

RF Exposure

This device Complies with RF Electrical Safety pursuant to OET Bulletin 65 Supplement C (Ed. 01-01) and KDB publication 447498. This device is exempt from FCC requirement of MPE or SAR testing since it is below the threshold.

For Industry Canada, if the end product design incorporates a User to Antenna separation distance closer than 20cm the Industry Canada certification may become invalid and may require separate certification for the finished product. (Refer to RSS-102 for further information.)

Industry Canada RF exposure evaluation is exempt for a separation distance between the user and the device greater than 20 cm as the device operates at or above 1.5 GHz and the e.i.r.p. of the device is equal to or less than 5 W. In this case, the information below contains the RF exposure technical brief that demonstrates how the e.i.r.p. was derived.

The limit for FCC is stated in mW/cm^2 and IC is stated in W/m^2 . Both limits are the same at $1 \text{ mW}/\text{cm}^2$ or $10 \text{ W}/\text{m}^2$ for the frequency range of 2.4 GHz to 2.4835 GHz.

Antenna No.		Total	1	2
Tx Status			On	On
Frequency	MHz		2437	2437
MPE Limit	mW/cm^2		1.00	1.00
Max % MPE	%	15.1	15.1	0.1
Power	(W)	0.430	0.427	0.003
Antenna Gain	dBi		2.50	0.50
EIRP	(W)	0.76	0.759	0.003
X	(cm)		-10.0	9.0
Y	(cm)		0.0	0.0
Sector			FALSE	FALSE
Arc			FALSE	FALSE
θ_1	degs	input	-120	-120
θ_2			60	60
θ_1		actual	-120	-120
θ_2			60	60

The power density from an isotropic source at distance $r = 20\text{cm}$ is defined:

$$PD = P / (4 * \text{Pi} * r^2)$$

Where P is the total power radiated in watts and r is the distance in meters

PD W/m^2	Peak power Watts	Constant	Pi	Distance meters
1.511971959	0.76	4	3.141593	0.2

PD mW/cm^2
0.151197196