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Change the values in the yellow boxes to calculate required readings

Receive Ant Gain	Ant Cable Insertion Loss	Repeater Amp Gain	Splitter Loss/Gain	Repeater Ant Gain	Range in Feet	EIRP @ Range In dBm	ERP
40	-26.97	30	11	3	100	-139.29	-141.44

Total Signal Power @ Range in Watts  
11.8E-18

GPS Carrier Frequency MHz : 1575 MHz  
Range in Meters 31.17  
Radiated Power dBm -72.97

Avg Receive Power L1 dBm N. America : -130 dBm

Transmitted Power (W)  
25.3E-12

Free Space loss with Isotropic Antennas : -66.32 dB

TX Pwr (dBm) to antenna = -130 dBm + 57.03 - 3 dB (Repeater Ant Gain) = -75.97

Effective Isotropic Radiated Power (W)  
50.5E-12 30.77 pW ERP

Effective Radiated Power (dBW)  
-102.97

	EiRP	ERP	
TX Pwr (dBm) to antenna	-75.97	-75.97	dBm
Repeater Ant Gain	3	0.85	dBi/dBd
Total Power radiated	-72.97	-75.12	dBm
FSPL (100 ft)	-66.32	-66.32	dB
EiRP/ERP @ 100 ft	-139.29	-141.44	dBm

Effective Radiated Power -102.97 -105.12 dBW

Effective Radiated Power 50.5 30.8 pW

**EiRP**

**ERP**