COMPACT, DUAL ANTENNA, DUAL-FREQUENCY GNSS RECEIVER DELIVERS ROBUST RTK FUNCTIONALITY AND ALIGN® HEADING CAPABILITY

HIGH PRECISION GNSS, COMPACT SIZE
The dual-frequency, dual antenna OEM617D is NovAtel's latest addition to the powerful OEM6® family of receivers offering heading and precise positioning for space constrained applications. Backwards compatible with NovAtel's popular OEM615™ form factor, the OEM617D provides the most efficient way to bring GNSS capable navigation and positioning products to market quickly. As with all NovAtel OEM6 receivers, the OEM617D is ready for existing GPS, GLONASS and BeiDou signals.

DUAL-ANTENNA INPUT
Dual-frequency, dual antenna input allows the OEM617D to harness the power of NovAtel CORRECT™ with RTK and ALIGN functionality. This makes the OEM617D ideal for ground vehicle, marine or aircraft based systems, providing industry leading GNSS multi-constellation heading and position data in static and dynamic environments.

DESIGNED FOR FLEXIBILITY
The modular nature of NovAtel's OEM6 firmware gives users the flexibility to configure the OEM617D for their unique application needs. Scalable to offer sub-metre to centimetre level positioning and field upgradeable with selected OEM6 family software options. Options include NovAtel CORRECT with RTK for centimetre-level real-time positioning, ALIGN for precise heading and relative positioning, GLIDE™ for decimetre-level pass-to-pass accuracy and RAIM for increased GNSS pseudorange integrity.

CUSTOMIZATION WITH AN API
Application Programming Interface (API) functionality is available on the OEM617D. Using a recommended compiler with the API library, an application can be developed in a standard C/C++ environment to run directly on the receiver platform, eliminating system hardware, reducing development time and resulting in a faster time to market.

BENEFITS
+ Dual-frequency RTK with precise ALIGN heading+pitch/roll
+ Dual-frequency GPS+GLONASS BeiDou RTK and ALIGN heading solution
+ Easy to integrate
+ Compact size and low power

FEATURES
+ Increased satellite availability with BeiDou, GLONASS and Galileo* tracking
+ GLIDE smoothing algorithm
+ RT-2®, ALIGN and RAIM firmware options

*Available on selected models.

If you require more information about our receivers, visit novatel.com/products/gnss-receivers/oem-receiver-boards
OEM617D™

PERFORMANCE

Channel Configuration
120 Channels

Signal Tracking
Primary and Secondary RF
- GPS L1, L2, L2C
- GLONASS L1, L2
- BeiDou B1, B2
- Galileo E1, E5b
- SBAS
- QZSS

Signal Tracking
- GPS L1, L2
- SBAS
- DGPS
- NovAtel CORRECT™

Horizontal Position Accuracy (RMS)
- Single point L1: 1.5 m
- Single point L1/L2: 1.2 m
- SBAS: 0.6 m
- DGPS: 0.4 m

Signal Reacquisition
- L1: < 0.5 s (typical)
- L2: < 1.0 s (typical)

Time to First Fix
- Cold start: < 50 s
- Hot start: < 35 s

Antenna LNA Power
- Input voltage: 6 VDC-12 VDC
- Output voltage: 5.0 VDC

COmMUNICATION PORTS
- 3 LVTTL up to 921,600 bps
- 2 CAN Bus 1 Mbps
- 1 USB 12 Mbps

ENVIRONMENTAL
- Temperature: -40°C to +85°C
- Humidity: 95% non-condensing

Velocity Accuracy
- 0.03 m/s RMS
- 515 m/s

Physical and Electrical

Dimensions
46 x 71 x 11 mm

Weight
<24 g

Power Consumption
- GPS L1/L2: 1.9 W
- GPS+GLO L1/L2: <2.0 W
- GPS+BDS+GLO L1/L2/B1/B2: <2.10 W

Antenna LNA Power
- Input voltage: 6 VDC-12 VDC
- Output voltage: 5.0 VDC

Maximum Data Rate
- Measurements: up to 20 Hz
- Position: up to 20 Hz

Time to First Fix
- Cold start: < 50 s
- Hot start: < 35 s

Velocity Limit
- 1 cm + 1 ppm

ALIGN Heading Accuracy
- Baseline Accuracy (RMS)
  - 2 m: 0.08 deg
  - 4 m: 0.05 deg

Features
- Dual-frequency, dual antenna input
- Field upgradeable software
- Multipath mitigating technology
- Differential GPS positioning
- Differential correction support
- Navigation output support
- Auxiliary strobe signals
- Outputs to drive external LEDs
- GLIDE smoothing algorithm

NovAtel Connect™
- NovAtel Connect is an intuitive configuration and visualization tool suite allowing comprehensive control of the OEM617D product.
- Easy to use wizards for positioning mode configuration and raw data collection
- Detailed GUI for comprehensive status information
- Plan view and playback files allow monitoring of positioning and configuration history

FIRMWARE OPTIONS
- ALIGN
- RAIM

OPTIONAL ACCESSORIES
- GPS-700 series antennas
- ANT series antennas
- RF Cables—5 and 10 m lengths
- OEM6 Development Kit (additional adapters required)

For the most recent details of this product: www.novatel.com/products/gnss-receivers/oem-receiver-boards/oem6-receivers

sales@novatel.com
1-800-NOVATEL (U.S. and Canada) or 403-295-4900
China 0086-21-68882300
Europe 44-1993-848-736
SE Asia and Australia 61-400-883-601

Version 3 Specifications subject to change without notice.
©2015 NovAtel Inc. All rights reserved.
NovAtel, OEM6, RT-2 and ALIGN are registered trademarks of NovAtel Inc.
GLIDE, OEM617D, OEM615, NovAtel CORRECT and NovAtel Connect are trademarks of NovAtel Inc.
D18809 November 2015
Printed in Canada.

1. Typical values. Performance specifications subject to GPS system characteristics, US DOD operational degradation, ionospheric and tropospheric conditions, satellite geometry, baseline length, multipath effects and the presence of intentional or unintentional interference sources.
2. Tracks at least 60 L1/L2 satellites depending on model options.
3. Designed for BeiDou Phase 2, B1 and B2 compatibility.
4. GPS only.
5. L2P for GLONASS.
6. L2CA for GLONASS.
7. 20 Hz on selected models.
8. Typical value. No almanac or ephemerides and no approximate position or time.
9. Typical value. Almanac and recent ephemerides saved and approximate position and time entered.
10. Time accuracy does not include biases due to RF or antenna delay.
11. Export licensing restricts operation to a maximum of 515 metres per second.
12. Typical power consumption values.