

Mosquito⁴



Data Acquisition Module (Voltage + IEPE)



Connect | Condition | Acquire

Key Features

- Rugged and Lightweight (< 1kg)
- 16/24 bit ADC, >114dB SNR, 5-256kHz Sample Rates
- Low power (6-36V d.c. or PoE or USB3.1 @ 7W)
- Multi-unit Synchronisation (IRIG, LVDS, IEEE-1588)
- Modular Architecture, scalable to >1000 channels
- Voltage, and IEPE Conditioning
- Environmentally rated to IP54 (with IP68 option)

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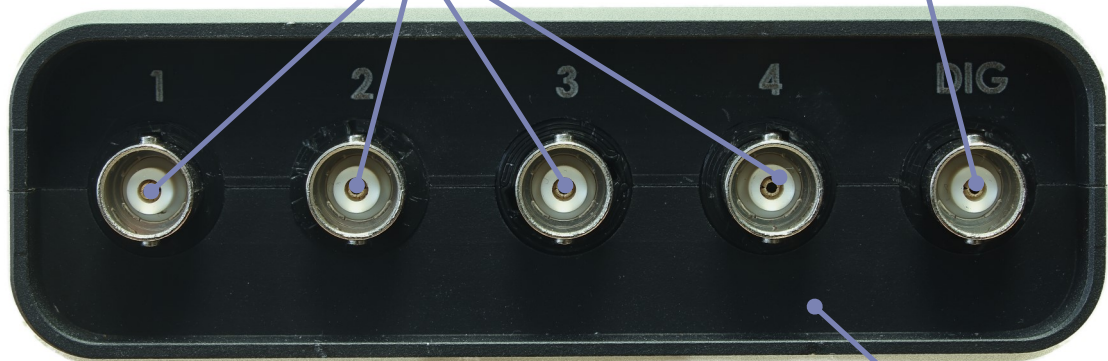
Connect

Independent Inputs

One $\Sigma\Delta$ ADC per Channel.
Simultaneous Sampling.
>114dB SNR.
Voltage, & IEPE

Digital input

Trigger / Tacho.
0-5V CMOS levels



Rugged Chassis

Milled Aluminium—Hard Anodised.

IRIG Synchronisation

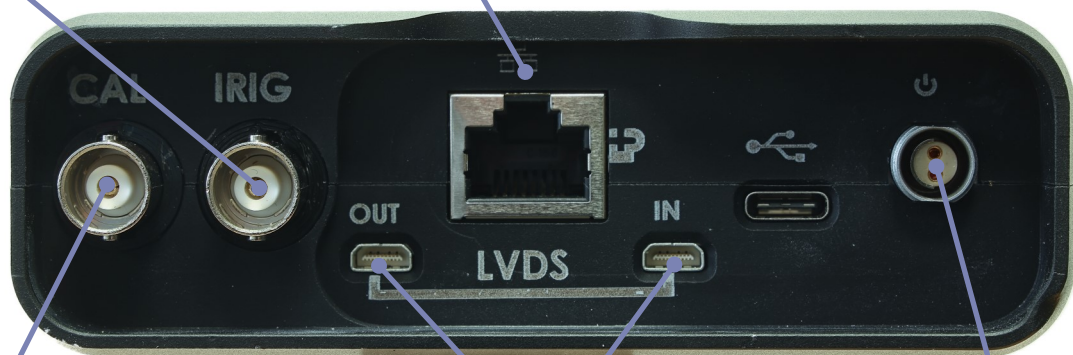
IRIG A / B support
<1uS Synchronisation Error

Power over Ethernet (PoE)

Port is 802.3at Type 1 (<12.95W)
compliant.

USB 3.1

Full USB3.1 data transfer speeds
Power over USB
USB C connector



Generator Output

Internal Signal Generator
Sine, Square, triangle, Chirp, Sweep
Synchronised to Data Inputs
Capable of 0—100kHz

LVDS Synchronisation

- LVDS (Low Voltage Differential Signalling) Synchronisation Interface
- <10nS Unit to Unit
- 0-200m Unit to Unit cable lengths
- Daisy-Chain, Star or mixed topologies

Flexible Power

- 6-36 V DC (fully automotive compatible)
- Dragonfly^{BAT} 99 Whr rechargeable battery module available for UPS/untethered operation

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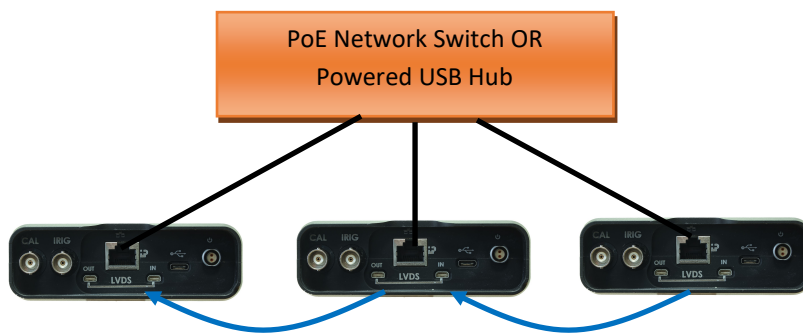
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Multi-Connect

Multiple Mosquito Systems

The Mosquito system is designed to allow easy connection of multiple modules to form larger channel count systems. Three connection configurations are supported, Daisy-chain and Star, and Mixed.

Daisy Chain



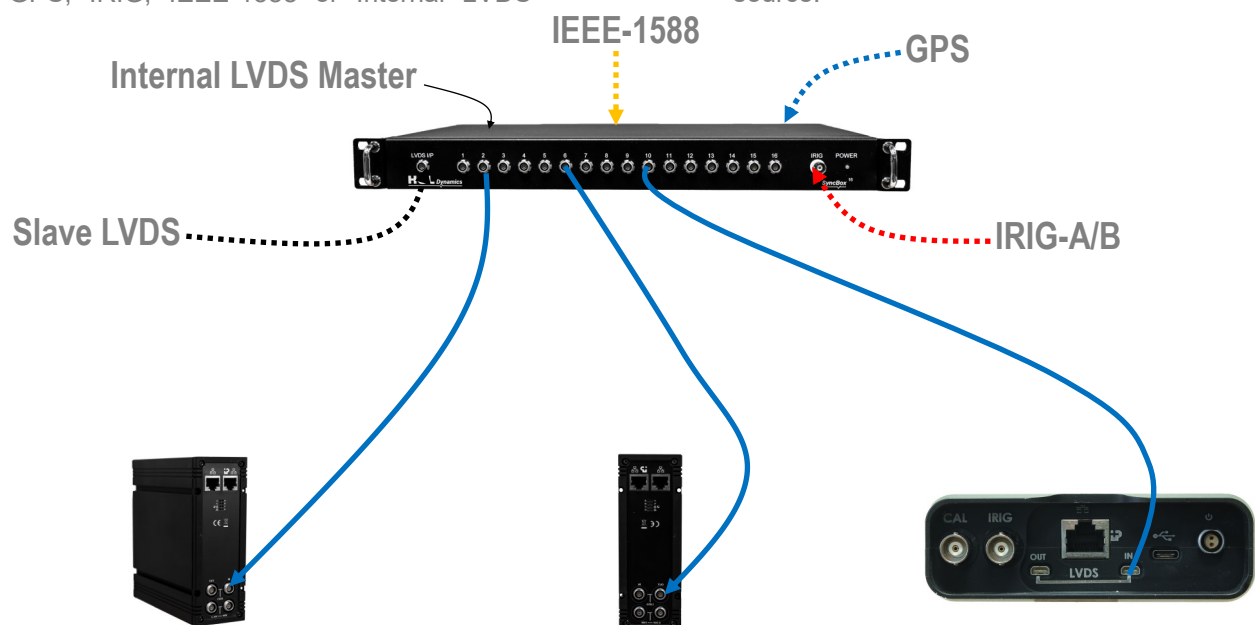
This mode allows Dragonfly, Hummingbird and Mosquito Modules to be chained together for all three required connections (Ethernet, Power and Sync)

Inter-node distances can be 100m or greater (using switches), although synchronisation delays can become an issue over long distances (5.6nS per meter).

Star

Star configurations are ideal for situations where Power Over Ethernet (POE) can be used and where close synchronisation over large distances are required.

Networks are simple to configure for Star operation by simply using any (POE capable) Gigabit Network Switch. The LVDS Sync (if IEEE-1588 is not used) requires the use of the HGL Dragonfly Sync Box (pictured below) which can provide up to 16 precisely synchronised LVDS outputs from a single GPS, IRIG, IEEE-1588 or Internal LVDS source.



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Training

Training

HGL Dynamics offers a wide variety of training workshops and courses. Workshops are conducted at one of our global offices or at the client's site by our training team, all of whom have many years' of industry experience and knowledge.

Typical training courses include: Vibration Fundamentals, Signal Processing, Rotating Machinery, Advanced use of HGL Software and Analysing Large Datasets.



Information

About HGL Dynamics

HGL Dynamics is a world-leading supplier of services and high specification equipment for the integrated capture, monitoring, analysis, storage and management of high bandwidth data.

Purchasing & Availability

The HGL Dynamics Dragonfly⁸ Data Acquisition Module is now available for purchase or lease. Please contact one of our HGL Dynamics offices below for further information or to request a quote.

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