

Appendix 5

RF Exposure Information

Maximum transmitter power:

Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2402	13.21	20.94
2440	13.02	20.04
2479	12.84	19.23

For FCC

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 20.94mW,

$$\begin{aligned} \text{The power density at 20cm} &= (20.94\text{mW} \times 1) / 4\pi R^2 \\ &= 0.0042 \text{ mWcm}^{-2} \end{aligned}$$

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.

For IC

According to RSS-102 section 2.5.2, the exemption limit for routine evaluation of device operating at or above 300 MHz and below 6 GHz is:

$$1.31 \times 10^{-2} f^{0.6834} \text{ W, where } f \text{ is in MHz;}$$

$$= 2.676\text{W}$$

The maximum e.i.r.p. is 20.94 mW which is $< 2.676\text{W}$.

Conclusion:

The EUT can be exempted from routine evaluation.