

Total Solutions Package  
**PRECISION GPS+**

**TOPCON**



# LEGACY-H

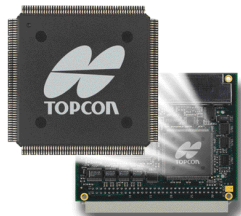
Small Wonder





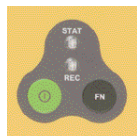
The Legacy-H GPS+ receiver puts the high accuracy, fast acquisition, best under-canopy tracking in the palm of your hand. How can a receiver so small be so powerful?

At its core is our **Paradigm** chip featuring 40 universal super channels that can each track all signals of either L1 or L2 GPS or GLONASS frequencies—and up to 20 satellites at once, the maximum available at any one time! It incorporates our new innovations in signal processing, **multi-path mitigation** and **co-op tracking**, making Topcon GPS+ the best in the field for under-canopy and low signal strength reception.



Our unique Cinderella feature adds GPS L2 reception every other Tuesday for 24 hours so you can experience the real power of Topcon GPS+. Permanently activating GPS L2 or GLONASS frequencies and other options 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.

The MINimum INTERface keeps operation very simple. Just two function keys and two 3-color LED's are all that's needed to record data and check status. Up to four serial ports lets Legacy-H work with a variety of accessories in all types of configurations.



Its integrated circuit technology keeps average power consumption at 2 watts, the lowest in the industry, letting you work longer without interruption. Weighing only 14 ounces, you'll hardly know it's there, no matter how long you work.

Grab a Legacy-H at your Topcon dealer. It's extraordinary GPS+ technology you can get a grip on.



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## Legacy-H Technical Data <sup>1</sup>

<b>Description</b>	40 channel integrated GPS+ receiver with MINTER interface.
<b>Tracking Specifications</b>	
Tracking Channels, standard	40 L1 GPS (20 GPS L1+L2 on Cinderella <sup>2</sup> days)
Tracking Channels, optional	20 GPS L1+L2 (GD), 20 GPS L1 + GLONASS (GG),
Signals Tracked	L1/L2 C/A and P Code & Carrier
<b>Performance Specifications (1 sigma)</b>	
Baseline Accuracy	Horizontal: 3mm + 1ppm for L1+L2; 5mm + 1.5ppm for L1 Vertical: 5mm + 1.5ppm for L1+L2; 6mm + 1.5ppm for L1
RTK (OTF) Accuracy	Horizontal: 10mm + 1.5ppm for L1+L2; 15mm + 2ppm for L1 Vertical: 15mm + 1.5ppm for L1+L2; 20mm + 2ppm for L1
Cold Start / Warm Start	<60 seconds / <10 seconds
Reacquisition	<1 second
<b>Power Specifications</b>	
Battery	External (maximum of 2 ports)
Power Input	4.5 to 14 volts DC
Power Consumption	1.8 - 2.4 watts
Continuous Operating Time	7 hours (typical w/2.3AH rechargeable battery)
<b>GPS+ Antenna Specifications</b>	
GPS / GLONASS Antenna	External
Antenna Type	Microstrip (Zero-Centered)
Ground Plane	Antenna on a flat ground plane or Choke Ring
<b>Radio Specifications</b>	
Type	External, UHF/VHF radio modem
Base Power Output	0.5W/2.0W/35W
<b>I/O</b>	
Communication Ports	Serial (RS232), 4 maximum, 2 standard
Other I/O Signals	1pps, event marker, frequency input, frequency output
Status Indicator	2x3-color LED's, two-function keys (MINTER)
Control & Display Unit	External: Husky FS/2, FS/3, Ranger, 3rd Party
<b>Memory &amp; Recording</b>	
Internal Memory	Up to 96 Mbytes
Raw Data Recording	Up to 20 times per second (20Hz)
Data Type	Code and Carrier from L1 and L2, GPS and GLONASS
<b>Data Output</b>	
Real time data outputs	RTCM 104 version 2.2 and/or CMR2
ASCII Output	NMEA 0183 version 2.2/2.3 (2.3 default)
Other Outputs	TPS format
Output Rate	Up to 20 times per second (20Hz)
<b>Environmental Specifications</b>	
Enclosure	Waterproof
Operating Temperature	-40°C to 55°C / -40°F to 130° F
Dimensions	W:150 x H:110 x D:35 mm / 5.9 x 4.33 x 1.38 in
Weight	0.4 kg / 14 ounces

### Standard Configuration

- Legacy-H Receiver (0MB)
- Cinderella GPS L2 activation
- 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
- Event Marker
- Two additional serial ports
- Additional power port

### Common Accessories

- Topcon Antennas  
LegAnt-2 flat ground plane  
RegAnt-1 SD choke-ring  
RegAnt-2 DD choke-ring
- UHF/VHF/Spectrum Base or Rover radio kit
- Topcon Power Station
- 2.3AH rechargeable battery
- Lithium-ion battery
- LitePole
- Tripod, tribrach & adapter
- Pinnacle software
- Carlson GPS software
- Survey Pro software
- Backpack, carrying case

### Optional Features

- GPS L2 or GLONASS
- Update rate 5Hz, 10Hz, 20Hz
- RTK @ 5Hz, 10Hz, 20Hz
- Data Recording 4Mb to 96Mb
- CMR/RTCM input/output
- Advanced Multipath Reduction
- Frequency I/O

<sup>1</sup> Specifications are subject to change without notice. Performance specifications assume a minimum of 6 GPS or 7 GPS/GLONASS satellites above 15 degrees in elevation and adherence to procedures recommended by TPS in the appropriate manuals. In areas of high multipath, during periods of high PDOP and during periods of high Ionospheric activity performance may be degraded. Robust checking procedures are highly recommended in areas of extreme multipath or under dense foliage.

<sup>2</sup> Cinderella feature activates GPS L2 reception at GPS mid-night every other Tuesday for 24 hours.