



## GPS Networking Link Budget Calculator

Change the values in the yellow boxes to calculate required readings

-140 or less at a range of 100 feet to meet NTIA regulations

100 ft LMR-400

**LMR-400 Coax**

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	-2.1	25	3	290	-141.44

GPS Carrier Frequency MHz  
1575

Total System Gain  
63.9

Range in Miles  
0.05

Total Signal Power @ Range in Watts  
7.2E-18

Avg Receive Power L1 dBm North America  
-130

Range in Meters  
90.39

Radiated Power dBm  
-66.1

Free Space loss with Isotropic Antennas  
-75.34

Range in Kilometers  
0.09

Transmitted Power (W)  
123.0E-12

Effective Radiated Power (W)  
245.5E-12

Effective Radiated Power (dBW)  
-96.1

