



3301 East Deseret Drive  
St. George, Utah 84790  
[www.wilsonelectronics.com](http://www.wilsonelectronics.com)  
[info@wilsonelectronics.com](mailto:info@wilsonelectronics.com)

Phone 800.204.4104 • Fax 435.656.2432

August 2, 2012

Subject: RF MPE EXPOSURE

Re: FCC ID: PWO277380

To Whom It May Concern:

The MPE calculations for model 277380 signal booster were done for each frequency band: 1900 MHz. For each band two calculations were done; these included the different possibilities of antennas that may be connected to this signal booster: fixed outside and inside antennas. The order of the attached calculations is as follows:

1900 MHz band:

1. Fixed Outside Antenna
2. Inside Antenna

The results of these calculations determine the safe distances and gains for antennas that may be connected to this signal booster as summarized below:

	Fixed Outside Antenna	Inside Antenna
Maximum Gain less Cable Loss (dBi)	15	6
Minimum Distance from All People (inches/cm)	22/55	8/21

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick L. Cook', is written over a light blue circular stamp.

Patrick L. Cook

Senior Research and Development Engineer



# Minimum Safe Distance From Antennas

## Based upon FCC OET Bulletin 65 and other FCC Sources

### INPUT DATA

Frequency MHz	1850
Pout Watts	1.17500
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	55.0

### RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	21.65
ERP (Watts)	22.6566
EIRP (Watts)	37.1568
FCC Power Density Limit (mw/cm <sup>2</sup> )	1.00
Calculated Power Density (mw/cm <sup>2</sup> )	0.98

### REFERENCE DATA

Pout dBm	30.70
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm <sup>2</sup> )	1.00



# Minimum Safe Distance From Antennas

## Based upon FCC OET Bulletin 65 and other FCC Sources

### INPUT DATA

Frequency MHz	1930
Pout Watts	1.23000
Duty Cycle Percent	100.0%
Ant. Gain dBi	6.00
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

### RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	6.00
Distance From Antenna In Inches	7.87
ERP (Watts)	2.9858
EIRP (Watts)	4.8967
FCC Power Density Limit (mw/cm <sup>2</sup> )	1.00
Calculated Power Density (mw/cm <sup>2</sup> )	0.97

### REFERENCE DATA

Pout dBm	30.90
Antenna Gain (non-log)	3.98
Coax loss (non-log)	1.00
General FCC Limit (mw/cm <sup>2</sup> )	1.00