

TEST REPORT

Applicant: REOLINK TECHNOLOGY PTE. LTD.

Address: 31 KAKI BUKIT ROAD 3, #06-02, TECHLINK,

SINGAPORE 417818

Equipment Type: WiFi module

Model Name: WXT0LR1201

Brand Name: Reolink

FCC ID: 2BN5S-2503B

Test Standard: 47 CFR Part 2.1091 KDB 447498 D04 v01

Sample Arrival Date: Jul. 11, 2025

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ISSUED BY:

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(Testing Director)

Tolan In

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Revisions Content

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Initial Issue

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road,
Address	Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.			
	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi			
	Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China			
Location	1/F, Building B, Ganghongji High-tech Intelligent Industrial Park,			
	No. 1008, Songbai Road, Yangguang Community, Xili Sub-district,			
	Nanshan District, Shenzhen, Guangdong Province, P. R. China			
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a			
Accreditation Certificate	accredited testing laboratory. The designation number is CN1196.			



2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	REOLINK TECHNOLOGY PTE. LTD.
Address	31 KAKI BUKIT ROAD 3, #06-02, TECHLINK, SINGAPORE 417818

2.2 Manufacturer Information

Manufacturer	REOLINK TECHNOLOGY PTE. LTD.
Address	31 KAKI BUKIT ROAD 3, #06-02, TECHLINK, SINGAPORE 417818

2.3 General Description for Equipment under Test (EUT)

EUT Name	WiFi module
Model Name Under Test	WXT0LR1201
Series Model Name	N/A
Description of Model	N/A
name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A



2.4 Technical Information

Network and Wireless	Bluetooth (BR+EDR+BLE)
connectivity	WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac and 802.11ax

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	Bluetooth, WIFI			
	802.11b/g	2412 MHz ~ 2462 MHz		
	802.11n(HT20/HT40)	2412 MHz ~ 2462 MHz		
	802.11ax(HE20/HE40)	2412 MHz ~ 2462 MHz		
		5150 MHz ~ 5250 MHz		
	802.11a	5250 MHz ~ 5350 MHz		
	002.11d	5470 MHz ~ 5725 MHz		
		5725 MHz ~ 5850 MHz		
		5150 MHz ~ 5250 MHz		
	802.11n(HT20/HT40)	5250 MHz ~ 5350 MHz		
Frequency Range	002.1111(1120/1140)	5470 MHz ~ 5725 MHz		
Trequency realige		5725 MHz ~ 5850 MHz		
	802.11 ac(VHT20/VHT40/VHT80)	5150 MHz ~ 5250 MHz		
		5250 MHz ~ 5350 MHz		
		5470 MHz ~ 5725 MHz		
		5725 MHz ~ 5850 MHz		
		5150 MHz ~ 5250 MHz		
	802.11	5250 MHz ~ 5350 MHz		
	ax(HE20/HE40/HE80)	5470 MHz ~ 5725 MHz		
		5725 MHz ~ 5850 MHz		
	Bluetooth	2402 MHz ~ 2480 MHz		
Antenna Type	WIFI	Dipole Antenna		
Antenna Type	Bluetooth	Dipole Antenna		
Exposure Category	General Population/Uncontr	olled Exposure		
Product Type	Mobile Device			

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3 SUMMARY OF TEST RESULT

3.1 Test Standards

No. Identity			Document Title
	1	47 CFR Part 2.1091	Radiofrequency radiation exposure evaluation: mobile devices
	2	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01



4 DEVICE CATEGORY AND LEVELS LIMITS

Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP20cm in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{\text{th }}(\text{mW}) = ERP_{20 \text{ cm }}(\text{mW}) = \begin{cases} 2040f & 0.3 \text{ GHz} \le f < 1.5 \text{ GHz} \\ \\ 3060 & 1.5 \text{ GHz} \le f \le 6 \text{ GHz} \end{cases}$$
(B.1)

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula (B.2).



$$P_{\text{th (mW)}} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \le 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \le 40 \text{ cm} \end{cases}$$
(B.2)

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\,\mathrm{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

					Dis	stance	(mm)				
		5	10	15	20	25	30	35	40	45	50
$\overline{\mathbf{z}}$	300	39	65	88	110	129	148	166	184	201	217
(MHz)	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
enc	1900	3	12	26	44	66	92	122	157	195	236
Frequency	2450	3	10	_ 22	38	59	83	111	143	179	219
Fr	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169



5 ASSESSMENT RESULT

5.1 Output Power

Mode	Bluetooth	2.4G WIFI	5.2G WIFI	5.3G WIFI	5.6G WIFI	5.8G WIFI
Conducted Power (dBm)	8.46	15.89	15.99	15.97	15.98	15.98
Antenna Gain (dBi)	3.05	3.05	3.75	4.50	3.83	4.29
EIRP (dBm)	11.51	18.94	19.74	20.47	19.81	20.27

Note: This report listed the worst case conducted power value, please refer to BL-SZ2571609-601, BL-SZ2571609-602, BL-SZ2571609-603, BL-SZ2571609-604 report for more details.

5.2 Tune-up power

Mode	Conducted Power Range (dBm) ERP Range (dBm) ERP Range (ERP Range (dBm)
Bluetooth	[6.50, 8.50]	[9.55, 11.55]	[7.40, 9.40]
2.4G WIFI	[14.00, 16.00]	[17.05, 19.05]	[14.90, 16.90]
5.2G WIFI	[14.00, 16.00]	[17.75, 19.75]	[15.60, 17.60]
5.3G WIFI	[14.00, 16.00]	[18.50, 20.50]	[16.35, 18.35]
5.6G WIFI	[14.00, 16.00]	[17.83, 19.83]	[15.68, 17.68]
5.8G WIFI	[14.00, 16.00]	[18.29, 20.29]	[16.14, 18.14]

Note1: ERP= EIRP -2.15dB.

Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth.

5.3 RF Exposure Evaluation Result

Evolution Mode	Frequency	Maximum Power	Maximum Power	Distance	Threshold Power	Verdict
	(MHz)	(dBm)	(mw)	(mm)	(mW)	
Bluetooth	2402	9.40	8.71	200	3060.00	Pass
2.4G WIFI	2412	16.90	48.98	200	3060.00	Pass
5.2G WIFI	5150	17.60	57.54	200	3060.00	Pass
5.3G WIFI	5250	18.35	68.39	200	3060.00	Pass
5.6G WIFI	5470	17.68	58.61	200	3060.00	Pass
5.8G WIFI	5725	18.14	65.16	200	3060.00	Pass

5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

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Statement

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