The M300 Pro is able to track all existing and future GNSS constellations including GPS, GLONASS, BeiDou, Galileo and QZSS. There is no doubt that the M300 Pro is always keeping pace with GNSS development, which provides a robust and future-proof GNSS solution for CORS.

**Features**

- Support GPS, GLONASS, BeiDou, BeiDou Global, Galileo, QZSS and SBAS
- Compact Housing with Flexible Interfaces for External Devices
- User-friendly Front Panel Display and Configuration
- Full Remote Control with Powerful Built-in Web Server
- Large Capacity Internal Memory and Expandable Memory
- Integrated Battery Serves as Primary Power or an UPS Backup
- Built-in 4G/Ethernet Data Transmission

The M300 Pro is designed as a multi-purpose GNSS receiver for a wide range of high-accuracy positioning applications. The user-friendly front panel makes it easier to configure and check receiver’s status. Customers also benefit from its flexible interfaces that support Ethernet, serial and USB connections, allowing users to combine with external sensors to meet the unique application demand.

**Ideal for Reference Station**

The integrated lithium-ion battery works as a primary power or an Uninterrupted Power Supply (UPS) backup, combined with raw data loop recording function, M300 Pro can achieve continuous long-term recording. These proven designs make M300 Pro an optimal choice for the reference station, deformation monitoring, harbor construction and any applications where positioning accuracy and reliability matter the most.

**Powerful Remote Control**

The powerful built-in WebServer provides a full remote control of receiver configuration, status checking, firmware update, data download and user management. The M300 Pro supports five independent data transfer through TCP protocol in RTCM, ComNav binary, NMEA, and BINEX data formats, combined with Email Alert and FTP push, which truly improves the effectiveness and profitability of your business.
### Signal Tracking

<table>
<thead>
<tr>
<th>Tracking System</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS</td>
<td>L1 C/A, L1P, L2C, L2P, L5</td>
</tr>
<tr>
<td>BeiDou</td>
<td>B1, B2, B3</td>
</tr>
<tr>
<td>BeiDou Global</td>
<td>B1C, B2a</td>
</tr>
<tr>
<td>GLONASS</td>
<td>L1 C/A, L1P, L2 C/A, L2P</td>
</tr>
<tr>
<td>Galileo</td>
<td>E1, E5a, E5b,E6</td>
</tr>
<tr>
<td>SBAS</td>
<td>WAAS, EGNOS, MSAS, GAGAN</td>
</tr>
</tbody>
</table>

Advanced multipath mitigation technology

- Low noise carrier phase measurements with <1 mm precision in a 1 Hz bandwidth
- High precision multiple correlators for GNSS pseudorange measurements
- Signal Noise Ratios reported in dB-Hz

### Positioning Specifications

<table>
<thead>
<tr>
<th>Post Processing</th>
<th>Single Baseline RTK</th>
<th>Network RTK</th>
<th>DGPS</th>
<th>Standalone</th>
<th>SBAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 mm + 0.5 ppm Horizontal</td>
<td>8 mm + 1 ppm Horizontal</td>
<td>8 mm + 0.5 ppm Horizontal</td>
<td>&lt;0.4m RMS</td>
<td>1m 3D RMS</td>
<td>1.5m 3D RMS</td>
</tr>
<tr>
<td>4 mm + 0.5 ppm Vertical</td>
<td>15 mm + 1 ppm Vertical</td>
<td>15 mm + 0.5 ppm Vertical</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Communications

- **3 Lemo Ports**
  - One 2-pin Lemo port for power supply and battery charging
  - One 7-pin Lemo port (USB UART port) for system debugging and static data downloading
- **1 DB9 male port**
  - Standard RS232 protocol
- **1 Standard USB port**
  - Connect with external storage card
- **1 RJ45 LAN Ethernet port**
  - Supports protocols HTTP, TCP/IP, FTP, NTRIP
- **5 SMA male connectors**
  - 1 Reserved for WLAN and Bluetooth
  - 1 Frequency-marker oscillator input connector
  - 1 GPRS antenna connector
- **1 TNC connector**
  - GNSS Antenna connector
- **4G modem**
  - LTE-FDD: B1/B3/B5/B8
  - LTE-TDD: B34/B38/B39/B40/B41
  - WCDMA: B1/B8
  - GSM: B3/B8

### Physical

<table>
<thead>
<tr>
<th>Dimension (L × W × H)</th>
<th>Weight</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>202 mm × 163 mm × 75 mm</td>
<td>2.4 kg</td>
<td>Rugged aluminum housing</td>
</tr>
</tbody>
</table>

### Data Format

- **Correction data I/O**
  - RTCM 2.X, 3.X, RTCM3.2, CMR (GPS only), CMR+(GPS only)
- **Position data output**
  - ASCII: NMEA-0183: GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST, PJK, PTNL
  - Extended NMEA-0183: BDGGA, GPNTR, GPCDT, GPHPR
- **Observations**
  - ComNav binary, BINEX, RTCM, RINEX, compatible with major CORS software (VRS, FKP and iMax)

### Environmental

- **Operating temperature**
  - -40 °C to + 80 °C
- **Storage temperature**
  - -45 °C to + 85 °C
- **Humidity**
  - 100% no condensation
- **Waterproof and dustproof**
  - IP67, survives the temporary immersion to a 1 m depth
- **Shock**
  - Rugged aluminum case with rubber ring seal, designed to survive a 1m drop onto concrete

### Electrical

- **Power consumption**
  - 3.5 W
- **External power input**
  - 9.5-28 VDC, with over-voltage protection
  - Integrated internal battery 7.4 V, 8800 mAh, Li-ion; 16-hour continuously working

### Recommend Antenna

- **AT340 GNSS Geodetic Antenna**
- **AT600 GNSS Choke Ring Antenna**
- **AT500 GNSS Choke Ring Antenna**

### User Interface

- **Front Panel Display**
  - 4 arrow keys and data entry
  - Power button, Reset button and Esc button
- **LCD display showing receiver’s status**
- **ComNav M300 Pro Web Server**
- **CRU software**