

LOCKHEED MARTIN



***Enhanced Control Display
Workstation***





Enhanced Control Display Workstation

The Enhanced Control Display Workstation (ECDWS) is the second generation of AN/UYQ-70 Control Display Workstation Acoustic Display Console variants. It provides the user with the control and display capabilities required to support the Acoustic Rapid commercial off-the-shelf (COTS) Insertion (ARCI) Program for SSN 688, SSN 688I and SSBN 726 class submarines. It utilizes the latest Q-70 COTS-based open systems tactical computing and display solutions to meet the computational and graphic processing requirements for the ARCI program phases III and IV. The ECDWS enclosure provides improved maintainability and human engineering benefits, and incorporates additional capabilities over the baseline Q-70 CDWS, including dual 20-inch Active Matrix Liquid Crystal Displays. The console is equipped with the Q-70 standard suite of operating, development, and maintenance software and support products.

The electronic subassembly equipment installed within the ECDWS enclosure utilizes COTS computing equipment. ECDWS provides a shock and vibration isolation system, which allows COTS technology to operate in severe military environments. The water-cooled thermal management system maintains the internal air temperatures at COTS levels. The input power systems handle unique military power requirements, which allow COTS power supplies to be used. The ECDWS is designed to provide an open platform to maximize use of commercial grade components. As such, the unit is designed around open system standards such as

- IEEE 1014
- POSIX
- X11R5/6
- Networking standards such as TCP/IP

Performance Benchmark

- The processing subsystem supports a minimum Spec_int95 of 220 and Spec_fp95 of 300.

2-D Performance

- The graphic subsystem supports a minimum Xmark93 graphic performance specification of 40.

3-D Performance

- The graphic subsystem supports a minimum PLBWire93 graphic performance of 300 and a PLBSurf93 graphic performance of 400.

Operating System

- The unit provides a multi-tasking operating system compatible with the Network File System (NFS) and TCP/IP. The operating system is compliant with the IEEE POSIX.1 standard.

Mass Storage Subsystem

- Provides both an 8-bit wide SCSI II compatible interface and a 16-bit wide SCSI II compatible interface
- Three, 9-GB hard drives
- DDS, DDS-2 and DDS-3 compatible magnetic tape mass storage device
- CD-ROM

Enclosure Dimensions

- 62" height x 27" width x 26.9" (39.1" with bullnose) depth

Weight

- Maximum weight less than 1,100 pounds

Input Power

- 60 Hz, three phase, 115 volt, Type 1 power in accordance to MIL-STD-1399

Shock

- Meets MIL-S-901D Grade A, Type A, Class I equipment with the deck tuned to a frequency of approximately 25 Hz

Vibration

- Meets MIL-STD-167-1, Type I, from 5 Hz to 28 Hz

Operating Temperature

- Operates in ambient temperatures from 0°C to 40°C

Humidity

- Operates in 95% non-condensing relative humidity

Technology Insertion

- Full management technology evaluation program for all users. Open architecture provides ease of technology insertion. SICV laboratory-supported testing of a technology before deployment.

Integrated Logistics Support

- Full logistics management for support of all users. Around-the-clock global fleet technical support center available. Just-in-time support inventory. All levels of logistics products provided (e.g., technical manuals, maintenance processes and procedures, ICDs). Training courses and materials for users available.

For more information, contact:

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