Nemko

Choose Scandinavian trust

Prediction of MPE limit at a given distance for BLE

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 device output terminal:	4.09	dBm
Cable and Jumper loss:	0.0	dB
Maximum peak output power at antenna input terminal:	4.09	dBm
	2.564484037	mW
Single Antenna gain (typical):	1.3	dBi
Number of Antennae:	1	
Total Antenna gain (typical):	1.3	dBi
	1.348962883	(numeric)
Prediction distance:	20	cm
Prediction frequency:	2440	MHz
MPE limit for uncontrolled exposure at prediction frequency:	1	mW/cm^2

Power density at prediction frequency:	**0.000688**	**mW/cm^2**
	0.006882	W/m^2
Tx On time:	1.000000	ms
Tx period time:	1.000000	ms
Average Factor:	100.000000	%
Average Power density at prediction frequency:	0.006882	W/m^2
Maximum allowable antenna gain:	32.92269855	dBi
Margin of Compliance:	**31.62269855**	**dB**

Nemko

Choose Scandinavian trust

Prediction of MPE limit at a given distance for RFID

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 device output terminal:	-54.07	dBm
Cable and Jumper loss:	0.0	dB
Maximum peak output power at antenna input terminal:	-54.07	dBm
	3.91742E-06	mW
Single Antenna gain (typical):	0	dBi
Number of Antennae:	1	
Total Antenna gain (typical):	0	dBi
	1	(numeric)
Prediction distance:	20	cm
Prediction frequency:	13.56	MHz
MPE limit for uncontrolled exposure at prediction frequency:	13.27433628	mW/cm^2

Power density at prediction frequency:	**0.00000000078**	**mW/cm^2**
	0.000000	W/m^2
Tx On time:	1.000000	ms
Tx period time:	1.000000	ms
Average Factor:	100.000000	%
Average Power density at prediction frequency:	0.000000	W/m^2
Maximum allowable antenna gain:	102.3128267	dBi
Margin of Compliance:	**102.3128267**	**dB**