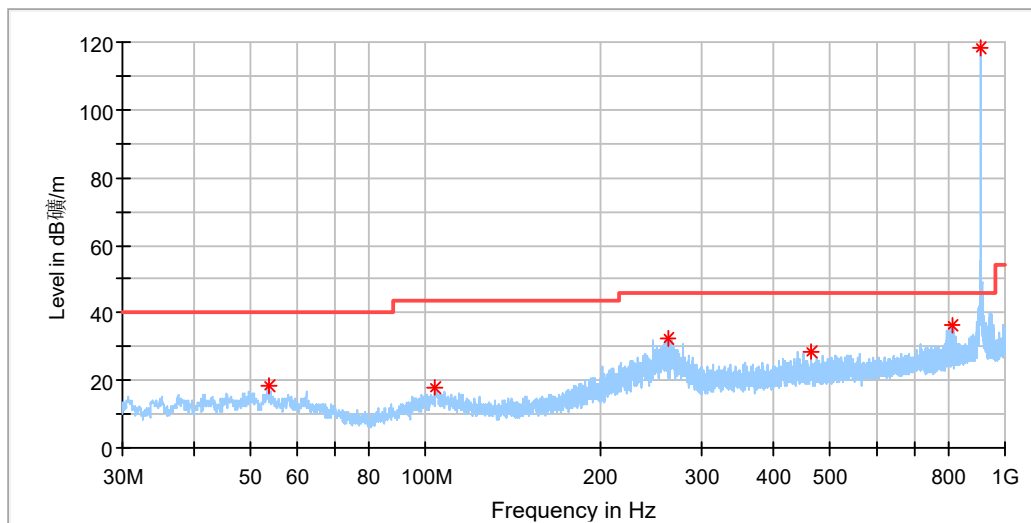
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.328333	17.81	40.00	22.19	100.0	V	315.0	-18.7
88.415556	18.52	43.50	24.98	100.0	V	13.0	-21.6
104.420556	19.42	43.50	24.08	100.0	V	55.0	-18.9
184.499444	25.43	43.50	18.07	100.0	V	226.0	-20.1
250.028333	25.95	46.00	20.05	100.0	V	256.0	-17.4
450.279444	27.89	46.00	18.11	100.0	V	167.0	-12.8
620.245000	31.12	46.00	14.88	100.0	V	127.0	-9.3
804.491111	39.85	46.00	6.15	100.0	V	127.0	-6.1
902.299444	123.13	---	---	100.0	V	127.0	-4.8

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

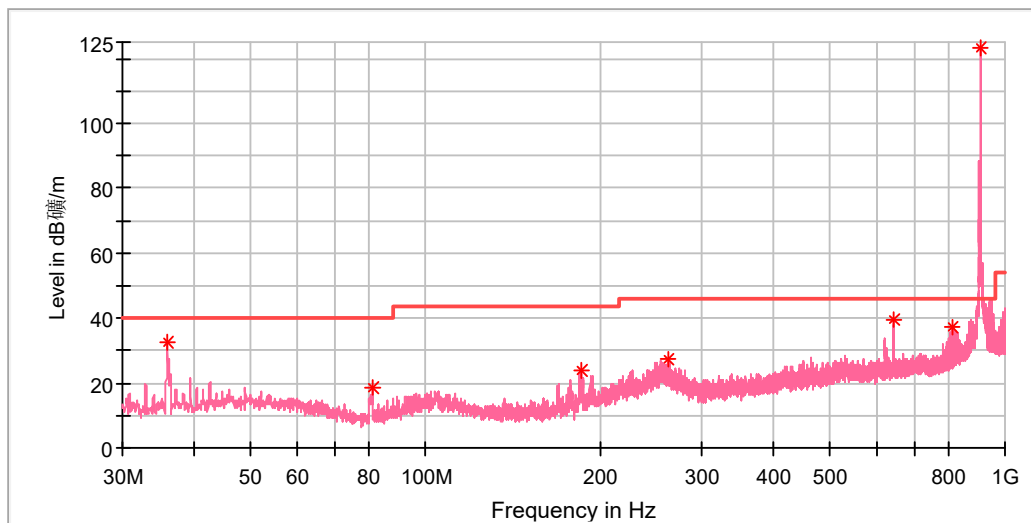
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.872778	18.18	40.00	21.82	100.0	H	283.0	-18.5
103.935556	17.86	43.50	25.64	100.0	H	210.0	-18.9
262.692222	32.49	46.00	13.51	100.0	H	67.0	-17.1
461.919444	28.57	46.00	17.43	100.0	H	130.0	-12.5
813.059444	36.35	46.00	9.65	100.0	H	5.0	-5.9
908.820000	118.13	---	---	100.0	H	137.0	-4.7

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

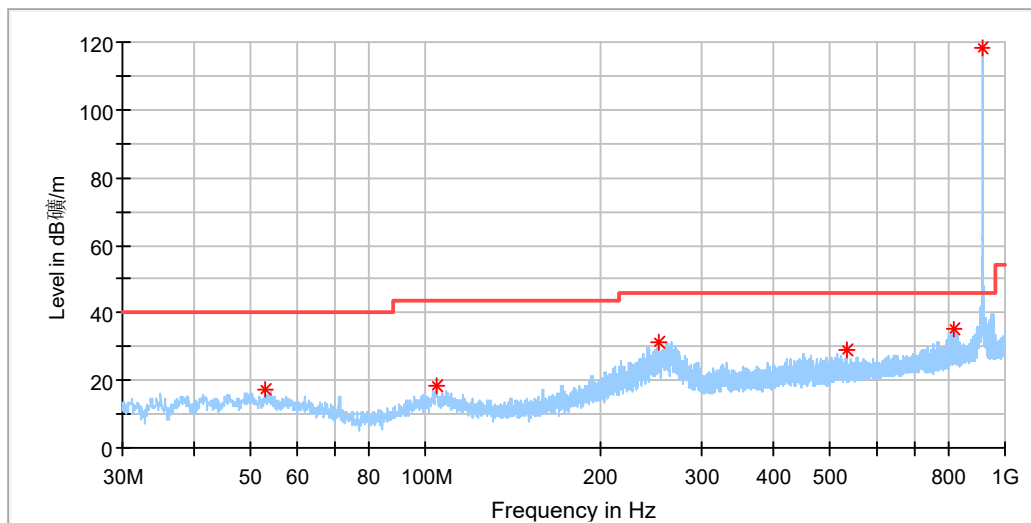
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
35.927778	32.61	40.00	7.40	100.0	V	32.0	-21.6
81.086667	18.74	40.00	21.26	100.0	V	316.0	-23.3
185.738889	23.67	43.50	19.83	100.0	V	324.0	-20.0
261.668333	27.34	46.00	18.66	100.0	V	99.0	-17.1
642.608889	39.60	46.00	6.40	100.0	V	165.0	-9.0
813.059444	37.31	46.00	8.69	100.0	V	359.0	-5.9
908.766111	123.48	---	---	100.0	V	347.0	-4.7

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_914.9MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

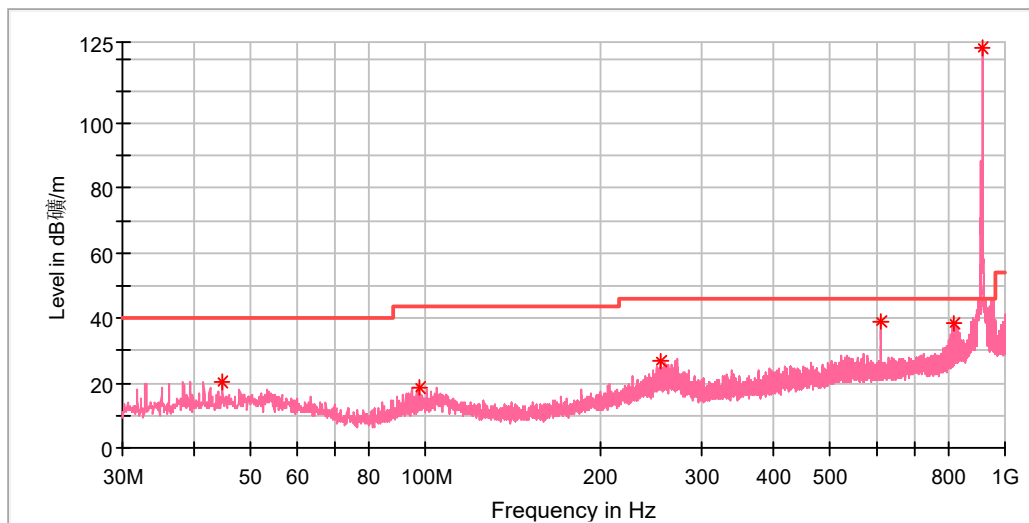
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.010556	17.11	40.00	22.89	100.0	H	307.0	-18.5
104.743889	18.18	43.50	25.32	100.0	H	187.0	-18.9
252.453333	31.52	46.00	14.48	100.0	H	270.0	-17.3
534.022778	29.11	46.00	16.89	100.0	H	136.0	-11.1
817.047222	34.95	46.00	11.05	100.0	H	151.0	-5.8
914.909444	118.18	---	---	100.0	H	136.0	-4.6

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_914.9MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.657778	20.58	40.00	19.42	100.0	V	230.0	-19.0
97.792222	18.61	43.50	24.89	100.0	V	132.0	-19.4
254.016111	26.78	46.00	19.22	100.0	V	109.0	-17.2
609.197778	39.12	46.00	6.88	100.0	V	352.0	-9.5
817.101111	38.15	46.00	7.85	100.0	V	132.0	-5.8
914.963333	123.50	---	---	100.0	V	344.0	-4.6

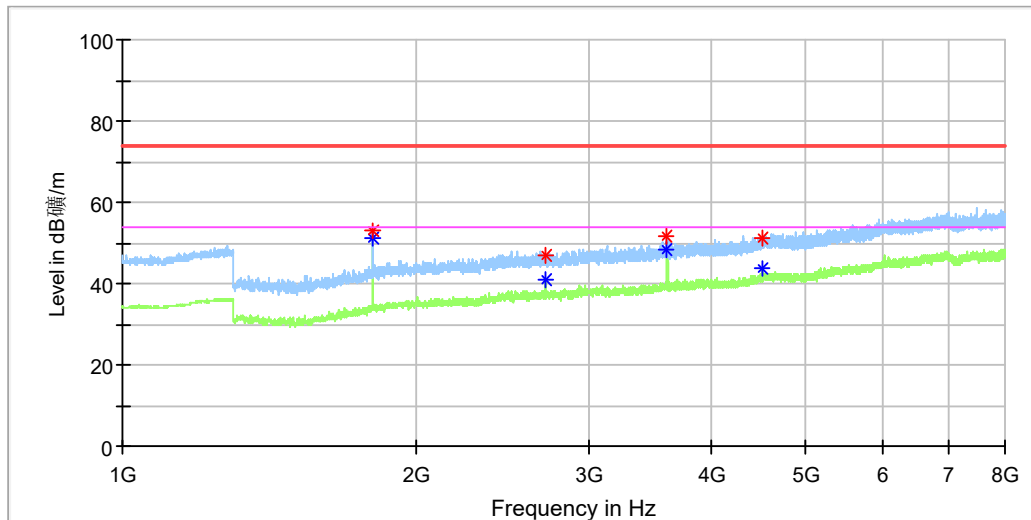
Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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1GHz - 10GHz for PCB ANT

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_902.3MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

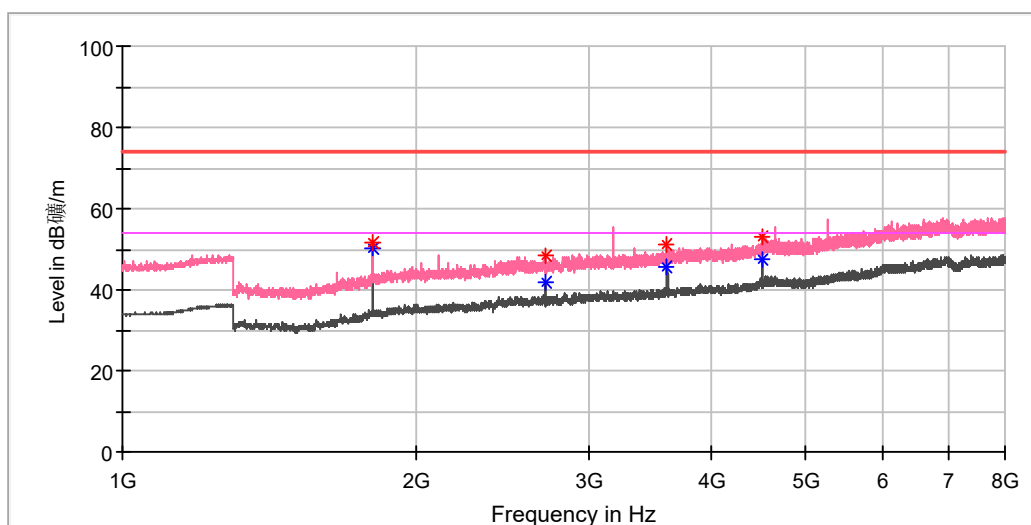
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1804.175000	---	51.09	88.69	37.60	150.0	H	213.0	6.2
1804.733333	52.89	---	98.69	45.80	150.0	H	268.0	6.3
2706.441667	---	40.88	54.00	13.12	150.0	H	148.0	9.0
2707.558333	47.19	---	74.00	26.81	150.0	H	129.0	9.1
3609.266667	51.70	---	74.00	22.30	150.0	H	250.0	10.9
3609.266667	---	48.28	54.00	5.72	150.0	H	250.0	10.9
4511.533333	---	43.50	54.00	10.50	150.0	H	260.0	13.1
4512.091667	51.33	---	74.00	22.67	150.0	H	260.0	13.1

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_902.3MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

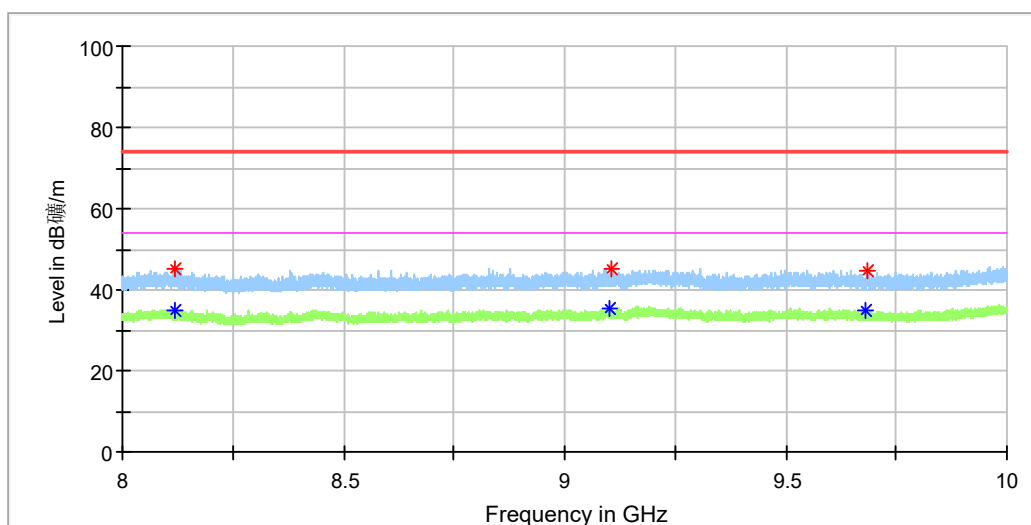
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1804.175000	51.83	---	97.27	45.44	150.0	V	208.0	6.2
1804.175000	---	50.23	87.27	37.04	150.0	V	208.0	6.2
2706.441667	48.53	---	74.00	25.47	150.0	V	161.0	9.0
2707.000000	---	41.77	54.00	12.23	150.0	V	89.0	9.1
3609.266667	51.17	---	74.00	22.83	150.0	V	199.0	10.9
3609.266667	---	45.58	54.00	8.42	150.0	V	199.0	10.9
4511.533333	53.24	---	74.00	20.76	150.0	V	290.0	13.1
4511.533333	---	47.51	54.00	6.49	150.0	V	290.0	13.1

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	0.0	100.0		100.0	

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_902.3MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

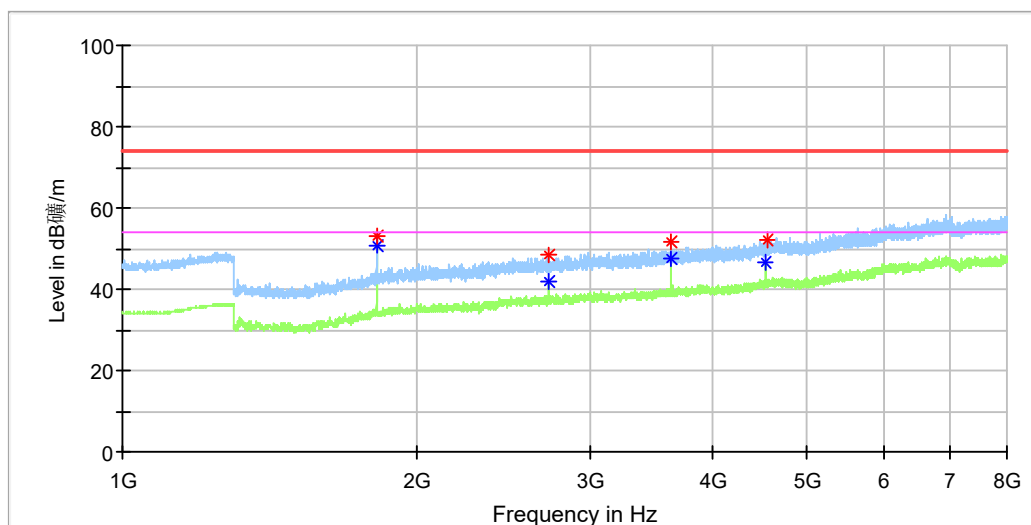
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
8117.800000	45.33	---	74.00	28.67	150.0	H	0.0	8.9
8121.000000	---	35.07	54.00	18.93	150.0	H	46.0	8.9
9100.800000	---	35.28	54.00	18.72	150.0	H	355.0	10.0
9107.300000	44.89	---	74.00	29.11	150.0	H	0.0	10.1
9678.800000	---	34.70	54.00	19.30	150.0	H	0.0	10.4
9685.100000	44.61	---	74.00	29.39	150.0	H	335.0	10.4

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.75	93.75	93.75	93.75	93.75	93.75		93.75	93.75

EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

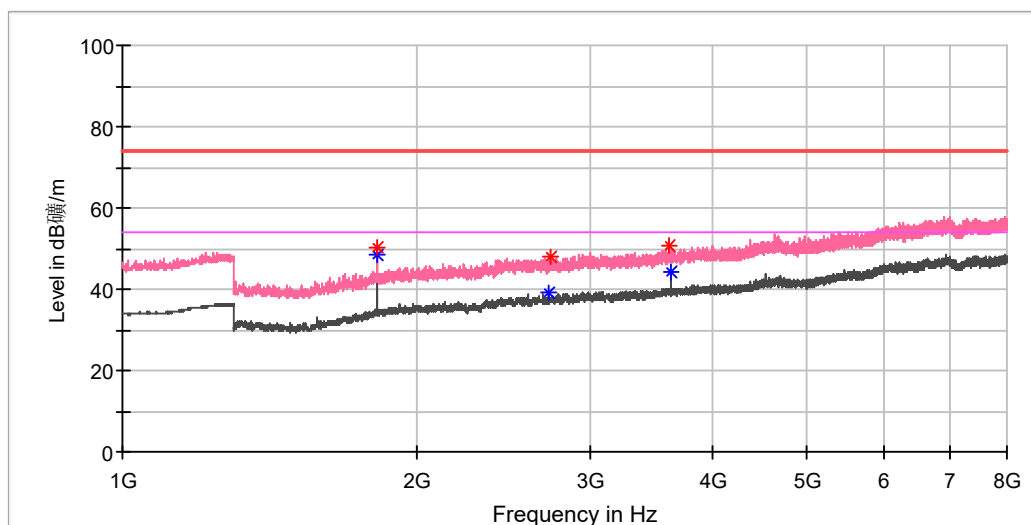
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1817.016667	---	50.93	90.06	39.13	150.0	H	262.0	6.3
1817.575000	52.88	---	100.06	47.18	150.0	H	219.0	6.3
2725.983333	48.35	---	74.00	25.65	150.0	H	136.0	9.2
2725.983333	---	41.68	54.00	12.32	150.0	H	136.0	9.2
3634.391667	---	47.67	54.00	6.33	150.0	H	262.0	10.9
3634.950000	51.81	---	74.00	22.19	150.0	H	254.0	10.9
4543.358333	---	46.50	54.00	7.50	150.0	H	254.0	13.4
4545.591667	51.99	---	74.00	22.01	150.0	H	45.0	13.4

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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EUT Information

EUT Name:	Wisblock Wireless
Model:	RAK13302
Test Mode:	FHSS 125K_SF10_908.7MHz
Order No/Sample No:	27219487/A004314138-002
Test Voltage:	Battery
Remark:	Temp 23.8°C Humi:57%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1817.016667	50.05	---	97.06	47.01	150.0	V	97.0	6.3
1817.016667	---	48.18	87.06	38.88	150.0	V	97.0	6.3
2725.983333	---	39.15	54.00	14.85	150.0	V	61.0	9.2
2739.383333	48.07	---	74.00	25.93	150.0	V	106.0	9.3
3612.058333	50.75	---	74.00	23.25	150.0	V	61.0	10.9
3634.950000	---	44.00	54.00	10.00	150.0	V	225.0	10.9

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	0.0	100.0		100.0	

