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

Receive Ant Gain	Ant Cable Insertion Loss	Repeater Amp Gain	Repeater Ant Gain Best Case	Range in Feet	Repeated Signal Power @ Range In dBm
35	-3	22	3	150	-142.61

GPS Carrier Frequency MHz
1575

Avg Receive Power L1 dBm North America
-130

Free Space loss with Isotropic Antennas
-69.61

Total System Gain
57

Range in Miles
0.03

Range in Meters
46.75

Range in Kilometers
0.05

Total Signal Power @ Range in Watts
5.5E-18

Radiated Power dBm
-73

Transmitted Power (W)
25.1E-12

Effective Radiated Power (W)
50.1E-12

Effective Radiated Power (dBW)
-103


GPS Networking
Global Positioning Solutions