**OEM628™**

**Next Generation High Performance GNSS Receiver**

**Benefits**
- Innovative OEM® technology
- Supports current and future GNSS signals
- Application based configurations
- Designed for rapid integration

**Features**
- Low power consumption
- Flexible communication interfaces
- Software configurable performance
- High position accuracy and availability
- SPAN® INS functionality

**Designed with the Future in Mind**
The OEM628 tracks all current and upcoming Global Navigation Satellite System (GNSS) constellations and satellite signals including GPS, GLONASS, Galileo, BeiDou and QZSS. It features configurable channels to optimize satellite availability in any condition, no matter how challenging. The OEM628 is software upgradable to track future signals as they become available. Maximizing satellite availability and optimizing GNSS signal usage now, and in the future, ensures consistent, high performance GNSS positioning.

**Easy System Integration**
The OEM628 is designed and built with a focus on product quality and ease of integration. It maintains our industry setting OEMV-2 form factor, ensuring easy drop-in replacement, and provides a backward compatible command and log interface for existing customers. An integrator's development kit and user friendly configuration software are available to assist new customers with integration, enabling faster time to market. NovAtel’s well established, comprehensive set of software commands also facilitates system integration. Ethernet and NTRIP 2.0 Client and Server connectivity is offered in addition to our traditional communications interfaces.

**Flexible Configurations for your Application**
Proven, innovative NovAtel technology combines to achieve the best in GNSS positioning. NovAtel’s industry leading Pulse Aperture Correlator (PAC) multipath mitigation technology is standard and ensures the highest quality measurements and positioning. The OEM628 provides excellent resistance to interference for consistent, accurate and reliable positioning. Configurable options ensure your positioning and accuracy needs are always met. To learn more about how our firmware options can enhance your positioning, please visit www.novatel.com/products/firmware-options.

If you require more information about our receivers, visit novatel.com/products/gnss-receivers/oem-receiver-boards
OEM68™

Receivers

Performance

Channel Configuration
- 120 Channels
- Signal Tracking: GPS, GLONASS, Beidou, Galileo, SBAS, QZSS, L-Band

Position Accuracy
- Horizontal (single point): 1.5 m
- Horizontal (cold start): 1.2 m
- Speed (L1): 20 ns RMS
- Temperature: -40°C to +85°C

Connectors
- External oscillator input: MMCX female
- Antenna input: MMCX female
- Aux: 16-pin dual row male header
- Main: 24-pin dual row male header

Power
- Input voltage: +3.3 VDC [±5%]
- Power consumption: 1.3 W

Antenna LNA
- Input: 5 VDC [±5%]
- Maximum current: 100 mA

Communication Ports
- 1 RS-232/RS-422 up to 921,600 bps
- 2 CAN Bus up to 921,600 bps
- 1 USB port: 12 Mbps
- 1 LAN Ethernet port: 100 Mbps

Event Markers
- Pulse per second (PPS) output
- Event marker input support

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

Vibration
- Random vibration: MIL-STD-810G (Cat 24, 7.7 g RMS)
- Sine vibration: IEC 60668-2-6

Shock
- MIL-STD-810G (40 g)

Features
- Field upgradeable software
- 20 Hz measurement and position data rate
- PAC multi-path mitigating technology
- Differential GPS positioning
- Differential correction support for RTCM 2.1, 2.3, 3.0, 3.1, CMR, CMR+ and RTCA
- Navigation output support for NMEA-0183 and detailed NovAtel ASCII and binary logs
- Auxiliary strobe signals, including a configurable 1 PPS output for time synchronization and mark inputs
- Outputs to drive external LEDs
- External oscillator input

NovAtel Connect™
- NovAtel Connect is an intuitive configuration and visualization tool suite allowing comprehensive control of the OEM628 product.
- Easy to use wizards guide you through positioning mode configuration and raw data collection
- Detailed graphical windows display comprehensive status information
- Plan view and playback files allow you to monitor the positioning and configuration history
- Remotely control and monitor the OEM628 over the internet
- Available on Windows XP, Windows 7 and Linux platforms

Firmware Options
- RT-2
- L-Band
- ALIGN
- GL1DE
- RAIM
- 100 Hz output rate
- SPAN

Optional Accessories
- GPS-700 series antennas
- ANT series antennas
- RF cables–5, 10 and 30 m lengths
- OEM6 Development Kit

High Vibration Hardware
The OEM628 is available as a High Vibration TCXO hardware variant, the OEM628V. This is compliant with MIL-STD810G (category 24, 20 g RMS).

Version 7 - Specifications subject to change without notice.
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