

RF Exposure

Applicant : Keystone Technologies, LLC
Address : 2750 Morris Rd Building E Lansdale Pennsylvania
United States
Product Name : SmartLoop
Brand Mark : Keystone Technologies
Model : KTSL-FC6-UV-KO
FCC ID : 2AV9KKTSL12
Report Number : BLA-EMC-202602-A2203
Date of Receipt : Feb. 3, 2026
Date of Test : Feb. 3, 2026 to Mar. 3, 2026
Test Standard : KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: *Hugh*Review by: *Xavier*Approved by: *Blue Zheng*

Issued Date: Mar. 3, 2026

BlueAsia Technical Services (Shenzhen) Co., Ltd

Address: No.41, South of Beihuan Road, Shangwu Community, Shiyan
Subdistrict, Bao'an District, Shenzhen, Guangdong, China



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Revise Record

Version No.	Date	Description
01	Mar. 3, 2026	Original

1 General information

1.1 General information

Applicant	Keystone Technologies, LLC
Address	2750 Morris Rd Building E Lansdale Pennsylvania United States
Manufacturer	Keystone Technologies, LLC
Address	2750 Morris Rd Building E Lansdale Pennsylvania United States
Factory	Keystone Technologies, LLC
Address	2750 Morris Rd Building E Lansdale Pennsylvania United States

1.2 General description of EUT

Product name	SmartLoop
Model no.	KTSL-FC6-UV-KO
Series model	N/A
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Rate data:	1Mbps; 2Mbps
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	Internal antenna
Antenna Gain:	-2.46dBi(Provided by customer)
Power supply or adapter information	AC120V
Hardware Version	N/A
Software Version	N/A

Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

Company name:	BlueAsia Technical Services (Shenzhen) Co.,Ltd.
Address:	No.41, South of Beihuan Road, Shangwu Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
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3 RF Exposure Compliance Requirement

3.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

3.2 Limits

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

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).

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

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

3.3 Result

$$\text{EIRP} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^2 / 30$$

Where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, --- $10((\text{dBuV/m})/20)/10^6$

d = measurement distance in meters (m) ---3m

$$\text{Spot} = (\text{EXd})^2 / 30 \times \text{gt}$$

Calculated Result and Limit (WORSE CASE IS AS BELOW)

BLE

Directional antennaGain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW)	Test Result
-2.46dBi(0.568)	0.766	1.193 (2480 BLE 1M)	3060	Compiles

$$\text{ERP} = 0.766 - 2.46 - 2.15 = 0.413 \text{ mW}$$

----END OF REPORT----

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