



## 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
30	-2.7	25	3	100	-140.79

GPS Carrier Frequency MHz  
1575

Total System Gain  
55.3

Range in Miles  
0.02

Total Signal Power @ Range in Watts  
8.3E-18

Avg Receive Power L1 dBm North America  
-130

Range in Meters  
31.17

Radiated Power dBm  
-74.7

Free Space loss with Isotropic Antennas  
-66.09

Range in Kilometers  
0.03

Transmitted Power (W)  
17.0E-12

Effective Radiated Power (W)  
33.9E-12

Effective Radiated Power (dBW)  
-104.7

