FCC, Title 47 §15.247, §15.407
Industry Canada RSS-Gen §5.5

Calculations for Maximum Permissible Exposure Levels

Power Density = Pd (mW/cm^2) = $EIRP/(4\pi d^2)$

EIRP = P * G

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = 10 ^ (G (dBi)/10)

The Trilliant Gateway has a single transmitter.

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm^2

	Freq. Band (MHz)	Antenna Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Safe Distance @ 1mW/cm² Limit(cm)	Minimum Separation Distance (cm)
1	2400– 2483.5	7.5	5.62	+29.2	832.0	19.29	20.0*
2	5150 - 5250	17.0	50.1	+5.76	3.77	3.88	20.0*
3	5725 - 5850	17.0	50.1	+29.97	993.1	63.0	20.0*

Calculated Safe distance @ $1mW/cm^2$ limit with concurrent operation in 2.4 GHz & 5150 – 5250 MHz bands
$\sqrt{((5.62 \times 832.0) + (50.1 \times 3.77)/4\pi)} = 19.68$ cm

Calculated Safe distance @ $1mW/cm^2$ limit with concurrent operation in 2.4 GHz & 5725 – 5850 MHz bands
$\sqrt{((5.62 \times 832.0) + (50.1 \times 993.1)/4\pi)} = 65.82$ cm

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

Specification - Maximum Permissible Exposure Limits

FCC §1.1310 Limit = $1mW / cm^2$ from 1.310 Table 1

RSS-Gen §5.5 Before equipment certification is granted, the application requirements of RSS-102 shall be met.

Laboratory Measurement Uncertainty for Power Measurements

Measurement uncertainty	±1.33 dB