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	-17	35	3	150	-140.61

GPS Carrier Frequency MHz
1575

Avg Receive Power L1 dBm North America
-130

Free Space loss with Isotropic Antennas
-69.61

Total System Gain
59

Range in Miles
0.03

Range in Meters
46.75

Range in Kilometers
0.05

Total Signal Power @ Range in Watts
8.7E-18

Radiated Power dBm
-71

Transmitted Power (W)
39.8E-12

Effective Radiated Power (W)
79.4E-12

Effective Radiated Power (dBW)
-101

Note: calculations based from reradiating antenna out to 150 ft. including inside building.