

FCC ID : OYQ-58GATO

RF EXPOSURE EVALUATION

According to FCC 1.1310: 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)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

11.1 Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

$$EIRP = E_{Meas} + 20 \log(d_{meas}) - 104.7$$

EIRP is the equivalent isotropically radiated power, in dBm

E_{meas} is the field strength of the emission at the measurement distance, in dB u V/m

d_{meas} is the measurement distance, in m

RF Exposure Information: The radiated output power of this device meets the limits of FCC/IC radio frequency exposure limits. This device should be operated with a minimum separation distance of 20cm (8 inches) between the equipment and a person's body.

11.2 Measurement Result

Antenna gain: 3.8 dBi

Channel Freq. (MHz)	Field strength (dBuV/m)	EIRP (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm ²)	Power density Limits (mW/cm ²)
5805	79.15	-16.01	±1	-15.01	2.4	0.00005	1

Therefore the worst-case situation is 0.00005, which is less than “1”, This confirmed that the device comply with FCC 1.1310 MPE limit.

THE END