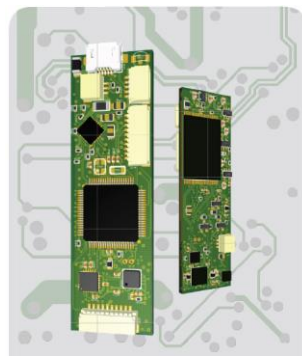




achillex inertial measurement system



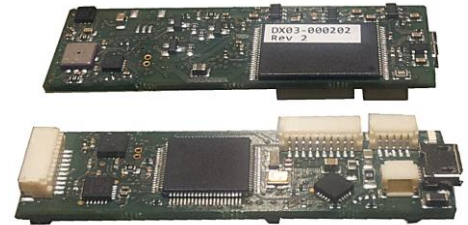
effortless, compact, mobile

aims data logger DX3.2

Measurement board with 9-D inertial sensor recording and flash memory storage

Features:

- 3-D accelerometer with up to 16g range and up to 400 Hz
- 3-D gyroscope with up to 2000deg/sec at up to 400 Hz
- 3-D magnetometer with up to 50Hz earth magnetic field
- 1-D barometric pressure sensor
- real time clock to time stamp all recorded data
- built in 16bit processor for data sampling and storage
- built in 8Gb flash memory for long term data recording (several days of data)
- built in battery charger, will charge connected batteries automatically while connected to USB, battery bus to add external batteries of various sizes, see battery section below
- extension bus to add external sensor boards
 - extremely lightweight external 9D sensor (see extensions list for details)
 - extremely lightweight external high-g sensor (see extensions list for details)
 - extremely lightweight external analog input (see extensions list for details)
- easy to use, no switch, automatically starts recording when unplugged from USB
- automatic file transfer when re-connected to USB, automatic file handling in preset folders, no errors by typing file names. File transfer will resume, if interrupted.
- 6g weight only, 60 x 18.5 x 5.5 mm size
- Gait Balance Software available for automatic step detection and step quality parameters (gait symmetry and gait regularity in 10 parameters) for running and walking



aims data logger DX3.1

Measurement board without internal inertial sensors.

Otherwise like DX3.2

For connection of external sensor boards.

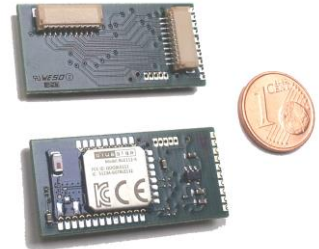


aims extensions

ax4.0.1 Bluetooth 4.0 (Bluetooth Low Energy & Bluetooth Smart)

Ideal for synchronizing several aims data logger during measurement in proximity (e.g. on different positions on the same person).

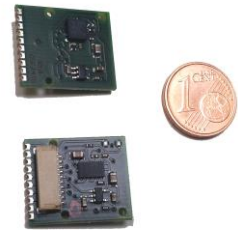
- Synchronization signal of a master board or a synchronization feeder is continuously saved as sync marks together with the data.
- Data is realigned on the PC according to sync marks.
- When a dedicated board is used as a synchronization feeder, a synchronization signal of other recording systems such as video recordings can be fed in by an analog input of the external sync signal



Size: 35x17x5.5mm, weight 3 grams

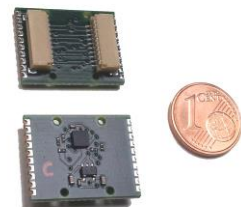
ax4.0.4, external sensor 9D

3D Accelerometer, 3D Gyroscope and 3D Magnetometer on a small board (20x17mm, weight about 1 gram). Maximum range 16g, 2000°/s. Minimal noise density 150µg/sqrt(Hz), 30mdps/sqrt(Hz). Maximum data rate 400 Hz (magnetometer 200 Hz). Minimal sensitivity 61µg@2g, 8.75mdps@250°/s, 80µgauss@2gauss.



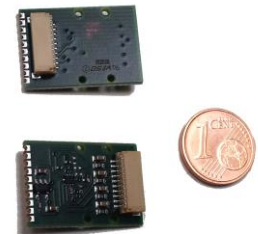
ax4.0.3 external high-g accelerometer

3D Accelerometer for high-g applications on a small board (21x17mm, weight about 1 gram). Maximum range 24g, 100g, 200g or 400g. (Sensitivity 12 / 50 / 100 / 200 mg). Noise density 3mg/sqrt(Hz) @ 24g, 15 mg/sqrt(Hz) @ 100g. Maximum data rate 400 Hz. (Optional 800Hz).



ax4.0.6 external AD converter 12 bit

Analog-digital converter on a small board (23x17mm, weight about 1 gram). Range 12bit on 3V, sensitivity 2 mV. Maximum data rate 400 Hz @ 4 channels, 800 Hz @ 2 channels, 1600 Hz @ 1 channel. Delivers 3V regulated or 3.7V battery source unregulated.



ax4.0.8 external AD converter 16 bit

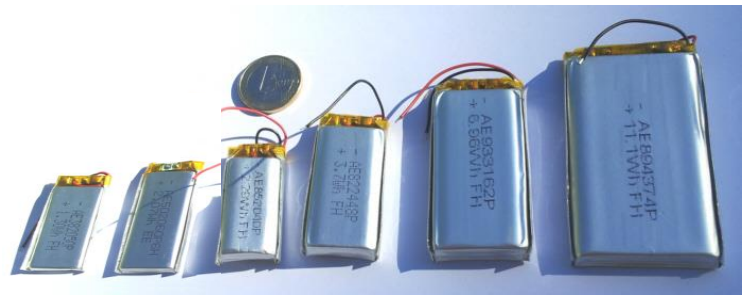
Analog-digital converter on a small board (23x17mm, weight about 1 gram). Range 16bit on 3V, sensitivity 125 µV. Maximum data rate 200 Hz @ 4 channels, 400 Hz @ 2 channels, 800 Hz @ 1 channel. Delivers 3V regulated or 3.7V battery source unregulated.

aims LiPo batteries

Lithium-Polymer rechargeable batteries. Including individual safety circuit against overloading (high voltage), short circuit (high current) and low voltage.

With 3pin connector to plug into DX board

Examples:



XXS XS L XL XXL XXXL

Size	Capacity* mAh	Capacity* mWh	Measuring time** h	Charging time*** h	Weight gram	Length mm	Width mm	Thickness mm
XXS	150	555	3	0.4	5	36	17	3.5
XS	260	960	5	0.5	6	45	17	4.0
S	340	1,250	8	0.7	9	50	20	3.8
M	450	1,700	10	0.9	10	53	17	6.0
M	560	2,070	12	1.1	11	60	20	5.0
L	625	2,300	15	1.3	12	40	20	8.5
XL	970	3,600	24	2	17	48	24	8.2
XXL	1,900	7,000	48	4	34	62	31	9.3
XXXL	3,000	11,000	75	6	59	74	43	8.5

*approx. min. capacity **typical max. time, depending on settings and extensions.

*** empty to 80%, 500mA charging current

aims textile integration

waist belt



leg cuff

caps, wristband, etc.

aims customized textile integration

We have more than 10 years of experience in textile integration.

Contact us for your special needs for integration or attachments.

