PLGR, Precision Lightweight GPS Receiver, is a handheld satellite positioning and navigation system designed by Rockwell. The compact GPS receivers increase the warfighting capability of ground troops through enhanced maneuverability and complex maneuvers in featureless terrain and by empowering small unit leaders to make necessary, immediate navigation decisions in the face of enemy electronic warfare.

Rockwell recently marked delivery of the 100,000th PLGR receiver. The rugged, versatile unit is the U.S. military’s standard handheld and vehicular GPS receiver, and also has been used by military and security units throughout the world.

Today, as new generations of the PLGR family are developed, exciting new uses of the GPS technology are being defined and addressed for the non-military user.

The PLGR delivers precise three-dimensional position, speed and time information to the user and provides multiple user-definable NAV screens and waypoints. It meets the challenge of navigating and performing various other functions in a number of dynamic conditions by acquiring and maintaining signal lock in deep foliage and urban canyons.

PLGR is a versatile system. It includes an integral antenna and internal battery for portable operation. It also can be mounted in a vehicle using external power and antenna. The four-line alphanumeric, liquid crystal display features integral backlighting that is Night Vision Goggle (NVG) compatible.

PLGR Integration Kits are available for successful integration of the PLGR into any operation scenario. This advanced, portable precision GPS receiver offers secure performance with assurance of low life-cycle cost.
Selected as the standard DoD handheld and vehicular GPS receiver

Rockwell, the world leader in GPS hardware and software, developed the AN/PSN-11 PLGR to provide a small, lightweight, handheld precision satellite positioning and navigation system.

The receiver contains a PPS-SM module, which allows it to be handled as unclassified when keyed. When employed, all selective availability errors are removed and it can track the antispoofing (Y) code.

PLGR is a versatile system. It includes an integral antenna and internal battery for portable operation, and also can be mounted in a vehicle using external power and antenna.

The operator can select from a complete menu of position, way-point and nav data as well as two basic operating modes; battery-saving “Fix” mode and the constant-tracking/updating “Continuous” mode. PLGR defaults to Continuous mode when on external power.

Secure performance in severe conditions

PLGR delivers precise three-dimensional position, speed and time information even in ECM environments. It also can operate as a differential GPS receiver when provided with standard RTCM SC-104 corrections.

The heart of the system is a proven Rockwell five-channel P/Y code GPS engine.

PLGR can store up to 99 user-defined waypoints and one user-defined route consisting of ten waypoints.

System Features

Five-channel parallel, L1 P/Y* code digital GPS receiver

Information provided in latitude, longitude, altitude, military grid reference system (MGRS), Universal Transverse Mercator (UTM)/Universal Polar Stereographic (UPS), British National Grid, and Irish Transverse Mercator Grid coordinates

Position referenced to 49 map datums including WGS-84

Mean Sea Level (MSL) or Datum Elevation display

Angular measurements displayed in degrees, mils referenced to True, Grid or Magnetic North

Satellite visibility, condition and location by azimuth and elevation display

Built-in test

NVG-compatible, sunlight readable display with adjustable backlighting

Differential operation with RTCM SC-104 corrections

Physical Characteristics

Size: < 90 cubic inches

Weight: < 4.0 lbs (with BA 5800 battery)

Power: External: 9 to 32 V DC from 5W source

Battery: Nickel Cadmium

BA 5800

Lithium

Alkaline AA

Temperature Range:

-20° C to +70° C

(-40° C to +70° C with warmup)

(-57° C to +70° C storage)

Humidity: 0 to 100% (no precipitation)

System Performance

Qualifications: To PLGR specifications (SS-M/V-500)

Position accuracy: < 16 meters SEP* autonomous operation

Velocity accuracy: 0.1 meters per second RMS steady rate

Time accuracy: 100 nanoseconds

MTBF: > 13000 hours

Interfaces

RS-232 or RS-422

KYK-13/KOI-18 (ON199159)

HAVE QUICK (SS110990)

SINCGARS

PLGR Precise Time (SS-M/V-500)

External power and antenna

Options and Accessories

- Vehicle installation mount
- Vehicle power cable
- Remote antenna
- Helmet antenna
- PC mission planning software with remote control (DOS or Windows™ environment versions)
- Standard Positioning System (SPS) configuration (HNV-500)

* Export of PPS units is authorized for GPS Memorandum of Understanding Countries only. PPS security modules must be obtained through Foreign Military Sales (FMS) procurement.