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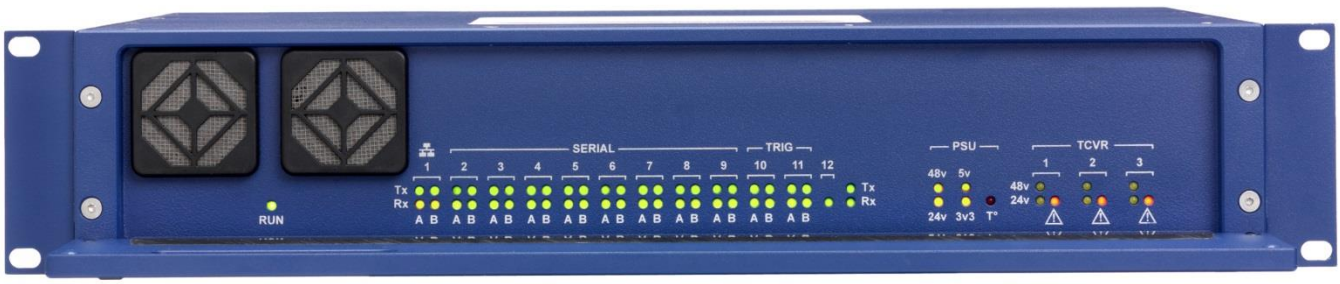
Datasheet

Navigation Sensor Hub (NSH)



Description

The Type 8098 Navigation Sensor Hub (NSH) forms part of a Navigation Processor; a 'one-box' solution designed to meet the complete on-board requirements of any acoustic operation.

The NSH is the interface between the in-water acoustic instruments, sensors and the Navigation Computer which runs the acoustics positioning software. In addition to accurately time-stamping incoming data from external devices such as gyro, VRU and GPS, the NSH also provides power and communications for ship-borne acoustic transceivers.

A range of hardware interface cards are available for interfacing Sonardyne transceivers and external sensors. By simply plugging these cards into the rear of the unit, the role of the Navigation Sensor Hub can be transformed from supporting simple to complex acoustic operations.

The NSH includes an IEEE-1588/PTP precision time source that can be linked to GPS PPS input. Multiple NSHs automatically synchronise their clocks. All incoming data is time stamped to sub-microsecond accuracy; outgoing transmissions and triggers can be scheduled to the same precision.

Depending on the application (DP, drilling or survey operations), the NSH can be configured in stand-alone, dual-independent or dual-redundant modes.

Key Features

- Dual 10/100 Fast Ethernet Uplink
- Up to16 serial ports RS232/485
- 6 powered transceiver serial ports providing 24/48 V DC power
- Up to 4 trigger in/out ports
- IEEE-1588/PTP precision time source
- Sub-microsecond time-stamping on all Tx/Rx data
- Configurable for stand-alone, dual-independent or dual-redundant modes

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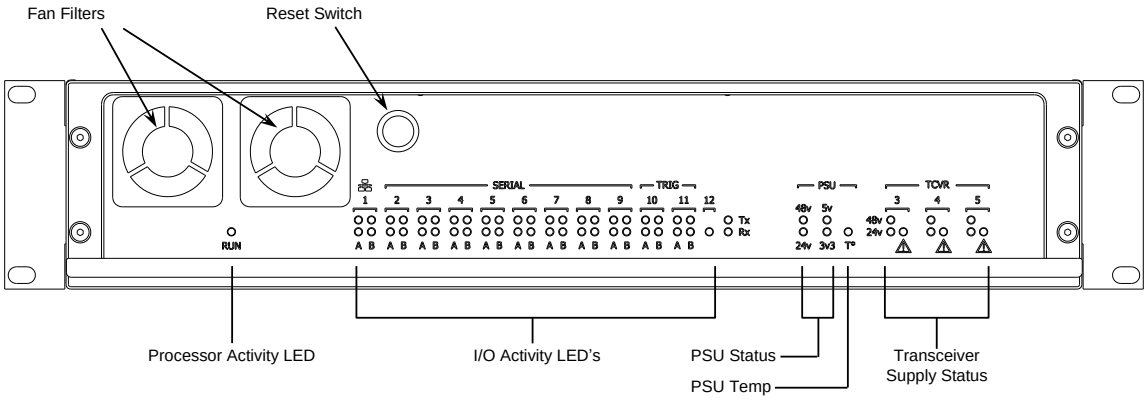
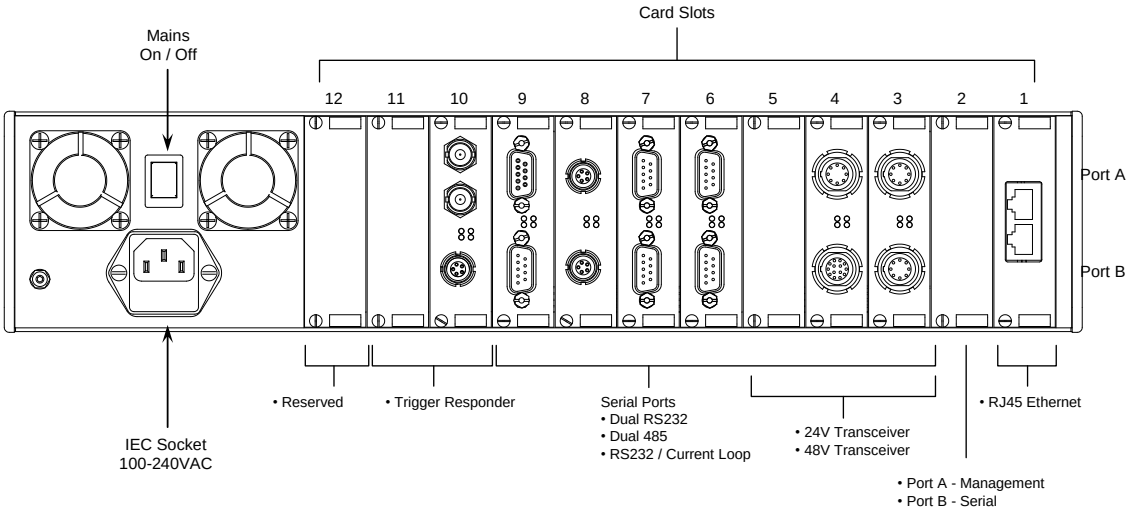
Specifications

Navigation Sensor Hub (NSH)

Front



Rear



Feature		Type 8098
Processor		Freescale PowerQUICC™ II Pro Processor running at 1000 MIPS
Memory		One single SO-CDIMM DDR2 PC4200 512MB Module
Motherboard		Proprietary Sonardyne Type 8098-046
Ports and Connectors		AC IEC power connector socket 12 x Interface card connectors
Power Supply		Auto sensing AC input voltage 100-240 V, 50/60 Hz Max current : 2 A @ 240 V, 4 A @110 V Ave. operating current: 0.32 A @ 240 V
Environmental Specifications	Operating Storage Relative Humidity Shock	-5º to 40º C (23º to 104ºF) -20º to 55º C (-4º to 131º F) 20% - 80% (non-condensing) 10 G acceleration peak to peak 5-17 Hz, 0.1" double amplitude displacement 17-640 Hz, 1.5 G acceleration peak to peak
Safety		Complies with EN61010-1
EMC		Complies with Immunity & Emission requirements of EN60945
Dimensions (LxWxH)		384 mm (15.1") x 482 mm (18.9") x 88 mm (3.4")

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =