# NET-G3A

## Reference Station Receiver



**Most technologically advanced reference station receiver**

- Paradigm-G3® Chip – Triple Constellation Technology
- Super low power consumption
- 144 Universal Channel Satellite Tracking
- Superior Signal tracking and Performance
- 100 percent compatible with all signals for both existing and future planned satellite navigation systems

The new NET-G3A receiver from Topcon is the most technologically advanced reference station receiver in the World today. At the core of this receiver is Topcon's new Paradigm G3® chip. Over 75% smaller than existing GPS chip technology, the new Paradigm G3® boasts some huge gains in both capability and performance.

The NET-G3A, incorporating Topcon's new G3 chip technology, is the World's First reference receiver to provide Universal Signal Tracking – all signals from all three global satellite positioning constellations (GPS-Glonass-Galileo). Using a unique patented technology, the NET-G3A incorporates 144 Universal Tracking Channels, capable of tracking all signals from all satellite systems that are currently in use and planned for the future.

Through simple firmware changes, the selection of which signals and codes tracked can be changed very easily. Should new signals or frequencies be added or changed in the future, they can be accommodated through receiver firmware only, without expensive and inconvenient hardware changes.

The benefit for the consumer of reference network hardware is the new NET-G3A receiver put in place today, will provide the most complete signal tracking technology available now and well into the future, eliminating the hassles of upgrading hardware as satellite signals change. With the incorporation of GPS, GPS L2C and L5, as well as Glonass and Galileo signals; Topcon offers the ultimate network receiver solution, providing the very best reference station solution for your network users.

Along with the new G3 technology, the NET-G3A boasts complete system connectivity. USB, Ethernet, and four serial ports combined with an industry leading 100Hz data rate, the NET-G3A offers high speed connections both in and out of the reference station.

Two new features have been introduced in the NET-G3A receiver: USB Host and HTML Web User Interface. The USB Host feature allows the user to connect a USB memory stick or USB Mass Storage Device (UMS) to the NET-G3A receiver. The UMS provides a sleek and high-capacity storage solution for transferring raw data files from the receiver's CF card. The NET-G3A supports flash-based UMS devices as well as hard drive-based UMS devices with USB 1.1/2.0 interface. The NET-G3A also includes a built-in Web server that allows the user to configure and monitor the receiver via a Web user interface (or Web interface). The built-in Web server and Web interface use HTTP/HTTPS protocols for communication.

When used with its companion the CR-G3 choke ring antenna the NET-G3A receiver is the reference station of today and for tomorrow. Offer network users a complete signal solution – the new NET-G3A with Topcon's revolutionary G3 satellite tracking technology. All positioning constellations – all signals – all the time. Only from Topcon, the World leader in advanced positioning technologies.

## TOPCON
### It's time.

**Topcon Positioning Systems, Inc.**
7400 National Drive
Livermore, CA 94550
www.topconpositioning.com

# Specifications

| Tracking: | |
|---|---|
| Number of Channels | 144 Universal Channels |
| Signals Tracked: | |
|    GPS | L1, L2, & L5 carrier, CA, L1 P, L2 P, L2C |
|    GLONASS | L1, L2, & L5 carrier, L1CA, L2CA, L1 P, L2 P |
|    GALILEO | Galileo* |
| WAAS/EGNOS | Yes |
| Antenna Type | CR-G3 Choke ring, G3-A1 Geodetic |
| **Accuracy:** | |
| Real time RTK accuracy | H: 10mm+1ppm |
| | V: 15mm+1ppm |
| Post processed Static | H: 3mm+0.5ppm |
| | V: 5mm+0.5ppm |
| **Data & Memory:** | |
| Internal Memory | None |
| Additional Memory | Removable CF Memory Card up to 2GB and USB Host that allows the ability to plug in a USB memory stick or a USB mass storage device. |
| Data Update/Output Rate | 1-100Hz Selectable |
| Real Time Data Output | TPS, RTCM SC104 ver 2.1, 2.2, 2.3, and 3.0, CMR, CMR+, BINEX |
| ASCII Output | NMEA 0183 version 2.1, 2.2, 2.3, 3.0 and 3.01 |
| Other I/O Signals | 1pps, Event Marker, External Frequency input, 20 MHz frequency output |
| Control & Display Unit | GUI external software interface |
| **Communications:** | |
| TCP/IP Address | Up to 5 different address ports standard |
| NTRIP | Client and Server functionality |
| Ports | 4 Serial |
| | 1 USB |
| | 2 Power |
| | 1 Ethernet |
| HTML Web User Interface | Web User Interface access via Internet Explorer, Firefox, and Opera |
| **Physical Characteristics:** | |
| Status Indicators | 6x3 color LED's |
| User Interface | 2 Key |
| Dimensions *(W x H x L)* | 166mm x 93mm x 275mm |
| | 6.54" x 3.66" x 10.83" |
| Weight | 3.0 kg (6.61 lbs) |
| **Power:** | |
| External Power Input | 6 to 28 Volts DC |
| Internal Power | 2 Lithium Ion batteries 7.4 Volts, 6000 mA-hr |
| Typical Power Consumption | Less than 4.5 Watts |
| Power Ports | 2, 1 primary, 1 secondary |
| **Environmental:** | |
| Enclosure | Aluminum |
| Operating Temperature | -40°C to 65°C |
| Storage Temperature | -40°C to 75°C |
| Environmental Specification | IP67 waterproof/dustproof, MIL-STD 810F |

*The NET-G3A receiver tracks the GIOVE-A and GIOVE-B test satellites and is intended for evaluation purposes only.*

Your local Authorized Topcon dealer is: