FEATURES

3-axis MEMS accelerometer
3-axis MEMS gyroscope
3-axis magneto-resistive sensor
Temperature sensor

2.4 GHz band operation
10 meters working distance
16 hours operation with built-in battery
micro-USB charging
Up to 10 trackers synchronized in the wireless network

USB-dongle (receiver), with USB interface (Virtual COM-port) and synchronization IN/OUT to join 2 or more Colibri networks

Sync output (for OEMs, e.g. to synchronize with a camera)

Software API for Windows and Linux representing extended Kalman filter for the orientation tracking

SPECIFICATIONS

Accelerometer
Scale: ±6 g
Resolution: 13-bit

Gyroscope
Scale: ±2000 °/s
Resolution: 16-bit

Magnetic sensor
Scale: ±1.3 Ga
Resolution: 12-bit

Temperature sensor
Accuracy: ±0.5 °C

Working frequency
100 Hz

Orientation accuracy:
Pitch/roll: 0.5 °
Yaw: 2 °

Non-volatile memory for user data:
1024 bytes

Power consumption
3.7 V Li-Pol battery 660 mAh
40 mA

Operation temperature
0..+55 °C (self-powered)
0..+40 °C (charging)

Dimensions
56 x 42 x 17 mm

Weight
41 grams

GENERAL DESCRIPTION

Colibri-Wireless is the Inertial Measurement Unit (IMU).

It carries 3-axis state-of-art sensors to measure acceleration, angular rate and magnetic field.

Built-in temperature sensor helps to eliminate temperature influences on other sensors.

Up to 10 Colibri-Wireless could be connected in the synchronous network to the single USB-dongle (receiver). Several networks may be synchronized via cable.

Sampling frequency is 100 Hz for every tracker.

Supplied API for Windows and Linux implements orientation tracker.