Prediction of MPE limit at a given distance
DEKO 3189 Down-link

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

iDEN 800

Maximum peak output power at device output terminal:	29.82	(dBm)
Cable and Jumper loss	2.0	(dB)
Maximum peak output power at antenna input terminal:	27.82	(dBm)
Maximum peak output power at antenna input terminal:	605.3408748	(mW)
Single Antenna gain(typical):	4	(dBi)
Number of Antennae	1	
Total Antenna gain(typical):	4	(dBi)
Maximum antenna gain:	2.511886432	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	860	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.573333333	(mW/cm^2)
Power density at prediction frequency:	0.302503	(mW/cm^2)
	3.025033	(W/m^2)
Maximum allowable antenna gain:	6.776770475	(dBi)
Margin of Compliance:	2.776770475 dB	

iDEN 900

Maximum peak output power at device output terminal:	28.64	(dBm)
Cable and Jumper loss	2.0	(dB)
Maximum peak output power at antenna input terminal:	26.64	(dBm)
Maximum peak output power at antenna input terminal:	461.3175746	(mW)
Single Antenna gain(typical):	4	(dBi)
Number of Antennae	1	
Total Antenna gain(typical):	4	(dBi)
Maximum antenna gain:	2.511886432	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	937.5	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.625	(mW/cm^2)
Power density at prediction frequency:	0.230531	(mW/cm^2)
	2.305314	(W/m^2)
Maximum allowable antenna gain:	8.331498727	(dBi)
Margin of Compliance:	4.331498727 dB	

Prediction of MPE limit at a given distance
DEKO 3189 Up-link

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

iDEN 800

Maximum peak output power at device output terminal:	22.86	(dBm)
Cable and Jumper loss	2.0	(dB)
Maximum peak output power at antenna input terminal:	20.86	(dBm)
Maximum peak output power at antenna input terminal:	121.8989599	(mW)
Antenna gain(typical):	14	(dBi)
Maximum antenna gain:	25.11886432	(numeric)
Prediction distance:	100	(cm)
Prediction frequency:	817.5	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.545	(mW/cm^2)
Power density at prediction frequency:	0.024366	(mW/cm^2)
	0.243663	(W/m^2)
Maximum allowable antenna gain:	27.49606366	(dBi)
Margin of Compliance:	13.49606366 dB	

iDEN 900

Maximum peak output power at device output terminal:	21.34	(dBm)
Cable and Jumper loss	2.0	(dB)
Maximum peak output power at antenna input terminal:	19.34	(dBm)
Maximum peak output power at antenna input terminal:	85.90135215	(mW)
Antenna gain(typical):	14	(dBi)
Maximum antenna gain:	25.11886432	(numeric)
Prediction distance:	100	(cm)
Prediction frequency:	898.5	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.599	(mW/cm^2)
Power density at prediction frequency:	0.017171	(mW/cm^2)
	0.171708	(W/m^2)
Maximum allowable antenna gain:	29.42636686	(dBi)
Margin of Compliance:	15.42636686 dB	