

MPE Calculation

Applicant : RF Controls LLC

Type of Equipment : Frequency Hopper

Model No. : RFC-6100XR

FCC ID : WFQRFC-6100XR / IC ID: 10717A-RFC6100XR

RF Exposure Calculations:

Limits: FCC 2.1091 / RSS-102, Issue 4

The following information provides the minimum separation distance for the highest gain antenna provided with the as calculated from FCC OET Bulletin 65 Appendix A, Table (B) Limits for General Population / Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 0.6mW/cm² uncontrolled exposure limit (6.0W/m²). The Friis formula used was:

For Antenna ITCS-A-212

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 636.8mW (Maximum peak output power)

G = 5.5 Numerical Antenna gain; equal 7.4dBi

r = 21.60 cm

For WFQRFC-6100XR with Antenna ITCS-A-210: S = 0.597mW/cm² (5.97W/m²)

For Antenna ITCS-A-210

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 251.2mW (Maximum peak output power)

G = 14.62 Numerical Antenna gain; equal 11.65dBi

r = 22.1cm

For WFQRFC-6100XR with Antenna ITCS-A-210: S = 0.598mW/cm² (5.98W/m²)