


GB-3 Specification

072007 AlanSugimoto

Item	Description
1. GB-3 Summary	
1) Exterior	
2) Hardware type	There are 5 types by port combination - 2serial/2power port type - 3serial/1Power port type - 3serial/2Power port type - 4serial/1Power port type - 2serial/USB/Ethernet/1power port type
3) Internal Board	I60P2 board
4) Capability for survey	RTK (Need RTK option) General DGPS(RTCM) WAAS/EGNOS DGPS Static Kinematic
5) Communication for Terminal.	Depend on hardware type -RS232C serial(Max 4 serial) -USB -Ethernet
6) GPS+ Antenna	External
7) Power system	External power
2. Specification	
2.1. Tracking	
Signal	GPS/GLONASS L1/L2/L5 C/A and P Code & Carrier, Galileo E1/2/5a and L1, WAAS/EGNOS
Channel	72 channels
Cold Tracking	< 60sec
Warm Tracking	< 10sec
Reacquisition	< 1sec
2.2. Accuracy	
Static	L1+L2: H: 3mm + 0.5ppm V: 5mm + 0.5ppm L1: H: 3mm + 0.8ppm V: 4mm + 1.0ppm
RTK/Kinematic	L1+L2, L1: H: 10mm + 1ppm V: 15mm + 1ppm
DGPS	Post Processing : Typically 0.3m

	DGPS/RTCM based : Typically less than 0.5m
2.3. Physical	
Enclosure	Aluminum
Dimension	W:240 x H:110 x D:35 mm
Weight	0.6kg
Color	Topcon Yellow
Mounting	5/8-11
2.4. Environment	
Operating Temperature	-40 C° to +75 C°
Storage Temperature	-40 C° to +75 C°
Humidity	95%
2.5. Power	
External Power	Max 2 port
Input voltage	6 to 28 V DC
Power consumption	3.8W
2.6. Connector	
Serial port	Maximum 4 port ODU 7 pin
USB port	Max 1 port ODU 4pin
Ethernet port	Max 1 port ODU 7 pin
Power port	Max 2 port ODU 5 pin For connect AC adaptor or external battery
Antenna connector	TNC Output voltage: 5.0VDC
PPS connector	Max 2 port (Option) BNC
Event connector	Max 2 port (Option) BNC
External Frequency I/O	BNC (option)
2.7. Communication	
Serial port	Baudrate: 460800,230400,115200(Default),57600, 38400,19200,9600,4800,2400,1200,600, 300 Flow control: RTS/CTS Length: 7,8(Default) Stop bit: 1(Default), 2 Parity: None(Default), Odd, Even
USB	Version 1.1
Ethernet	100Base-T
2.8. Key and LED	
Key	2 keys MINTER Power – On/Off Function (FN) – start/stop data logging; switch information mode.
LED	2 LEDs

	STAT – satellite and receiver status REC – record and data status
2.9. Memory	
Internal memory	Onboard CF card slot.
Capacity	Maximum 1GB, Standard 8MB
Logging time	53 hours, (8MB, 15sec, L1/L2 and 7satellites)
Interval	0.05 to 86400 seconds, depending on purchased options
2.10. Other	
Real time data format	RTCM 2.1, 2.2, 2.3, 3.0, CMR, CMR+, TPS
NMEA	NMEA 2.2, 2.3, 3.0: GGA, GLL, GNS, GRS, GSA, GST, GSV, HDT, RMC, VTG, ZDA, GMP, ROT
Output rate	~20Hz
PPS output	Option, Maximum 2 output port
Event marker input	Option, Maximum 2 input port
External Frequency I/O	Option, Available