

## 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

**STX2**

Maximum peak output power at antenna input terminal: 139 mW  
Single Antenna gain (typical): 3 dBi  
Number of Antennae: 1  
Total Antenna gain (typical): 3 dBi  
1.995262315 (numeric)  
Prediction distance: 20 cm  
Prediction frequency: 1611 MHz  
MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm<sup>2</sup>

**Power density at prediction frequency:** 0.055175 mW/cm<sup>2</sup>

0.551753 W/m<sup>2</sup>

Tx On time: 100.000000 ms

Tx period time: 100.000000 ms

Average Factor: 100.000000 %

Average Power density at prediction frequency: 0.551753 W/m<sup>2</sup>

Percentage to limit: 5.517533071 %

BMD-300 Model:2AA9B04

Radiated field strength @ 3m:	87.80	dBuV/m
Cable and Jumper loss:	0.0	dB
EIRP:	-7.43	dBm
	0.180717413	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:	2440	MHz
MPE limit for uncontrolled exposure at prediction frequency:	1	mW/cm <sup>2</sup>
<b>Power density at prediction frequency:</b>	<b>0.000036</b>	<b>mW/cm<sup>2</sup></b>
	0.000360	W/m <sup>2</sup>
Tx On time:	100.000000	ms
Tx period time:	100.000000	ms
Average Factor:	100.000000	%
Average Power density at prediction frequency:	0.000360	W/m <sup>2</sup>
Percentage to limit:	0.003595259	%

Total Percentage to limit:	5.52112833	%
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(PSD1/Limit 1) + (PSD 2/limit 2):	0.055211283	<1
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