



Maximum Permissible Exposure (MPE)

EUT INFORMATION

EUT	In-Vehicle Computer
Frequency band (Operating)	2.412 GHz ~ 2.462 GHz
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☒ Tx/Rx diversity
Max. output power	20.12 dBm (102.80 mW)
Antenna gain (Max)	2.79 dBi

TEST RESULT

The modular use shall be at least 20cm distance away from human body.

MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \cdot P \cdot G}}{d}$$

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = E^2 / 3770$$

Combine these two formulas can be changed to

$$P_d = (30 \cdot P \cdot G) / (3770 \cdot d^2)$$

Note:

1. "E" means Electric field (V/m).
2. "P" means Peak RF output power (W).
3. "G" means EUT Antenna numeric gain (numeric).
4. "d" means the minimum mobile separation distance is 0.2m between radiator and human body.



Modulation Type	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)
802.11b	01	2412	17.53	0.021403	<1
	06	2437	16.95	0.018727	<1
	11	2462	16.46	0.016729	<1
802.11g	01	2412	19.84	0.036431	<1
	06	2437	19.08	0.030583	<1
	11	2462	18.62	0.027509	<1
802.11n HT20	01	2412	20.12	0.038857	<1
	06	2437	19.12	0.030866	<1
	11	2462	18.71	0.028085	<1
802.11n HT40	03	2422	19.04	0.030302	<1
	06	2437	18.60	0.027383	<1
	09	2452	18.19	0.024916	<1