

RF Exposure Evaluation Report

Product : 318MHz transmitter
Trade mark : N/A
Model/Type reference : KN-318
Serial Number : N/A
Report Number : EED32R80017902
FCC ID : KUT-KN318
Date of Issue : Jan. 22, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Capital Prospect Ltd
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1 Version

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3 General Information

3.1 Client Information

Applicant:	Capital Prospect Ltd
Address of Applicant:	Rm 03, 13/F, Block B, Veristrong Ind Bdg 34-36, Au Pui Wan Street, Fo Tan, NT, Hong Kong
Manufacturer:	Capital Prospect Ltd
Address of Manufacturer:	Rm 03, 13/F, Block B, Veristrong Ind Bdg 34-36, Au Pui Wan Street, Fo Tan, NT, Hong Kong

3.2 General Description of EUT

Product Name:	318MHz Transmitter
Model No.(EUT):	KN-318
Trade Mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	318MHz	
Modulation Type:	OOK	
Test Power Grade:	Default	
Antenna Type:	Integral Antenna	
Power Supply:	Battery:	DC 1.5V
Sample Received Date:	Jan. 08, 2025	
Sample tested Date:	Jan. 08, 2025 to Jan. 11, 2025	

3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

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

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

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 ERP20cm is per Formula (B.1).

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

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.1.3 EUT RF Exposure Evaluation**For Stand alone:**

Frequency (MHz)	Estimation distance (mm)	Max. E-field strength (dBuV/m)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
318	<5	71.66	-23.57	-25.72	0.0027	22	Pass

Note:

① EIRP=conducted power+antenna gain;

② ERP=EIRP-2.15;

③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;

⑤ The estimation distance is <5mm;

⑥ The test data please refer to the report of EED32R80017901 and only the worst case data was recorded in the report.

⑦ According to KDB 447498 D01 v06, Appendix A, SAR Test Exclusion Threshold for < 5mm test distance is 22mW for fundamental frequency between 300 - 450MHz.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***