

SPECIFICATIONS

Receiver Part

Measurements

General Info

- 220 channels, by advanced Pacific Crest Maxwell 6 Custom Survey GNSS technology
- High precision multiple correlator for GNSS pseudo range measurements
- Unfiltered, unsmoothed pseudo range measurements data for low noise, low multipath error, low time domain correlation and high dynamic response
- Very low noise GNSS carrier phase measurements with 1mm precision in a 1Hz bandwidth
- Signal-to-Noise ratios reported in dB-Hz
- Proven Pacific Crest low elevation tracking technology

Satellite signals tracked simultaneously

- GPS: L1 C/A, L2E, L2C, L5 (reserved)
 - GLONASS: L1 C/A, L1 P, L2C/A (GLONASS M only), L2 P
 - SBAS: L1 C/A, L5 (reserved)
 - Galileo: (reserved)
- supports GIOVE-A: L1BOC, E5A, E5B, E5AltBOC
supports GIOVE-B: L1CBOC, E5A, E5B, E5AltBOC
- Compass: (reserved)
- B1 (QPSK), B1-MBOC (6,1,1/11), B1-2 (QPSK)
B2 (QPSK), B2-BOC (10, 5),
B3 (QPSK), B3BOC (15, 2.5)
L5 (QPSK)

Code differential GNSS positioning

Horizontal: 25mm+1ppm RMS
Vertical: 50mm+1ppm RMS
SBAS differential positioning accuracy: typically <5m 3DRMS

Static and FastStatic GNSS surveying

Horizontal: 2.5mm+1ppm RMS
Vertical: 5mm+1ppm RMS

Realtime Kinematic surveying

Horizontal: 10mm+1ppm RMS
Vertical: 20mm+1ppm RMS
Initialization time: typically <15s
Initialization reliability: typically >99.9%

Hardware

Physical

Dimension (L x W x H): 184mm x 184mm x 96mm (7.2in x 7.2in x 3.8in)
Weight: 1.2kg (2.64 lb) with internal battery, internal radio

Temperature

Operating: -40°C ~ +75°C (-49F ~ +167F)
Storage: -55°C ~ +85°C (-67F ~ +185F)
Humidity: 100%, condensing
Water/Dustproof: tested to IP67 standard, protected from temporary immersion to depth of 1m (3.28ft)
Shock and vibration: Designed to survive a 2m (6.6ft) pole drop onto concrete

Electrical

Power 12-15V DC external power input
Rechargeable, removable 7.4V, 2.5Ah Lithium-Ion battery in internal battery compartment
Battery life: 6-10 hours for 2 batteries from standard supply (varies with temperature and working mode)

Communications and Data Storage

Standard USB2.0 port
RS-232 port: Baud rates up to 115200
Stollmann's BlueMod+B20 is used inside for Bluetooth function
Fully sealed and integrated 2.4GHz communication Bluetooth port
UHF receiving antenna port
Fully sealed and integrated 450-470MHz receiver
Standard GDL20 Radio (Default configuration)

- Transmit power: 25W
- UHF Range (varies with terrain and temperature): 8-10 km typical/15-20 km optimal

Mini GDL5 Radio (Optional)

- Transmit power: 2/5W
- UHF Range (varies with terrain and temperature): 3-5km typical/8-10km optimal

Mini GDL2 Radio (Optional)

- Transmit power: 0.5/2W
- UHF Range (varies with terrain and temperature): 3-5km typical/8-10km optimal

Fully sealed and integrated internal SIEMENS Mc75. GPRS/GSM module
External cellphone support for GPRS/GSM module for network RTK (CORS) operations
Network RTK (via CORS) range (varies with temperature and GPRS data rate): 20-50km
Data storage: internal memory 64MB
Update Rate: 1Hz positioning, up to 20Hz (supported by mainboard BD970)
Reference outputs:.....CMR+, CMR+, RTCM 2.1, RTCM 2.2, RTCM 2.3, RTCM 3.0, RTCM 3.1

Controller Part

Platform

PXA270 624 MHz processor
1 GB Flash ROM
256 MB RAM

Operating System

Windows®CE 5 (standard supply)
Windows Mobile® 6 Classic, Professional (optional)

Wireless Communications

Integrated Bluetooth® Class II, V 2.0 + EDR

External Connectors

One tether connection with full RS232 and USB On-The-Go (USB 1.1) functionality
One Low-Insertion Force (LIF) docking connector
DC Power Jack

User Interface

Color screen / Touch display
3.7 in (9.398 cm)
Full VGA 480 x 640 Resolution
Transflective, portrait mode TFT
Sunlight readable (for outdoor use)
High-reliability adjustable LED
Backlight featuring a bright
165 cd/m2 output
Touchscreen (standard)
Passive stylus or finger operation
Signature capture
Full Alphanumeric keyboard
Backlit, high durability hard-capped keys

Expansion Slots

-One SD/MMC memory card slot
-End-cap USB Interface supports GPS expansion module.
-100-PIN expansion interface: supports PCMCIA (type II), GPRS/EDGE and other third-party expansion modules developed using Psion Hardware Developer's Kit.
-One Type II CF Card Slot

Power Management

Optional 3.7V, 2700 mAh standard capacity battery
Advanced smart battery with gauge
Built in charger
Rechargeable, user replaceable backup battery pack

Environmental

-Withstands multiple drops from 6 ft (1.8 m) or 26 drops (on 12 edges, 6 corners, 8 faces) from 5 ft (1.5 m) to concrete while powered on
-Waterproof/Dustproof: IP65, IEC 60529
-Operating temperature: -4°F to 122°F (-20°C to +50°C)
-5%-95% RH non-condensing
-Storage temperature: -40°F to 140°F (-40°C to +60°C)
-ESD: +/- 8kVdc air discharge, +/-4kVdc contacts

Physical

-Dimensions (L x W x H): 223mm x 100mm x 42mm (8.78 in x 3.94 in x 1.65 in)
-Weight: 0.46kg (1 lb) without battery

Remarks:
Measurement accuracy and operation range might vary due to atmospheric conditions, signal multipath, obstructions, observation time, temperature, signal geometry and number of tracked satellites.
Specifications subject to change without prior notice.

[Distributor Info](#)

KOLIDA
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Best choice, Brightest price

KOLIDA GNSS



K9-T

DUAL FREQUENCY GNSS RECEIVER

- GPS+GLONASS+GALILEO+COMPASS
- 220 Channels
- Dual Bluetooth Connectivity
- Integrated GSM/GPRS Module
- Rugged, Waterproof, Lightweight

● Industry-leading Main Board

With Maxwell™ 6 technology, the Integrated Pacific Crest BD970 provides assurance of long-term future-proofing and trouble-free operation. 220 Channels for multi-constellation GNSS support.

● Multi-constellation

Not only the superior positioning performance in GPS+GLONASS Satellite system, KOLIDA K9T also provides Galileo+Compass compatibility (reserved, for signal evaluation and test purpose).

● Cable-free Operation by Dual Bluetooth

Integrated dual bluetooth technology enables the receiver transfer data with controller and your mobile device at the same time.

● Full Flexibility of Data Link

Integrated GSM/GPRS module enables seamless realtime connection with CORS networks. Combining KOLIDA exclusive UHF radio technology, K9T can freely switch between GSM/GPRS, Internal or External Radio modes.

● Durability and Waterproof

The ABS+PC material housing provides the maximum ruggedness for the compact and lightweight receiver body. With the IP67 environmental rating, KOLIDA K9T can withstand severest condition.

● Complete GNSS Software

Full functionality and user-friendliness as well as fully customizable, with KOLIDA GNSS Software the data can be downloaded, post-processed and prepared for final processing or direct delivery to clients.

Wide Application



STAKEOUT



DATA COLLECTION



RAIL/ROAD SURVEY



ACCESS TO CORS



ELECTRIC WIRE SURVEY



HYDROGRAPHIC SURVEY

DATA RADIO

KOLIDA high-speed half-duplex GDL20 Data Radio is a powerful and compact 450-470 MHz radio designed for KOLIDA GNSS Surveying System.

With its high power output of 25w, the GDL20 has extremely long range for 15-20km (optimal environment condition) and 19200 bps over-the-air baud rates. Noise immunity is also significantly enhanced via GDL20 radio's forward error correction (FEC).

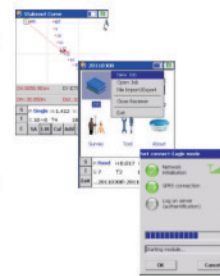
SMT Assembly Technology, the high integrated and rugged construction withstands harsh job site conditions

0.5/ 2W, 2/5W or 15/25W external radio optional (15/25W default).



KOLIDA Engineering Star 3.0

Come as the default GNSS Data Collection Software of KOLIDA GNSS Solution, Engineering Star 3.0 supports all RTK surveying tasks including data collection, road design, stake-out, etc. Enhanced graphic display, tab-based menu structure and standard industrial input/output data format ensures you're working at optimal efficiency. Multi-languages supported.



Carlson SurvCE (Need to purchase individually)

Carlson SurvCE (GPS), a user-friendly fieldwork solution to meet diverse needs. Provides comprehensive data manipulation but no experience needed, combines advanced functionality with easy-to-use interface, supports LandXML points, DTM, graphics, alignments, profiles and sections. Carlson SurvCE makes K9T a much more powerful RTK solution for you.



PSION CONTROLLER

Psion Controller from internationally reputed brand TEKLOGIX

The color touch screen makes software navigation quick and easy, immediately view measured data in the large graphic display.

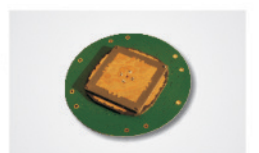
IP65 environmental rating, the controller is built to survive a 1.8m (6ft) multiple drops and immersion up to 1m.

Easy to use Windows-based interface, onboard KOLIDA Engineering Star 3.0 and Carlson SurvCE (optional) provide a complete data management solution.



BD970 Motherboard Equipped
Proven Maxwell 6 technology, 220 channels, high accuracy positioning and excellent stability.

Dual-frequency Antenna
Inhibits multipath effect and enhances satellites searching quality.



Control Panel
Imported PLC control circuit with 2 buttons & 6 indicating lights to view status and mode, easy to use.



Battery & Compartment
BT-L72SA 2500mAh lithium battery runs 6-8 hours for operation.

SIM Card Slot
To insert SIM card to enter VRS mode for network RTK.

RS-232 Serial Port
Interfaces via multi-purpose communication cable (L997Y) with computer (for static data transfer) or controller.



Dual Bluetooth Integrated
Enable the receiver to communicate with controller and mobile device for realtime data transfer.

5-pin Communication Port
Standard LEMO interface to link receiver and external radio transmitter plus external power supply via multi-purpose communication cable (LE52X).



Integrated Module Pack
Advanced data link, with both UHF receiving radio and GPRS/GSM modules built in, switchable for radio/network RTK modes.



UHF Receiving Antenna Socket
Smart design for both reliable antenna connection and perfect cover (while not connected).

Multifunctional receiver unit stand by, to interchange between base and rover.

Standard GDL20 Radio (default supply): 25W, 8-10km typical, 15-20km optimal.
Mini GDL2 Radio (optional): 0.5/2W, 3-5km typical, 8-10km optimal.

UHF Transmitting Antenna
All-direction antenna (100W, gain 7.5dB) guarantees reliable signals in long distance.



Receiving Antenna
All-direction antenna, gain 5dBi, to install underneath for better avoiding interference.

PSION Controller
PSION Workabout Pro 3, from internationally reputed brand TEKLOGIX, a flexible, expandable, rugged device.

KOLIDA Engineering Star 3.0 and Carlson SurvCE onboard

Controller Holder Bracket
Holds the controller in any direction at your convenience, with mini compass to get you well oriented.

Carbon Fiber Pole
Rigid pole CLS25, extendable to 2.45m, with high quality leveling bubble, light weight but durable.

