

Component	Signal Level			Manufacturer	Part Number	Notes
GPS Signal Input (Pr)	-130	dBm	(typical)			-110 to -149 dBm (-130dBm typ)
Antenna Gain (Gr)	3	dBi		GPS Puck Antenna	Antcom	
Rx Antenna LNA (G Ina)	30	dB				
Cable Loss (Lc1)	0	dB			RG-8X (-8dB/100ft)	
(Lc2)	-8	dB			RG-8X (-8dB/100ft)	
Variable Attenuator (L attn)	0	dB	(nominal)			Self-Adjusting (Auto control)
Amplifier (G amp)	30	dB		GPS Source, Inc.	GLI-METRO-e	Self-Adjusting (Auto control)
Re-Radiating Antenna (Gt)	3	dBi		GPS Source, Inc.	2.5" Passive Patch	
GPS Transmit Power	-72	dBm	EIRP			Self-Adjusting (Auto control)
Path Loss @ 120ft	-68.5	dB		Path Loss = 20 Log F (MHz) + 20 Log D (feet) - 37		
EIRP @ 100ft from Bldg	-140.5 dBm/24 MHz			1575.42	MHz	Frequency L1
				100	ft	Outside Bldg
				20	ft	Antenna to Bldg Walls
				120	ft	Total Distance
$P_{sig} (EIRP) = P_R + G_R + G_{LNA} + L_{C1} + L_{C2} + L_{attn} + G_{amp} + G_T + L_{FS} = -130 + 3 + 30 - 8 + 30 + 3 - 68.5 = \mathbf{-140.5 \text{ dBm/24 MHz}}$						