TECH NOTE

Revised: 3 March 2016

#817- B

SRA series OEM GNSS* Smart Antennas

Positioning, Navigation and Precision Timing in One, Easy to Install Product



Low profile, installed height just 2.17 inches above mounting surface and diameter of 4.40 inches. Weight: 1.75 pounds. Includes a base mounted, positive connect/ dis-connect MIL style connector and a non-moisture passing atmospheric pressure compensator.

Mounting methods include through-hole as shown above, Magnetic Mount, right angle brackets or pipe adaptors for pole and tower installation.

The internal receiver module cavity is double O-Ring sealed to assure moisture resistant integrity. The internals comprise a GPS or Multi-GNSS receiver board with integrated GNSS antenna and a robust Power Regulator-I/O card containing circuit protection from external transients caused by ESD, transients on the power lines and lightning protection on all I/O lines (see test specification pages). Power: 12 VDC +/- 2.5 at 1.5 Watts Max.

Sensitive GPS and GNSS antennas should always be mounted away from RF emitter sources to minimize EMI and enhance the performance of the field application.

Operating/storage Temperature range and GPS or GNSS performance ratings are a function of the specific GPS or GNSS module embedded in the SRA (-40°C to +85°C typ).

SRA part numbers in the "Ordering Information" Table to the right are valid beginning January 2016.

The SRA Product Development Road-Map includes:

- internal Cellular Wireless or Wi-Fi antenna for external Cellular or Wi-Fi terminal (Modem).
- USB Power/Data Port (15 foot max cable length).
- Ethernet I/O Power over Ethernet (POE)
- Internal heater for hyper-cold environments
- * Global Navigation Satellite System

Applications:

Specifically designed and tested for both new and existing applications requiring navigation, synchronization and/or precise timing operation in hostile environments, including:

- Railroad Locomotives and Rail Cars
- Military Vehicles and Mobile Structures
- Marine Positioning and Asset Tracking
- Mining Equipment and Vehicles
- Heavy Construction Vehicles and Equipment
- Off-Highway Vehicles
- Agricultural Equipment
- Telecom Timing & Computer Synchronization

The SRA series antennas feature a rugged, machined Aluminum housing and High Density Polyethylene (HDPE) Radome. The SRA has passed stringent environmental, electrical and shock & vibration testing to railroad industry standards surpassing MIL-810E requirements.

SRA series antenna products are available individually or integrated into evaluation kits with everything necessary for operation as a precision timing or position location system. See Tech-Note 815 for power supply and cabling options for the RS-232 versions.

Direct Mount Installation Dimensions:



Magnetic-Mount version designed for temporary field tests.

Ordering Information:

Part Number	GNSS Module, Mount, I/O Configuration
11011022	LEA-6Tf GPS, Direct Mnt, RS-422
11011182	LEA-6Tf GPS, Direct Mnt, RS-232
11011372	LEA-M8T GPS, Direct Mnt, RS-422
11011472	LEA-M8T GPS, Direct Mnt, RS-232
11031022	LEA-6Tf GPS, Mag-Mnt, RS-422
11031182	LEA-6Tf GPS, Mag-Mnt, RS-232

GPS and Multi-GNSS modules from other manufacturers quoted on request (minimum 100 piece quantity applies) Call or e-mail your specifications and requirements.

For configuration assistance, order placement and technical support call:



Phone: (858) 566-0666 Fax: (858) 566-0768 Email: oeminfo@synergy-gps.com www.synergy-gps.com

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