

150 Foot Cable Link Budget Calculation

| An Receive Ant Gain | nt Cable Insertion Loss | Repeater Amp + Splitter Gain | Repeater Ant Gain Best Case | Range in Feet | Repeated Signal Power @ Range In dBm |
|--|-------------------------------|---------------------------------|--------------------------------|-----------------------------|--|
| 30 | -13.5 | 38 | 0 | 100 | -141.59 |
| GPS Carrier Frequency MHz Tota 1575 | | | Total System Gain 54.5 | Range in Miles 0.02 | Total Signal Power @ Range in Watts 6.9E-18 |
| Avg Receive | Power L1 dBm Nor -130 | th America | Range in Meters 31.17 | Radiated Power dBm -75.5 | |
| Free Space | loss with Isotropic -66.09 | Antennas | | Range in Kilometers 0.03 | Transmitted Power (W) 14.1E-12 |
| | | | | | Effective Radiated Power (W) 28.2E-12 |
| | | | | | Effective Radiated Power (dBW) -105.5 |

Author: Allen Gross Doc. No.:22

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250 Foot Cable Link Budget Calculation

| Receive Ant Gain | Ant Cable Insertion Loss | Repeater Amp + Splitter Gain | Repeater Ant Gain Best Case | Range in Feet | Repeated Signal Power @ Range In dBm |
|-----------------------------------|-----------------------------------|---------------------------------|--------------------------------|-----------------------------|--|
| 30 | -19.5 | 44 | 0 | 100 | -141.59 |
| GPS Carrier Frequency MHz 1575 | | | Total System Gain 54.5 | Range in Miles 0.02 | Total Signal Power @ Range in Watts 6.9E-18 |
| Avg Recei | ve Power L1 dBm Nor -130 | th America | Range in Meters 31.17 | Radiated Power dBm -75.5 | |
| Free Spa | ace loss with Isotropic -66.09 | Antennas | | Range in Kilometers 0.03 | Transmitted Power (W) 14.1E-12 |
| | | | | | Effective Radiated Power (W) 28.2E-12 |
| | | | | | Effective Radiated Power (dBW) -105.5 |



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