

FCC MPE Calculation

FCC ID: PYABH-118

Frequency: 2402-2480 MHz (79 channels)

Modulation: FHSS (GFSK,8DPSK)

Mid-Channel: 2.441 GHz (channel 39)

Mid-Channel Peak Power, Conducted: 5.54 dBm == 3.58 mW

Antenna Gain: G = 3.9 dBi

Calculation:

$$\text{Limit} = 60/2.441 = 24.58 \text{ mW}$$

$$P_{\text{radiated, max}} = P_{\text{conducted, dBm}} + G_{\text{dBi}} = 5.54 \text{ dBm} + 3.9 \text{ dBi} == 9.44 \text{ dBm} = 8.97 \text{ mW}$$

Conclusion:

The emitted power appears to be (far) below the required limit, so PASS.

Note 1: f shall be the mid-band frequency expressed in GHz; the limit calculated with this mid-band frequency applies to all channels. For PTT with body-worn or face-held modes, d is the distance from the device case to a person's body; for modules with antennas inside laptops, d is the distance from the antenna to the person's body.

Note 2: Average Power levels are always equal or below the measured Peak Power levels, which means that calculating the EIRP using the Peak power can be considered as worst case.)