

FCC RF Exposure Calculation

FCC ID: R3SCS01

Frequency: 2402-2480 MHz (79 channels)

Modulation: FHSS (GFSK)

Mid-Channel: 2.441 GHz (channel 39)

Mid-Channel Peak Power, Conducted: -7.18 dBm == 0.19 mW

Antenna Gain: G = -1.8 dBi

Calculation:

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

$P_{\text{radiated, max}} = P_{\text{conducted, dBm}} + G_{\text{dBi}} = -7.18 \text{ dBm} + -1.8 \text{ dBi} == -8.98 \text{ dBm} = \underline{0.13 \text{ mW}}$

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.)