



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	-5	20	3	100	-140.09

GPS Carrier Frequency MHz
1575

Total System Gain
56

Range in Miles
0.02

Total Signal Power @ Range in Watts
9.8E-18

Avg Receive Power L1 dBm North America
-130

Range in Meters
31.17

Radiated Power dBm
-74

Free Space loss with Isotropic Antennas
-66.09

Range in Kilometers
0.03

Transmitted Power (W)
20.0E-12

Effective Radiated Power (W)
39.8E-12

Effective Radiated Power (dBW)
-104