



# H.B. Compliance Solutions

## Maximum Permissible Exposure Statement

For the

**Relume Technologies**

**Sentinel C Gateway Unit**

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**Prepared for:**

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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 = 19.58 (dBm)

Maximum peak output power at antenna input terminal = 90.0 (mW)

Antenna gain (typical) = 1.9(dBi)

Maximum antenna gain = 1.55(numeric)

Prediction distance = 20 (cm)

Prediction frequency = 924 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.616 (mW/cm<sup>2</sup>)

*Power density at prediction frequency = 0.0277534617 (mW/cm<sup>2</sup>)*

To solve for the minimum mounting distance required;

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

$R = \sqrt{90 \times 1.55 / 4\pi \times 0.0277534617} = \underline{20 \text{ cm}}$  (Based on continuous transmission)

**END OF TEST REPORT**