

# FCC / ISED – TEST REPORT

Report Number	:	60.790.24.078.01R02	Date of Issue:	November 25, 2024
Model/HVIN	:	Bluetooth Padlock		
Product Type	:	Click Padlock		
Applicant	:	Mobile Technologies Inc.		
Address	:	2345 NE Overlook Drive America.	e, Hillsboro OR	97006 United States of
Production Facility (1)	:	Shenzhen Maxway Techr	nology CO., LTD	
Address	:	3F, Building 4, Section A Town, Bao'an District, Sh		Zone of Tangtou, Shiyan
Production Facility (2)	:	Well Star Precision Techr	nology Limited	
Address	:	24 Bao Ta Road, Bao Ta City, Guangdong Provinc	•	łou Jie Town, Dongguan
Production Facility (3)	:	VIETNAM IBE LASER TE	CHNOLOGY CO	MPANY LIMITED
Address	:	lot CN-34 and Lot CN-39, Mao Dien commune, TI Vietnam		•
Test Result	:	n Positive O Negati	ve	
Total pages including Appendices	:	27		

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# 1 Table of Contents

1	Та	able of Contents	2
2	D	Details about the Test Laboratory	
3	D	Description of the Equipment Under Test	
4	S	Summary of Test Standards	5
5		Summary of Test Results	
6		General Remarks	
7	Т	est Setups	
8	S	systems Test Configuration	
9	Т	echnical Requirement	
ç	9.1	Conducted Emission	
ç	9.2	20 dB Bandwidth	
ç	9.3	99% bandwidth	
ç	9.4	Spurious Radiated Emissions for Transmitter	
10		Test Equipment List	
11		System Measurement Uncertainty	

# 2 Details about the Test Laboratory

### **Details about the Test Laboratory**

Test Site 1

Company name:	TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
	Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District Shenzhen 518052 P.R. China
Telephone:	86 755 8828 6998
Fax:	86 755 8828 5299
FCC Registration No.:	514049
FCC Deignation No.:	CN5009
IC Registration No.:	10320A
ISED CAB Identifier:	CN0077



# **3** Description of the Equipment Under Test

### **Description of the Equipment Under Test**

Product:	Click Padlock
Model no.:	Bluetooth Padlock
Hardware Version Identification No. (HVIN)	Bluetooth Padlock
Product Marketing Name (PMN)	Click Padlock
Brand name:	N/A
FCC ID:	2AA2X-15000345V2
IC:	24439-15000345V2
Rating:	3.0 VDC (2 x 1.5 VDC "AAA" size battery)
RF Transmission Frequency:	125 kHz
No. of Operated Channel:	1
Modulation:	AM
Antenna Type:	Coil Antenna
Antenna	Gain: 0 dBi
Description of the EUT:	The Equipment Under Test (EUT) is a Click Padlock which support Bluetooth (BLE) function, Zigbee function and 125 kHz near field card access function. Only 125 kHz measurement included in this report.

NOTE:

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



# 4 Summary of Test Standards

	Test Standards
FCC Part 15 Subpart C 10-1-2023 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-Gen Issue 5 April 2018 + Amendment 1 March 2019 + Amendment 2 February 2021	General Requirements for Compliance of Radio Apparatus
RSS-210 Issue 11 June 2024	Licence-Exempt Radio Apparatus: Category I Equipment

All the test methods were according to ANSI C63.10-2020.



### 5 Summary of Test Results

	Technical Requi	rements	Technical Requirements			
FCC Part 15 Subpart C/ R	SS-210 Issue 11 / RSS-Ge	n Issue 5 + A	1 + A2			
			Te	st Resu	ılt	Test
Test Condition		Test Site	Pass	Fail	N/A	Environm ent
§15.207 & RSS-GEN 8.8	Conducted emission AC power port	Site 1				T: 24.8℃ H: 53.7%
§15.215 & RSS-GEN 6.7	20dB bandwidth and 99% Occupied Bandwidth	Site 1	$\boxtimes$			T: 24.8°C H: 53.7%
§15.205 & §15.209 & RSS-210 8.3 & RSS-Gen 6.13	Spurious radiated emissions for transmitter	Site 1	$\boxtimes$			T: 24.7°C H: 49.3%
§15.203 & RSS-Gen 6.8	Antenna requirement	See note 2	$\boxtimes$			

Note 1: N/A=Not Applicable.

Note 2: The EUT uses a Coil antenna, which gain is 0 dBi. In accordance to §15.203 & RSS-Gen 6.8, it is considered sufficiently to comply with the provisions of this section.

Note 3: T : Temperature, H: Humidity

## 6 General Remarks

#### Remarks

This submittal(s) (test report) is intended for FCC ID: 2AA2X-15000345V2, IC: 24439-15000345V2, complies with Section 15.209, 15.215 of the FCC Part 15, Subpart C rules and RSS-210, RSS-GEN.

#### SUMMARY:

All tests according to the regulations cited on page 5 were

- n Performed
- $\odot$  Not Performed
- The Equipment under Test
- n Fulfills the general approval requirements.
- O **Does not** fulfill the general approval requirements.

Sample Received Date:

October 10, 2024

Testing Start Date:

October 10, 2024 November 18, 2024

Testing End Date:

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

Prepared by:

Tested by:

ING (CHI) Eric LI Section Manage

1 DIN

Kevin DU EMC Project Engineer

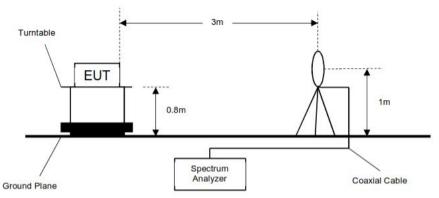
Carry Cai Test Engineer



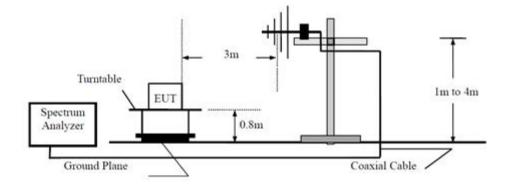
## 7 Test Setups

#### 7.1 Radiated test setups

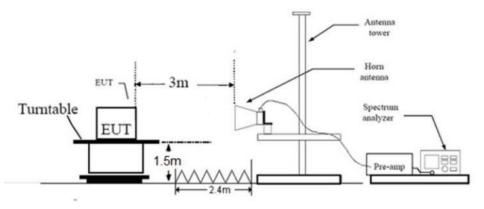
#### 9kHz - 30MHz



### 30MHz - 1GHz



Above 1GHz



EMC\_SZ\_FR\_23.03 FCC Release 2017-06-20 TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

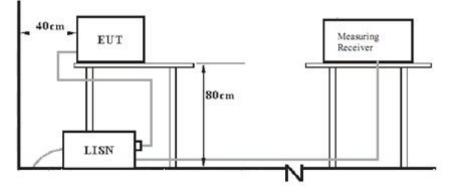




#### 7.2 Conducted RF test setups

Measuring	EUT
Receiver	

### 7.3 AC Power Line Conducted Emission test setups



# 8 Systems Test Configuration

#### Auxiliary Equipment Used during Test:

Description	Manufacturer	Model NO.	Remark
Laptop	Lenovo	X220	0A72168
MTI Connect HUB	MTI		System Monitoring

#### Cables Used During Test:

Cable	Length	Shielded/unshielded	With / without ferrite

The system was configured to single testing channel.

Only the worst case transmitter rate data mode is recorded in the report.



# 9 Technical Requirement

## 9.1 Conducted Emission

#### **Test Method**

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. Both sides of AC line were checked for maximum conducted interference.
- 6. The frequency range from 150 kHz to 30 MHz was searched.
- 7. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

### Limit

According to §15.207 & RSS-GEN 8.8, conducted emissions limit as below:

Frequency	QP Limit	AV Limit
MHz	dBµV	dBµV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50
	141 I 141 <b>(</b> 41	•

\*Decreasing linearly with logarithm of the frequency

### Test result: Test Not Applicable for the Battery-Operated Device.





### 9.2 20 dB Bandwidth

#### **Test Method**

- 1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
- Set to the maximum power setting and enable the EUT transmit continuously. Use the following test receiver settings: RBW = 1% to 5% of the OBW, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
- 3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Use the 99 % power bandwidth function of the instrument. Record the frequency difference as the emission bandwidth. Record the results.

### Limit

According to 15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

### **Test result**

Frequency	20dB bandwidth kHz	Result
125 kHz	1.302	Pass

Test Graphs as below:



			125	ikHz_An	t1_NTN	V			
Spectrur Ref Level	-9.00 dBr								
Att	10 d	B <b>SWT</b> 6.3	ms 👅 VE	3W 1 kHz	Mode Auto H	FI			
-20 dBm-				M1	M1[1 ndB Bw Q fac		1	12	-20.69 dBm 5.0000 kHz 20.00 dB 000000 kHz 96.0
-40 dBm					2				
-60 dBm	$\frown$		$\sim$					~	
-80 dBm									
-90 dBm—									
-100 dBm—									
CF 125.0	kHz			691 pi	ts		1	Spa	n 30.0 kHz
Marker									
	ef Trc	X-value		Y-value	Function		Fund	ction Result	
M1	1	125.0		-20.69 dBm					1.302 kHz
T1 T2	1	124.349 125.651		-40.82 dBm -40.68 dBm		dB			20.00 dB 96.0



### 9.3 99% bandwidth

#### **Test Method**

- 1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
- Set to the maximum power setting and enable the EUT transmit continuously. Use the following test receiver settings: RBW = 1% to 5% of the OBW, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
- 3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the 99 % power bandwidth function of the instrument. Record the frequency difference as the emission bandwidth. Record the results.

#### Limit

According to RSS-Gen 6.7, The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

 Limit [kHz]

 - 

 Test result

 Frequency
 99% bandwidth kHz

 125 kHz
 4.081
 Pass

Test Graphs as below:



		12	5kHz_Ar	t1_NTNV			
Spectrum Ref Level -9. Att		Offset 1.00 dB		Mode Auto FFT			
●1Pk Max							
-20 dBm			M1	M1[1]	1	12	20.76 dBm 5.0000 kHz 041968 kHz
-30 dBm			+	(			
-40 dBm			T1	T2			
-50 dBm				- R			
-60 dBm		$\sim$					
-70 dBm							
-80 dBm							
-90 dBm							
-100 dBm							
CF 125.0 kHz		I	691 p	ts		Spar	n 30.0 kHz
Marker	<b>T</b>	X-value	Y-value	I Europeira		ation Doorde	
Type Ref	1	125.0 kHz	-20.76 dBm	Function	Fun	iction Result	
T1 T2	1	123.3502 kHz 127.4313 kHz	-48.35 dBm -50.48 dBm			4.0810	141968 kHz



# 9.4 Spurious Radiated Emissions for Transmitter

### **Test Method**

- 1. The EUT was place on a turn table which is 0.8m above ground plane. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2. Set to the maximum power setting and enable the EUT transmit continuously
- 3. The EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 4. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 5. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Use the following test receiver settings According to C63.10: 9kHz -150kHz RBW = 200Hz, VBW = 1kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold. 150kHz - 30MHz RBW = 10 kHz, VBW = 30 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold. 30MHz - 1GHz RBW = 100 kHz, VBW = 300 kHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold. For Above 1GHz Span = wide enough to capture the peak level of the in-band emission and all spurious RBW = 11MHz, VBW≥3RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.



### FCC Limit:

According to § 15.209, except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency MHz			Detector	Measurement distance meters		
0.009-0.490	2400/F(kHz)	48.5-13.8	AV	300		
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30		
1.705-30	30	29.5	QP	30		
30-88	100	40	QP	3		
88-216	150	43.5	QP	3		
216-960	200	46	QP	3		
960-1000	500	54	QP	3		
Above 1000	500	54	AV	3		
Above 1000	5000	74	PK	3		

#### **ISED** Limit:

According to RSS-Gen 8.9 field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Frequency MHz	Field Strength µA/m	Field Strength dBµA/m	Detector	Measurement distance meters
0.009-0.490	6.37/F(kHz)	77.00-42.28	AV	3
0.490-1.705	63.7/F(kHz)	22.27-11.45	AV	3
1.705-30	0.08	18.06	AV	3
Frequency	Field Strength	Field Strength	Detector	Measurement distance
MHz	μV/m	dBµV/m		meters
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

(a) The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

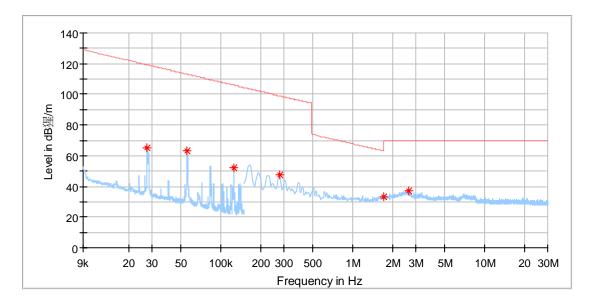
Note 1: Limit 3m(dBµV/m)=Limit 300m(dBµV/m)+40Log(300m/3m) (Below 30MHz) Note 2: Limit 3m(dBµV/m)=Limit 30m(dBµV/m)+40Log(30m/3m) (Below 30MHz)



#### Spurious radiated emissions for transmitter

#### Transmitting spurious emission test result as below:

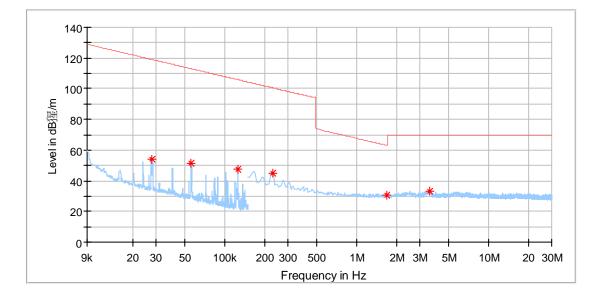
FCC Test Result Test data\_9kHz to 30MHz Tx: 125k Hz



Frequency	MaxPeak	Limit	Margin	Pol	Azimuth	Corr.				
(MHz)	(dBµV/m)	(dBµV/m)	(dB)		(deg)	(dB/m)				
0.027706	64.90	119.15	54.25	Н	117.0	19.88				
0.055577	62.88	113.06	50.18	Н	165.0	19.92				
0.124620	51.79	105.99	54.20	Н	277.0	19.92				
0.279350	47.62	98.92	51.30	Н	155.0	19.90				
1.702200	33.17	63.01	29.84	Н	1.0	20.02				
2.642475	36.93	70.00	33.07	Н	44.0	20.15				



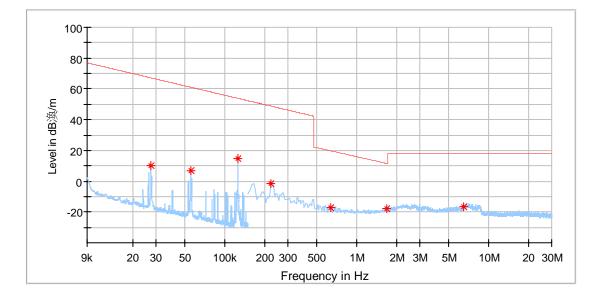
FCC Test Result Test data\_9kHz to 30MHz Tx: 125k Hz



	••••••••••••••••••••••••••••••••••••••										
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)					
0.027753	53.99	119.14	65.15	V	150.0	19.88					
0.055577	51.28	113.06	61.78	V	91.0	19.92					
0.124573	47.32	105.99	58.68	V	352.0	19.92					
0.229600	44.96	100.64	55.68	V	355.0	19.88					
1.672350	30.45	63.17	32.72	V	73.0	20.02					
3.582750	32.90	70.00	37.10	V	82.0	20.13					



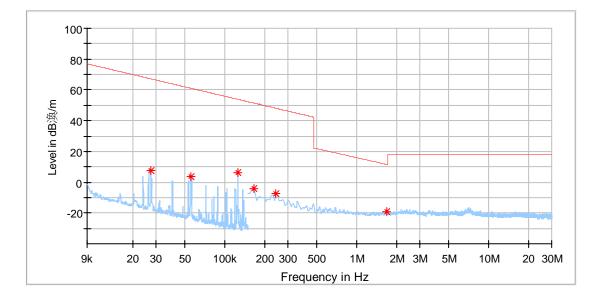
ISED Test Result Test data\_9kHz to 30MHz Tx: 125k Hz



Frequency (MHz)	MaxPeak (dBµA/m)	Limit (dBµA/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)				
0.027565	10.19	67.17	56.99	Н	148.0	-31.65				
0.055201	7.16	61.07	53.91	Н	348.0	-31.61				
0.124949	14.96	53.90	38.94	Н	140.0	-31.61				
0.224625	-1.28	48.75	50.03	Н	0.0	-31.65				
0.637550	-16.91	19.69	36.60	Н	153.0	-31.62				
1.677325	-17.86	11.50	29.36	Н	0.0	-31.51				
6.478200	-16.35	18.06	34.41	Н	342.0	-31.40				



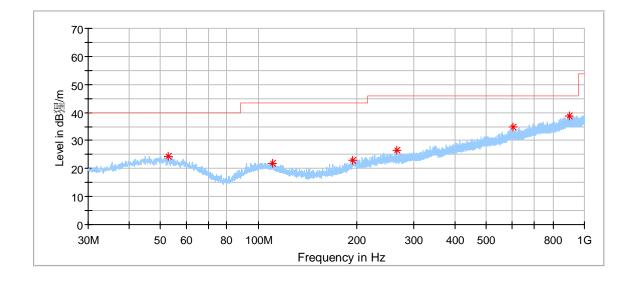
ISED Test Result Test data\_9kHz to 30MHz Tx: 125k Hz



Frequency (MHz)	MaxPeak (dBµA/m)	Limit (dBµA/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.027565	7.47	67.17	59.70	V	100.0	-31.65
0.055201	3.34	61.07	57.74	V	180.0	-31.61
0.124949	6.03	53.90	47.87	V	43.0	-31.61
0.164925	-4.22	51.46	55.69	V	162.0	-31.64
0.244525	-7.39	48.01	55.40	V	308.0	-31.64
1.677325	-19.06	11.50	30.56	V	222.0	-31.51



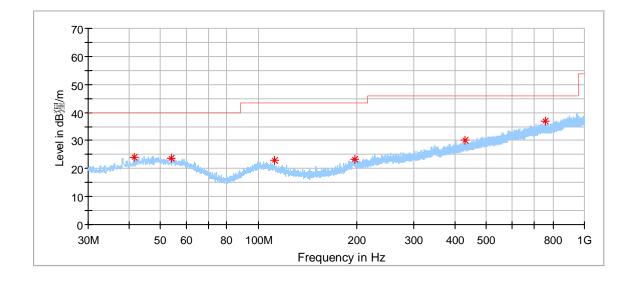
FCC and ISED Test Result Test data\_30MHz to 1000MHz Tx: 125k Hz



	Chica_heqs									
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)			
52.848889	24.25	40.00	15.75	100.0	Н	245.0	17.98			
110.132778	21.93	43.50	21.57	100.0	Н	319.0	15.54			
194.846111	23.07	43.50	20.43	100.0	Н	206.0	16.15			
265.925556	26.51	46.00	19.49	100.0	Н	0.0	17.75			
604.940556	34.76	46.00	11.24	200.0	Н	356.0	25.04			
897.072222	38.85	46.00	7.15	200.0	Н	49.0	29.28			



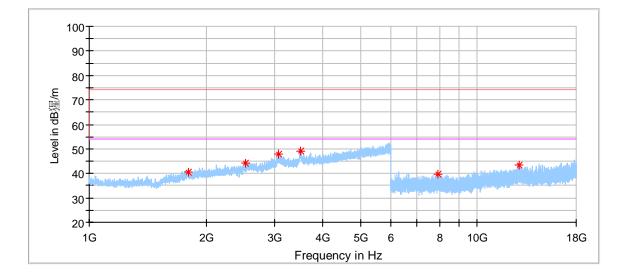
FCC and ISED Test Result Test data\_30MHz to 1000MHz Tx: 125k Hz



	Childa_heqs									
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)			
41.640000	24.03	40.00	15.97	100.0	V	70.0	17.26			
53.818889	23.81	40.00	16.19	100.0	V	273.0	17.97			
111.911111	22.80	43.50	20.70	100.0	V	171.0	15.29			
197.702222	23.29	43.50	20.21	100.0	V	0.0	16.27			
431.849444	30.31	46.00	15.69	200.0	V	206.0	21.80			
760.248333	36.97	46.00	9.03	200.0	V	343.0	27.39			



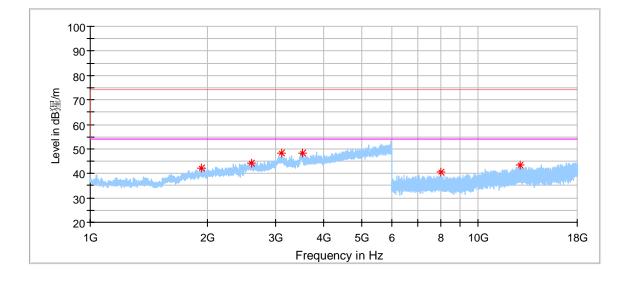
FCC and ISED Test Result Test data\_1 GHz to 18 GHz Tx: 125k Hz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1805.500000	40.71	74.00	33.29	100.0	н	198.0	-5.02
2524.000000	44.27	74.00	29.73	100.0	Н	34.0	-1.67
3071.000000	47.90	74.00	26.10	100.0	Н	300.0	1.55
3516.500000	49.08	74.00	24.92	100.0	Н	177.0	3.65
7933.000000	39.65	74.00	34.35	100.0	Н	159.0	7.25
12808.000000	43.30	74.00	30.70	100.0	Н	1.0	12.97



FCC and ISED Test Result Test data\_1 GHz to 18 GHz Tx: 125k Hz



### **Critical\_Freqs**

Frequency	MaxPeak	Limit	Margin	Height	Pol	Azimuth	Corr.		
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(cm)		(deg)	(dB/m)		
1930.000000	42.00	74.00	32.00	100.0	V	231.0	-4.55		
2598.500000	44.15	74.00	29.85	100.0	V	200.0	-1.05		
3122.500000	48.39	74.00	25.61	100.0	V	13.0	1.36		
3522.000000	48.35	74.00	25.65	100.0	V	4.0	3.37		
7998.000000	40.43	74.00	33.57	100.0	V	287.0	7.46		
12844.000000	43.48	74.00	30.52	100.0	V	13.0	12.95		

#### Remark:

- (1) According to C63.10, if the peak measured value complies with the quasi-peak limit, it is unnecessary to perform a quasi-peak measurement, so quasi-peak emission value did not show in data table if the peak value complies with quasi-peak limit.
- (2) The testing was performed at 3m distance, the limit has been transferred form 300m/30m to 3m.

 (3) Corrected Amplitude = Read level + Corrector factor Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain Below 1GHz: Corrector factor = Antenna Factor + Cable Loss (The Reading Level is recorded by software which is not shown in the sheet)



# **10 Test Equipment List**

#### Radiated Emission Test 1# (9kHz - 1GHz)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	2025-5-13
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	2025-7-2
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	2025-7-24
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	100745	2025-5-11
Sideband Horn Antenna	Q-PAR	QWH-SL-18- 40-K-SG	68-4-80-14-008	12827	2025-7-2
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	2025-7-17
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	2025-5-11
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006		2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006- A01	Version10.35.02	N/A

#### Radiated Emission 2# Test (1GHz – 40GHz)

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	2025-5-13
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	2025-4-10
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-002	100746	2025-5-11
Sideband Horn Antenna	Q-PAR	QWH-SL-18- 40-K-SG	68-4-80-14-008	12827	2025-7-2
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	2025-7-17
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	2025-5-11
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006		2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006- A01	Version 10.35.02	N/A

#### Conducted RF Test System

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL. DUE DATE
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	2025-5-11
RF Switch Module	Rohde & Schwarz	OSP120/OSP- B157W	68-4-93-14-003	101226/100929	2025-5-11
Power Splitter	Weinschel	1580	68-4-85-14-001	SC319	2025-5-11
10dB Attenuator	Weinschel	4M-10	68-4-81-14-003	43152	2025-5-11
10dB Attenuator	R&S	DNF	68-4-81-14-004	DNF-001	2025-5-11
10dB Attenuator	R&S	DNF	68-4-81-14-005	DNF-002	2025-5-11
10dB Attenuator	R&S	DNF	68-4-81-14-006	DNF-003	2025-5-11
10dB Attenuator	R&S	DNF	68-4-81-14-007	DNF-004	2025-5-11
Test software	Tonscend	System for BT/WIFI	68-4-74-14-006- A13	Version 2.6.77.0518	N/A
Shielding Room	TDK	TS8997	68-4-90-19-003		2025-10-15

#### **Conducted Emission Test**

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-14-001	101782	2025-5-13
LISN	Rohde & Schwarz	ENV432	68-4-87-16-001	101318	2025-5-12
Test software	Rohde & Schwarz	EMC32	68-4-90-14-003- A10	Version9.15.00	N/A
Shielding Room	TDK	CSR #1	68-4-90-19-004		2025-10-15



# **11 System Measurement Uncertainty**

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty				
Test Items	Extended Uncertainty			
Uncertainty for Conducted Emission 150kHz-30MHz (for test using AMN ENV432 or ENV4200)	3.57dB			
Uncertainty for Radiated Emission in 3m chamber 9kHz- 30MHz	4.70dB			
Uncertainty for Radiated Emission in new 3m chamber 30MHz-1000MHz	Horizontal: 4.59dB; Vertical: 4.75dB			
Uncertainty for Radiated Emission in new 3m 1000MHz- 18000MHz	Horizontal: 5.08dB; Vertical: 5.09dB;			
Uncertainty for Radiated Emission 18000MHz-40000MHz	Horizontal: 4.52dB; Vertical: 4.51dB			
Uncertainty for Conducted RF test	RF Power Conducted: 1.31dB Frequency test involved: 0.6×10 <sup>-8</sup> or 1%			

Measurement Uncertainty Decision Rule:

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4.

---THE END OF REPORT---