

# LINERTEC

## LGN-200S Positioning System

Precision satellite surveying  
with wireless communications

### GPS / GLONASS / BEIDOU



- Single, rugged housing with all components for field survey and stake out
- State of the Art 136-channel XXB2 receiver board with GPS, GLONASS and BEIDOU
- Integrated satellite antenna for optimized satellite tracking
- Base or Rover configuration for standard equipment use
- Internal GSM Modem for connection to Real Time Networks
- Internal UHF Radio for RTK ready units
- Easily removable SD Card for new Data Logging
- Bluetooth on-board for a cable free controller
- Rugged field controller for efficient field survey
- Optional External Radio for greater transmission range
- Two Hot Swap Li-Ion batteries for continuous operation and intelligently switchable
- Power Supply via cable for long sessions
- Open interface protocols for various types of handheld



# GNSS SPECIFICATIONS

The LGN-2005 features the XXB2 GPS/GLONASS/BEIDOU dual frequency receiver, the latest entrant to the high precision positioning market. The XXB2 engine includes RAIM and provides outstanding performance for Survey and GIS applications.

Model	LGN-2005	
<b>Channel Configuration</b>	136 channels (dual frequency) for GPS, GLONASS, BEIDOU and SBAS	
<b>Single Tracked</b>	GPS	L1-C/A, L1-P(Y), L2-P(Y) and L2C
	GLONASS	L1-C/A, L2-C/A
	BEIDOU	B1/B2
<b>Position accuracy</b>	HORIZONTAL	VERTICAL
	Standalone	1.3 m
	SBAS	0.6 m
	DGPS	0.5 m
<b>RTK Performance</b>	Horizontal Accuracy	6 mm + 0.5 ppm *1
	Vertical Accuracy	10 mm + 1 ppm
	Average Time to Work	7 sec.
	Availability	99.99%*1 (Baseline < 20km)
<b>Static Performance</b>	Horizontal Accuracy	2 mm + 0.5 ppm
	Vertical Accuracy	5 mm + 0.5 ppm
<b>Ports</b>	Lemo 5-pin, serial port for Handheld PC (RS232C)	
	Lemo 8-pin, serial port for external radio/modem	
	Lemo 4-pin for external power (+9VDC - +15VDC)	
<b>Internal Radio Modem*2</b>	Frequency	403-473 MHz
	Output Power	Max. 1W
<b>GSM/GPRS Modem</b>	Protocol	NTRIP
<b>Power</b>	Internal Battery	2 x Li-Ion (Swappable), 2500 mAh, 7.4V
	Battery Running Time	Approx. 10 hours with 2 Batteries
<b>Weight</b>	1.4 kgs with 2 batteries	
<b>Dimensions</b>	198.5 mm x 197.5 mm x H 99 mm	
<b>Environmental Specifications</b>	Operating Temperature	-30°C to +70°C *2
	Storage Temperature	-40°C to +75°C
	Shock/Drop	2 m
<b>Velocity Accuracy</b>	HORIZONTAL	VERTICAL
	Standalone	2 cm/sec
<b>Data Output</b>	25Hz data output rate (User selectable)	
	NMEA v2.3 output format, up to 10 Hz	
	RTCM SC104 v2.2, 2.3, 3.0 or 3.1	
	CMR2.0 and CMR+	
<b>Latency</b>	< 20 msec	
<b>Time to First Fix</b>	Cold Start	< 45 sec
	Warm Start	After power-on < 20 sec
		Re-acquisition < 1.2 sec
<b>Bluetooth</b>	Class 2	
<b>RoHS</b>	Compliant	
<b>Waterproofing</b>	IP67	
<b>Certification</b>	CE	
<b>Accessories</b>	Standard	2 x Li-Ion rechargeable battery pack
		Battery charger
		2 GB SD Card
		UHF radio antenna
	Option	Controller
		External power cables
		External radio/modem cable
		Carbon Pole

\*1 GNSS precision and reliability are subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions.

\*2 Functional

\*3 Receiver without Internal Radio Modem connected (model name LGN-2005) is optionally available.

**Linertec 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.

**TI Asahi Co., Ltd.**  
**International Sales Department**  
 4-3-4 Ueno Iwatsuki-Ku, Saitama-Shi  
 Saitama, 339-0073 Japan  
 Tel.: +81-48-793-0118  
 Fax: +81-48-793-0128  
 E-mail: international@tiasahi.com

[www.tilinertec.com](http://www.tilinertec.com)

Your Official Linertec Dealer



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