PRECISION GPS+

TOPCON

ODYSSEY-E

Integrated GPS+ Receiver / Data Collector

The perfect blend of power and convenience, Odyssey-E is the first GPS+ receiver with an integrated Windows® CE controller. Combined with its internal batteries and radio, the only connection you need is an antenna. High-power RTK just doesn't get any easier.

- Only receiver in the industry that can house two separate radio boards simultaneously
- 100 percent compatible with all existing upgrade options, including dual-frequency GPS+GLONASS
- USB and Ethernet communication support
- Easiest, most powerful RTK solution available
- Ultra visible controller display is easy to see in all conditions

At its core is our **Paradigm** chip featuring 40 universal super channels that can each track all signals of either L1 or L2 GPS frequencies. It incorporates our new innovations in signal processing, **multipath mitigation** and **co-op tracking**, making Topcon GPS+ the best in the field for under-canopy and low signal strength reception.
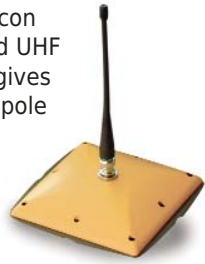
Activating optional features, like adding GPS L2, GLONASS or both is easy with simple password commands entered via a PC. Options can even be added on a pay-per-use basis—only when you need it.

Combined with a Topcon PG-A2 with integrated UHF antenna, Odyssey-E gives you a true all-on-the-pole RTK rover. No backpacks, no dangling cables.

Topcon GPS+— no ordinary GPS.

TOPCON

TOPCON POSITIONING SYSTEMS, INC.
800-443-4567
www.topcon.com

Odyssey-E Technical Data[1]

Description	40 channel integrated GPS+ receiver/data collector with MINTER interface.

Tracking Specifications

Tracking Channels, standard	40 L1 GPS (20 GPS L1+L2+GLONASS on Cinderella[2] days)
Tracking Channels, optional	20 GPS L1+L2 (GD), 20 GPS L1 + GLONASS (GG), 20 GPS L1+L2+GLONASS (GGD)
Signals Tracked	L1/L2 C/A and P Code & Carrier

Performance Specifications (1 sigma)

Baseline Accuracy	5mm + 0.5ppm
RTK (OTF) Accuracy	10mm + 1ppm
Cold Start	<60 seconds
Warm Start	<10 seconds
Reacquisition	<1 second

Power Specifications

Battery	Internal Lithium-Ion batteries plus 1 x external power port
External power input	6 to 28 volts DC
Power consumption	Less than 4.3 watts (with integrated data collector)

GPS+ Antenna Specifications

GPS / GLONASS Antenna	External
Antenna Type	Microstrip (Zero-Centered)
Ground Plane	Antenna on a flat ground plane or Choke Ring

Radio Specifications

UHF Radio Modem	Internal Rx or External Tx/Rx
Base Power Output	0.5W/2.0W/35W

I/O

Communication Ports	2x serial (RS232)
Other I/O Signals	1pps, Event Marker
Status Indicator	2x3-color LED's, two-function keys (MINTER)
Control & Display Unit	Internal Window® CE w/touch screen and keyboard

Memory & Recording

Internal Memory	Up to 1Gbyte
Raw Data Recording	Up to 20 times per second (20Hz)
Data Type	Code and Carrier from L1 and L2, GPS and GLONASS

Data Output

Real time data outputs	RTCM SC104 version 2.3, CMR2/CMR+
ASCII Output	NMEA 0183 version 3.0
Other Outputs	TPS format
Output Rate	Up to 20 times per second (20Hz)

Environmental Specifications

Enclosure	Aluminum extrusion, waterproof
Operating Temperature	-10°C to 50°C
Dimensions	W:159 x H:242 x D:49 mm / 6.25 x 9.53 x 1.93 in
Weight	1.9 kg / 4.19 lbs

Standard Configuration

- Odyssey-E Receiver (0Mb)
- Internal PDL/UHF Radio
- Internal Windows® CE controller w/touch screen and keyboard
- 1 Hz Update Rate
- Co-op Tracking
- NMEA 0183 output
- User Defined Outputs
- MINTER Interface
- 2x RS232 Serial Ports
- 1x External Power Port
- Power Cables
- RS232 Cable
- USB, Ethernet

Optional Features

- GPS L2 and GLONASS
- Internal GSM module
- Update rate 5Hz & 10Hz
- RTK @ 1Hz, 5Hz, 10Hz & 20Hz
- Data Recording 4Mb to 1Gb
- CMR/RTCM input/output
- Advanced Multipath Reduction
- Frequency I/O
- Event Marker
- Two additional serial ports
- Additional power port
- Internal UHF modem
- WAAS
- RAIM

Common Accessories

- Topcon Antennas
  PG-A1 flat ground plane
  PG-A2 flat ground plane
  w/integrated UHF antenna
  CR-3 choke-ring
  CR-4 choke-ring
- FC-1000 controller
- UHF Base or Rover radio kit
- LitePole or Tripod
- Tribrach & adapter
- TopSURV software
- Topcon Tools software
- Pinnacle software
- Carlson GPS software
- Survey Pro software
- Soft or hard carrying case