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July 10, 2012

Subject: RF MPE EXPOSURE
Re: FCC ID: PWO2B5325

To Whom It May Concern:

The MPE calculations for model 2B5325 signal booster were done for each frequency band: 700 MHz, 800 MHz, and 1900 MHz. For each band three calculations were done; these included the different possibilities of antennas that may be connected to this signal booster: mobile outside, fixed outside, and inside antennas. The order of the attached calculations is as follows:

700 MHz band:
1. Fixed Outside Antenna
2. Mobile Outside Antenna
3. Inside Antenna

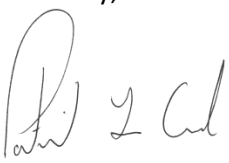
800 MHz band:
4. Fixed Outside Antenna
5. Mobile Outside Antenna
6. Inside Antenna

1900 MHz band:
7. Fixed Outside Antenna
8. Mobile Outside Antenna
9. 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	Mobile Outside Antenna	Inside Antenna
Maximum Gain less Cable Loss (dBi)	15	5.7	15
Minimum Distance from All People (inches/cm)	22/56	9/21	8/20

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	698
Pout Watts	0.56200
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	55.5

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	21.85
ERP (Watts)	10.8366
EIRP (Watts)	17.7720
FCC Power Density Limit (mw/cm^2)	0.47
Calculated Power Density (mw/cm^2)	0.46

REFERENCE DATA

Pout dBm	27.50
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	698
Pout Watts	0.56200
Duty Cycle Percent	100.0%
Ant. Gain dBi	6.40
Coax Loss dB	0.00
Distance From Antenna In cm	20.5

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	6.40
Distance From Antenna In Inches	8.07
ERP (Watts)	1.4959
EIRP (Watts)	2.4532
FCC Power Density Limit (mw/cm^2)	0.47
Calculated Power Density (mw/cm^2)	0.46

REFERENCE DATA

Pout dBm	27.50
Antenna Gain (non-log)	4.37
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	728
Pout Watts	0.00030
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	7.87
ERP (Watts)	0.0058
EIRP (Watts)	0.0095
FCC Limit Power Density (mw/cm^2)	0.49
Calculated Power Density (mw/cm^2)	0.0019

REFERENCE DATA

Pout dBm	-5.23
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	824
Pout Watts	0.66100
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	55.5

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	21.85
ERP (Watts)	12.7455
EIRP (Watts)	20.9027
FCC Power Density Limit (mw/cm^2)	0.55
Calculated Power Density (mw/cm^2)	0.54

REFERENCE DATA

Pout dBm	28.20
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	824
Pout Watts	0.66100
Duty Cycle Percent	100.0%
Ant. Gain dBi	5.70
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	5.70
Distance From Antenna In Inches	7.87
ERP (Watts)	1.4975
EIRP (Watts)	2.4558
FCC Power Density Limit (mw/cm^2)	0.55
Calculated Power Density (mw/cm^2)	0.49

REFERENCE DATA

Pout dBm	28.20
Antenna Gain (non-log)	3.72
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	869
Pout Watts	0.00033
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	7.87
ERP (Watts)	0.0064
EIRP (Watts)	0.0104
FCC Power Density Limit (mw/cm^2)	0.58
Calculated Power Density (mw/cm^2)	0.0021

REFERENCE DATA

Pout dBm	-4.81
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	f/1500

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	1850
Pout Watts	0.47900
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	34.9

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	13.74
ERP (Watts)	9.2362
EIRP (Watts)	15.1473
FCC Power Density Limit (mw/cm^2)	1.00
Calculated Power Density (mw/cm^2)	0.99

REFERENCE DATA

Pout dBm	26.80
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	1.00

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	1850
Pout Watts	0.47900
Duty Cycle Percent	100.0%
Ant. Gain dBi	6.20
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	6.20
Distance From Antenna In Inches	7.87
ERP (Watts)	1.2176
EIRP (Watts)	1.9968
FCC Power Density Limit (mw/cm^2)	1.00
Calculated Power Density (mw/cm^2)	0.40

REFERENCE DATA

Pout dBm	26.80
Antenna Gain (non-log)	4.17
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	1.00

Minimum Safe Distance From Antennas

Based upon FCC OET Bulletin 65 and other FCC Sources

INPUT DATA

Frequency MHz	1930
Pout Watts	0.00042
Duty Cycle Percent	100.0%
Ant. Gain dBi	15.00
Coax Loss dB	0.00
Distance From Antenna In cm	20.0

RESULTS OF CALCULATIONS

Ant. Gain less Coax Loss dBi	15.00
Distance From Antenna In Inches	7.87
ERP (Watts)	0.0081
EIRP (Watts)	0.0133
FCC Power Density Limit (mw/cm^2)	1.00
Calculated Power Density (mw/cm^2)	0.0026

REFERENCE DATA

Pout dBm	-3.77
Antenna Gain (non-log)	31.62
Coax loss (non-log)	1.00
General FCC Limit (mw/cm^2)	1.00