

FCC RF Exposure

EUT Description:K10 ball lock

Test type.:K10B

Series model:K10A, K10C, K10D, K10E, K10PRO, K10A PRO, K10B PRO,K10C PRO,K10D PRO, K10A mini, K10B mini, K10C mini, K10D mini, K10PLUS, K10A PLUS, K10B PLUS, K10C PLUS, K10D PLUS, K10MAX, K10A MAX, K10B MAX, K10C MAX, K10D MAX

Test Report No.: FCS202405257W01

FCC ID: 2A97U-K10B

Equipment type: Mobile equipment

Test procedures according to the technical standards: KDB 447498 D01 V06 andFCC 2.1091.

1. Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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

F = frequency in MHz

Formula: $Pd = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where :

Pd = power density in mW/cm²,

Pout = output power to antenna in mW;

G = gain of antenna in linear scale,

$\pi = 3.14$;

R = distance between observation point and center of the radiator in cm

And the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2. Test Procedure

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

3. Test Result of RF Exposure Evaluation

Modulation	Channel Freq. (MHz)	Conducted power (dBm)	Max tune-up power (mW)	Antenna Gain (dBi)	Antenna gain numeric	Evaluation result (mW/cm ²)	Power density Limits (mW/cm ²)
GFSK	2402	-13.66	0.0430	2.12	1.63	0.0000139	1
	2440	-15.76	0.0265	2.12	1.63	0.0000086	1
	2480	-16.95	0.0201	2.12	1.63	0.0000065	1

Conclusion: the max result : 0.0000139 ≤ 1.0 compliance with FCC's RF Exposure.

Conclusion: No SAR is required