

## Test Requirement

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 <sup>2</sup> )	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	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				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	-	-	f/1500	30
1500–100,000	-	-	1.0	30

Note: f = frequency in MHz

### **EVALUATION METHOD**

Transmission formula:  $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

**Pd** = power density in mW/cm<sup>2</sup>, **Pout** = output power to antenna in mW, **G** = gain of antenna in linear scale;

**Pi** = 3.1416, **R** = distance between observation point and center of the radiator in cm

## Assessment Result

Passed

Not Applicable

Frequency (MHz)	Type	Conducted Power (dBm)	Maximum Tune-up (dBm)	Power Density (mW/cm2)	Limit (mW/cm2)	Result
2437	2.4G WIFI	20.079	21	0.038101	1.0000	Pass
2402	BT	1.93	2	0.000315	1.0000	Pass
2402	BLE	-1.73	-1	0.000158	1.0000	Pass
5210	5G WIFI B1	20.44	21	0.036387	1.0000	Pass
5290	5G WIFI B2	18.818	19	0.023012	1.0000	Pass
5610	5G WIFI B3	18.729	19	0.025465	1.0000	Pass
5775	5G WIFI B4	29.986	30	0.327309	1.0000	Pass

Note(1): The exposure evaluation safety distance is 20cm.

Note(2):EUT has two antennas and cannot transmit at the same time

BT EIRP= Reading result -95.2=97.13-95.2=1.93dBm

BLE EIRP= Reading result -95.2=93.45-95.2=-1.73dBm

2.4G WIFI Antenna Gain:1.82dBi, BT Antenna Gain:0dBi

5G WIFI Antenna Gain:Band 1: 1.62dbi,Band 2: 1.63dbi,Band 3: 2.07dbi,  
Band 4: 2.16dbi

Simultaneous transmission=2.4G WIFI+BT+BLE+5G WIFI=0.038101+  
0.0003150+000158 +0.327309=0.365883

-----The End-----