



Change the values in the yellow boxes to calculate required readings  
 -140 or less at a range of 100 feet to meet NTIA regulations

|                                         |                          |                   | Repeater Ant Gain Best |  | Range in Feet       | Repeated Signal Power @ Range In dBm |
|-----------------------------------------|--------------------------|-------------------|------------------------|--|---------------------|--------------------------------------|
| Receive Ant Gain                        | Ant Cable Insertion Loss | Repeater Amp Gain | Case                   |  |                     |                                      |
| 35                                      | -6                       | 20                | 3                      |  | 100                 | -144.09                              |
| GPS Carrier Frequency MHz               |                          |                   | Total System Gain      |  | Range in Miles      | Total Signal Power @ Range in Watts  |
| 1575                                    |                          |                   | 52                     |  | 0.02                | 3.9E-18                              |
| Avg Receive Power L1 dBm North America  |                          |                   |                        |  | Range in Meters     | Radiated Power dBm                   |
| -130                                    |                          |                   |                        |  | 31.17               | -78                                  |
| Free Space loss with Isotropic Antennas |                          |                   |                        |  | Range in Kilometers | Transmitted Power (W)                |
| -66.09                                  |                          |                   |                        |  | 0.03                | 7.9E-12                              |
|                                         |                          |                   |                        |  |                     | Effective Radiated Power (W)         |
|                                         |                          |                   |                        |  |                     | 15.8E-12                             |
|                                         |                          |                   |                        |  |                     | Effective Radiated Power (dBW)       |
|                                         |                          |                   |                        |  |                     | -108                                 |

