

FCC §15.247 (i), §2.1091 - RF Exposure

# FCC ID: 2AXH6-ENDER3V3

## **Applied procedures / limit**

According to FCC §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

**Limits for Occupational / Controlled Exposure** 

| Frequency<br>Range (MHz) | Electric Field<br>Strength (E)<br>(V/m) | Magnetic Field<br>Strength (H)<br>(A/m) | Power Density (S)<br>(mW/ cm²) | Averaging Time<br> E ², H ²or S<br>(minutes) |  |
|--------------------------|---|---|--------------------------------|--|--|
| 0.3-3.0                  | 614                                     | 1.63                                    | (100)*                         | 6  |  |
| 3.0-30                   | 1842 / f                                | 4.89 / f                                | (900 / f)*                     | 6  |  |
| 30-300                   | 61.4                                    | 0.163                                   | 1.0                            | 6  |  |
| 300-1500                 |   |   | F/300                          | 6  |  |
| 1500-100,000             |   |   | 5                              | 6  |  |

Note: *f* is frequency in MHz

## **Limits for General Population / Uncontrolled Exposure**

| Frequency<br>Range (MHz) | Electric Field<br>Strength (E)<br>(V/m) | Magnetic Field<br>Strength (H)<br>(A/m) | Power Density (S)<br>(mW/ cm²) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|--------------------------|---|---|--------------------------------|--|
| 0.3-1.34                 | 614                                     | 1.63                                    | (100)*                         | 30   |
| 1.34-30                  | 824/f                                   | 2.19/f                                  | (180/f)*                       | 30   |
| 30-300                   | 27.5                                    | 0.073                                   | 0.2                            | 30   |
| 300-1500                 |   |   | F/1500                         | 30   |
| 1500-100,000             |   |   | 1.0                            | 30   |

Note: f = frequency in MHz

<sup>\* =</sup> Power density limit is applicable at frequencies greater than 100 MHz

<sup>\* =</sup> Plane-wave equivalent power density



### MPE PREDICTION

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna, R=0.2m

#### **TEST RESULTS**

|      | Tune up<br>Produce<br>power | Maximu<br>m peak<br>output<br>power<br>(dBm) | Output power to antenn a (mW) | Antenna<br>Gain<br>(numeric) | Power Density (S) (mW/ cm2) | Limit<br>(mW<br>/<br>cm2 | Result |
|------|-----------------------------|--|-------------------------------|------------------------------|-----------------------------|--------------------------|--------|
| WIFI | 13±1                        | 14   | 25.12                         | 1.67<br>(2.24dBi)            | 0.00835                     | 1                        | Pass   |

Conclusion:

For the max result : 0.00835≤ 1.0, compliance with FCC's RF Exposure