PENTAX | Positioning System GC200

Multifunctional GNNS Receiver
Recommended for CORS

GPS | GLONASS | SBAS | GALILEO | BEIDOU

The GC200 is a 555-channels multi-frequency GNSS receiver designed to be used either as a standalone reference stations or as a part of a GNSS stations infrastructure.

+ **GC200 is typically used as an NTRIP server**

+ **GC200 can be used both for starting a new CORS station or for integration into existing networks**

+ **Acquisition, processing, distribution and management of GNSS data**

+ **Supports a wide range of satellite signals, including GPS L2C and L5, GLONASS L1/L2 and BEIDOU**

+ **Rugged and lightweight design**

+ **Internal battery supports temporary use for 16 hours**

+ **Easy operation with 7 keys and High Luminosity OLED display**

+ **32 GB internal memory for long period data collection**

+ **WiFi, 3G WCDMA modem and Bluetooth are equipped for datalink**

Ntrip Caster Software for CORS Network Management
The software supports different GC200 stations.
There are 3 different types of software depending on the number of base stations to support (ie. <8, <16, more than 16 of base station).
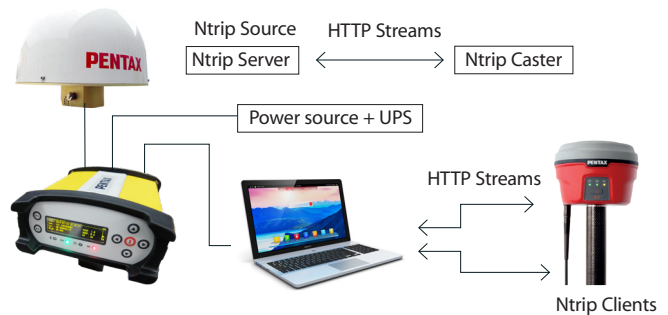
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GNSS SPECIFICATIONS

Model		GC200
GNSS Board Specifications	Channels	555 channels
	GPS	L1C/A, L1C, L2C, L2P, L5
	GLONASS	L1C/A, L2C, L2P, L3, L5
	SBAS	Simultaneously L1 C/A, L5
	GALILEO	E1, E5 Alt BOC, E5a, E5b, E6
	Beidou	B1, B2, B3
	NavIC (IRNSS) (*1)	L5
	QZSS	L1C/A, L1C, L2C, L5, L6
	L-band	up to 5 channels
	Initialization Time	< 10 seconds
	Initialization Reliability	> 99.9%
Accuracy	Static Accuracy	Horizontal: 3mm+0.5ppm RMS / Vertical: 5mm+0.5ppm RMS
	High Precision Static/ Long Time Observation Accuracy (*2)	Horizontal: 3mm+0.1ppm RMS / Vertical: 3.5mm+0.4ppm RMS
	RTK Accuracy	Horizontal: 8mm+1ppm RMS / Vertical: 15mm+1ppm RMS
	DGPS Accuracy (RMS)	Horizontal: 0.25m / Vertical: 0.4m
Environmental Requirements	Operational Temperature	-30°C to +65°C
	Storage Temperature	-40°C to +80°C
	Humidity	0%- 100% ,non-condensing
	Water and Dust Protection	IP67
Communication	OLED Display	2.7 inch, 256*64 resolution, monochromatic screen
	Buttons	7 buttons: operation keys + power key
	Indicators	4 indicators: Bluetooth, Data record, Data communication, Power
	I / O Ports	2 Serial ports (RS232/RS485)
		1 DB9 (RS232) serial port
		1 USB OTG port
		1 LAN Ethernet port
		1 IPPS port
		1 EVENT port
		1 SIM card slot
		Internal 802.11b,g,n/HT20, as both receiver and transmitter of WIFI hotspot
		Bluetooth 2.1+EDR
	Data Output Rate	1 Hz, 2 Hz, 5 Hz Default (20Hz and 100Hz Optional)
	Reference Output	RTCM 2.1, 2.3, 3.0, 3.x, 3.2, CMR, CMR+, RTCA, NOVATELX
	Navigation Output	NMEA 0183, detailed NovAtel ASCII, binary logs, RINEX
Electrical Data	Network Communication	(PLS8-E) GSM 900MHz/1800MHz
		WCDMA (FDD I, III, VIII)
		HSPA/LTE (FDD 3,7,8,20)
Power	Input	9-28V DC
	Power Consumption	Minimum 2.3 W (with Ethernet) - Maximum 3.3 W (with GSM)
	Battery	7.2V, 13200mAh, 48.96Wh
Memory	On-Board Memory	32 GB
	USB OTG	512 GB support
Weight		2 kg
Dimensions		222mm x 164mm x 79mm
Operation System		Linux

*1 Hardware ready
*2 Performance, Accuracy and Reliability are dependent upon various factors including satellite geometry, number of satellites, ionospheric conditions, atmospheric conditions and multipath.

Ntrip Source — HTTP Streams
Ntrip Server ⟷ Ntrip Caster
Power source + UPS
HTTP Streams
Ntrip Clients

PENTAX Positioning System is dedicated to providing customers with first class positioning system products and freedom of choice. We have carefully designed high-quality products to meet the needs of today's surveyors based on the experience of many years involved in instrument design and construction. Our engineers have been involved in Survey products since the beginning of the Satellite Surveying Era. We are committed to ease of use, a low cost of ownership and flexibility to accommodate different working environments. Our close partners are carefully chosen and are committed to these values as we are.

www.pentaxsurveying.com/en/

Your Official Pentax Dealer

The CE marking assures that this product complies with the requirements of the EC directive for safety.

ISO 9001:2008

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