

MPE Calculation

$$S = \text{EIRP} / (4R^2\pi)$$

- S = Maximum power density (mW/cm²)
- P = Power input to the antenna (mW)
- G = Numeric power gain of the antenna
- R = Distance to the center of the radiation of the antenna
- EIRP = Equivalent Isotropic Radiated Power(mW) (=P*G)

Frequency range (MHz)			Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averaging time (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	~	1,500			f / 1500	30
1,500	~	100,000			1	30

(f = frequency in MHz)

Model Name : **a411**

FCC ID : **2AWMDA411**

Antenna Gain(dBi) : **2.242**

Separation distance (R) : **20.0 cm**

Modulation	Frequency (MHz)	Measured Maximum Output Power	Tune-up tolerance	Max. Power with tune-up tolerance (P)		Antenna Gain (G)		Power Density (S)	Limit of Power Density (S)	Result
		(dBm)	(dB)	(dBm)	(mW)	(dBi)	(numeric)	(mW/cm ²)	(mW/cm ²)	
RFID	902.75	25.63	± 1.00	26.63	460.26	2.24	1.68	0.1534	0.60	PASS
	914.75	25.72		26.72	469.89	2.24	1.68	0.1566	0.61	PASS
	927.25	25.68		26.68	465.59	2.24	1.68	0.1552	0.62	PASS

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.