

MPE Calculation Shooting Star V3 modem 1 : (2.4GHz)

Frequency range	2402.5-2477.5MHz
Max Target power:	20dBm
Measured Conducted power:	18.6dBm
Maximum antenna gain(PK) :	0dBi
Maximum EIRP :	20dBm (100.00mW)

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

The MPE calculation for this exposure is shown below

$\mathbf{S} = \text{EIRP} / (4 R^2 \pi)$ $= 100.00\text{mW}/(4 \times 20^2 \times \pi)$ $= 0.019894 \text{ mW/cm}^2$	-Note S =Maximum power density (mW/cm^2) EIRP =Equivalent Isotropic Radiated Power (mW) R = Distance to the center of the radiotation of the antenna (20cm)
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MPE Calculation Shooting Star V3 modem 2 : (2.4GHz)

Frequency range	2402.5-2477.5MHz
Max Target power:	20dBm
Measured Conducted power:	18.3dBm
Maximum antenna gain(PK) :	2dBi
Maximum EIRP :	22dBm (158.49mW)

$\mathbf{S} = \text{EIRP} / (4 R^2 \pi)$ $= 158.49\text{mW}/(4 \times 20^2 \times \pi)$ $= 0.031531 \text{ mW/cm}^2$	-Note S =Maximum power density (mW/cm^2) EIRP =Equivalent Isotropic Radiated Power (mW) R = Distance to the center of the radiotation of the antenna (20cm)
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The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

The MPE calculation for this exposure is shown below

MPE Calculation Shooting Star V3 transponder : (2.4GHz)

Frequency range	2402-2480MHz
Max Target power:	5dBm
Measured Conducted power:	5dBm
Maximum antenna gain(PK) :	0dBi
Maximum EIRP :	5dBm (3.16mW)

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

The MPE calculation for this exposure is shown below

$S = \text{EIRP} / (4 R^2 \pi)$ = 3.16mW/(4x20 ² x π) = 0.00062 mW/cm ²	Note S=Maximum power density (mW/cm ²) EIRP=Equivalent Isotropic Radiated Power (mW) R= Distance to the center of the radiotation of the antenna (20cm)
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RF function	SSV3 modem 1	SSV3 modem 2	SSV3 transponder	
BAND	2.4GHz	2.4GHz	2.4GHz	\sum of MPE ratios
Power Density (mW/cm²)	0.019894	0.031531	0.00062	
Requirement (mW/cm²)	1.000	1.000	1.000	
MPE ratio (Power Density/Requirement)	0.020	0.031	0.001	
Configuration 1 (MPE ratio, all on)	0.020	0.031	0.001	0,052

Requirement = \sum of MPE ratios ≤ 1

Conclusion : The exposure condition of this device is compliant with FCC rules.