MPE Calculations

The following MPE calculations are based on a measured ERP of 110.7 dBµV/m at 3m and conducted RF power of +10.6 dBm as presented to the antenna. The calculated gain of this antenna, based on the ERP measurements (over a conducting ground plane) is 4.9 dBi.
The output power is less than 200mW and exempt from evaluation as stated in Industry Canada RSS-102 section 2.5.1.

Prediction of MPE limit at a given distance

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

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

where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:	10.60	(dBm)
Maximum peak output power at antenna input terminal:	11.482	(mW)
Antenna gain(typical):	4.9	(dBi)
Maximum antenna gain:	3.090	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	903	(MHz)
PE limit for uncontrolled exposure at prediction frequency:	0.6	(mW/cm^2)
Power density at prediction frequency:	0.007059	(mW/cm^2)
Maximum allowable antenna gain:	24.2	(dBi)
Margin of Compliance at 20 cm =	19.3	dB