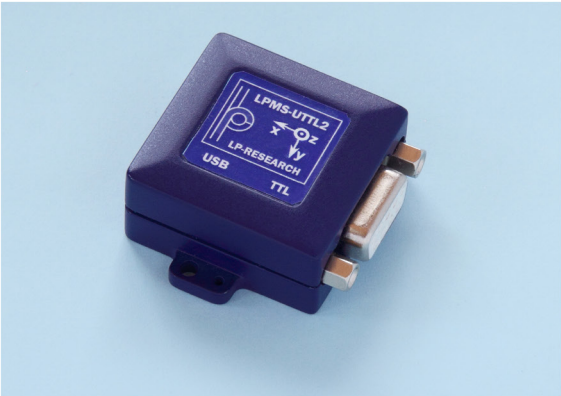




LPMS-UTTTL2

LPMS Rugged Wired Miniature Motion Sensor/IMU/AHRS with TTL Connectivity

The LPMS-UTTTL2 is an innovative and high performance miniature motion sensor. Integrating TTL and USB interfaces into one unit, the LPMS-UTTTL2 perfectly fits both machine and human motion measurements for size and cost sensitive applications.

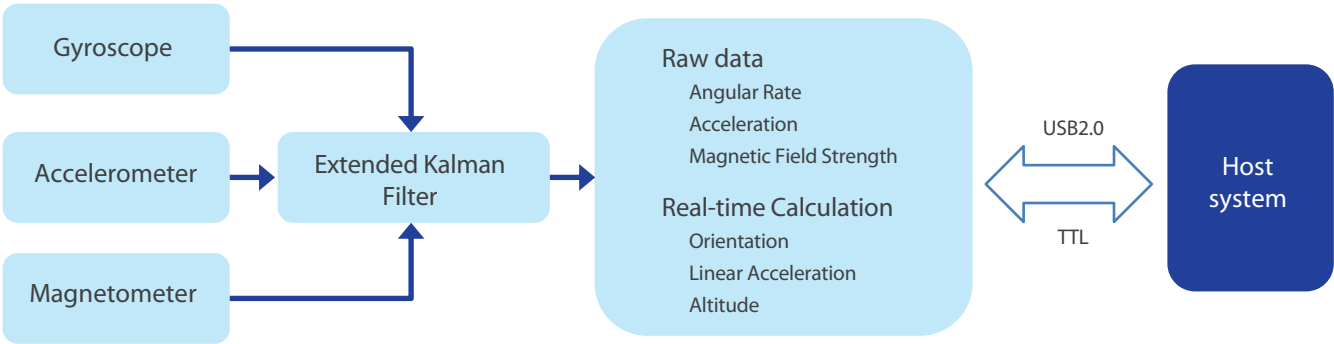


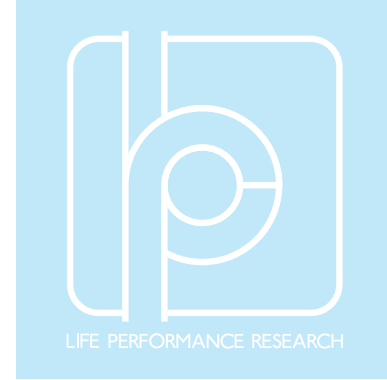
Key Features

- MEMS miniature inertial measurement unit (IMU)
- Integration of 3-axis gyroscope, accelerometer, magnetometer, temperature and barometric pressure sensor in one unit
- Real-time, on-device calculation of sensor orientation, linear acceleration and altitude
- Data output rates of up to 400Hz
- Variety of wired interfaces: USB and TTL
- Control application and SDK for Windows, Linux

Applications

- Human motion capture
- Internet of Things (IoT) devices
- Sports performance evaluation
- Drone flight control

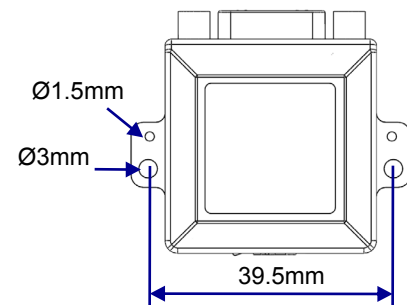
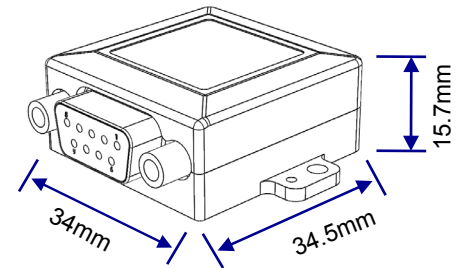




Sensor Specifications

| | | |
|------------------------|---|-------------|
| Wired interface | TTL | USB |
| Max. baudrate | 921.6Kbit/s | 921.6Kbit/s |
| Communication protocol | LpBus | LpBus |
| Size | 34 x 34.5 x 15.7 mm | |
| Weight | 17.6 g | |
| Orientation range | Roll: $\pm 180^\circ$; Pitch: $\pm 90^\circ$; Yaw: $\pm 180^\circ$ | |
| Resolution | < 0.01° | |
| Accuracy | < 0.5° (static), < 2° RMS (dynamic) | |
| Accelerometer | 3-axis, $\pm 2 / \pm 4 / \pm 8 / \pm 16$ g, 16 bits | |
| Gyroscope | 3-axis, $\pm 125 / \pm 245 / \pm 500 / \pm 1000 / \pm 2000$ dps, 16 bits | |
| Magnetometer | 3-axis, $\pm 4 / \pm 8 / \pm 12 / \pm 16$ gauss, 16 bits | |
| Pressure sensor | 300-1100 hPa | |
| Data output format | Raw data / Euler angle / Quaternion | |
| Data output rate | up to 400Hz | |
| Power consumption | < 175 mW@3.3V | |
| Power supply | 5 V ~ 18 V DC | 5 V DC |
| Connector | DB9 female | Micro USB-B |
| Case material | ABS Plastic shell | |
| Temperature range | - 40 ~ +80°C | |
| Software | C++ library for Windows, LpmsControl software and Open Motion Analysis Toolkit (OpenMAT) for Windows. | |

Mechanical Drawing



Package

- LPMS-UTTLL2 sensor x 1
- User guide card x 1
- Cable x 1
- Box x 1
- Warranty (1 year)



LpmsControl Utility Software

