RF Exposure

1 INTRODUCTION

These calculations are based on the highest EIRP possible from the EUT considering maximum power and antenna gain. The highest output power of the EUT is 37.4 dBm and the gain of the max antenna is 3 dBi indoor and 14 dBi outdoor. The antennas will always be separated in actual use.

2 MINIMUM SEPARATION DISTANCE PER OET 65

The following information provides the minimum separation distance for the EUT, as calculated from **FCC OET 65 Appendix A, Table B** "Guidelines for General Population/Uncontrolled Exposure"

Transmitter	MHz	Max Power dBm	Max Ant Gain dBi	Duty Cycle %	EIRP W	(S) GP Limit mW/cm^2	MSD Meters	
AWS	1732	27.9	2.1	100.0	1.0000	1.000	0.0892	
AWS	2132	37.4	3	100.0	10.9648	1.000	0.2954	
PCS	1880	27.2	14	100.0	13.1826	1.000	0.3239	
PCS	1960	36.9	3	100.0	9.7724	1.000	0.2789	

Notes on the above tables:

a. S is the power density General Population Limit from OET 65 table 1B
b. EIRP Power is the Peak Effective Radiated Power.
   EIRP = (Conducted Power + Antenna gain) * Duty Cycle.
c. MSD (Minimum Separation Distance) = ((EIRP*30)/3770*S))^0.5

Conclusion:
The minimum distance between the external antenna and personnel is 0.4 meters.

3 RF EXPOSURE INFORMATION FOR ISED RSS-102

The ISED specification RSS-102 Issue 5 was used for this evaluation.

3.1 SAR Evaluation for RSS-102

Since the separation distance between personnel and the antenna of the device is greater than or equal to 20 cm, SAR is not required.

3.2 RF Evaluation for RSS-102

The following provides the calculation for table 4 of RSS-102 Issue 5 for the General Public.

	RF	Antenna	Duty	Effective		Seperation	RF field	Exposure
Freq.	Power	Gain	Cycle	RF power		Distance	from EUT	limit
MHz	dBm	dB	%	dBm	Total mW	meters	V/m	V/m rms
1732	27.9	2.1	100	30	1000.0	1.830	3.0	40.2
2132	37.4	3	100	40.4	10964.8	0.500	36.3	43.1
1880	27.2	14	100	41.2	13182.6	1.830	10.9	41.3
1990	36.9	3	100	39.9	9772.4	0.500	34.2	42.1

The RF evaluation calculation is shown above.