Powerful multibeam echo sounder Hydrographic Work Station (HWS)

Primary features

The HWS 10 workstation is equipped to handle the heavy processing requirements and high-speed, large-volume data storage demands of today's hydrographic systems. It has been specifically designed as the optimal platform for running the Seafloor Information System (SIS) real-time operating software used on the Kongsberg EM multibeam echo sounders. Special features of SIS include real-time:

• Gridding of sounding data.
• Filtering of sounding data.
• 3-D visualization of sounding data.
• Storage and visualization of high resolution back-scatter data from the seabed and the water column.

Components

All components making up the HWS10 are standard PC parts. Selected for both their high quality compatibility and availability, spare parts should be readily available from local suppliers as well as on the Internet. The main components at present are:

• ASUS PC-DL Deluxe motherboard
• 1 or 2 Intel 2.8 GHz Xeon (PC533) processors
• 4x512MByte ECC DDR PC2700 memory
• Nvidia FX5600XT 128 MB DDR AGP graphics card
• 120 GB 7200rpm SATA system disk
• 2x36.7 GB 10000rpm SATA data disks
• Promise Superswap 1100 disk enclosures
• Plextor 708A DVD recorder
• 3.5" floppy disk
• Tekram DC-315U Ultra SCSI interface
• 10/100 Mbit Ethernet interface (additional to motherboard)

Software

The partitioned system disk is dual bootable with Linux® and Microsoft Windows XP® respectively. SIS software is factory installed and tested on both operating systems.

Data storage

The primary task of the HWS 10 is to safeguard the collected data and to visualize it for quality control. All data is initially stored on a pair of high performance SerialATA disks. These disks are run in a RAID1 configuration, thus ensuring against loss of data even if one disk should fail. They are mounted in hot swappable enclosures, so that the collected data may be transported on the disk. An 8x DVD recorder is the standard means for permanent archiving of the collected data. For users having preferences for other storage devices or media, the HWS 10 includes USB 2.0, Firewire (IEEE 1394) and SCSI interfaces. Gigabit Ethernet is available for transfer of the data to another network computer. For temporary storage data may also be backed up to the system drive.

Installation

The HWS 10 is prepared for mounting in a 19" rack. The system's 17.4" Industrial LCD monitor is also rack mountable, and a universal bracket is supplied for tabletop, overhead or bulkhead mounting. Both the workstation and the monitor are IP22 rated. A spill-proof US keyboard and a standard optical mouse is included, but a small IP65 keyboard with integrated track stick is optionally available. A 5.25" externally accessible drive bay is available for customer use. The system supports the use of a second LCD monitor, this may be a 15" unit for use as a helmsman display.

HWS 10:
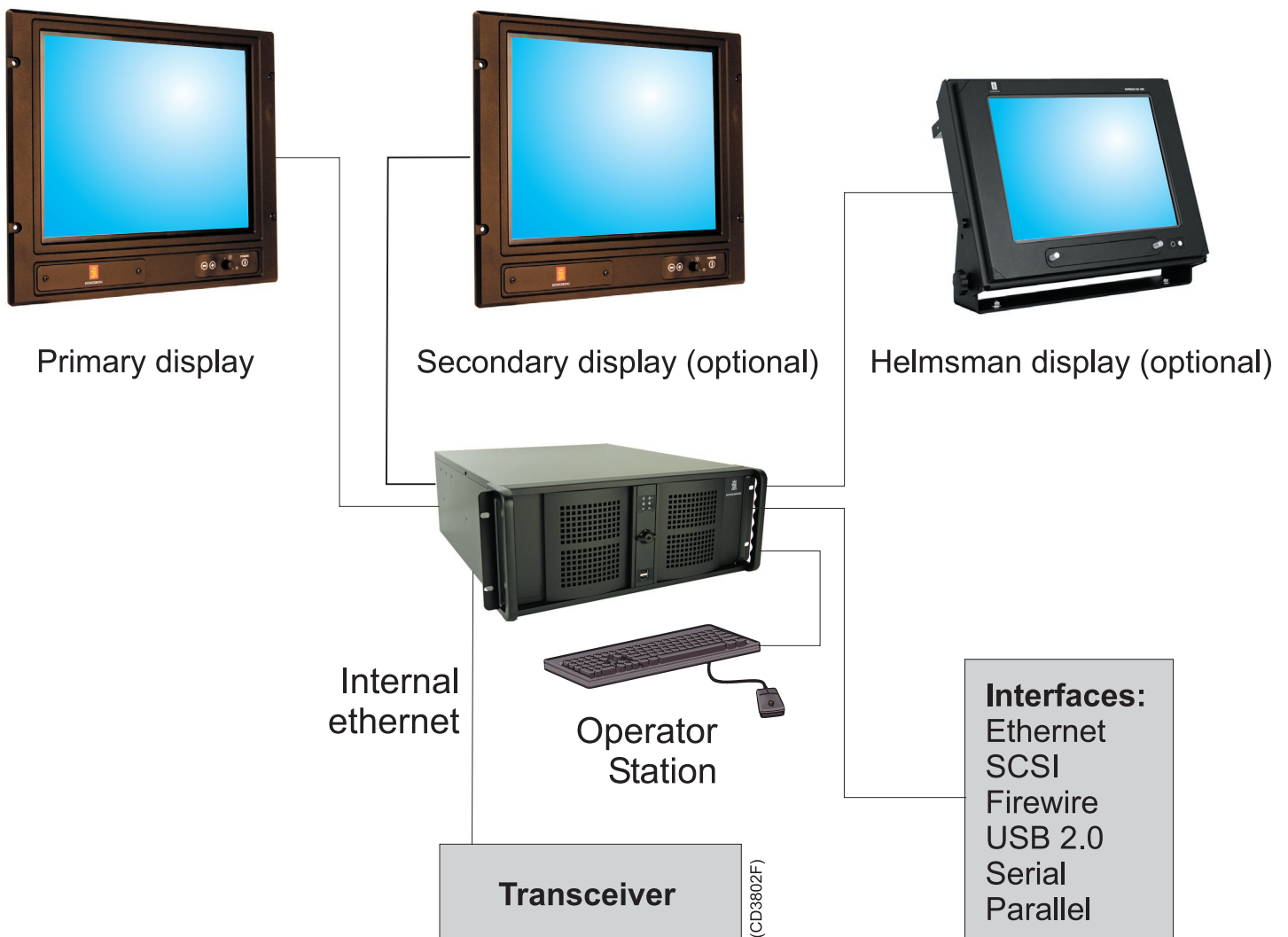- Width .... 427 mm
- Height .... 127 mm
- Depth .... 480 mm
- Weight ....20 kg
- Power supply .... 115(60 Hz)/230(50 Hz) VAC
- Power consumption .... max. 300 W

17.4" industrial LCD (15" option):
- Width ....460 (412) mm
- Height ....400 (345) mm
- Depth ....71 (73) mm
- Weight ....9.2 (7) kg
- Power supply .... 115(60 Hz)/30(50 Hz) VAC
- Power consumption .... max. 60 (40) W
- Resolution ....1280 x 1024 (1024 x 768)

Dimensions are excluding handles, brackets and rack mounting ears. The system meets all relevant environmental and EMC requirements of the IACS E10 specification.

Primary display

Secondary display (optional)

Helmsman display (optional)

Internal ethernet

Operator Station

(CD3802F)

Transceiver

Interfaces:
Ethernet
SCSI
Firewire
USB 2.0
Serial
Parallel

Due to the continuous development of its products, Kongsberg Maritime reserves the right to alter the specifications show above without notice. Please contact a sales representative for further information.