Dual-Frequency
SMART Antenna Featuring
Powerful OEM6 Technology

Benefits
Dual-frequency capable for enhanced accuracy, reliable positioning and ionospheric disturbance mitigation
Flexible accuracy from entry level L1 to centimetre level Advance® RTK positioning
Increased position availability with GLONASS tracking
Smooth, consistent positions for pass-to-pass applications with GLIDE technology

Features
120 channels
GPS, GLONASS, BeiDou, Galileo and SBAS tracking
Optional Bluetooth
Optional tilt compensation
Simulated radar ground speed output
Proven NovAtel Pinwheel antenna technology inside

Scalable Performance
From single-frequency GLIDE® autonomous tracking to dual-frequency Real Time Kinematic (RTK), the SMART6 positions you for success. The SMART6 integrates NovAtel’s OEM6® receiver and Pinwheel® antenna technologies in a single, rugged housing. Software upgradable, the SMART6 eliminates the need for costly hardware replacement as requirements change, while delivering scalable accuracy and performance.

Multi-Constellation for Enhanced Positioning
Capable of tracking L1/L2 GPS+GLONASS, the SMART6 improves position availability in obstructed sky conditions. Dual-frequency tracking minimizes the impact of ionospheric disturbances, further enhancing field productivity.

Smooth Pass-to-Pass Accuracy using GLIDE
SMART6 features NovAtel’s GLIDE technology, providing ultra-smooth positioning and exceptional pass-to-pass accuracy. GLIDE’s steady, smooth output is especially well suited for manual guidance and autosteer applications and will bridge through short periods of poor satellite availability. Dual-frequency GLIDE further improves the absolute accuracy of the GLIDE position and creates a robust solution, resistant to the effects of high ionospheric activity.

Integrated GNSS Design
A NovAtel OEM6 receiver and Pinwheel antenna are integrated into a single rugged housing to minimize integration effort and simplify system design requirements. Built-in magnets simplify mounting. Fixed mounting options are also available.

Tilt Compensation for Increased Accuracy
With optional integrated tilt compensation, the SMART6 improves guidance and autosteer performance on uneven terrain.

Integrated Bluetooth® Connectivity
SMART6 is available with optional Bluetooth technology to provide wireless connectivity.

Multiple Interfaces for Maximum Flexibility
NMEA 0183 compatible RS-232 serial ports, a NMEA2000 compatible CAN port and Bluetooth wireless technology provide maximum flexibility. The SMART6 also provides simulated radar ground speed output, 1 PPS output, an event mark input and three daylight readable status LEDs.

For more information about our SMART antenna products, visit novatel.com/smart-antennas

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PRELIMINARY
ALL SPECIFICATIONS SUBJECT TO CHANGE
### Performance

**Channel Configuration**
- 120 channels

**Signal Tracking**
- GPS: L1, L2, L2C
- GLONASS: L1, L2
- Galileo: E1
- BeiDou: B1
- SBAS

**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
- RT-2™: 1 cm + 1 ppm

**Measurement Precision (RMS)**
- Fully independent code and carrier measurements

### Physical and Electrical

**Dimensions**
- 155 mm diameter x 81 mm height

**Weight**
- <550 g

**Connector**
- 14-pin Tyco Ampseal

**Mounting**
- 2 x magnetic mount
- 4 x M4 screw inserts
- Optional pole-mount adapter plate

**Power**
- Input Voltage Range: +8 to +36 VDC
- Power Consumption: 3.5 W (typical)

**Status LEDs**
- Power
- Position Valid
- Enhanced Accuracy

**I/O Protection**
- ISO 7637
- ISO 15003

**Emissions and Immunity**
- ISO 14982: EMC for Agricultural machinery

### Environmental

**Temperature**
- Operating: -40 to +75°C
- Storage: -55 to +90°C

**Humidity**
- MIL-STD-810G Method 507.5

**Shock**
- MIL-STD-810G Method 516.6

**Salt Fog**
- MIL-STD-810G Method 509.5

**Sand and Dust**
- MIL-STD-810G Method 510.5

**Vibration**
- Random: MIL-STD-810G, Method 514.6-E-1
- Sinusoidal: ASAE EP455, 5.15.2 Level 1

### Communication Ports

- RS-232 serial ports: 3
- CAN Bus NMEA2000: 1
- Bluetooth (optional): 1
- 1PPS: 1
- Ground Speed Output: 1
- Event Mark Input: 1

### Standard Features

- GPS L1 position, velocity and time with SBAS support
- 20 Hz data rates
- Field upgradable software
- PAC multipath mitigating technology
- 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
- GLIDE smoothing algorithm
- Tilt hardware (optional)
- Bluetooth wireless technology (optional)

### Firmware Options

- Dual-frequency tracking
- GLONASS tracking
- Galileo tracking
- BeiDou tracking
- 50 Hz data rates
- ALIGN®
- RT-2
- RAIM

### Optional Accessories

- Mounting plate
- Pole-mount adapter plate
- Interface cable

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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 up to 60 L1/L2 satellites.
3 GPS only.
4 L2 P(Y) code for GLONASS.
5 L2 C/A for GLONASS.
6 50 Hz while tracking up to 20 satellites.
7 Typical value. No almanac or ephemerides and no approximate position or time.
8 Typical value. Almanac and recent ephemerides saved and approximate position and time entered.
9 Export licensing restricts operation to a maximum of 515 metres per second.
10 Time accuracy does not include biases due to RF or antenna delay.
11 Power consumption values for GPS L1/L2 without tilt sensor or Bluetooth.
12 Optional Bluetooth connectivity reduces the number of RS-232 serial ports to two. Non-Bluetooth models have three RS-232 serial ports.