



Roger GPS, repeater budget calculator for NTIA regulations

GPS carrier
frequency, use code
L1 or L2

L1
1575 MHz

Values in light blue cells only can be edited

Distance from
Building

150 ft
45.72 m
0.028 mi
0.046 km

Avg Receive Power
North America
Isotropic Antenna

Receiver + Antenna
Gain

Cable Loss

Repeater Gain

Repeater Antenna
Gain

Antenna Isotropic vs
Dipole

Free Space Loss

38 dB

-9.4 dB

8 dB

20 dB

-2.15 dB

-69.6 dB

Level -130 dBm

-92 dBm

-101.4 dBm

-93.4 dBm

-73.4 dBm

-75.6 dBm

-143.0 dBm

5.0E-18 W

Effective Radiated
Power

Effective Isotropic
Radiated Power

Repeated Signal
Power @
distance

NTIA requires <
-140 dBm
@ 100 ft



Steffe's & Company, L.L.C.

Tel: +1 434 660 7411

Fax: +1 434 253 1810

E-mail: info@steffesandco.com