TEST REPORT

Applicant:	EZTECH DIGITAL INC.
Address:	251 Little Falls Drive Wilmington Delaware 19808 United States
Equipment Type:	IP Camera
Model Name:	Reolink Trackmix LTE (refer to section 2.3)
Brand Name:	Reolink
FCC ID:	2A4AS-2312C
Test Standard:	47 CFR Part 2.1091 KDB 447498 D04 v01
Sample Arrival Date:	Jan. 16, 2024
Test Date:	Jan. 16, 2024 - Jan. 30, 2024
Date of Issue:	Jun. 18, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining **Checked by:** Xu Rui **Approved by:** Tolan Tu (Testing Director)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Jun. 18, 2024	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, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 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 accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	EZTECH DIGITAL INC.
Address	251 Little Falls Drive Wilmington Delaware 19808 United States

2.2 Manufacturer Information

Manufacturer	Reolink Innovation Limited
Address	FLAT/RM 7057/F FA YUEN COMMERCIAL BUILDING 75-77 FA YUEN STREET MONG KOK KL HONG KONG

2.3 General Description for Equipment under Test (EUT)

EUT Name	IP Camera
Model Name Under Test	Reolink Trackmix LTE
Series Model Name	Trackmix Series G770
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name. (this information provided by the applicant)
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	4G Network LTE FDD Band 2/4/5/12/13/14/66/71

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

Operating Mode	LTE		
Frequency Range	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 14	TX: 788 ~ 798 MHz	TX: 758 ~ 768 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	TX: 2110 ~ 2200 MHz
	LTE Band 71	TX: 663 ~ 698 MHz	TX: 617 ~ 652 MHz
Antenna Type	WWAN	Dipole Antenna	
Exposure Category	General Population/Uncontrolled Exposure		
Product Type	Mobile Device		

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)].

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

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 λ/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).

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

where

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

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

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
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

LTE								
Mode	Band 2	Band 4	Band 5	Band 12	Band 13	Band 14	Band 66	Band 71
Conducted Power (dBm)	23.29	23.8	23.08	23.5	23.47	23.3	23.22	23.44
Antenna Gain (dBi)	2.2	2.6	1.6	-0.5	0.6	1	2.6	-1.4
EIRP/ERP (dBm)	25.49	26.4	22.53	20.85	21.92	22.15	25.82	19.89
Note: This report listed the worst case conducted power value, please refer to BL-SZ23C1006-501 report for more details.								

5.2 Tune-up power

Mode	Conducted Power Range (dBm)	EIRP Range (dBm)	ERP Range (dBm)
LTE Band 2	[21.50, 23.50]	[23.70, 25.70]	[21.55, 23.55]
LTE Band 4	[22.00, 24.00]	[24.60, 26.60]	[22.45, 24.45]
LTE Band 5	[21.50, 23.50]	/	[23.10, 25.10]
LTE Band 12	[21.50, 23.50]	/	[21.00, 23.00]
LTE Band 13	[21.50, 23.50]	/	[22.10, 24.10]
LTE Band 14	[21.50, 23.50]	/	[22.50, 24.50]
LTE Band 66	[21.50, 23.50]	[24.10, 26.10]	[21.95, 23.95]
LTE Band 71	[21.50, 23.50]	/	[20.10, 22.10]
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	Maximum power (dBm)	Maximum power (mw)	Distance (mm)	Threshold Power (mW)	Verdict
LTE Band 2	23.55	226.46	200	3060.00	Pass
LTE Band 4	24.45	278.61	200	3060.00	Pass
LTE Band 5	25.10	323.59	200	1680.96	Pass
LTE Band 12	23.50	223.87	200	1425.96	Pass
LTE Band 13	24.10	257.04	200	1521.84	Pass
LTE Band 14	24.50	281.84	200	1546.32	Pass
LTE Band 66	23.95	248.31	200	3060.00	Pass
LTE Band 71	23.50	223.87	200	1258.68	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.

Statement

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--END OF REPORT--