

Honeywell  
MPE Calculator

Model: External Tx Unit  
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<sup>2</sup>

Antenna Gain (dBi) 0  
dBd + 2.17 = dBi dBi to dBd 2.2  
Tx Frequency (MHz) 916.5 Output Power Average (Watts) 0.0006 Antenna Gain (dBd) -2.17  
Cable Loss (dB) 0.0 (dBm) -2.22 Antenna minus cable (dBi) 0.00

Calculated ERP (mw) 0.364  
Calculated EIRP (mw) 0.600

EIRP = Po(dBm) + Gain (dB)  
Radiated (EIRP) dBm -2.218  
ERP = EIRP - 2.17 dB  
Radiated (ERP) dBm -4.388

**Occupational Limit**  
**3.05500** mW/cm<sup>2</sup>

**General Public Limit**  
**0.61100** mW/cm<sup>2</sup>

Power density (S)  
EIRP  
----- = mW/cm<sup>2</sup>  
 $4 \pi r^2$   
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		
Frequency (MHz)	Occupational Limit @ Tx Freq (mW/cm <sup>2</sup> )	Public Limit @ Tx Freq (mW/cm <sup>2</sup> )
300-1,500	3.055	0.611
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm <sup>2</sup>	Feet
0.600	100.00	39.37	0.00000	3.280839895
0.600	90.00	35.43	0.00001	2.952755906
0.600	80.00	31.50	0.00001	2.624671916
0.600	70.00	27.56	0.00001	2.296587927
0.600	60.00	23.62	0.00001	1.968503937
0.600	50.00	19.69	0.00002	1.640419948
0.600	40.00	15.75	0.00003	1.312335958
0.600	30.00	11.81	0.00005	0.984251969
0.600	20.00	7.87	0.00012	0.656167979
0.600	10.00	3.94	0.00048	0.32808399
0.600	9.00	3.54	0.00059	0.295275591
0.600	8.00	3.15	0.00075	0.262467192
0.600	7.00	2.76	0.00097	0.229658793
0.600	6.00	2.36	0.00133	0.196850394
0.600	5.00	1.97	0.00191	0.164041995
0.600	4.00	1.57	0.00298	0.131233596
0.600	3.00	1.18	0.00531	0.098425197
0.600	2.00	0.79	0.01194	0.065616798
0.600	1.00	0.39	0.04775	0.032808399
0.600	0.90	0.35	0.05895	0.029527559
0.600	0.80	0.31	0.07460	0.026246719
0.600	0.70	0.28	0.09744	0.022965879
0.600	0.60	0.24	0.13263	0.019685039
0.600	0.50	0.20	0.19099	0.016404199
0.600	0.40	0.16	0.29842	0.01312336
0.600	0.35	0.14	0.38977	0.01148294
0.600	0.30	0.12	0.53052	0.00984252
0.600	0.28	0.11	0.60901	0.009186352
0.600	0.20	0.08	1.19366	0.00656168
0.600	0.15	0.06	2.12207	0.00492126
0.600	0.13	0.05	2.82524	0.004265092

Frequency (MHz)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (cm / inches)
300-1,500	0.13 / 0.05	0.28 / 0.11
1,500-10,000	N/A	N/A

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Honeywell FM&T LLC  
MODEL: External Tx  
Test #:070712A  
Test to: CFR47, 2, 15.249

FCC ID#: VGKSSSEXT  
SN: BBN-01102-I 06