Prediction of MPE at a given distance

1. Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

| Frequency range Electric field strength (MHz) (V/m) | | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|----------------------|----------------------------------|--|-----------------------------|
| | (A) Limits for O | ccupational/Controlled Expo | sure | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| | (B) Limits for Gener | al Population/Uncontrolled | Exposure | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |

2. Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

- S = power density
- P = power input to the antenna
- G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the centre of radiation of the antenna

3. Result

FCC ID: 2AZFE-YG600PLUS

| Mode | Frequency (MHz) | Prediction distance (cm) | RF output power | MAX tune-uppower | | MPE (mW/cm²) | Limit (mW/cm ²) | SAR Test Exclusion |
|------------|--------------------|--------------------------------|-----------------------|------------------|--------|-----------------|--------------------------------|-----------------------|
| | | (011) | dBm | dBm | mW | | | |
| BT LE | 2440 | 20 | -5.707 | -5 | 0.316 | 0.00064 | 1 | Yes |
| BT EDR | 2402 | 20 | 6.648 | 7 | 5.012 | 0.00068 | 1 | Yes |
| 2.4G WiFi | 2422 | 20 | 19.116 | 19 | 79.433 | 0.02406 | 1 | Yes |
| 5G WIFI B4 | 5200 | 20 | 18.46 | 19 | 79.433 | 0.02181 | 5 | Yes |

Maximum Simultaneous transmission MPE Ratios for BT+WIFI:

| Max MPE ratio _{BT} /Limit | Max MPE ratio _{WIFI} /Limit | ∑MPE ratios | Limit | Result |
|---------------------------------------|--|----------------|-------|--------|
| 0.00068 | 0.02406 | 0.02474 | 1 | PASS |

BT Antenna Gain: 4.73dBi

2.4G WIFI Antenna Gain: 7.73dBi

5G WIFI Antenna Gain: 7.96dBi

In summary, SAR evaluation is not required.