

Radio Frequency Exposure

EUT INFORMATION

EUT	Wireless Magnetic Reed Switch Sensor
Frequency band(Operating)	Zigbee: 2.405 GHz ~ 2.480 GHz
Antenna diversity	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
Max. output power	O-QPSK: 0.42 dBm (1.10 mW)
Antenna gain (Max)	2 dBi

TEST RESULT

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 (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	---	---	F/1500	30
1500-100,000	---	---	1.0	30

F = Frequency in MHz

$$Pd = (Pout * G) / (4 * \pi * R^2)$$

Where,

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

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

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2405-2480	1.10	2	20	0.001	1.0