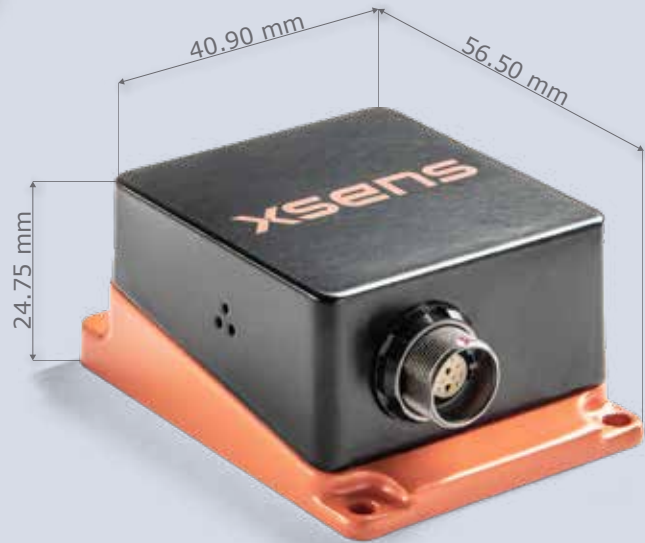


MTi-620R

- Rugged, IP68-rated VRU
- 0.2 deg roll/pitch, 1 deg heading accuracy
- Full Graphical User Interface (GUI) and Software Development Kit (SDK) available

The MTi-620R is a Vertical Reference System with a rugged housing featuring IP68 protection against environmental influences. Building on the proven MTi 600-series technology it enables a robust and easy to use orientation tracking. It is designed for easy integration and seamless interfacing with other equipment.

The MTi-620R is supported by the MT Software Suite which includes MT Manager (GUI for Windows/Linux), SDK, example codes and drivers for many platforms including ROS.



- White label and OEM integration options available
- 3D models available on request
- Available online via Digi-Key, Mouser, Farnell and local distributors

Sensor Fusion Performance

| | |
|-----------------------------|-------------------------|
| Roll, Pitch | 0.2 deg RMS |
| Yaw/Heading | inreferenced, low drift |
| Strapdown Integration (SDI) | Yes |

Gyroscope

| | |
|-------------------------|---------------|
| Standard full range | 2000 deg/s |
| In-run bias stability | 4 deg/h |
| Bandwidth (-3dB) | 500 Hz |
| Noise Density | 0.004 °/s/√Hz |
| g-sensitivity (calibr.) | 0.001 °/s/g |

Accelerometer

| | |
|-----------------------|-------------------|
| Standard full range | 10 g |
| In-run bias stability | 10 (x,y) 15(z) µg |
| Bandwidth (-3dB) | 500 Hz |
| Noise Density | 60 µg/√Hz |

Magnetometer

| | |
|---------------------|---------|
| Standard full range | +/- 8 G |
| Total RMS noise | 1 mG |
| Non-linearity | 0.2% |
| Resolution | 0.25 mG |

GNSS Receiver

| | |
|-----------------|-----|
| Brand | n/a |
| Model | n/a |
| RTCM input port | n/a |

Barometer

| | |
|---------------------|------------------|
| Standard full range | 300-1250 hPa |
| Total RMS noise | 1.2 Pa |
| Relative accuracy | +/- 8 Pa (~0.5m) |

Mechanical

| | |
|-----------------------|---------------------------------------|
| IP-rating | IP68 |
| Operating Temperature | -40 to 85 °C |
| Casing material | Aluminum |
| Mounting orientation | No restriction, full 360° in all axes |
| Dimensions | 56.5x40.9x24.75 mm |
| Connector | Main: ODU (AMC HD 12 pins) |
| Weight | 75 g |
| Certifications | CE, FCC, RoHS |

Electrical

| | |
|-------------------------|------------|
| Input voltage | 4.5 to 24V |
| Power consumption (typ) | <1 W |

Interfaces / IO

| | |
|--------------------|----------------------------|
| Interfaces | CAN, RS232 |
| Sync Options | SyncIn, SyncOut, ClockSync |
| Protocols | Xbus, ASCII (NMEA) or CAN |
| Clock drift | 10ppm (or external) |
| Output Frequency | Up to 2kHz, 400 Hz SDI |
| Built-in-self test | Gyr, Acc, Mag, Baro |

Software Suite

| | |
|---------------------|--|
| GUI (Windows/Linux) | MT Manager Firmware updater, Magnetic Field Mapper |
| SDK (Example code) | C++, C#, Python, Matlab, Nucleo, public source code |
| Drivers | LabVIEW, ROS, GO |
| Support | BASE by XSSENS: online manuals, community and knowledge base |