MPE Calculator	Hopkins Alert System (BB005)		Test 081001		
MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.					

	dBi = dB gain compared to an isotropic radiator.				
	S = power density in mW/cm^2		Antenna Gain (dBi)		1
			dBd + 2.17 = dBi		
		Output Power		dBi to dBd	2.17
Tx Frequency (MHz)	418	(Watts)	0.000003		-1.17
		(dBm)	-24.93		
Cable Loss (dB)	0.0		Antenna minus cable (dBi)		1.00

Calculated ERP (mw)	0.002		Radiated (ERP) dBm	-26.099
Calculated EIRP (mw)	0.004		Radiated (EIRP) dBm	-23.929

	Occupational Limit		Power density (S)
1.39333	mW/cm^2		EIRP
			------- = mW/cm^2
	General Public Limit		$4 \pi r^2$
0.27867	mW/cm^2		r (cm) EIRP (mW)

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit	Public Limit
300-1,500	f/300	f/1500
1,500-10,000	5	1

FCC radio frequency radiation exposure limits per 1.1310		
	Occupational Limit @ Tx Freq	Public Limit @ Tx Freq
Frequency (MHz)	(mW/cm^2)	(mW/cm^2)
300-1,500	1.393333333	0.2786667
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm^2
0.004	50.00	19.69	0.00000
0.004	25.00	9.84	0.00000
0.004	20.00	7.87	0.00000
0.004	15.00	5.91	0.00000
0.004	10.00	3.94	0.00000
0.004	9.00	3.54	0.00000
0.004	8.00	3.15	0.00001
0.004	7.00	2.76	0.00001
0.004	6.00	2.36	0.00001
0.004	5.00	1.97	0.00001
0.004	4.00	1.57	0.00002
0.004	3.00	1.18	0.00004
0.004	2.00	0.79	0.00008
0.004	1.00	0.39	0.00032
0.004	0.90	0.35	0.00040
0.004	0.75	0.30	0.00057
0.004	0.50	0.20	0.00129
0.004	0.25	0.10	0.00515
0.004	0.10	0.04	0.03220

	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
Frequency (MHz)		
300-1,500	N/A	0.10
1,500-10,000	N/A	N/A