

New Trimble Reference Receiver



Trimble (GA, USA) has introduced a GNSS reference receiver for precise scientific and network infrastructure applications, the Trimble NetR8 GNSS reference receiver. The new reference receiver is versatile and can support the most demanding applications for the earth science community and for the surveying, construction, mapping or agricultural industries.

The NetR8 reference station can operate as a campaign receiver for post processing, as a Continuously Operating Reference Station (CORS) receiver, portable base station for Real Time Kinematic (RTK) applications or as a scientific reference station collecting information for specialised studies.

The NetR8 reference receiver can be used as a standalone receiver or as part of a network solution. Specific applications include high-accuracy positioning as part of a Trimble VRS network, support for differential global positioning system (DGPS) MSK beacons, and integrity monitoring of networks and physical infrastructure such as bridges, dams and mines. It is also a good solution for expanding the geographic coverage area of an existing network, or for adding GNSS support through Sparse GLONASS technology. The receiver is also able to support installation as a dedicated rover for VRS network performance analysis.

The Trimble NetR8 receiver has four gigabytes of onboard memory and 50 Hz operation speed. Large-capacity onboard data storage allows post-processed results for reference stations to be computed when data connectivity is not available, or for specific scientific applications.

Using Trimble's exclusive R-Track technology, the NetR8 reference receiver has 76 channels and supports GPS L1, L2, L2C and L5 signals as well as GLONASS L1/L2 signals. Supporting these signals provides users with every possible combination for signal processing from GNSS constellations. There are also four channels dedicated to tracking Space Based Augmentation Systems (SBAS), including Wide Area Augmentation System (WAAS) in North America, European Geostationary Navigation Overlay System (EGNOS) in Europe, Multi-functional Satellite Augmentation System (MSAS) in Japan, Omnistar services and others.

The lightweight and rugged receiver consumes little power and can be used for projects with remote connectivity and in extreme weather conditions. It is IP67-rated and the physical memory is built into the circuit board, providing greater protection of data. Multiple built-in serial ports supply communications and power to support field use, whether connecting to a radio for RTK surveys, direct communication with a satellite phone for remote operations or Bluetooth communication with a cell phone for real-time data streaming. In addition, both power and Ethernet can be conveniently supplied over a single cable using Power over Ethernet (PoE) technology.

Caption: The new Trimble NetR8 reference receiver