



# MULTI-FREQUENCY, MULTI-GNSS SMART ANTENNA



AtlasLink is a multi-GNSS, multi-frequency smart antenna preconfigured to receive corrections from Hemisphere's Atlas global corrections service. AtlasLink paired with Atlas provides you with the easiest way to receive Atlas corrections via the industry's most powerful multi-purpose GNSS smart antenna, either directly from AtlasLink or into your existing receiver.

Over are the days of being tied to a single corrections provider who requires you to purchase their corrections, which can only be received by their device. If you use Atlas corrections data on equipment that doesn't have the ability to receive L-band signals, or you would like to use Atlas corrections on systems that currently receive L-band corrections from another source, you now have the freedom to do so. AtlasLink, in SmartLink™ or Baselink® mode, enables you to use Atlas corrections on any receiver from any vendor that supports industry-standard correction formats.

AtlasLink is supported by our easy-to-use Atlas Portal ([www.atlasgnss.com](http://www.atlasgnss.com)), which empowers you to update firmware and enable functionality, including Atlas subscriptions for accuracies from meter to sub-decimeter levels.

#### Key Features

- Atlas® L-band corrections
- Athena™ RTK engine
- Powerful WebUI accessed via Wi-Fi
- Internal memory for data logging, download, and upload
- Environment-proven enclosure for the most aggressive user scenarios

## GNSS Receiver Specifications

**Receiver Type:** Multi-frequency, Multi-GNSS RTK  
**Signals Received:** GPS, GLONASS, BeiDou, and Atlas  
**Channels:** 572 / 488  
**GPS Sensitivity:** -142 dBm  
**SBAS Tracking:** 3-channel, parallel tracking  
**Update Rate:** 10 Hz standard, 20 Hz optional (with subscription)

### Timing (1 PPS)

**Accuracy:** 20 ns  
**Cold Start:** 60 s typical (no almanac or RTC)  
**Warm Start:** 30 s typical (almanac and RTC)  
**Hot Start:** 10 s typical (almanac, RTC and position)  
**Maximum Speed:** 1,850 kph (999 kts)  
**Maximum Altitude:** 18,000 m (59,055 ft)

### Accuracy

| Positioning:                           | RMS (67%)    | 2DRMS (95%)   |
|--|--------------|---------------|
| <b>Autonomous, no SA:</b> <sup>1</sup> | 1.2 m        | 2.5 m         |
| <b>SBAS:</b> <sup>1</sup>              | 0.3 m        | 0.6 m         |
| <b>Atlas H10:</b> <sup>1,3</sup>       | 0.04 m       | 0.08 m        |
| <b>Atlas H30:</b> <sup>1,3</sup>       | 0.15 m       | 0.3 m         |
| <b>Atlas Basic:</b> <sup>1,3</sup>     | 0.50 m       | 1.0 m         |
| <b>RTK:</b> <sup>1</sup>               | 8 mm + 1 ppm | 15 mm + 2 ppm |

## L-Band Receiver Specifications

**Receiver Type:** Single Channel  
**Channels:** 1525 to 1560 MHz  
**Sensitivity:** -130 dBm  
**Channel Spacing:** 5 kHz  
**Satellite Selection:** Manual or Automatic  
**Reacquisition Time:** 15 sec (typical)

## Communications

**Ports:** 2x full-duplex RS-232, 1x CAN  
**Interface Level:** Atlas GNSS (WebUI)  
**Baud Rates:** 4800 - 115200  
**Correction I/O Protocol:** Hemisphere GNSS proprietary ROX format, RTCM v2.3, RTCM v3.2, CMR<sup>4</sup>, CMR+<sup>4</sup>  
**Data I/O Protocol:** NMEA 0183, NMEA 2000, Hemisphere GNSS binary, Bluetooth 2.0 (Class 2), Wi-Fi  
**Timing Output:** 1 PPS, CMOS, active high, rising edge sync, 10 kΩ, 10 pF load  
**Event Marker Input:** CMOS, active low, falling edge sync, 10 kΩ, 10 pF load

## Power

**Input Voltage:** 7-32 VDC  
**Power Consumption:** 3.4W nominal All Signals + L-band  
**Current Consumption:** 0.28 A nominal All Signals + L-band  
**Reverse Polarity Protection:** Yes

## Environmental

**Operating Temperature:** -40°C to +70°C (-40°F to +158°F)  
**Storage Temperature:** -40°C to +85°C (-40°F to +185°F)  
**Humidity:** 95% non-condensing  
**Mechanical Shock:** EP455 Section 5.41.1  
**Vibration:** EP455 Section 5.15.1 Random  
**EMC:** CE (ISO 14982 Emissions and Immunity) FCC Part 15, Subpart B CISPR 22  
**Enclosure:** IP67

## Mechanical

**Dimensions:** 15.8 L x 15.8 W x 7.9 H (cm)  
6.2 L x 6.2 W x 3.2 H (in)  
**Weight:** 1.05 kg (2.53 lbs)  
**Status Indications (LED):** Power, RTK/Atlas Float, RTK/Atlas Fixed  
**Power/Data Connector:** 12-pin male (metal)  
**Antenna Mounting:** 1-14 female with 5/8-11 adapter, and flat mount

1. Depends on multipath environment, number of satellites in view, satellite geometry, and ionospheric activity
2. Depends also on baseline length
3. Requires a subscription from Hemisphere GNSS
4. CMR and CMR+ do not cover proprietary messages outside of the typical standard



## Hemisphere GNSS

8515 E. Anderson Drive  
Scottsdale, AZ 85255, USA

Phone: +1 (480) 348-6380  
Toll-Free: +1 (855) 203-1770  
Fax: +1 (480) 270-5070

precision@hgns.com  
www.hgns.com