

MPE CALCULATION

For Exalt Communication, Inc– 5GHz Radio Module

FCC ID: TTM-105P25T

RF Exposure Requirements:	47 CFR §1.1307(b)
RF Radiation Exposure Limits:	47 CFR §1.1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	5745 – 5825 MHz, 5250MHz to 5350MHz & 5470MHz to 5725MHz
Limits for General Population/Uncontrolled Exposure in the band of:	1.5 – 100 GHz
Power Density Limit:	1 mW/ cm ² ;

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

Point to point Link

Antenna Model: Parabolic (SPD6-5.2) ~ 37.9dBi,

5745 – 5825 MHz, Power = 24.9 dBm, Antenna Gain = 37.9dBi,
R= 400cm

Power density = 0.95 mW/ cm²

Result

The Above Result had shown that Device complied with 1mW/cm² Power density requirement for distance with minimum distance of 400cm

Antenna Model: Flat Panel (MT-486013/NVH) ~ 29dBi

5250MHz to 5350MHz & 5470MHz to 5725MHz, Max EIRP Power = 30dBm, (with 1dBm output power)
R= 8.9cm

Result

The Above Result had shown that Device complied with 1mW/cm² Power density requirement for distance with minimum distance of 8.9cm

Antenna Model: Parabolic (SPD6-5.2) ~ 37.9dBi,

5250MHz to 5350MHz & 5470MHz to 5725MHz, Max EIRP Power = 30dBm, (with -7.9dBm output power)

R= 8.9cm

Result

The Above Result had shown that Device complied with 1mW/cm² Power density requirement for distance with minimum distance of 8.9cm

Completed By : Choon Sian Ooi

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