

# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21210-12822-C-1

FCC ID: L9N-7880LC2B

## 12. Maximum Permissible Exposure

## 12.1 Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.52 m normally can be maintained between the user and the device.

#### 12.2 MPE Calculation Method

### (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)
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

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	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

f = frequency in MHz

E (V/m) • 
$$\frac{\sqrt{30 \times P \times G}}{d}$$
 Power Density:  $Pd$  (W/m²) •  $\frac{E^2}{377}$ 

E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d =Separation distance between radiator and human body (m)

The formula can be changed to

Pd • 
$$\frac{30 \times P \times G}{377 \times d^2}$$

<sup>\*</sup>Plane-wave equivalent power density



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Max output power (W)	Antenna numeric Gain	Power Density(S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.91	3.02	0.258	0.27	Complies

From the peak EUT RF output power, the minimum mobile separation distance, d=0.52 m, as well as the gain of the used antenna, the RF power density can be obtained.