

Engineered to provide precise GNSS measurements in a small, rugged, wearable platform; Asteri X-Series GNSS receivers measure up.

With its fully integrated antenna design, users can achieve mapping grade accuracies using real-time networks or connect to an optional external antenna for even higher accuracies.

**X1** features AssistNow™ Autonomous technology, enabling the receiver the ability to provide a faster fix in areas where GNSS signals are weak.

**X2** features an advanced kalman filter PVT engine that delivers high accuracy GNSS and DGNSS positions in the most challenging environments such as urban canyons. With its L1 RTK engine it can also deliver 1-2 centimeter positioning.

**X3** features aRTK™, providing satellite based RTK augmentation for areas with poor cellular data coverage. It also features Tracer™ technology, allowing the receiver to sustain positioning in the absence of correction data. Supports high-accuracy L-band (L1/L2/L5) positioning from meter to sub-decimeter levels available via Atlas correction service.



## SPECIFICATIONS AT A GLANCE



### MEASUREMENTS

2.8 x 5.4in (7.1 x 13.7cm)  
11.3oz (320g) with Battery  
7.4oz (210g) without Battery



### BATTERY

Removable Lithium Ion  
3400mAh (12+Hour)  
External Battery Charger Option



### TEMPERATURE RANGE

Operating Temperature:  
-4°F to 140°F (-20°C to 60°C)  
Storage Temperature:  
-22°F to 158°F (-30°C to 70°C)



### WEATHER RESISTANCE

IP65  
Sealed to protect against Dust and Rain

# ASTERI X-SERIES

HIGH ACCURACY • SMART DEVICE CAPABLE • WEARABLE DESIGN



**Asteri X1**  
1-2m  
(SBAS)



**Asteri X2**  
50cm  
(SBAS)  
Up to 1cm  
(RTK/VRS)



**Asteri X3**  
30cm  
(SBAS)  
30cm (Atlas H30)  
4-10cm (Atlas H10)  
Up to 1cm  
(RTK/VRS)

# ASTERI X-SERIES

	X1	X2	X3
<b>Channels:</b>	72	220	394
<b>Signals Received:</b>	GPS/QZSS L1 C/A, GLONASS L10F BeiDou B1, Galileo E1B/C	GPS/QZSS L1 C/A, GLONASS L1 C/A, BeiDou B1, Galileo Galileo: E12	GPS L1CA/L1P/L1C/L2P/L2C/L5 GLONASS G1/G2, P1/P2
<b>Correction Type:</b>	SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN	SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN, CMR, CMR+, sCMRx, RTCM 2.1, 2.2, 2.3, 3.0, 3.1	BeiDou, B1/B2 (B3 separate variant without L5) GALILEO E1BC/E5a/E5b QZSS L1CA/L2C/L5/L1C SBAS Tracking: 3-channel, parallel tracking Atlas Lband H30 and H10
<b>Navigation Update Rate:</b>	2 Concurrent GNSS: up to 10 Hz	Up to 20 Hz	Up to 20 Hz
<b>Accuracy:</b>	Horizontal: 1-2m RMS	<b>Single Baseline RTK</b> 0.008 m + 1 ppm Horizontal 0.015 m + 1 ppm Vertical <b>DGNSS</b> 0.25 m + 1 ppm Horizontal 0.50 m + 1 ppm Vertical <b>SBAS</b> 0.50 m Horizontal 0.85 m Vertical	<b>Single Baseline RTK</b> 0.008 m + 1 ppm Horizontal 0.015 m + 2 ppm Vertical <b>Atlas H10</b> 0.04 m + 1 ppm Horizontal <b>Atlas H30</b> 0.15 m + 1 ppm Horizontal <b>SBAS</b> 0.30 m Horizontal 0.60 m Vertical
<b>Time-To-First-Fix:</b>	<b>Cold Start:</b> <26 s <b>Hot Start:</b> 1 s	<45 s <2 s	<60 s <10 s
<b>Protocol:</b>	NMEA 0183, UBX	NMEA 0183, Trimble GSOFF	NMEA 0183, GGA All Mode, Crescent binary3

## Standard Accessories:

### X1/X2

Arm Band  
High Capacity Li-ion Battery x 1  
AC Power Supply/Charger

### X3

Customized Backpack and Pole  
External L1/L2/L5 Lband Antenna  
High Capacity Li-ion Battery x 2  
AC Power Supply/Charger  
Additional External Battery Charger

## X1/X2/X3 Optional Accessories:

High Capacity Li-ion Battery  
AC Power Supply/Charger  
External Battery Charger  
External Antenna  
(Single, Dual, or Multi Frequency Lband)  
Serial Port Adapter  
Arm Band  
Custom Backpack and Pole  
Safety Vest with Receiver Pouch  
Range Pole  
Range Pole Receiver Bracket  
Range Pole Tablet Bracket

Atlas H10/H30 Realtime Correction Service  
(Monthly, Quarterly, or Annual Options)

*GNSS performance may be subject to anomalies due to multipath, obstructions, geometry, environmental and atmospheric influences. Asteri Navigation always recommends users follow proper GNSS data collection protocols.*

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