

GPS Source, Inc. FreeSpace Loss Calculator					Building is 50' wide at narrowest area, 100 feet on either side results in a 250' diameter area	
				-140 dBm at 100 feet from the building to meet NTIA regulations	At 158' pattern from emitting antenna is at the required level with 42' buffer either side	
GPS Carrier Frequency (MHz)	Transmitted Power dBm	Range in Feet	Free Space loss with Isotropic Antennas	Effective Radiated Power dBm @ Range	Effective Radiated Power (dBW) @ Range	Effective Radiated Power (W)
1575	-70	158		-142.1890522	-172.19	6.0408E-18
			70.03905215			
Reference Dipole Gain		Range in Miles		Effective Isotropic Radiated Power (dBm)	Effective Isotropic Radiated Power (dBW)	Effective Isotropic Radiated Power (W)
2.15		0.029924242		-140.04	-170.04	9.9E-18
		Range in Kilometers	FSPL (dB) = $20 \log_{10}(d) + 20 \log_{10}(f) + 32.44$			
		0.05				
		Range in Meters				
		48.16				