

GPS Power Control Re-radiating Worksheet

Site Information		
Antenna ID	A1	A2
Location Description	W-3 North	W-3 South
Coordinates, NAD 83, ddd-mm-ss.s	37-38-39.0 N, 097-25-02.7 W	37-38-36.8 N, 097-25-02.7 W
Antenna - Receiving (RX)		
Make and Model	GPS Source L1A-PM-NF	GPS Source L1A-PM-NF
Gain (dBi)	38.0	38.0
Coax		
Type or Description	LDF4.5-50 HELIAX	LDF4.5-50 HELIAX
Attenuation @1575 MHz (dB/100 ft)	2.1	2.1
Length (ft)	115.0	115.0
Coax Loss* - Not to exceed 8 dB	2.4	2.4
Power to Controller (-105 to -50 dBm)	-94.4	-94.4
Antenna - Re-radiating (TX)		
Make and Model	GPS Source L1P-NF	GPS Source L1P-NF
Antenna Height AGL (ft)	27	27
Gain (dBi)	3.0	3.0
Distance to nearest outer wall (ft)	100	100
Free Space Loss	72.1	72.1
Amplifier - Gain Control		
Make and Model	GPS Source Metro -P110/6.8-NF	GPS Source Metro -P110/6.8-NF
ERP Level (Programmed in dBm ERP)	-73	-73
EIRP Level	-70.85	-70.85
Calculated Signal Strength 100 ft Outside Building (dBm EIRP)**	-140.0	-140.0

* Coax Loss calculated to ensure adequate power to the Power Controller

** = ERP Level + Antenna Gain - Free Space Loss + 2.148