

Maximum Permissible Exposure Evaluation

The RF exposure calculation for the co-locating of the following two (2) Two Technologies FCC Certified module/devices:

1. FCC ID: RYJ-PLAT2008, embedded BGB203 BT radio in the FC-2500 case
2. FCC ID: RYJ-SDMCF10G, WiFi radio module

Based on the FCC OET Bulletin 65, Edition 97-01, the following formula is used to calculate RF exposure at a distance of 20cm from the transmitting antenna:

$$S = PG/4\pi R^2$$

Where:

S = Power Density (mW/cm²)

P = Power output to the antenna

G = Antenna Numeric Gain

R = Distance from the transmitting antenna (cm)

Note: The RF transmit power and the antenna gain used are from the original test reports submitted to the FCC for certification.

FCC ID	Power Output P (mW)	Antenna Gain G (dBi)	Antenna Gain G	Power Density S (mW/cm ²)	Limit (mW/cm ²)	Percentage of Limit
RYJ-PLAT2008	1.07	0	1	0.00021	1	0.021%
RYJ-SDMCF10G	80	0	1	0.0159	1	1.59%

Total RF Exposure Percentage: 1.611%

Conclusion: The total RF exposure percentage is 1.611% of the allowable limit, therefore the RF exposure calculation for the co-locating of the (2) Two Technologies FCC certified modules/devices complies with the FCC MPE requirements.

$$\text{dBi} = 10_{\log_{10}}(\mathbf{G})$$