



H.B. Compliance Solutions

Maximum Permissible Exposure Statement

For the

Sentinel System

Sentinel Transceiver Gen2

December 3, 2015

Prepared for:

Sentinel System

1795 N. Lapeer Road,

Oxford, MI 48371

Prepared By:

H.B. Compliance Solutions

5005 S. Ash Avenue, Suite # A-10

Tempe, Arizona 85282

Reviewed By:

A handwritten signature in black ink, appearing to read 'Hoosamuddin Bandukwala'.

Hoosamuddin Bandukwala



Cert # ATL-0062-E

Prediction of MPE limit at a given distance

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

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

Where,

S = power density (mW/cm²)

P = output power at the antenna terminal (mW)

G = gain of transmit antenna (numeric)

R = distance from transmitting antenna (cm)

Maximum peak output power at antenna input terminal = 36.88 (dBm)

Maximum peak output power at antenna input terminal = 4875 (mW)

Antenna gain (typical) = 6 (dBi)

Maximum antenna gain = 3.98 (numeric)

Prediction distance = 304 (cm)

Prediction frequency = 459 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.306 (mW/cm²)

Power density at prediction frequency = 0.016707 (mW/cm²)

To solve for the minimum mounting distance required;

$$R = \sqrt{PG/4\pi S}$$

$R = \sqrt{(4875 \times 3.98 / 4\pi \times 0.016707)} = 304 \text{ cm}$ (Based on continuous transmission)

END OF TEST REPORT