

AMGR-1 GNSS Receiver

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RELIABLE IN THE FIELD

APOGEE AMGR-1 GNSS receiver is a compact RTK GNSS receiver tracking all working constellations, which performs well with each constellation independently. With its design, the AMGR-1 will provide available and reliable high-accuracy positioning no matter where you are.

RUGGED AND EASE OF USE

The rugged housing with IP67 Dustproof & Waterproof design makes the receiver perfectly and effectively work even in harsh environments. Small volume with small weight makes the receiver one of the most portable GNSS receivers meeting your RTK survey demands.

INTEGRATED GNSS RECEIVER

The AMGR-1 GNSS receiver combines a GNSS board, Bluetooth® and adjustable TX & RX UHF into one compact device, which is one of the most reliable choices for any surveying tasks. Built-in 4G modem ensures the AMGR-1 seamlessly work with all kinds of CORS.

Features

GPS L1/L2/L5, BeiDou B1/B2/B3,
BeiDou Global B1C/B2a,
GLONASS L1/L2, Galileo E1/E5a/E5b and SBAS

Compact Design

Hot Swap Battery

Internal 4G Connectivity

Internal 866 MHz Radio

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Signal Tracking

572 channels for simultaneously tracking satellite signals

GPS	L1, L2, L2C, L5
BeiDou	B1, B2, B3
BeiDou Global Signal	B1C, B2a
GLONASS	L1, L2
Galileo	E1, E5a, E5b

Positioning Specifications

Static	5 mm + 0.5 ppm Horizontal 8 mm + 0.5 ppm Vertical
Real Time Kinematic	10 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
DGPS	<0.4 m RMS
Standalone	2 m 3D RMS

Communications

1 Serial port

UHF modem: Tx/Rx with full frequency range from 866 MHz
Transmit power: 1 W adjustable
Range: upto 4 km

4G modem

4G Bands: 800/900/1800/2100/2600 MHz

3G Bands: 900/2100 MHz

2G Bands: 900/1800 MHz

Support GSM, Point to Point/Points and NTRIP

Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz

5 LEDs (indicating Power, Satellite Tracking, GPRS Status and Differential Data)

Bluetooth® : V5.0 protocol,

Data Format

Correction data I/O	RTCM SC104 Version 3.x formats CMR(GPS only),CMR+(GPS only)
Position data output	ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK

Physical

Size(L × W × H)	140 mm × 114 mm
Weight	950 g

Environmental

Operating temperature	0 °C to + 50 °C
Storage temperature	-10 °C to + 60 °C
Humidity	90%
Waterproof and dustproof	IP67
Shock	Designed to withstand upto 2m drop

Software

Android-based data collection software

Specifications subject to change without notice.