



microDAQ-INT-4

Miniature hub and PoE power supply

- **Switch and power supply for connection up to 4 microDAQ / nanoDAQ products**
- **100Mbit unmanaged Ethernet switch**
- **Compatible with IEEE 1588 PTPv2***
- **Power-over-Ethernet power supply**
- **Built in CAN hub**
- **Suitable for in-model and on-vehicle use**
- **RJ45 and DC jack connectors for bench top use**
- **Complete with buffered hardware trigger**

The microDAQ-INT-4 is a 4-way power supply and hub designed for the Chell microDAQ and nanoDAQ product range.

It can be used to connect 4 scanners to a host either with Ethernet or CAN as it features both an internal Ethernet and CAN hub.

The interface and the scanners that are connected to it can be run from DC power or Power-over-Ethernet (PoE). The PoE facility means that the interface and scanners can be powered by simply connecting the microDAQ-INT-4 to a PoE enabled switch.

The small package size of the microDAQ-INT-4 makes it suitable for wind tunnel and on-vehicle use. In these applications, the Ethernet, CAN, trigger and DC power (if required) would be connected with the micro'D' type connector.

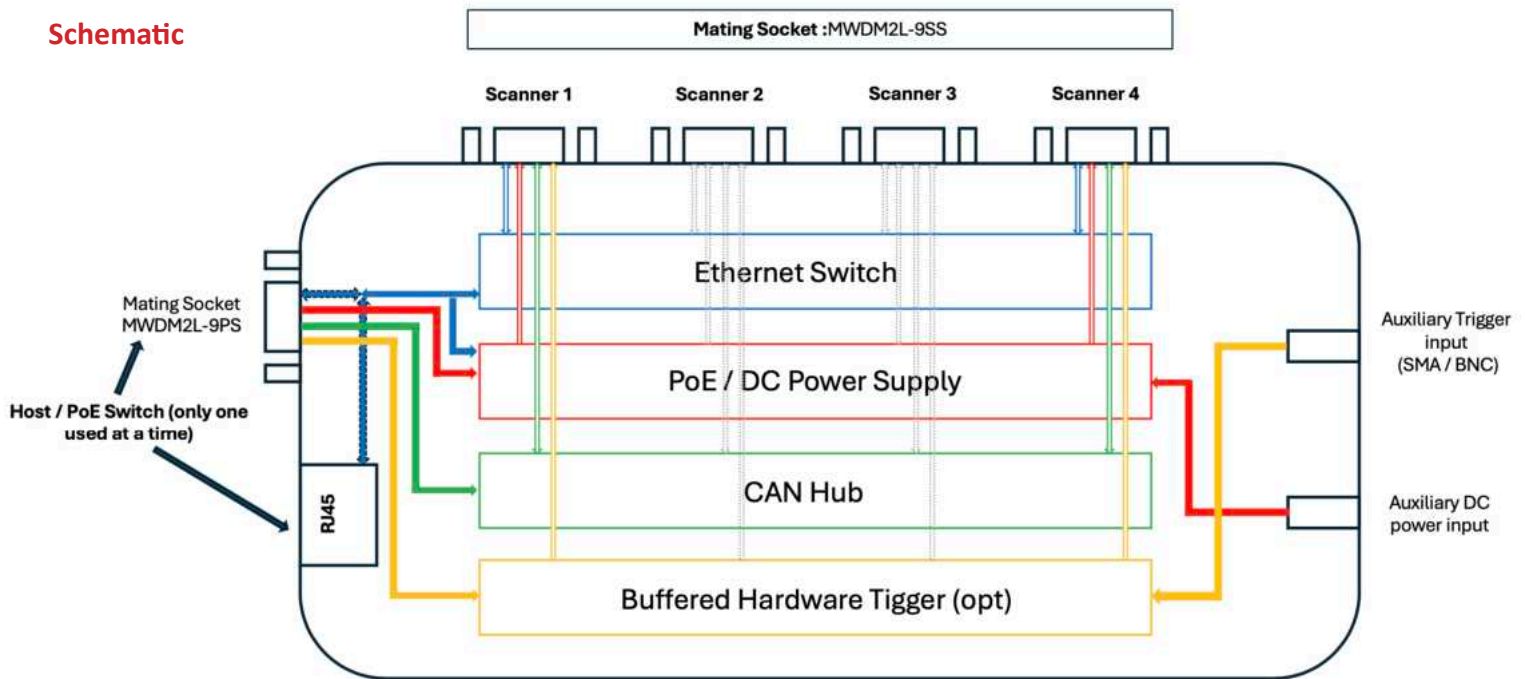
To facilitate bench top use, the Ethernet can also be connected with the RJ45 connector. Power can be derived through PoE or by using the DC jack and (optional) plug-in DC power supply.

* The microDAQ-INT-4 is compatible with IEEE PTPv2 but it does not contain a boundary clock service. The resultant jitter of the PTP service is less than $\pm 1\mu\text{s}$

Ethernet	
Type	5x 10/100Mbps Ports, Auto Negotiation, Auto MDI/MDIX
Standards	IEEE 802.3i(10BASE-T), IEEE 802.3u(100 BASE-TX), IEEE 802.3x (Flow Control)
IEEE PTPv2	Compatible with timing jitter of $\leq \pm 1\mu\text{s}$
CAN	
CAN specification	2.0B
CAN baudrate	Up to 1Mb/s
Port to port propagation delay	100ns
Trigger	
Input level	5V TTL
Minimum frequency	0.5Hz
Maximum frequency	400Hz
Minimum pulse width	50 μs
Connection	Input micro 'D' or SMA connector (supplied with male BNC adapter)
Mechanical	
Dimensions (width x depth x height in mm)	117 x 64 x 20mm
Weight	185g
Enclosure Sealing	IP54
Power Supply	
Input supply	12-30 VDC
Absolute max. line voltage	30 VDC
Power consumption	25W Max
Power-over-Ethernet	IEEE 802.3at (input port and RJ45)
Total scanner load	20W total
Environment	
Operating Temperature Range	-20 to +90°C
Operating Temperature Range (PoE use)	0 to +70°C
Storage Temperature Range	-40 to +90°C
Ambient Pressure	100 mbar abs (52,000 ft) to 2.5 bar abs
Ambient Pressure (PoE use)	800 mbar abs (6,600 ft) to 2.5 bar abs
Vibration	Engine standard vibration test to DO160E category S, curve W with duration of 1 hr/axis. Fan blade (20 g 2 kHz)
Shock	Fan blade out to DO160F section 7 (40g 11 m/s)
Maximum relative humidity	80% to 50°C (50% @ 40°C) non-condensing



Schematic



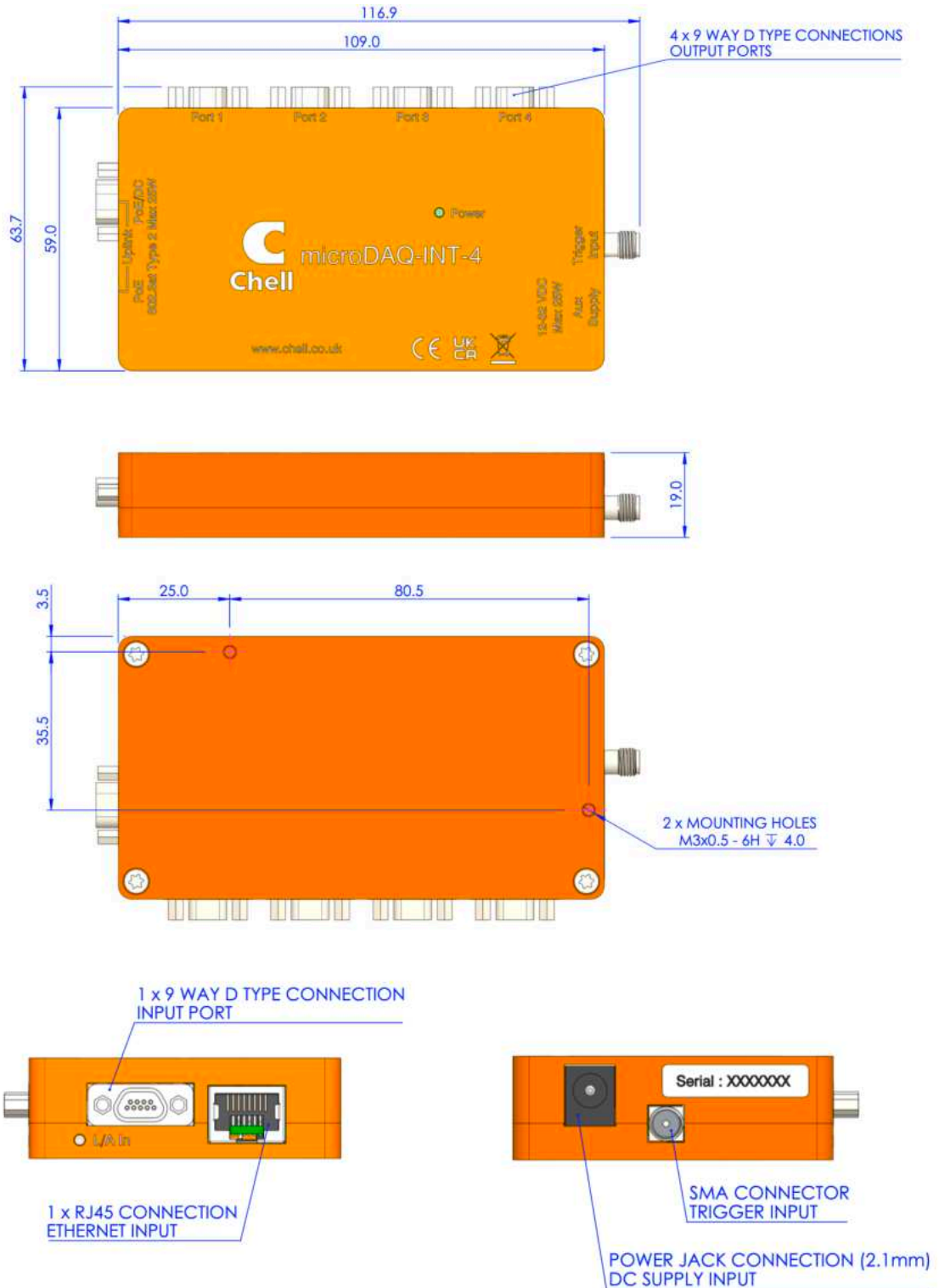
Compatible Cables / Pin-out

Cable Name	From:	To:	Maximum Length
Input / host cables			
nanoDAQ-CAB-1	microDAQ-INT-1/2/8	microDAQ-INT-4	20m
nanoDAQ-CAB-1-RJ	RJ45 and bare ends	microDAQ-INT-4	20m
Standard uplink cable	RJ45	RJ45	100m
Output / scanner cables			
MD3-CAB-1	microDAQ-INT-4 scanner ports	microDAQ3 or nanoDAQ-LTS	20m
LTR-CAB-1	microDAQ-INT-4 scanner ports	nanoDAQ-LTR	20m
MD3-CAB-1AS	microDAQ-INT-4 scanner ports	microQDVP or microDAQ2	20m

Connector	Host / Input Connector	Output / Scanner Connector
Suggested mate	MWDM2L-9PS	MWDM2L-9SS
Pin 1	COM Ov	COM Ov
Pin 2	Ethernet Rx+	Ethernet Rx+
Pin 3	CAN Low	CAN Low
Pin 4	Ethernet Tx+	Ethernet Tx+
Pin 5	+ Supply (12-30 VDC)	+ 24V (PoE) or DC supply
Pin 6	Trigger in (5V TTL)	Trigger in (5V TTL)
Pin 7	Ethernet Rx-	Ethernet Rx-
Pin 8	Ethernet Tx-	Ethernet Tx-
Pin 9	CAN High	CAN High



Dimensions



Part Number:

microDAQ-INT-4-AA

AA = Range

01 = No DC power supply

02 = Supplied with plug in DC power supply and IEC power lead.