



Change the values in the yellow boxes to calculate required readings

-130 or less at a range of 100 feet to meet NTIA regulations

| Receive Ant Gain (dBm)                  | Cable Insertion Loss (dBm) | Repeater Amp Gain (dBm) | Repeater Ant Gain Best Case (dBi) | Range in Feet       | Effective Isotropic Radiated Power @ Range In dBm |
|-----------------------------------------|----------------------------|-------------------------|-----------------------------------|---------------------|---------------------------------------------------|
| 38                                      | -3                         | 28                      | 3                                 | 300                 | -139.64                                           |
| GPS Carrier Frequency MHz               |                            |                         | Total System Gain                 | Range in Miles      | Total Signal Power @ Range in Watts               |
| 1575                                    |                            |                         | 66                                | 0.06                | 10.9E-18                                          |
| Avg Receive Power L1 dBm North America  |                            |                         |                                   | Range in Meters     | Radiated Power dBm                                |
| -130                                    |                            |                         |                                   | 93.50               | -64                                               |
| Free Space loss with Isotropic Antennas |                            |                         |                                   | Range in Kilometers | Transmitted Power (W)                             |
| -75.64                                  |                            |                         |                                   | 0.09                | 199.5E-12                                         |
|                                         |                            |                         |                                   |                     | Effective Radiated Power (W)                      |
|                                         |                            |                         |                                   |                     | 398.1E-12                                         |
|                                         |                            |                         |                                   |                     | Effective Radiated Power (dBW)                    |
|                                         |                            |                         |                                   |                     | -94                                               |

