



# H.B. Compliance Solutions

## Maximum Permissible Exposure Statement

For the

**Schweizer Electronic AG**

**LocControl 100 (Receiver)**

November 14, 2019

### Prepared for:

Schweizer Electronic AG

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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/cm<sup>2</sup>)

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 = 27.4 (dBm)

Maximum peak output power at antenna input terminal = 550 (mW)

Antenna gain (typical) = 6 (dBi)

Maximum antenna gain = 3.98 (numeric)

Prediction distance = 31 (cm)

Prediction frequency = 450 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.30 (mW/cm<sup>2</sup>)

*Power density at prediction frequency = 0.181269 (mW/cm<sup>2</sup>)*

To solve for the minimum mounting distance required;

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

$$R = \sqrt{550 \times 3.98 / 4\pi \times 0.181269} = \underline{31 \text{ cm}} \text{ (Based on continuous transmission)}$$

Maximum peak output power at antenna input terminal = 27.4 (dBm)

Maximum peak output power at antenna input terminal = 550.0 (mW)

Antenna gain (typical) = 2 (dBi)

Maximum antenna gain = 1.58 (numeric)

Prediction distance = 20 (cm)

Prediction frequency = 450 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.30 (mW/cm<sup>2</sup>)

*Power density at prediction frequency = 0.17288 (mW/cm<sup>2</sup>)*

To solve for the minimum mounting distance required;

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

$$R = \sqrt{550 \times 1.58 / 4\pi \times 0.17288} = \underline{20 \text{ cm}} \text{ (Based on continuous transmission)}$$

**END OF TEST REPORT**