

## Paragon-X and Paragon-t Option 132

The Calnex Rb/GPS Frequency Reference provides a stable 10MHz and a 1pps measurement reference that can be used by both the Paragon-X and Paragon-t.

To operate the Rb/GPS Frequency Reference, simply connect a GPS Antenna to the GPS Antenna Input connector on the unit's rear panel, switch the unit on, and wait until all the LEDs are green. Then connect either the 1PPS Ref Output to the Paragon-X/t 1PPS rear panel connector and/or the 10M Ref Output to the Paragon-X/t 10MHz Reference Input rear panel connector.



# Rb/GPS Frequency Reference



## SPECIFICATIONS

### Freerun (no GPS)

#### Output Frequency Accuracy/Stability:

- 12 mins warm-up time @ 25°C: 5E-10 for frequency stability

### GPS Locked (needs 24 hrs to be GPS locked)

#### Output Frequency Accuracy/Stability:

- 12 mins warm-up time @ 25°C: 5E-10 for frequency stability
- 24 hrs warm-up time @ 25°C and GPS locked: 1E-12, typical (requires a stable temperature of +/- 1°C)

#### Output time accuracy/stability:

- 24 hrs warm-up time @ 25°C and GPS locked: <50ns (requires a stable temperature of +/- 1°C)

### Holdover (lost GPS)

#### Output Frequency Accuracy/Stability:

- 12 mins warm-up time @ 25°C: 5E-10 for frequency stability
- 24 hrs warm-up time @ 25°C and Holdover (lost GPS): <3E-11/month (requires a stable temperature of +/- 2°C)

#### Output Time Accuracy/Stability:

- 24 hrs warm-up time @ 25°C and Holdover (lost GPS): <2µs/48hr or <1µs/24hr (requires a stable temperature of +/- 2°C)

**ToD Message:** NMEA format \$GPRMC [GPRMC,085331.00,A,5558.8958,N,00337.7333,W,1.140312,0.0,E\*43]

**Indicators/LEDs:** Power On, Rb Locked, Track/Sync

**Output Ports:** 10MHz Reference Output (BNC), 1pps Reference Output (BNC), ToD/RS-232 (DB9)

**Power Supply:** 100-240Vac (nominal) at 50/60Hz (via external AC-DC adaptor)

**Temperature:** 5°C to +45°C

**Vibration:** Unit must be used in a mechanically stable environment free from shock and vibration

**Size:** 270 x 60 x 200mm (w x h x d)

**Weight:** 2kg

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