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:	34.00	(dBm)
Maximum peak output power at antenna input terminal:	2511.886432	(mW)
Antenna gain(typical):	2	(dBi)
Maximum antenna gain:	1.584893192	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	3458	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)

Power density at prediction frequency: 0.792009 (mW/cm^2)

Maximum allowable antenna gain: 3.012698554 (dBi)

Margin of Compliance: 1.012698554

The output emission is separated by the user as he wears the backpack radio by a coax extention that keeps the antenna more than 20 cm from the user's head. This extention and antenna is built as one piece unit and the user is warned in the user's manual not to change this configuration.