3301 E. Deseret Drive, St. George, UT 84790
www.wilsonelectronics.com • info@wilsonelectronics.com
phone 1-800-204-4104 • fax 1-435-656-2432

November 19, 2015

Subject: RF MPE EXPOSURE
Re: FCC ID: PWO460009

To Whom It May Concern:

The MPE calculations for model 460009 signal booster were done for each frequency band, 800 MHz and 1900 MHz, for the highest gain less coax loss outside antennas. This is a directly connected signal booster and will not include inside antenna options. The order of the attached calculations is as follows:

1. 800 MHz band Outside Antenna: 311129-400100
2. 1900 MHz band Outside Antenna: 311101

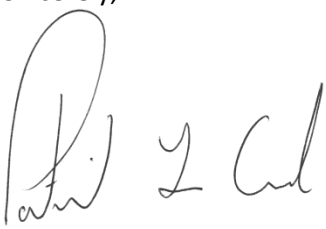
A booster's uplink power must not exceed 1 watt equivalent isotropic radiated power (EIRP) for each band of operation. Composite downlink power must not exceed 0.05 watt EIRP for each band of operation (20.21(e)(8)(i)(D)). The following formula was used to calculate the equivalent isotropic radiated power:

EIRP= Power Out (Watts)*Duty Cycle Percent*Antenna Gain (non-log)*Coax loss (non-log)

The power density (mW/cm^2) is calculated using the following formula:

Calculated Power Density=1000*EIRP (Watts)/(4*π*(Distance from Antenna (cm)^2))

Sincerely,



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	824
Pout Watts	0.23933
Duty Cycle Percent	100.0%
Ant. Gain dBi	4.90
Coax Loss dB	0.00
Distance From Antenna In cm	20.3

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	4.90
Distance From Antenna In Inches	8.00
EIRP (Watts)	0.7396
FCC Power Density Limit (mw/cm^2)	0.55
Calculated Power Density (mw/cm^2)	0.1427

REFERENCE DATA

Pout dBm	23.79
Antenna Gain (non-log)	3.09
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Antenna Kit # 311129-400100

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	1850
Pout Watts	0.16982
Duty Cycle Percent	100.0%
Ant. Gain dBi	6.12
Coax Loss dB	0.00
Distance From Antenna In cm	20.3

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	6.12
Distance From Antenna In Inches	8.00
EIRP (Watts)	0.6950
FCC Power Density Limit (mw/cm^2)	1.00
Calculated Power Density (mw/cm^2)	0.1341

REFERENCE DATA

Pout dBm	22.30
Antenna Gain (non-log)	4.09
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	1.00

Antenna Kit # 311101