



RF EXPOSURE EVALUATION

FCC ID : 2AWCB-KT-T03AWU

Product : Smart Multi-color Table Lamp

Trademark : N/A

Model Name : KT-T03AWU,KT-T03AW,KT-T03EWU,
KT-T03EW,KT-T03A

Applicant : SHENZHENSHI KAIXIN GUANGDIAN CO.,LTD

Date of Issue : Aug 31, 2020

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Prepared for

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TEST RESULT CERTIFICATION

Applicant's name.....: SHENZHENSHI KAIXIN GUANGDIAN CO.,LTD
Address.....: Software Building, No. 9 GaoxinZhong Yi Road, High-Tech Park,
Nanshan district, Shenzhen China
Manufacturer's Name.....: SHENZHENSHI KAIXIN GUANGDIAN CO.,LTD
Address.....: Software Building, No. 9 GaoxinZhong Yi Road, High-Tech Park,
Nanshan district, Shenzhen China

Product description

Product name.....: Smart Multi-color Table Lamp
Trademark: N/A
Main Model: KT-T03AWU
Series Model.....: KT-T03AW,KT-T03EWU,KT-T03EW,KT-T03A

Difference Description.....: The RF circuit principle and internal structure are the same, only
Key panel appearance colors different.

Rating(s).....: Input: AC100-240V 50/60Hz 0.3A or DC 12V 3.0A

Date of Test.....:

Date (s) of performance of tests.....: Aug 05, 2020 to Aug 31, 2020

Date of Issue.....: Aug 31, 2020

Test Result.....: **Pass**

Testing Engineer

:

Leo.Zhu

(Leo.Zhu)

Technical Manager

:

Eder.Zhan

(Eder.Zhan)

Authorized Signatory

:

Wetow Huang

(Wetow Huang)

1. PRODUCT INFORMATION

Product name	Smart Multi-color Table Lamp
Main model	KT-T03AWU
Serial model	KT-T03AW,KT-T03EWU,KT-T03EW-KT-T03A
Antenna Gain	1.0dBi

2. EVALUATION METHOD

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	30
1.34 -- 30	824/f	2.19/f	(180/f ²)*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

*Note:

1. f= Frequency in MHz * Plane-wave Equivalent Power Density

2. The averaging time for General Population/Uncontrolled exposure to fixed transmitters is not applicable for mobile and portable transmitters. See 47 CFR §§2.1091 and 2.1093 on source-based time-averaging requirement for mobile and portable transmitters.

$$S=PG/4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator R=distance to the center of radiation of the antenna

3. CALCULATION

A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits. The distance must be at least 20 cm and fully supported by the operating and installation configurations of the transmitter and its antenna(s), according to the source-based time-averaged maximum power requirements of § 2.1091(d)(2). In cases where cable losses or other attenuations are applied to determine compliance, the most conservative operating configurations and exposure conditions must be evaluated.

WIFI PART(Can not transmit at different band simultaneously)

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
		(dBm)		tune-up power		Gain			
				(dBm)	(mW)	(dBi)	Numeric		
2412	802.11b	13.72	14±1	15	31.623	1.00	1.26	0.0079	1
2437		14.23	14±1	15	31.623	1.00	1.26	0.0079	1
2462		14.42	14±1	15	31.623	1.00	1.26	0.0079	1
2412	802.11g	13.71	14±1	15	31.623	1.00	1.26	0.0079	1
2437		14.03	14±1	15	31.623	1.00	1.26	0.0079	1
2462		14.06	14±1	15	31.623	1.00	1.26	0.0079	1
2412	802.11n HT20	13.67	14±1	15	31.623	1.00	1.26	0.0079	1
2437		14.11	14±1	15	31.623	1.00	1.26	0.0079	1
2462		14.09	14±1	15	31.623	1.00	1.26	0.0079	1

Conclusion:

For the max result : $0.0079 \leq 1$ for Max Power Density, compliance RF exposure.