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
38	-12	20	3	30	-136.64

GPS Carrier Frequency MHz
1575

Avg Receive Power L1 dBm North America
-130

Free Space loss with Isotropic Antennas
-55.64

Total System Gain
49

Range in Miles
0.01

Range in Meters
9.35

Range in Kilometers
0.01

Total Signal Power @ Range in Watts
21.7E-18

Radiated Power dBm
-81

Transmitted Power (W)
4.0E-12

Effective Radiated Power (W)
7.9E-12

Effective Radiated Power (dBW)
-111


GPS Networking
Global Positioning Solutions