

RF exposure information according to FCC CFR 47 part 15, §15.247(i), part 2, §2.1093, RSS-102

The keyfob is a portable device operating in 912.750 – 919.106 MHz band. It is equipped with an integrated internal antenna.

No SAR evaluation required if a transmitter power is below the following low threshold:

$$60/f \text{ (GHz) [mW]} = 60/0.915863 \text{ [mW]} = 65.5 \text{ [mW]} \text{ (FCC) or } 200 \text{ mW (RSS-102).}$$

Tunable range, GHz		Center of tunable band, GHz	60/f SAR limitation, mW
Flow	Fhigh		
0.912750	0.919106	0.915863	65.5

Maximum measured transmitter power:

Pout conducted		Maximum antenna gain, dBi	Pout EIRP	
dBm	mW		dBm	mW
27.93	621	-15	12.93	19.6

According to the manufacturer’s declaration in every 6 min the device transmits 2 supervision messages of 6 ms duration each and 2 messages following a key press of 10 ms duration each. Total duration is 32 ms. The duty cycle is 9×10^{-5} .

Maximum conducted power is 621 mW.

Equivalent conducted power is $621 \text{ mW} \times \text{duty cycle} = 621 \text{ mW} \times 9 \times 10^{-5} = 5590 \times 10^{-5} \text{ mW} = 0.056 \text{ mW}$.

Threshold for no SAR evaluation is 65.5 mW.

Conclusion: No SAR evaluation is required since the maximum transmitter radiated power is below the FCC and RSS-102 threshold.