LPMS-CU3

LPMS Wired Miniature Motion Sensor / IMU / AHRS with CAN Bus and USB Connectivity

The LPMS-CU3 is an innovative and high-performance miniature motion sensor.

Integrating CAN Bus and USB interfaces into one unit, the LPMS-CU3 perfectly fits to both machine and human motion measurements for size and cost sensitive applications.

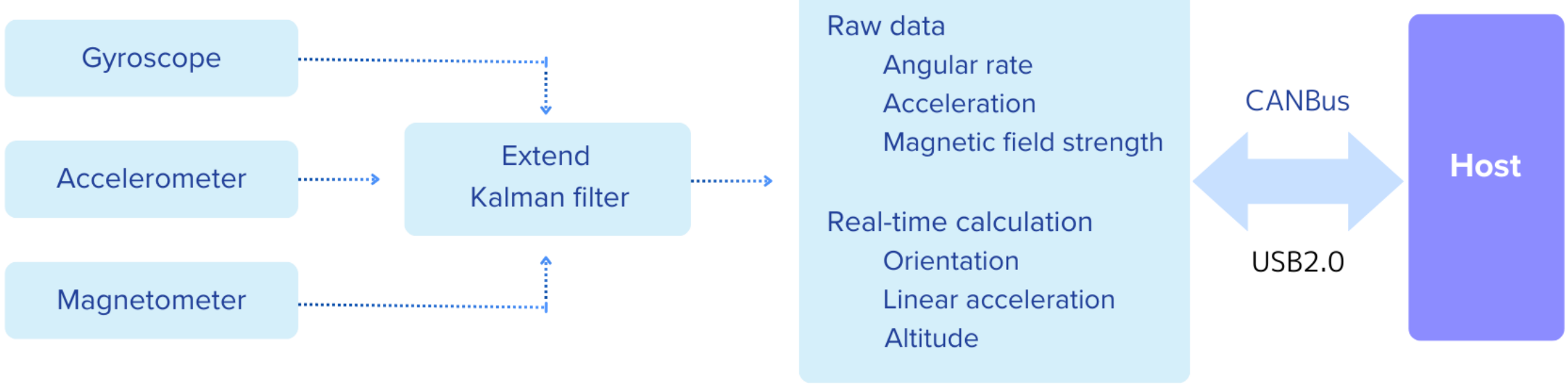


Key Feature

- 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 500Hz
- Variety of wired interfaces: CAN Bus and USB
- Control applications and SDK for Windows, Linux

Application

- Manipulator balance control
- Driving navigation
- Racing car status monitoring
- Robot arm control

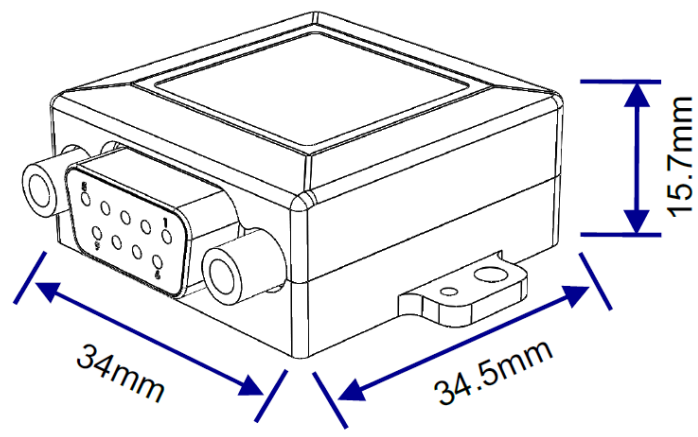


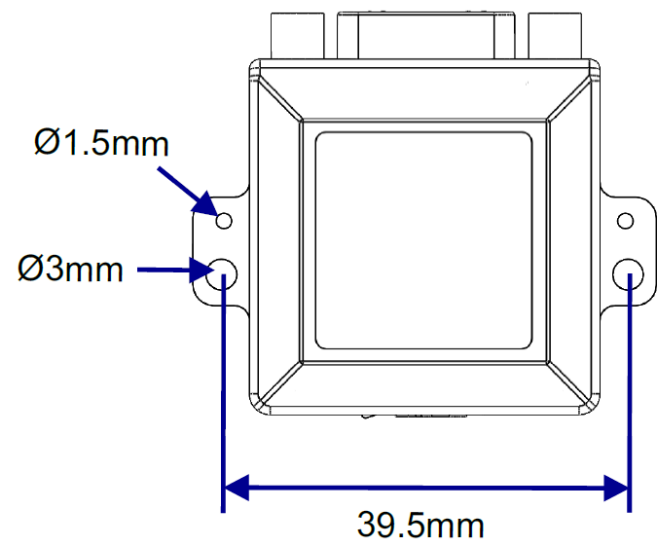
LP-RESEARCH Inc.#201 Re-Flat, 3-10-4, Motoazabu, Minato-ku, Tokyo, 106-0046
Email: support@lp-research.com Web: https://www.lp-research.com

Sensor Specifications

Part Number	**LPMS-CU3**	
Communication Interface	CAN	USB
Max. Baudrate	1Mbit/s	921.6Kbit/s
Communication Protocol	CANopen/ Sequential CAN	LPBUS
Orientation Range	Roll: ±180°; Pitch: ±90°; Yaw: ±180°	
Size	34×34.5×15.7mm	
Weight	17.6g	
Resolution	0.01°	
Accelerometer	3 axis, ±2 / ± 4 / ± 8 / ± 16 g, 16bits	
Gyroscope	3 axis, ± 125 / ± 250 / ± 500 / ± 1000 / ± 2000dps / ± 4000dps, 16bits	
Pressure Sensor	300-1100 hPa	
Magnetometer	3 axis, ± 2 / ± 8 gauss,16bits	
Accuracy	< 0. 5° (static), < 2° RMS (dynamic)	
Data Output Format	Raw & Calibrated data, Euler Angle, Quaternion, Linear Acceleration	
Data Output Rate	500 Hz	
Power Consumption	0.021A@12V	
Power Supply	5V ~18V DC	5V DC
Connector	Micro USB-B	DB9 female
Case Material	ABS	
Operation Temperature	-40 to +85 ℃	
Software & Driver	LpmsControl2 interface software (Windows), Open source sensor driver for Windows and Linux (OpenZen, supports C, C++, Python, C#, Unity, ROS)	

External Dimensions





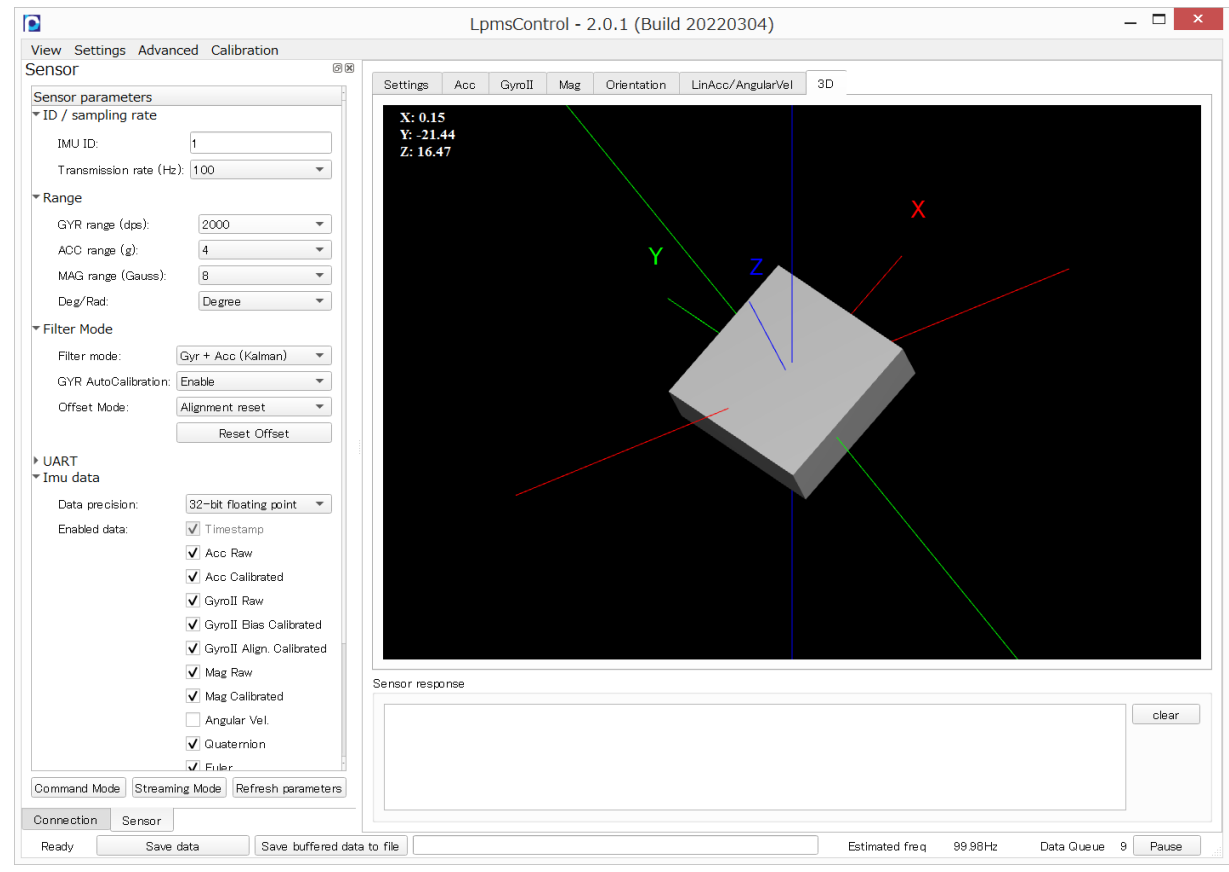
※ Performance parameters are measured at +25°C. Other temperatures may result in varying reference values.
※ Please refer to the product manual for more detailed specifications.

Package

- LPMS-CU3 Sensor× 1
- Cable × 1
- User Guide Card × 1
- Warranty (1 Year)



LpmsControl(Interface Software)



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