

## MPE CALCULATION

FCC ID: I28MD-FXLAN11AC / IC ID: 3798B-FXLAN11AC

|   |   |
|---|---|
| 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:   | 2402-2480MHz, 2412-2462 MHz, 5180-5825MHz |
| 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

### Omnidirectional Antenna

Prediction distance 20cm

(WLAN 2.4GHz): Power = 16.77 dBm, Antenna Gain = 3 dBi, Power density = 0.01887 mW/cm<sup>2</sup>

(WLAN 5GHz): Power = 14.76 dBm, Antenna Gain = 5 dBi, Power density = 0.01882 mW/cm<sup>2</sup>

| Mode        | Prediction Distance (cm) | Target power (dBm) | Tune up power tolerance (dB) | Max Tune up Power (dBm) | Max. Antenna Gain (dBi) | Power Density (mW/ cm <sup>2</sup> ) |
|-------------|--------------------------|--------------------|------------------------------|-------------------------|-------------------------|--------------------------------------|
| WLAN 2.4GHz | 20                       | 16.77              | -2,2                         | 14.77, 16.77            | 3                       | 0.01887                              |
| WLAN 5GHz   | 20                       | 14.76              | -2.2                         | 12.76,16.76             | 5                       | 0.01882                              |

### Patch Antenna

Prediction distance 20cm

(WLAN 2.4GHz): Power = 16.77 dBm, Antenna Gain = 3.66 dBi, Power density = 0.02196 mW/cm<sup>2</sup>

(WLAN 5GHz): Power = 14.76 dBm, Antenna Gain = 3.19 dBi, Power density = 0.01241 mW/cm<sup>2</sup>

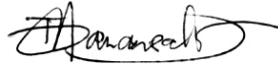
| Mode        | Prediction Distance (cm) | Target power (dBm) | Tune up power tolerance (dB) | Max Tune up Power (dBm) | Max. Antenna Gain (dBi) | Power Density (mW/ cm <sup>2</sup> ) |
|-------------|--------------------------|--------------------|------------------------------|-------------------------|-------------------------|--------------------------------------|
| WLAN 2.4GHz | 20                       | 16.77              | -2,2                         | 14.77, 16.77            | 3.66                    | 0.02196                              |
| WLAN 5GHz   | 20                       | 14.76              | -2.2                         | 12.76,16.76             | 3.19                    | 0.01241                              |

**Note: 2.4 GHZ and 5GHz radio does not transmit simultaneously.**



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

Completed By: Teody Manansala

A handwritten signature in black ink, appearing to read 'Teody Manansala', with a stylized flourish at the end.

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