GNSS L1 Base, Rover And Data Collector

Champion HC2

Works as a GNSS Base or Rover and as a Data Collector for Your Existing GNSS, Total Station or Robotic Total Station!

Long Range Bluetooth
Buy this unit with confidence knowing you can use it with yesterday's total stations and robots with external radios and today's GNSS receivers, total stations and robots using long range Bluetooth.

More Features and a Long Life Battery
Building on the success of the Champion HC1, the HC2 comes with an external long range Bluetooth antenna for greater range and internal L1 base and rover capability. The long range Bluetooth radios allow two HC2's to work as a base and rover pair to 3000' and beyond using external GNSS antennas. With the proper network correction, a single HC2 will operate as a network rover*! Static sessions are even supported. The long range Bluetooth radio in the HC2 is capable of operating the GeoMax Zoom90 robot beyond 3000'.

**Requires RTCM3.2 MSM4 or MSM7 corrections*

Choice, Choice, Choice
Network connectivity for RTN rovers and file transfer is accomplished through the convenient internal 3G GSM modem or WiFi, depending on the wireless coverage in your area.

Features
- Internal u-blox M8P-2 high precision L1 multi-constellation GNSS receiver
- Base, Rover and RTN* capable
- IP54 - Limited protection against dust and water
- 6500mA battery
- 9 pin serial port
- 3.7" sunlight readable screen
- 3G GSM modem, WiFi, Bluetooth and 3000 ft long range Bluetooth
- 1 year warranty
- 1.2 lbs with battery
- 806 MHz, 512MB RAM, 1GB storage expandable to 33GB
- 5 megapixel camera
- Optional external antenna for survey accuracy

Champion HC2

Champion INSTRUMENTS

Champion HC2

Overview	
Processor	806 MHz
Storage	1GB (expandable to 33GB using a MicroSD card)
RAM	512MB
Operating System	Windows Mobile 6.1
Multi-Langauge	✓
Keypad	27 numeric + programmable keys
Mic	✓
Speaker	✓
Display	3.7" sunlight readable with integrated touchscreen
Display Resolution	480 x 640
Camera	5 megapixel
Dimension	7.87"(W) x 3.78"(H) x 1.26"(D)
Weight	1.2 lbs. with battery
Communications & Data Storage	
Long Range Bluetooth	HC2 Base to HC2 Rover: 3000 ft; HC2 to Zoom90: 3050 ft
GSM/3G	3G
WiFi	✓
USB Port	Type B USB
Serial Port	DB9 (RS232)
Voice	✓
Power	
DC Input	DC 5 V, 1 A
Detachable Li-ion Battery	6500 mA, 3.7 V
Environment	
Operating Temperature	-20 °C ~ +60 °C (-4 °F ~ 140 °F)
Storage Temperature	-30 °C ~ +70 °C (-22 °F ~ +158 °F)
Limited Dust and Water	IP54
Drop	1.2 m protection

NEO-M8P performance in different GNSS modes (default: concurrent reception of GPS and GLONASS)

Parameter	Specification			
Receiver Type	72 channel u-blox M8 engine GPS L1C/A, GLONASS L1OF, BeiDou B1I			
		GPS & GLONASS	GPS & BeiDou	GPS
Time-To-First-Fix[1]	Cold Start	26 s	28 s	29 s
	Hot Start	1 s	1 s	1 s
Sensitivity[2]	Reacquisition	-160 dBm	-160 dBm	-160 dBm
	Cold Start	-148 dBm	-148 dBm	-148 dBm
	Hot Start	-157 dBm	-157 dBm	-157 dBm
Convergence Time[3]	RTK	2 min[4]	2 min[4]	3.5 min[4]
Horizontal Position Accuracy	Standalone[5]	2.5 m CEP		
	RTK[3,6]	0.025 m + 1 ppm CEP		

Standard Accessories

- Belt clip with stylus
- USB connectivity cable
- DC charger for USB port
- Serial cable
- Clear screen protector
- External Bluetooth antenna

Optional Accessories

- Champion AS1-S GNSS antenna
- External GNSS antenna cable
- Champion 2 meter GNSS pole
- Champion HW-02 mounting bracket and claw
- Bipod

Specifications are subject to change without notice. Champion, Champion HC2 are trademarks of Champion Instruments, LLC.

[1] All satellites at -130 dBm
[2] Demonstrated with a good external LNA
[3] Depends on atmospheric conditions, baseline length, GNSS antenna, multipath conditions, satellite visibility and geometry
[4] Measured with 1 km baseline, patch antennas with ground planes; GPS+BeiDou measured in Singapore
[5] Circular Error Probability (CEP), 50%, 24 hours static, -130 dBm, > 6 SVs
[6] ppm limited to baselines up to 10 km

We will not let you fail.

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