

GPS ReRad (LRAS-3 Lab) Experimental License Request
File# 0185-EX-PL-2012

GPS Signal Analysis

Frequency	1227.6	MHz	Signal Level		
Wavelength	0.2441	meters	dBm	Watts	picoWatts
GPS Input Signal Level	-130	dBm	-130	1E-16	0.0001
GPS Receive Antenna amplifier gain	32	dB	-98	2E-13	0.16
GPS RF Amplifier gain	29.4	dB	-68.6	1E-10	138.04
GPS RF Attenuator	-18	dB	-86.6	2E-12	2.19
LMR400 Coax loss per foot	-0.069	dB			
Coax Length	101.5	feet			
Total Coax Loss	-6.7	dB	-93.3	5E-13	0.468
GPS Transmitting Antenna Gain	0	dB	-93.3	5E-13	0.468
Distance from transmit antenna	0.01	meters			
Distance from transmit antenna	0.0330	feet			
Pathloss to unit under test	5.7771	dB	-87.52	2E-12	1.76893
Signal level at unit under test ERIP to ERP			-89.66	1E-12	1.08071
Distance from transmit antenna	30.41	meters			
Distance from transmit antenna	100	feet			
Pathloss to 100 ft	-63.9	dB	-157.2	2E-19	1.9E-07
Signal level at 100 ft ERP			-159.3	1E-19	1.2E-07

Compliant if signal level at 100 ft ERP is less than -140 dBm

Note: This system will operating within lab environment, sending timing and position information to online computers.

Stop Buzzer POC for this system: John F. Adams (803)318-0021 or (714) 262-5019

GPS Signal Analysis

Frequency	1575.4	MHz	Signal Level		
Wavelength	0.1904	meters	dBm	Watts	picoWatts
GPS Input Signal Level	-130	dBm	-130	1E-16	0.0001
GPS Receive Antenna amplifier gain	32	dB	-98	2E-13	0.16
GPS RF Amplifier gain	29.4	dB	-68.6	1E-10	138.04
GPS RF Attenuator	-18	dB	-86.6	2E-12	2.19
LMR400 Coax loss per foot	-0.067	dB			
Coax Length	100	feet			
Total Coax Loss	-6.7	dB	-93.3	5E-13	0.468
GPS Transmitting Antenna Gain	0	dB	-93.3	5E-13	0.468
Distance from transmit antenna	0.01	meters			
Distance from transmit antenna	0.0328	feet			
Pathloss to unit under test	3.6103	dB	-89.69	1E-12	1.07407
Signal level at unit under test ERIP to ERP			-91.83	7E-13	0.65619
Distance from transmit antenna	30.48	meters			
Distance from transmit antenna	100	feet			
Pathloss to 100 ft	-66.07	dB	-159.4	1E-19	1.2E-07
Signal level at 100 ft ERP			-161.5	7E-20	7.1E-08

Compliant if signal level at 100 ft ERP is less than -140 dBm

Note: This system will operating within lab environment, sending timing and position information to online computers.

Stop Buzzer POC for this system: John F. Adams (803)318-0021 or (714) 262-5019