

Change the values in the yellow boxes to calculate required readings

|   |                          |                   |                             |                     |                                      |
|---|--------------------------|-------------------|-----------------------------|---------------------|--------------------------------------|
| Receive Ant Gain                        | Ant Cable Insertion Loss | Repeater Amp Gain | Repeater Ant Gain Best Case | Range in Feet       | Repeated Signal Power @ Range In dBm |
| 36                                      | -8                       | 19                | 10                          | 100                 | -141.09                              |
| GPS Carrier Frequency MHz               |                          |                   | Total System Gain           | Range in Miles      | Total Signal Power @ Range in Watts  |
| 1575                                    |                          |                   | 57                          | 0.02                | 7.8E-18                              |
| Avg Receive Power L1 dBm North America  |                          |                   |                             | Range in Meters     | Radiated Power dBm                   |
| -130                                    |                          |                   |                             | 31.17               | -75                                  |
| Free Space loss with Isotropic Antennas |                          |                   |                             | Range in Kilometers | Transmitted Power (W)                |
| -66.09                                  |                          |                   |                             | 0.03                | 15.8E-12                             |
|   |                          |                   |                             |                     | Effective Radiated Power (W)         |
|   |                          |                   |                             |                     | 19.2E-12                             |
|   |                          |                   |                             |                     | Effective Radiated Power (dBW)       |
|   |                          |                   |                             |                     | -105                                 |