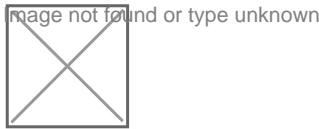# RTK Base-Rover Calibrated Surveyor Kit

More info about the product!

Get a discounted bulk price on this product for orders of 50 units or more. Contact us at info@ardusimple.com to get a quote.

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Page 1 of 7

Description

With the RTK Base-Rover Calibrated Surveyor Kit you will have everything you need to start your surveying tasks with RTK and centimeter level accuracy.

For Android users, use your preferred app and connect to the receiver via USB or Bluetooth.
For iOS users, currently only connection over BLE is possible, and only SW Maps app is supported.

This kit works autonomously, no need to use external NTRIP services.

Good to know:
– You can power and connect to the GNSS receiver with only one USB OTG cable
– You can also use Bluetooth 2.0 and BLE
– Fits any smartphone from 5.3cm to 9.3cm with or without case
– You can also use a tablet with this kit (tablet holder not included)
– Smartphone is not included

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Page 2 of 7

Specifications

Interfaces

- USB
- Bluetooth (optional)

ZED-F9P features
- Centimeter level precision
    - <1cm with a base station up to 35km
    - <1cm with NTRIP up to 35km
    - <4cm with SSR corrections
    - <1.5m in standalone mode
    - <0.9m standalone with SBAS coverage
- Update rate
    - Default: 1Hz
    - With maximum performance: up to 10Hz
    - With reduced performance: up to 20Hz
- Multi band: L1, L2 and E5b support
- Multifrequency and Multiconstellation:
    - GPS: L1C/A L2C
    - GLONASS: L1OF L2OF
    - Galileo: E1-B/C E5b
    - BeiDou: B1I B2I
    - QZSS: L1C/A L2C
    - SBAS: WAAS, EGNOS, MSAS, GAGAN and SouthPAN
- Start-up times:
    - First position fix: 25 seconds (cold), 2 seconds (hot)
    - First RTK fix: 35 seconds (cold)
- RAW data output in UBX format
- Base and Rover functionality
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS

LR radio features
- Communications: Bi-directional Point-to-Point or Unidirectional Point-to-Multipoint (unlimited rovers)
- Antenna type: external passive
- Antenna connector (radio side): SMA female
- Frequency:
    - Europe: 863-870 MHz
    - North America: 902-907 + 915-927 MHz (configurable)
    - Australia: 915-927 MHz

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Page 3 of 7

- New Zealand: 917-927 MHz
- Output power: 20 mW (13 dBm)
- Range in line of sight:
  - Urban: 2.5 km
  - Rural: 5 km
  - Rural with complete RF line of sight: 10 km
- Operating temperature Range: -40 to +85deg
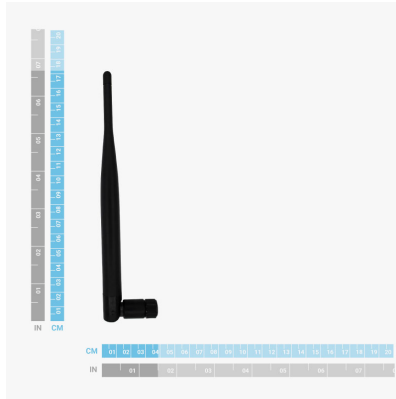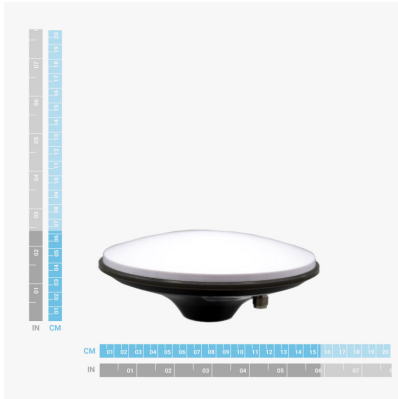- Documentation: RED, RoHS, FCC, IC, ACMA, RSM

Mosaic-X5 features
- Millimeter level precision
  - <1cm with a base station up to 35km
  - <1cm with NTRIP up to 35km
  - <1.2m in standalone mode
  - <0.6m standalone with SBAS coverage
- Update rate
  - Default: 1Hz
  - With maximum performance: up to 100Hz
- Multi band: L1, L2 and L5 support, 448 hardware channels
- Multifrequency and Multiconstellation:
  - GPS: L1C/A L1PY L2C L2P L5
  - GLONASS: L1CA L2CA L2P L3 CDMA
  - Galileo: E1 E5a E5b E5 AltBloc E6
  - BeiDou: B1I B1C B2a B2I B3
  - QZSS: L1C/A L2C L5
  - Navic: L5
  - SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM (L1 L5)
- Start-up times:
  - Cold start: <45s
  - Warm start: <20s
  - Re-acquisition: 1s
- Protocols:
  - Septentrio Binary Format (SBF)
  - NMEA 0183, v2.3, v3.03, v4.0
  - RINEX v2.x, v3.x
  - RTCM v2.x, v3.x (MSM included)
  - CMR v2.0 (out/in), CMR+ (input only)
- Interfaces **(check user guide to verify which are available)**:
  - USB
  - UART
  - XBee
  - Timepulse
  - Event
- Base and Rover functionality

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Page 4 of 7

- Operating temperature Range: -40 to +85deg
- Certification: CE, WEEE, ISO 9001-2015
- Documentation: RED, RoHS

MR radio features
- Communication: Unidirectional Point-to-Point (maximum 1 rover)
- Frequency: ISM 2.4 GHz
- Output power: 6.3 mW (8 dBm)
- Range in line of sight:
    - Urban: 250 meters
    - Rural: 600 meters
    - Rural with complete RF line of sight: 1'200 meters
- Antenna type: internal
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS, FCC, IC

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Image Gallery

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Page 6 of 7

Documentation

User Guide	https://staging.ardusimple.com/user-guide-rtk-base-rover-calibrated-surveyor-kit-2/
Configuration files	https://staging.ardusimple.com/how-to-configure-ublox-zed-f9p/

RTK Base-Rover Calibrated Surveyor Kit includes free basic technical support. Contact info@ardusimple.com for more information.

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Page 7 of 7