FOIF

A90 Intelligent GNSS Receiver

Super GPS RTK Receiver

IMU Tilt Survey
60 degree

- **Compact design, more productive**

- **Professional GNSS satellites tracked simultaneously! GPS, Glonass, Galileo, Beidou**

- **Automatic data collection during centering**

- **IMU tilt function is adopted, A90 still could get the right point data by automatic correct system**

- **Applies WIFI connection to realize WebUI control designed to modify settings and monitor the receiver status**

- **Bundled Android field software brings a big change in use experience and accessibility**

A90 GNSS Receiver Specifications

GNSSEngine
- 555 channels
  Advanced interface detection and mitigation
  Maximum data rate: 100Hz
  - GPS:LlC/A,LlC,LZC,L2P,L5
  - GLONASS:LlC/A,L2C/A,L2P,L3,L5
  - BeiDou: B1, B2, B3
  - Galileo:E1, E5 AltBOC, E5a, E5b, E6
  - NavIC (IRNSS) : L5
  - SBAS : L1, L5
  - QZSS : L1 C/A, UC. L2C, L5. L6
    L-Band: Up to 5 channels

Performance Specifications
- Time to First Fix(TTFFj:
  Cold start:‹40s(typical)
  Hot start:‹19s(typical)
  Signal reacquisition:
  L1‹0.5s(typical)
  L2‹1.0s(typical)
- " RTK Initialization time:
  ‹l0s
- RTK Initialization reliability:
  Egg g•/,

Real—Time Accuracy (rms)
- SBAS
  Horizontal: 60cm(1.97ft), Vertical:120cm(3.94ft)
- Real-Time DGPS position
  Horizontal: 40cm (1.3 1ft), Vertical:80cm(2.62ft)
- Real-Time Kinematic Position (fine mode)
  Horizontal: 8mm(0.03ft) + 0.5 ppm
  Vertical: 15 mm(0.05ft) + 0.5 ppm

Post Processing Accuracy (rms)" [2]
- Static, Rapid Static
  Horizontal I.5 mm (0.005 ft) + 0.5 ppm
  Vertical 5 mm (0.0L6 ft) + 0.5 ppm
- Long Static
  Horizontal 3.0 mm (0.0L0ft) + 0.L ppm
  Vertical 3.5 mm (0.0LLft) + 0.ñ ppm

Solutions

Field Software Suite FOlFPad(WM/Android) ,FOIF FieldGenius or Carlson SurvCE
- Main functions include:
  A90 GNSS Support: configuration,
- monitoring and control
- Volume computation
- Background raster image
- Network connectivity
  Coordinate System Support: predefined grid systems, predefined datums,
- projections, Geoids, local grid
- Map view with colored lines
  Geodetic Geometry:intersection, azimuth/distance, offsetting, poly-line,
- curve, area
- Road Construction(3D)
  Survey Utilities: calculator, RW5 file
- viewing
  Data import/Export: DXF, SHP, RW5

Data logging
- Recording Interval 0.1-999seconds

Physical
- " Flat design
- " Size: 156mm*76mm(@ x H)
- " Bottom cover: Aluminium magnesium alloy

Memory
- Internal memory: 8GB standard; Supports extending to 32GB

l/O Interface
- TNC port: connecting built-in radio antenna
- 5-pin lemo port: connecting external power supply and external radio
- 7-pin lemo port(USB+serial port): connecting PC and handheld

Operating system
- Based on Linux; Supports Web UI

Voice
- Multi-language supported

Tilt survey sensor
Automatic correct system by 30degree
- Data Format
  RTCM 2.3
  ° RTCM 3.0,RTCM3.X "
  CMR, CMR+
  " NovAtelX/SCMRx

  RTK rover/base, post-processing
  " RTK Network rover: VRS, FKP, MAC
  " Point-to-Point GPRS through Real-timeData "
  server Software (internal GPRs or external cell phone)
- LandXML(FOIF FieldGenius support)
  Total Station support (FOIF FieldGenius)
- Import and stake directly from a DXF File (FOIF FieldGenius)

Office Software Suite:
FOIF Geomatics office Main functions include:
- Network post-processing
- Integrated transformation and grid system computations
- Pre-defined datums along with use -defined capabilities
- Survey mission planning
- Automatic vector processing
- Least-squares network adjustment
- Data analysis and quality control tools
- Coordinate transformations
- Reporting
- Exporting
- Geoid

Environmental (MIL8 I OF)
- Operating temperature:
  -30’Cto+65’C(22Ftol49F)
- Storage temperature:
  -40”C to +80”C(-40°F to +176°F)

- " Humidity: 100% condensing
- " Waterproof: IP68 and MIL-810G standard "
  Shock: 2 m (6.56 ft) pole drop
  1.2m(3.9'4ft) free drop

Power
- 7.2V, 6800mAh,removabIe battery

Optional System Components
Communication Module
- Internal radio
  -UHF-Link(410-470MHz) Rx£rTx both -1W
- External radio
  -FOIF external radio RxErTx(FDL-5, 5/35W selectable)
- 4G LTE module:
  Fits various networks
- BlueTooth
  2.1+EDR Class 2
- WiFi
  IEEE 802.11 b/g/n
- Antenna
  Built-in antenna,integrating GNSS, BT/WLAN and network antenna
- Controller
  - F58

*1 Performance values assume minimum of five satellites, following the procedures recommended in the product manual. High-multipath areas, high PDOP values and periods of severe atmospheric conditions may degrade performance.
*2 Long baselines, long occupations, precise ephemeris used.

FOIF Geomatics CAD

Main funCtions inClude:
- DWG file format, compatible with AutoCAD Integrated transformation and grid system computations
- Full 3D least squares adjustment, blunder detection, graphical ellipse display
- DTM contouring/Modeling volumes/3 Drendering
- Site Design: Ponds, ditches, stockpiles and slopes
- Road Design: horizontal and vertical alignments, cross sectional templates
- ° Completely customizable user interface
  -Toolbars - can be arranged with "drag and drop" functionality
  -Menus - can be re-organized with our graphical menu editor
  -Screen - items can be turned off for more graphics area
  -Lavut - of command window - top or bottom
- Reporting, exporting and printing

Related Products

A30 Receiver | A60 Receiver | A3 Static Receiver | A50 Receiver | Fs8 GNSS Handhelder | A LOO Reference Receiver | A200 CORS Receiver

Illustrations, descriptions and technical specifications are not binding and may change

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