



Change the values in the yellow boxes to calculate required readings
 -140 or less at a range of 100 feet to meet NTIA regulations

Receive Ant Gain	Ant Cable Insertion Loss	Repeater Amp Gain	Repeater Ant Gain Best Case	Range in Feet	Repeated Signal Power @ Range In dBm
38	-17	35	3	150	-140.61
GPS Carrier Frequency MHz			Total System Gain	Range in Miles	Total Signal Power @ Range in Watts
1575			59	0.03	8.7E-18
Avg Receive Power L1 dBm North America				Range in Meters	Radiated Power dBm
-130				46.75	-71
Free Space loss with Isotropic Antennas				Range in Kilometers	Transmitted Power (W)
-69.61				0.05	39.8E-12
					Effective Radiated Power (W)
					79.4E-12
					Effective Radiated Power (dBW)
					-101



Note: calculations based from reradiating antenna out to 150 ft. including inside building.