

Sirius XM Radio Inc.
File No. 0713-EX-PL-2015

**Further Revised
ATTACHMENT B**

Roger GPS, repeater budget calculator for NTIA regulations

50 Foot Cable



GPS carrier frequency, use code L1 or L2

L1
1575 MHz

Values in light blue cells only can be edited

Distance from Building

100 ft
30.48 m
0.019 mi
0.030 km

Avg Receive Power North America Isotropic Antenna		External components				Repeater unit				Free Space Loss	
		Receiver + Antenna Gain	Cable Loss.	Attenuator		Repeater Gain.	Repeater Antenna Gain	Antenna Isotropic vs Dipole			
		35.0 dB	-14.0 dB	0.0 dB		29.0 dB	3.0 dB	-2.2 dB		-66.1 dB	
Level	-130.0 dBm	-95.0 dBm	-109.0 dBm	-109.0 dBm		-80.0 dBm	-77.0 dBm	-79.2 dBm		-143.1 dBm	
				0.0						4.9E-18 W	
				Attenuator needed to reach allowed output limit			Effective Radiated Power	Effective Isotropic Radiated Power		Repeated Signal Power @ distance	
										NTIA requires < -140 dBm @ 100 ft	