



February 11, 2009

Maximum Permissible Exposure Evaluation

The RF exposure calculation for the following FCC Certified module/device:

1. FCC ID: SM6-UGM-L-NS, Mueller Technologies UGM-LOW

Based on the FCC OET Bulletin 65, Edition 97-01, the following formula is used to calculate RF exposure at a distance of 20cm from the transmitting antenna:

$$S = PG/4\pi R^2$$

Where:

S = Power Density (mW/cm²)

P = Power output to the antenna

G = Antenna Numeric Gain

R = Distance from the transmitting antenna (cm)

Note: The RF transmit power used is from the original test reports submitted to the FCC for certification.

One Transmitter

Frequency	902.5	MHz
Limit	0.602	mW/cm ²
Distance (cm), R =	20	cm
Power (dBm), P =	14.1	dBm
TX Ant Gain (dBi), G =	2.5	dB

Power Density: 0.01 mW/cm² Separation<20 cm
Minimum Distance: 2.5 cm

Conclusion: The unit complies at the 20cm distance. The minimum MPE distance is 2.5cm for this unit. This unit will be a fixed device.

$$\text{dBi} = 10 \log_{10}(G)$$