

## ► Multifunction Naval Console

### Description

The Multifunction Naval Console (MNC) provides a sophisticated, graphically-orientated, human-machine interface for any naval or marine application. The MNC can simultaneously display HMI graphics and text from multiple software applications as well as images from several video sources with high-resolution graphics and symbology overlaid on the video images.

In addition, the MNC allows the human user to interact with the application using a combination of QWERTY keyboard, mini touch-entry colour LCD display, handgrip, rollerball, fast function keys, programmable soft keys and on-screen menus.

### Features

The features of the MNC are as follows :

- dual 19" or 21,5" high-resolution flat-panel displays
- display of multiple digital video inputs on either display
- display of multiple analog video inputs on either display (optional)
- high-speed synthetic graphics
- networked (dual 10 Gbps Gigabit Ethernet, dual 1 Gbps Gigabit Ethernet, dual 100 Mbps FDDI)
- reliable link failover with Gigabit Ethernet or FDDI
- integral Electronic Processor Unit (EPU) using rack-mount 19" version of Mechanical Housing Assembly (MHA)
- integral Environmental Monitoring and Control (EMAC) of PSUs, temperature sensors, fans, smoke detectors
- integral console insert for internal communications link and split operator headphone
- dual redundant hot swap power supply units (PSUs)
- shockmounts
- water cooling (optional)
- Built-in Tests (BIT)

### Functionality

The computing segment of the MNC uses an embedded VME or CompactPCI (cPCI) computing platform, with Pentium or PowerPC host processor cards.

The MNC supports the VxWorks, WRS Hypervisor, Linux, R-T Linux and Windows V7 software operating systems.

### Graphics

Graphics symbologies are displayed on the MNC with a very fast update rate (20 ms or better). This provides for very responsive operator interaction.

### Applications

- Naval Multifunction Operator Consoles and displays
- Naval Tracking Radar Displays
- Naval Optronic Displays
- Air Defence Tracking Radar Displays
- Air Defence Optronic Displays



**Multifunction Naval Console**



## ► Multifunction Naval Console

Specifications	
<b>Height</b>	1 600 mm
<b>Width</b>	670 mm
<b>Depth (Desk Depth)</b>	600 mm (600 mm)
<b>Housing Material</b>	3CR12 Stainless Steel
<b>Mass</b>	80 kg +/- 20 kg
<b>Displays</b>	2 x 19" or 21,5" flat-panel displays 1 x 8" touch-entry flat-panel display
<b>Resolution</b>	1 280 x 1 024 pixels
<b>Colours</b>	256
<b>Processors</b>	2 x Pentium IV @ 2,4 MHz or Power PC7448 @ 1,7 GHz
<b>Networking</b>	1 x Dual Channel 1 000 Mbps Gigabit Ethernet PMC Adapter 1 x Dual Channel 10 000 Mbps Gigabit Ethernet PMC Adapter (optional) 1 x Dual Attached 100 Mbps FDDI PMC Adapter
<b>HMI Controls</b>	1 x QWERTY keyboard 1 x handgrip 1 x rollerball 1 x 16-way numeric keys 1 x 4-way cursor keys 2 x 6 x 4-way soft keys 1 x 8,5" colour touch entry LCD display (optional) 27 x desk keys (optional) 1 x firing pedal (optional)
<b>Video Input</b>	Up to 6 x digital video inputs Up to 6 x CCIR PAL inputs
<b>Temperature</b>	-15 C to +75 C
<b>Shock</b>	30 g for 5 ms, ½ sine 20 g for 10 ms, ½ sine i.a.w. MIL-STD-810F Method 516.5 Procedure I
<b>Vibration</b>	2 g (peak) 10 Hz to 100 Hz 0,04 g²/Hz at 15 Hz to 2 kHz i.a.w. MIL-STD-810F Method 516.5 Procedure II
<b>EMC</b>	RE, CE, RS, CS i.a.w. MIL-STD-461C (Table 5 for Class A4 equipment for surface ships)
<b>Acoustic Noise</b>	< 45 dBA at 1 metre
<b>Relative Humidity</b>	0 to 95 % i.a.w. MIL-STD-810F, Method 507.4
<b>Water Ingress</b>	IP53 i.a.w. IEC-60529
<b>Operating Systems</b>	VxWorks, WRS Hypervisor, Linux, R-T Linux, Windows V7