

Connecticut Market



Worst Case Power Density

Site: CTNL813C
Site Address: 166 Pawcatuck Avenue
Town: Stonington
Tower Height: 120 ft.
Facility Style: Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWV-16DWV	Antenna Model	APX16DWV-16DWV
Cable Size	1 5/8 in.	Cable Size	1 5/8 in.
Cable Length	140 ft.	Cable Length	140 ft.
Antenna Height	117.8 ft.	Antenna Height	117.8 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0116 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	1.6240 dB	Total Cable Loss	1.6240 dB
Total Attenuation	6.1240 dB	Total Attenuation	3.1240 dB
Total EIRP per Channel (In Watts)	54.89 dBm 308.06 W	Total EIRP per Channel (In Watts)	60.90 dBm 1229.31 W
Total EIRP per Sector (In Watts)	63.92 dBm 2464.45 W	Total EIRP per Sector (In Watts)	63.91 dBm 2458.61 W
nsg	11.8760	nsg	14.8760
Power Density (S) = 0.043296 mW/cm ²		Power Density (S) = 0.043193 mW/cm ²	
T-Mobile Worst Case % MPE = 8.6489%			

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power)^* 10^{(nsg/10)}}{4\pi (R)^2}$$

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