

Appendix 5

RF Exposure Information

Maximum transmitter power:

802.11b (default antenna activated)		
Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2412	14.61	28.91
2437	14.42	27.67
2462	14.16	26.06
802.11g (default antenna activated)		
Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2412	4.88	3.08
2437	4.33	2.71
2462	3.86	2.43
802.11n (20MHz, both antennas activated)		
Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2412	6.60	4.57
2437	5.96	3.94
2462	5.45	3.51
802.11n (40MHz, both antennas activated)		
Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2412	1.05	1.27
2437	0.78	1.20
2462	0.60	1.15

According to the manufacturer's installation instruction, the EUT operating in standalone mobile exposure conditions which minimum test separation distance is 20cm between the antenna and radiating structures of the device and nearby persons.

For Maximum Permissible Exposure (MPE) evaluation, the maximum power density at 20 cm from this mobile transmitter shall be less than the General Population / Uncontrolled MPE limit in OET Bulletin 65 and meet the requirement listed in KDB447498.

Evaluation:

The maximum conducted output power is 28.91mW,

$$\begin{aligned} \text{The power density at 20cm} &= (28.91\text{mW} \times 1.95) / 4\pi R^2 \\ &= 0.0112 \text{ mWcm}^{-2} \end{aligned}$$

Conclusion:

In the frequency range of 1,500 - 100,000MHz, the MPE limit is 1.0 mWcm^{-2} for general population and uncontrolled exposure. As the measured power density at 20cm from the transmitter is lower than the MPE limit, the compliance to the MPE limit can be ensured by indicating the minimum 20cm separation between the transmitter's radiating structures and body of the user or nearby persons.