VESPER logger platform

Introduction

The VESPER wildlife logger platform introduces a new generation of loggers for wildlife. By its unique modular design it can bring infinite possibilities and whole set of sensors.

- Uses any type of single cell LiPo battery (3.7V) making the product easily adjustable to any scenario.
- Miniature size.
- Lightweight.
- Large onboard storage memory: 16GB.
- Expandable by variety of add-on modules.
- Recorded data easily downloadable from onboard USB drive.
- Scheduler for optimizing recording parameters and timings.
In order to work with VESPER loggers of any kind a docking station is required.

The docking station serves as a charging point for all Vesper family line loggers as well as a physical interface required to connect the loggers to a PC for configuration and / or logged data download.

**Main Features:**

- Easy Installation.
- Easy use.
- Single USB connection (Features internal built-in USB hub).
- Up to 100mA charging current (2hr typical full charge time).
- Windows 8.1/10 signed drivers.

Ordering Part Number: ASD-VT01-DOCKV3
Docking Station—Accessories

Accessories are available upon request:

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| 1 | VT03-ADP-UDSCM | Vesper Gen.2 Adapter  
The adapter allows using VT03-DOCKV3 docking station with older generation Vesper logger devices. |                        |
| 2 | VT03-ADP-MUSB | Docking station USB cable.                                | USB-A to microUSB AB    |
VESPER logger platform

Vesper Logger

**VESPER v3.2 GPS logger**

Third generation of the successful series of low weight GPS loggers.

**Product Features:**
- Low weight: 1.85g (with antenna, without battery).
- Miniature size: 16mm x 34mm x 3.5mm (without battery, antenna or packaging).
- Modular and easily expandable by variety of sensor add-on modules.
- Supports any single cell Li-Io/Py battery.

**GPS Features:**
- Proprietary ultralow power SNAP GPS technology.
- High-sensitivity -160dBm.
- Offline decoding saves precious energy enabling superior low power performance.
- 21dB, 1.2dB NF LNA.

**Ultrasonic microphone Features:**
- 10kHz—400kHz sampling rate.
- High sensitivity ultrasonic MEMS microphone.
- Optional recording windowing.

Ordering Part Number: VT01-VESPERMAINV3.2
VESPER logger platform

Vesper PIPISTRELLE

VESPER PIPISTRELLE edition logger is a miniature GPS-less variant of the successful VESPER logger.

Product Features:

- Ultra Low weight: 1.2g without battery
- Super Miniature size: 16mm x 30mm x 3.5mm (without battery or packaging).
- Modular and easily expandable by variety of sensor add-on modules.
- Supports any single cell Li-Io/Py battery.
- Improved audio performance.

Ultrasonic microphone Features:

- Superior SNR.
- 10kHz—500kHz sampling rate.
- High sensitivity ultrasonic MEMS microphone.
- Optional recording windowing.

Ordering Part Number: VT03-VESPER-PP
VESPER logger platform

DAQ24 Analog sensors module

“DAQ24” analog sensors extension add-on board for VESPER loggers.

Module Features:

- Compatible with any VESPER logger device.
- Up to 4 single ended analog input channels (configurable).
- 3V / GND Supply pads for easy connection of external sensors
- RFI/EMI input filters.
- Overvoltage inputs protection.
- 1Hz—250Hz sampling rate (software configurable).

Consult on exact sensor compatibility before purchase.

Ordering Part Number: VT01-DAQ24
IMU10 inertial sensor module

“IMU10” is a 10DoF (degrees of freedom) inertial motion sensor extension add-on board for VESPER loggers.

Module Features:

- Compatible with any VESPER logger device.
- 9 DoF MEMS sensor module.
- Full scale configurable:
  - Accelerometer: ±2g, ±4g, ±8g, ±16g
  - Gyro: ±250dps, ±500dps, ±1000dps, ±2000dps
  - Magnetometer:
- Sampling rate: 1Hz—50Hz
- Barometer sensor
- Each sensor type (Accelerometer, Gyro, Magnetometer, Barometer) can be operated standalone to save energy.

Ordering Part Number: VT03-IMU10
Biopotential (EEG) module

“EEG2” bio-potential extension add-on board for VESPER loggers.

Module Features:

- 2 Chanel (4 electrode) miniature EEG data acquisition.
- A RLD electrode for improving CMRR and rejecting common mode noise signals.
- Variety of selectable software gains (x1—x12).
- Variety of selectable sampling frequencies (125Hz, 250Hz, 500Hz, 1kHz, 2kHz).
- Possible other uses: EMG, ECG (available on request).
- Can be used with any of the basic Vesper loggers.

Ordering Part Number: VT01-EEG2
ALS3001 Light Sensor module

“ALS3001” integrated ambient light sensor extension add-on board for VESPER

Module Features:

- Matched to human eye like response (rejects 99% IR).
- Measurements: 0.01 lux to 83 k lux
- Low Operating Current: 1.8 µA (typ)
- Small form factor: 7.5mm x 13mm x 2mm
- Lightweight: 0.1g

Ordering Part Number: VT03-ALS3001
TPRH31 Temperature & Relative Humidity

“TPRH31” integrated internally compensated temperature and relative humidity sensor add-on board for VESPER loggers.

Module Features:

- Sealed sensing port.
- Relative humidity accuracy: ±2%.
- Low average operating current: 2.0 µA (typ).
- Small form factor: 8.0mm x 15mm x 2.5mm.
- Lightweight: 0.1g.

Ordering Part Number: VT03-TPRH31
Lepton Thermal camera module

“LEPTON” adapter for FLIR LEPTON miniature camera sensor extension

Module Features:

- Can work with Lepton 1st / 2nd / 3rd generation by FLIR
- Available in 2 variations that differ in flexible area length.

For more information and performance please see official LEPTON specifications documents on FLIR website.

Ordering Part Number: VT03-LEPTON1/2