Honeywell

Model: Internal Tx Unit

MPE Calculator

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) 0
Output Power dBd + 2.17 = dBi dBi to dBd 2.2

Tx Frequency (MHz) 915 Average (Watts) 0.0021 Antenna Gain (dBd) -2.17

Cable Loss (dB) 0.0 (dBm) 3.22 Antenna minus cable (dBi) 0.00

Calculated ERP (mw) 1.274 Calculated EIRP (mw) 2.100 EIRP = Po(dBM) + Gain (dB) Radiated (EIRP) dBm

3.222

Occupational Limit
3.05000 mW/cm<sup>2</sup>

ERP = EIRP - 2.17 dB Radiated (ERP) dBm 1.052

General Public Limit

0.61000 mW/cm<sup>2</sup>

Power density (S) EIRP ----- = mW/cm^2  $4 \pi r^2$ 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	N/A	N/A		

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	3.05	0.61		
1,500-10,000	5	1.0		

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm <sup>2</sup>	Feet
2.100	350.00	137.80	0.00000	11.48293963
2.100	300.00	118.11	0.00000	9.842519685
2.100	275.00	108.27	0.00000	9.022309711
2.100	250.00	98.43	0.00000	8.202099738
2.100	200.00	78.74	0.00000	6.56167979
2.100	150.00	59.06	0.00001	4.921259843
2.100	100.00	39.37	0.00002	3.280839895
2.100	75.00	29.53	0.00003	2.460629921
2.100	60.00	23.62	0.00005	1.968503937
2.100	55.00	21.65	0.00006	1.804461942
2.100	50.00	19.69	0.00007	1.640419948
2.100	45.00	17.72	0.00008	1.476377953
2.100	40.00	15.75	0.00010	1.312335958
2.100	35.00	13.78	0.00014	1.148293963
2.100	30.00	11.81	0.00019	0.984251969
2.100	25.00	9.84	0.00027	0.820209974
2.100	20.00	7.87	0.00042	0.656167979
2.100	15.00	5.91	0.00074	0.492125984
2.100	10.00	3.94	0.00167	0.32808399
2.100	5.00	1.97	0.00668	0.164041995
2.100	4.00	1.57	0.01044	0.131233596
2.100	3.00	1.18	0.01857	0.098425197
2.100	2.00	0.79	0.04178	0.065616798
2.100	1.00	0.39	0.16711	0.032808399
2.100	0.70	0.28	0.34105	0.022965879
2.100	0.52	0.20	0.61802	0.017060367
2.100	0.50	0.20	0.66845	0.016404199
2.100	0.40	0.16	1.04445	0.01312336
2.100	0.30	0.12	1.85681	0.00984252
2.100	0.24	0.09	2.90126	0.007874016
2.100	0.10	0.04	16.71127	0.00328084

	Occupational Limit minimum Distance	Public Limit minimum
Frequency (MHz)	(cm / inches)	distance (cm / inches)
300-1,500	.0.24 / 0.09	0.5 / 0.2
1,500-10,000	N/A	N/A

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Honeywell FM&T LLC MODEL: Internal Tx Test #:070712 Test to: CFR47, 2, 15.231