R.F Exposure/Safety Calculation for FCC ID: OJF1MRU70CR

The E.U.T. is rack or wall mounted. The typical distance between the E.U.T. and the general population is >100cm.

Calculation of Maximum Permissible Exposure (MPE)
Based on Section 1.1310 Requirements

(a) FCC limit at 753 MHz is: $f/1500 = 0.502 \frac{mW}{cm^2}$

Using table 1 of Section 1.1310 limit for general population/uncontrolled exposures, the above level is an average over 30 minutes.

(c)The power density produced by the E.U.T. is

$$S = \frac{P_t G_t}{4\pi R^2}$$

P_t- Transmitted Peak Power (worst case)

G_T- Antenna Gain, 12.5dBi= 17.8 numeric

R- Distance from Transmitter 100 cm

(d) Peak power density at worst case continuous transmission:

Band	Modulation	Pt (dBm)	Pt (mW)	Antenna type	G_T (dBi)	G_T numeric	R (cm)	S_{AV} (mW/cm^2)	Spec (mW/cm^2)
LTE	LTE 64QAM	31.2	1318	External	12.5	17.8	100	0.186692	.502
	LTE 16QAM	31.0	1259	External	12.5	17.8	100	0.178335	.502
	LTE QPSK	31.0	1259	External	12.5	17.8	100	0.178335	.502

(e) This is below the FCC limit.