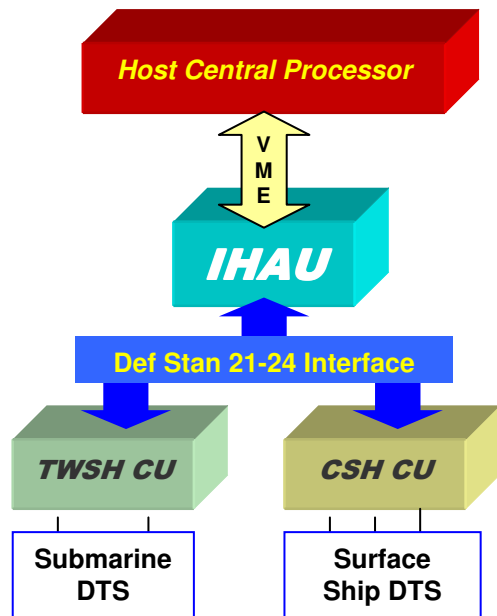




# Data Transfer System Interfaces Intelligent Host Adapter Unit <sup>MKII</sup>

The **Intelligent VME Host Adapter Unit<sup>MKII</sup>** is a VME card that can be used in Naval Combat System equipment to interface to Def. Stan. 21-24 compatible data transfer systems.

In conjunction with a Communications Unit, the **IHAU<sup>MKII</sup>** can interface to either Combat System Highway (as fitted to most UK surface ships), or to the Tactical Weapon System Highway (as fitted to Swiftsure and Trafalgar Class Submarines).



The **IHAU<sup>MKII</sup>** was developed using J+S Ltd's unrivalled expertise in interfacing with Combat System Highway and Tactical Weapon System Highway. The **IHAU<sup>MKII</sup>** simplifies the task of designing and proving the interface to the rest of the combat system.

The **IHAU<sup>MKII</sup>** can be supplied in two alternative configurations, allowing maximum flexibility to meet the needs of different equipment applications.

## Standard Configuration

The **IHAU<sup>MKII</sup>** onboard firmware provides a high level easy to use interface to the Combat System Equipment processing unit (host software). This interface is controlled via high level instructions passed by command control blocks and mailboxing techniques. By simplifying the interface, developers can rapidly develop software to interface to the rest of the combat system. The **IHAU<sup>MKII</sup>** performs many of the common functions associated with CSH and TWSH including:

- CSH/TWSH Initialisation
- Communications Status management
- Incoming message filtering & validation
- Message transmission
- TWSH Data Link protocols

*J+S Ltd operates a policy of continued development, specifications may change without prior notice.*



## Transparent Configuration

Some developers require low level access to the Def. Stan. 21-24 interface to implement non-standard functions or, for time critical applications, to eliminate processing delays. The **IHAU<sup>MkII</sup>** can be supplied in a transparent configuration, in which it is configured to provide direct access to the Def. Stan. 21-24 interface over VME, and the users application software controls the CU directly. On board firmware provides a background built in test monitoring function.

## Performance

The **IHAU<sup>MkII</sup>** embodies a PowerPC405 RISC microprocessor operating at 200 MHz, 16 Mbytes SDRAM, 2 Mbytes Flash, a built in Wind River VxWorks® kernel and a range of general purpose peripherals, including Ethernet, serial I/O, SCSI and a PMC site, allowing the card to be used as a general purpose CPU card. J+S Ltd are pleased to offer a service in providing custom interface solutions to meet users unique requirements.

## Specifications

VME Interface:	IEEE1014 Rev C.1 A32/A24/A16 master and slave address bus D64/D32/D16/D08 master and slave data bus 7 interrupt levels
CSH Interface:	Up to 1200 messages/second continuous input/output Def. Stan. 21-24 Parts 1 & 2, Def. Stan. 21-28 Parts 1 & 2, Def. Stan. 08-131 (Standard Configuration) Common Aspects of the CSH Interface, SSA/NCT/19/14/01/01/04 Issue 5 NES Tech Note 49
TWSH Interface:	Up to 500 messages/second continuous input/output (1500 byte messages) Def. Stan. 21-24 Parts 1 - 4, Def. Stan. 21-28 Parts 1 & 2, Def. Stan. 08-131 (Standard Configuration) Common Aspects for Interfacing to TWSH, 3700/702000/050/84 WSIA TWS Data Management Tech. Notes 001, 003 & 004
Other Interfaces:	Ethernet: IEEE802.3 10M/100M via optional front panel RJ45 connector SCSI: via P2 connector PMC Site: Single Width in accordance with P1386 RS232: Two ports via optional front panel connectors
Power Supplies:	+5V (+/- 0.25V) at 4A maximum
Dimensions:	Double Eurocard VME (233.4 mm x 160 mm)
Environmental:	Operational: 0° to 55°C, 0-85% RH at +45°C Storage: -40° to +110°C Wild Heat: 20W, fan assisted cooling is recommended Shock: 15g shock along any axis in operation
MTBF:	40,000 Hours, Mil Std 217F, Ground Benign at +25°C
Part Numbers:	VME 32 - Intelligent Mode: JS6258-1200-ASY VME 64 - Intelligent Mode: JS6258-1205-ASY For variant part numbers please contact J+S Ltd

*For further information, please contact:*

**Paul Parsons**  
**Business Development Manager**  
**Tel: 01271 337534 E: paul.parsons@jands.co.uk**

*J+S Ltd operates a policy of continued development, specifications may change without prior notice.*