Marine Data Acquisition System

PRODUCT DESCRIPTION

The Marine Data Acquisition System is used for collection of information from an array of sensors. The system was developed and prototyped in-house and is in production for our customer. The system is used for oil exploration. The system is used for data acquisition of in-water positioning devices.

The system is architected as modular units which ensure that the system is scalable. The system has undergone prototyping, lab testing and field testing. It is currently in the phase of production, supply and product maintenance.

KEY FEATURES

- Acoustic ranging
- Modular architecture
- Standard, scalable 3U cPCI units
- 19” rack mountable
- Xilinx Virtex-II Pro based system
- VxWorks OS
- Real-time clock
- Clock synchronization among all the units presented in the network

SPECIFICATIONS

Hardware Architecture
A three-tier system architecture

- Data Management Unit (DMU)
  - Interface between the computer and sensors
  - Centralized data switch for data collected from the sensors
  - Interfaces with up to four Line Interface Units (LIU)
    - Interfaces with upto 32 sensors
    - Interfaces with upto four radio links
- Line Interface Unit (LIU)
  - Physical interface between the DMU and the transmission lines
  - Individual cards to interact with two transmission lines
  - Maximum 8 transmission line connectors per LIU
  - Individual cards for telemetry links
- Operator Interface Computer
  - Host PC for command and configuration of the system
Interface
- 10/100 Mbps Ethernet
- RS232 for debug

Software / IP
- VxWorks OS and BSP
- Hardware abstraction layer to support application porting
- System command console for operator to send the command and configuration data to control the sensors

MECHANICAL
- Air cooled chassis
- Standard 3U cPCI form factor cards
- DMU height 2U - 3.47”
- LIU height 3U - 5.219”

POWER CONSUMPTION
- The unit consumes 600W max
- Input voltage is 100-240V AC

ENVIRONMENTAL
- Temperature range: -10°C and +55°C (Operational)

PART NUMBER(S)
The product can be customized to acquire data from 2 to 32 Channels (scalable in levels of two channel)

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