Roger GPS, repeater budget calculator for NTIA regulations



GPS carrier
frequency, use code
L1 or L2
L1
Values in light blue cells only can be edited
1575
MHz

Avg Receive Power

North America

Isotropic Antenna

-130.0

Level

External components Repeater unit Cable Loss. Repeater Gain. Receiver + Antenna This has to be Adjusted in the Repeater Antenna Antenna Isotropic vs negative value Attenuator Gain Gain Dipole 35.0 dB 0.0 dB 0.0 dB 15.0 dB 3.0 dB -2.2 dB dBm -95.0 dBm -95.0 dBm -95.0 dBm -80.0 dBm -77.0 dBm -79.2 dBm 0.0 Attenuator needed to reach allowed output Effective Radiated Effective Isotropic limit Radiated Power Power

Free Space Loss
-66.1 dB

Effective Radiated Power (W) 100 feet from the building
1.99526E-11 in Watts

A.9E-18
Repeated Signal
Power @
distance

W
Same in pico Watts 100 feet from the building
19.9526231496888 pW

Distance from

Building

30.48

0.019

0.030

NTIA requires < -140

@ 100 ft

ft

m

mi

km

dBm

100