

SB1120 MPE calculation

Maximum Power output:

Module 80: 39.7mW (15.99dBm)

Module 79 38.6mW(15.87dBm)

Max Antenna gain,:

Module 80: 1.0dBi=1.25

Module 79 1.2dBi=1.33

One-half power:

Module 80: 12.97 dBm

Module 79: 12.85 dBm

Maximum EIRP from transmit antenna

Module 80: 12.97 + 1.0 = 13.97 dBm

Module 80: 12.85 + 1.2 = 14.05 dBm

To determine the overall exposure at 20 cm from the EUT.

The field strength contribution from each antenna is calculated using the equation

$E, \text{ V/m} = (30 \cdot \text{EIRP, watts})^{0.5} / \text{separation distance}$

Maximum EIRP from transmit antenna is 14.05 dBm EIRP = 0.025 watt EIRP

$S, \text{ mW/cm}^2 = E^2 / 3770$, E in V/m

Total exposure at 20cm: 0.0011 mW.cm2

For MPE, the duty cycle is 100% the final exposure at 20cm: 0.0011 mW.cm2

FCC Limit: 1.0 mW/cm2