SuomiNet - GPS Receiver

560 Beth Bartel December 29, 2009 SuomiNet Equipment 2230

Note - content is provided for historical continuity and may be out of date. The UNAVCO SuomiNet pages are not actively maintained, and up-to-date SuomiNet information should be obtained from UCAR's COSMIC program at: www.cosmic.ucar.edu/suominet.html



The SuomiNet Steering Committee has selected the Trimble 4700 GPS receiver.

GPS Receiver Specifications

Internal memory BINEX data streaming firmware version - 1.37	
Physical	
Size:	11.9 cm (4.7") W x 6.6 cm (2.6") H x 20.8 cm (8.2") L
Receiver Weight:	1.2 kg (2.7 lbs)
Electrical	
Receiving Power:	4.5 Watts receiver only 10.5 to 24 VDC
Environmental	
Operating Temp:	-40°C to +65°C (-40°F to +149°F)
Storage Temp:	-40°C to +75°C (-40°F to +167°F)
Humidity:	100%, fully sealed. Buoyant
Shock:	1 m (3 ft) accidental drop onto concrete
Static survey performance	
Fastest datalogging rate:	5 Hz
Start Up:	<30 seconds from power-on to start survey with recent ephemeris
Tracking:	L1 C/A code, L1/L2 full-cycle carrier. Fully operational during P-code encryption
Number of Channels:	24
Datalogging:	In internal memory
Receiver Data Storage:	120 hours internal memory of L1/L2 data, 6 satellites, 15 sec. interval

GPS Receiver Limitations

Please note that the 4700 receiver is specifically configured for SuomiNet applications, and does not behave like the standard Trimble 4700 commercial receiver. Some important limitations:

1. Receiver is NOT compatible with a controller or data collector.
2. The receiver firmware streams BINEX data.
3. Rover functions, including kinematic mode and RTK rover, are disabled.
4. Remote download utilities are NOT supported by UNAVCO or Trimble.
5. The antenna groundplane is NOT removable.
6. Ancillary equipment is limited to an AC power supply, 2 power/download cables, a groundplane antenna, a 30m antenna cable, and a receiver manual.

Online URL: https://kb.unavco.org/article/suominet-gps-receiver-560.html