



# H.B. Compliance Solutions

## Maximum Permissible Exposure Statement

For the

**Synexxus, Inc.**

**Sentinel Twist Lock Lightning Control**

May 22, 2018

**Prepared for:**

Synexxus, Inc.

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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 = 32.84 (dBm)

Maximum peak output power at antenna input terminal = 1923 (mW)

Antenna gain (typical) = 6 (dBi)

Maximum antenna gain = 3.98 (numeric)

Prediction distance = 80 (cm)

Prediction frequency = 459 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.306 (mW/cm<sup>2</sup>)

*Power density at prediction frequency = 0.14346 (mW/cm<sup>2</sup>)*

To solve for the minimum mounting distance required;

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

$R = \sqrt{1923 \times 3.98 / 4\pi \times 0.14346} = 80 \text{ cm}$  (Based on continuous transmission)

**END OF TEST REPORT**