Roger GPS, repeater budget calculator for NTIA regulations



GPS carrier frequency, use code L1 or L2

Level

Values in light blue cells only can be edited

L1 1575 MHz

External components Repeater unit Avg Receive Power Cable Loss. Repeater Gain. North America Receiver + Antenna This has to be Adjusted in the Repeater Antenna Antenna Isotropic vs Isotropic Antenna Gain negative Attenuator Gain Dipole 38.0 dB -20.0 dB 0.0 dB 25.0 3.0 -2.2 -130.0 dBm -92.0 dBm -112.0 dBm -112.0 dBm -87.0 dBm -84.0 dBm -86.2 0.0 Attenuator needed to reach allowed output Effective Radiated Effective Isotropic Radiated Power Power

Distance from Building 100 ft

	30.48	m		
	0.019	mi		
	0.030	km		
	Free Space Loss			
dB	-66.1	dB		
				Εſ
dBm	-150.1	dBm		3.
	9.8E-19	w		Si
	Repeated Signal Power			3.
	@ distance		l '	_
	e distance			

NTIA requires < -140

@ 100 ft

dBm

Effective Radiated Power (W) 100 feet from the building 3.98107E-12 in Watts

Same in pico Watts 100 feet from the building 3.98107170553497 pW