

# GPSRKL1

## GPS L1 Repeater Assembly: 30dB Amplifier, L1 Passive Antenna, Gimbal Mount

### KEY FEATURES

- » Repeats GPS L1 Signal
- » Signal always available
- » Low Maintenance
- » Perfect for any automated test environment and/or in a shielded room

### AVAILABLE OPTIONS

- » Power Supply AC & DC
- » Multiple Connectors

### BRING THE GPS SIGNAL INSIDE

GPSRKL1 Repeater Assembly is a low power GPS repeater used in areas where the GPS signal is not present.

A GPS frequency repeater operates by receiving GPS satellite signals with an antenna located outside of the building and re-radiating the signals to an indoor area or covered space. The GPS position is of the active outdoor antenna and therefore is not used for location and/or navigation. This application is commonly used for system testing, initialization, and product demonstration.

### ASSEMBLY INCLUDES:

**GPS Amplifier (A11)** - an in-line, one input, one output RF device. It features 30dB of gain and a noise figure of less than 1.8dB. This device can be powered externally with an AC voltage option, a DC input option or by the GPS receiver's antenna voltage option. Regardless of the input power configuration, the GPS Source A11 amplifier can provide DC voltage output to power an active GPS antenna (not included with assembly).

**GPS Passive Antenna (L1P)** - an L1 passive antenna that is ideally suited for repeating the GPS signal inside a building or structure. It has excellent gain (up to 3dBiC), multiple connector options and is designed to meet MIL-STD 801.

**Gimbal Mount (PM)** - a gimbal mount manufactured by Panavise. It has a 6" rise and is fully adjustable. The mount will allow tilting, turning and rotation of the amplifier in most any direction.

### OTHER SUGGESTED PARTS TO COMPLETE SYSTEM:

**GPS Active Antenna (L1A)** - a L1 active antenna that is ideally suited for receiving the GPS signal. It incorporates high frequency selectivity to avoid interference with other nearby transmitters. This antenna is placed outside of the building, within line of sight of the GPS satellites. It is attached to a coax cable running into the building and connecting to the GPS Amplifier.

**Coaxial Cable** - GPS Source offers LMR240 and LMR400 coax cable. Both are low loss cable, providing excellent performance. Cable type would be determined by length of cable needed and budget requirements.

**Surge Suppressor (Co-Pro)** - Protect your investment! Energy from lightning can move through an antenna, down a cable line, into a building and cause serious damage.



## Specifications

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### A11 GPS 30dB Amplifier

#### OUTPUT PORTS

- » Number of ports 1

#### ELECTRICAL SPECIFICATIONS

- » Input/Output impedance 50Ω
- » SWR all ports (typical)
  - Input: 2:1
  - Output: 2:1
- » Bandwidth
  - L1 1575±3 MHz
- » Gain (typical) 30±1dB
- » Gain flatness <3 dB
- » Noise figure <2 dB
- » AC input level
  - 110 VAC
  - 230VAC UK
  - 230VAC European
- » DC input level 5-28VDC
- » Active Antenna Output Power Supply 5-12 V
- » RF connectors
  - N (m, f)
  - SMA (m, f)
  - TNC (m, f)
  - SMB (f)
  - SMC (f)
  - BNC (m, f)
- » Weight .5 lbs (227 g)
- » Size: 2.5" x 3.25" x 1.25"  
(63.5mm x 82.55mm x 31.75mm)
- » Operating temperature -40 to +85°C

### L1P Passive GPS Antenna

- » Gain 3dBic
- » Frequency Range: 1575±15
- » RF Connectors
  - N (m, f), SMA (m, f), TNC (m, f)
  - SMB (f), SMC (f)
  - BNC (m, f)
- » Weight 1.1 lbs (499 g)
- » Size: 5.87" x 3.15" x 1.9"  
(149.1mm x 80mm x 48.3mm)
- » Operating temperature -40 to +85°C

