

## MPE CALCULATION

FCC ID: KA359WAN1

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| 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:                                                 | 5860-5920 MHz                  |
| Limits for General Population/Uncontrolled Exposure in the band of: | 1500 - 100,000 MHz             |
| Power Density Limit:                                                | 1 mW / cm <sup>2</sup>         |

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

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Prediction distance 20cm

MPE calculation with 16dBi antenna: Power = 7.76 dBm, antenna gain = 16 dBi, Power density= 0.047286 mW/cm<sup>2</sup>  
Maximum MPE = 0.047286 mW/cm<sup>2</sup>, which is less than 1 mW/cm<sup>2</sup>.

MPE calculation with 20dBi antenna: Power = 7.76 dBm, antenna gain = 20 dBi, Power density= 0.118776 mW/cm<sup>2</sup>  
Maximum MPE = 0.118776 mW/cm<sup>2</sup>, which is less than 1 mW/cm<sup>2</sup>.

MPE calculation with 23dBi antenna: Power = 7.76 dBm, antenna gain = 16 dBi, Power density= 0.23699 mW/cm<sup>2</sup>  
Maximum MPE = 0.23699 mW/cm<sup>2</sup>, which is less than 1 mW/cm<sup>2</sup>.

The Above Result had shown that the device complied with MPE requirement.

Completed By: Angel Escamilla *Angel Escamilla*

SIEMIC, Inc  
775 Montague Expressway, Milpitas, CA 95035  
Phone: (408) 526-1188  
Date: September 22, 2014