

16 Channel Data Acquisition Board

PRODUCT DESCRIPTION

The 16 Channel Data Acquisition Board is used for sensor data acquisition purpose. The board samples up to 16 channels of data from various sensors. The signals are conditioned, sampled and then sent to the FPGA which does packetisation of data. The data is then sent over Ethernet to host system.

The board is used for signal capturing and data processing in naval applications. The board is a Shop Replaceable Unit (SRU) for Own Noise Analyser Hermetically Sealed Unit (ONA-HSU).

KEY FEATURES

- 16 ADC channels
- 16 signal conditioning channels: multi stage filter
- Automatic gain control
- Manual gain control
- ADCs sampling at 144 ksp/s with 24-bit width
- Voltage monitoring and reset generation unit
- Two different groups of signal conditioning channels
- Health monitoring function at board level
- Field upgrade support



SPECIFICATIONS

FPGAs

- Xilinx Virtex-5 LX50T FPGA for processing

Interfaces

- 16 ADC channels
- Two Gigabit Ethernet interfaces
- JTAG and Flash interface to program FPGA
- One Mictor connector
- One UART interface

Software / IP

- Linux OS on FPGA

Additional Information

- Three temperature sensors
- 4-DIP switches and 4-LEDs for debug purpose

MECHANICAL

- 6U conduction cooled VME board
- The board weighs 910 grams

POWER CONSUMPTION

- The unit consumes 25W
- Input voltage is 3.5V and 5V

ENVIRONMENTAL

- Temperature range : -40°C and +85°C (Storage)
-10°C and +55°C (Operational)

PART NUMBER(S)

CH1030	16 Channel Data Acquisition Board
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