

Rhino3™

PORTABLE FREQUENCY SOURCE



The **Rhino3™** is a low-cost, portable frequency source designed for both laboratory and field use where GPS reception may be unavailable, such as underground, indoors or in large cities. Once GPS satellites are acquired, **Rhino3's** ovenized crystal oscillator provides absolute accuracy and stability of $1E-9$. **Rhino3™** includes an internal Ni-MH battery/fast charging system so it may be used anywhere (over 1 hour runtime) to provide reference frequencies without loss of synchronization. The portable unit provides references for 1PPS PHASE and 10 MHz FREQUENCY measurements and adjustment. **Rhino3™** includes 12 VDC input and RS-232 interface to PC but is a self-contained frequency source that includes push button control and LCD interface.

BNC BUFFERED 50 CONNECTIONS:

STABILITY
1E - 9

ACCURACY
1E - 9

10 MHz
(3 connectors)

1 PPS LOCKED

1 PPS PHASE MEASUREMENTS

10 MHz FREQUENCY MEASUREMENTS

Rhino3 OUTPUTS:

- 10 MHz (3 individually buffered outputs)
- 1 PPS locked to GPS with ± 10 ns resolution

Rhino3 INPUTS:

- 1 PPS for Phase Measurements
- 10 MHz for Frequency Measurements

FEATURES

Internal 12-channel GPS receiver

Internal Ni-MH battery/charging system for true portability

Ovenized crystal oscillator provides stability of $1E-9$

10 MHz outputs (3 buffered) and 1 PPS locked to GPS time

1 PPS Phase and 10 MHz Frequency measurement inputs

12 VDC operation or charging from any vehicle

All functions are controllable via front panel buttons or RS-232 from included PC software

The Rhino3 is just one of many exceptional design solutions from Berkeley Varitronics. Call us today for more information: 1-888-737-4287/ Fax: (732) 548-3404 Internet: www.bvsystems.com E-mail: info@bvsystems.com

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CRYSTAL TIMING SPECIFICATIONS

- Stability 1E - 9 while trained by GPS
- Accuracy 1E - 9 after training by GPS (Absolute while trained)

OUTPUTS

- 10 MHz 3 Outputs (BNC, Female) 50 individually buffered
Sine wave
1 VPP nominal
- 1PPS (BNC, Female) 1 pulse per second
50 buffered
TTL level
- Serial Port (DB-9, Male) RS-232

INPUTS

- 1 PPS Phase Measurement (BNC, Female) 1 pulse per second
50 buffered
TTL level
- 10 MHz Frequency Measurement 50 individually buffered
Sine wave
1 VPP nominal

POWER

- DC 12 - 14 VDC @ 5 Amps
- Internal Battery Powers unit for over 1 hour

STATUS INDICATORS

- Charge Green LED
- Lock Green LED
- Battery Low Red LED
- Battery Power Yellow LED
- Backlit LCD

PHYSICAL

- Dimensions 4" x 6" x 8"
- Weight 5 lbs.

Rhino3 Panel Connections

