Radio Frequency Exposure

EUT INFORMATION

EUT	IoT Wireless PIR Motion Detector
Frequency band (Operating)	Zigbee: 2.405 GHz ~ 2.480 GHz
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☒ Tx/Rx diversity
Max. output power	O-QPSK: 1.37 dBm (1.37 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/cm^2

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	1.37	2	20	0.001	1.0