

Roger GPS, repeater budget calculator for NTIA regulations



GPS carrier frequency, use code L1 or L2

L1
1575 MHz

Values in light blue cells only can be edited

Distance from Building

133 ft
40.5384 m
0.025 mi
0.041 km

		External components				Repeater unit									
		Receiver + Antenna		Cable Loss.		Attenuator		Repeater Gain.		Repeater Antenna		Antenna Isotropic vs Dipole		Free Space Loss	
		Gain								Gain					
Avg Receive Power North America Isotropic Antenna		38.0	dB	-20.5	dB	0.0	dB	10.0	dB	3.0	dB	-2.2	dB	-68.5	dB
Level	-130.0	dBm		-92.0	dBm	-112.5	dBm	-112.5	dBm	-102.5	dBm	-99.5	dBm	-101.7	dBm
						0.0								-168.0	dBm
														1.6E-20	W
										Effective Radiated Power		Effective Isotropic Radiated Power		Repeated Signal Power @ distance	
														NTIA requires < -140 @ 100 ft	dBm