



Maximum Permissible Exposure (MPE) Evaluation

Applicant : Hitachi, Ltd.
Equipment : The Gateway
Model No. : EM-G21
FCC ID : R2BEMG21

MPE Calculations

According to the OET Bulletin 65 (Edition 97-01)

$$S = \frac{PG}{4\pi R^2}$$

Where:

S=Power density (in appropriate units, e.g. mW/cm²)

P=Power input to antenna (in appropriate units, e.g., mW)

G=Power gain of the antenna in the direction of interest relative to an isotropic radiator

R=Distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Tx Frequency= 2412 to 2462 [MHz] : IEEE 802.11 b / g / n HT20
2422 to 2452 [MHz] : IEEE 802.11 n HT40

Maximum peak power= 21.77 [dBm]
Antenna gain= 7.01 [dBi] : From Test Report No.: JM12100001(R1)

P= 150.36 [mW]
G= 5.02 [numeric]
R= 20.00 [cm]

Calculated Power density : 0.15 [mW/cm²]