



NAVAIS NS-990

Professional Triple-Frequency GNSS Receiver



Professional-grade signal integrity. Trimble-powered, multi-constellation centimetre-level RTK positioning with advanced multipath and interference analysis.

Key Features

- Trimble Maxwell 7 technology and 336 tracking channels
- Triple-frequency, multi-constellation GNSS tracking
- Trimble RTX and OmniSTAR correction-service support
- Centimetre-level RTK with > 99.9% initialization reliability
- Everest Plus multipath mitigation and RF spectrum monitoring
- Ethernet, USB, CAN, RS232, PPS and event connectivity

NS-990 Connectivity and Capabilities

The NS-990 combines rugged professional packaging, triple-frequency GNSS processing, centimetre-level RTK, advanced interference mitigation and flexible communications for demanding positioning systems.

GNSS Constellations and Signals

Constellation	Signals
GPS	L1 C/A, L2E, L2C, L5
GLONASS	L1 C/A, L2 C/A, L3 CDMA
Galileo	E1, E5A, E5B, E5 AltBOC, E6
BeiDou	B1, B2, B3
QZSS	L1 C/A, L1 SAIF, L2C, L5
IRNSS	L5
SBAS	L1 C/A, L5
MSS L-Band	Trimble RTX and OmniSTAR

Technical Specifications

Specification	Description
Model	NS-990
GNSS technology	Trimble Maxwell 7; Trimble BD990 platform
Tracking channels	336
Update rate	Up to 50 Hz
RTK initialization	Typically < 8 s
Initialization reliability	> 99.9%
Position latency	< 20 ms
RTK horizontal accuracy	0.008 m
RTK vertical accuracy	0.015 m
Horizontal velocity accuracy	0.007 m/s
Vertical velocity accuracy	0.020 m/s
USB	1 x USB 2.0 device
Network	1 x Ethernet LAN
Serial / fieldbus	3 x RS232; 1 x CAN
Timing	1 PPS output; event marker input
NTRIP	Client, server and caster
Operating temperature	-40 C to +75 C
Storage temperature	-55 C to +85 C
Humidity	5% to 95% non-condensing
Operating shock	+/- 40 g
Operating vibration	6.2 gRMS

Positioning and Integration Benefits

Faster RTK initialization: Triple-frequency tracking and Trimble processing enable rapid convergence and reliable fixed solutions.

Exceptional GNSS availability: Multi-constellation support improves satellite visibility and positioning continuity.

Enhanced signal integrity: Everest Plus multipath mitigation and RF spectrum monitoring support difficult RF environments.

Flexible corrections: RTCM 2.x/3.x, CMR, CMR+, sCMRx, RTX and OmniSTAR support broad professional workflows.

Professional system integration: Ethernet, USB, CAN, RS232, PPS, event and NTRIP capabilities simplify deployment.

Typical Applications

RTK surveying | Base stations | CORS | Agriculture | Marine | Machine control | Autonomous systems