

### Prediction of MPE limit at a given distance



Equation from page 18 of OET Bulletin 65, Edition 97-01

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

where: S = power density

P = power input to the antenna

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

Mode: GSM PCS

Maximum peak output power at antenna input terminal: 28.28 (dBm)

GX820

Maximum peak output power at antenna input terminal: 673.0 (mW)

Antenna gain(typical): 3 (dBi)

Tuf Duck EXE-821-SM

Maximum antenna gain: 1.995 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 1850.02 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 0.267 (mW/cm<sup>2</sup>)

Maximum allowable antenna gain: 8.7 (dBi)

Margin of Compliance: 5.7

CalAmp Corporation

GSM/GPRS Modem Module