



# H.B. Compliance Solutions

## Maximum Permissible Exposure Statement

For the

**Globalstar, Inc.**

**ST150M**

September 29, 2022

**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)

### For Bluetooth Transmitter

Maximum peak output power at antenna input terminal = 3.31 (dBm)

Maximum peak output power at antenna input terminal = 2.143 (mW)

Antenna gain (typical) = 1.3(dBi)

Maximum antenna gain = 1.35(numeric)

Prediction distance = 20 (cm)

Prediction frequency = 2402 (MHz)

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

*Power density at prediction frequency = 0.00058 (mW/cm<sup>2</sup>)*

To solve for the minimum mounting distance required;

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

$$R = \sqrt{(2.143 \times 1.35 / 4\pi \times 0.00058)} = \underline{20 \text{ cm}} \text{ (Based on continuous transmission)}$$

### For Satellite Transmitter

Maximum peak output power at antenna input terminal = 24.94 (dBm) \*

Maximum peak output power at antenna input terminal = 311.9 (mW)

Antenna gain (typical) = -0.24 (dBi)

Maximum antenna gain = 0.946 (numeric)

Prediction distance = 20 (cm)

Prediction frequency = 1618.75 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 1.0 (mW/cm<sup>2</sup>)

*Power density at prediction frequency = 0.0587 (mW/cm<sup>2</sup>)*

\*Includes 1dB of manufacturer output power tolerance.

To solve for the minimum mounting distance required;

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

$$R = \sqrt{311.9 \times 0.946 / 4\pi \times 0.0587} = \underline{20 \text{ cm}} \text{ (Based on continuous transmission)}$$

### Note:

Both transmitters (Bluetooth and Satellite) do not operate at the same time.

**END OF TEST REPORT**