Performance Series

NovAtel’s PC Performance 3900 Series features a 2/3 length personal computer card designed for installation in PC compatible computers. This series offers a choice of two full DGPS Card models – the 12 channel 391RE, providing core functionality common to all GPSCard™ models, and the full data model 3915R.

NovAtel’s OEM Performance 3900 Series features a Eurocard form-factor designed for standalone and embedded applications. This series offers a selection of GPSCard models ranging from the 12 channel 311IR, providing core functionality, to the advanced full data model 3151R. All OEM Performance Series receivers are DGPS capable and are rated for use at -40°C to +85°C temperatures. Available as a software option is NovAtel’s Multitpath Elimination Technology (MET) which reduces pseudorange multipath error by a further 25% to 50% over NovAtel’s existing multipath resistant Narrow Correlator® tracking technology.

NovAtel’s PowerPak® Performance 3100 Series provides GPS integrators with an effective, self-contained system. Each PowerPak includes an OEM Performance Series GPS Card.

NovAtel ProPak® Performance 3100 Series provides a rugged water, shock and vibration resistant housing for outdoor applications which provides all the same functionality of PowerPak.

Features
- 0.75 meter real-time differential accuracy
- L1/C/A code and carrier tracking
- 12 channel "all in view" parallel tracking
- Fast reacquisition
- Patented Narrow Correlator tracking technology
- Optional Multitpath Elimination Technology (MET)
- 10 Hz position output rate
- 20 Hz raw data output rate
- 1 PPS output
- Event marker
- RTCM SC104 v 2.1/2.2
- RTCA SC159
- RINEX v 2.0
- NMEA 0183 v 2.0
- GPSolution® – Windows® compatible graphical user interface

Specifications
- position accuracy
  - standalone
    - SA on: 40 m CEP
    - SA off: 15 m CEP
  - differential: 75 m CEP
- post-processed (315RE/3951R models only)
  - ±5m + 2ppm (vertical)
  - ±10mm +1ppm (horizontal)
- time to first fix
  - cold start: 70 s (typical)
  - warm start: 1 s (typical)
- data rates
  - raw measurements: 20 Hz
  - position: 10 Hz
- time accuracy
  - SA on: 250 ns RMS
  - SA off: 50 ns RMS
- velocity accuracy
  - standalone: 0.20 m/s RMS
  - differential: 0.03 m/s RMS
- measurement precision
  - C/A code phase: 10 cm RMS
  - carrier phase: 3 mm RMS
  - differential channel: 0.75 mm RMS
- dynamics (OEM Card Series only)
  - acceleration: 4 g
  - velocity: 515 m/s

PowerPak 3100 Series
- physical
  - size: 20.8 cm x 11.1 cm x 4.7 cm
  - weight: 1 Kg
- temperature
  - operating: -40°C to +65°C
  - storage: -40°C to +85°C
- humidity
  - 95% non-condensing
- interface
  - communications: RS232/RS422/NMEA
  - baud rate: 300 to 115,200 bps
  - strobe I/O: TTL level
  - connector type
    - communication: 2 x DB9P
    - strobes I/O: DB9S
    - antenna: TNC female
    - power: 2.1 mm threaded plug (center +)
- input voltage range: 10-36 VDC
- power consumption: 8 watts
- accessories include
  - RS232 “Y” type null modem cable
  - automotive power cable
  - optional accessories
    - 110/220 Volt AC adaper

ProPak 3100 Series
- physical
  - size: 24.5 cm x 13.0 cm x 6.2 cm
  - weight: 1.2 Kg
- temperature
  - operating: -40°C to +65°C
  - storage: -40°C to +85°C
- humidity
  - 95% non-condensing
- interface
  - communications: RS232
  - baud rates: 300 to 115,200 bps
  - strobes I/O: TTL level
  - connector type
    - communication: 2 x 10 pin lerno
    - strobes I/O: 8 pin lerno
    - antenna: TNC female
    - power: 4 pin lerno
- input voltage range: 10-36 VDC
- power consumption: 8 watts
- accessories include
  - RS232 null modem and straight cable
  - strobe I/O cable
  - automotive power cable
  - optional accessories
    - 110/220 Volt AC adaper

For detailed product technical specifications, please call: 1-800-NovAtel in U.S. or Canada or +1-403-295-4900 e-mail: sales@novatel.ca internet: www.novatel.ca

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Look into NovAtel’s Performance Series

They’re a range of advanced technology, high performance L1 GPSCards featuring NovAtel’s patented Narrow Correlator® tracking technology and providing sub-meter differential accuracy in real-time. High data output rates, fast signal reacquisition, and superior multipath mitigation techniques support even the most demanding GPS applications.

ADVANTAGES
- 12 channel “all in view” parallel tracking
- L1-C/A code and carrier measurements
- Narrow Correlator tracking technology
- Sub-meter real-time DGPS accuracy
- High data output rates
- Low data latency
- High dynamics
- Ease of use
- OEM, PC Card, or standalone configurations
- Flexible integration
- Upgradable