

**MULTIFUNCTIONAL  
CONSOLES  
FOR NAVAL APPLICATIONS**



**COMBAT MANAGEMENT SYSTEMS**

**INTEGRATED BRIDGES**

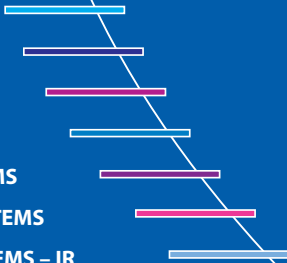
**ELECTRONIC WARFARE**

**CHAFF-LAUNCH SYSTEMS "STORAGE CONTROL"**

**TORPEDO STORAGE SYSTEMS**

**SONAR AND TOWED ARRAY SYSTEMS**

**RADAR SYSTEMS - IR**



# SUPERMAC 100

MULTIFUNCTIONAL CONSOLE  
FOR COMBAT MANAGEMENT SYSTEM



## Description

MULTIFUNCTIONAL CONSOLE SUPPORTING THE HUMAN-COMPUTER INTERFACE MANAGEMENT SYSTEMS.

### TECHNICAL SPECIFICATIONS

|                  |   |
|------------------|---|
| Display          | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.               |
| Control desk     | QWERTY keyboard, trackball, joystick.   |
| CPU              | PC Pentium IV or Pentium –M, 2.4 GHz or better. As option, available with Power PC. |
| RAM              | 512 Mbytes di RAM (expandable to 2 GB).   |
| Operating System | Windows 2000/XP or UNIX.  |
| Graphic Engine   | Graphic adaptor, 32 MB on-board memory at refresh rate of at least 75 Hz.           |
| Hard Disk        | 2 removable 80 GB hard disks (IDE or SCSI).   |
| CD driver        | DVD/CD-R/W.   |
| Diagnostics      | Built-in test equipment (BITE).   |
| Power Supply     | 220 VAC or 115VAC (on request), single phase, 50/60 Hz, 1 KVA Power Consumption.    |

### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C MIL-STD 2036 par. 5.1.2.17.1 for inner units.. |
| Humidity                       | Up to 95% at +40C non condensing.                                |
| Salt                           | MIL-STD-810.   |
| Vibration                      | MIL-STD-167.   |
| Shock                          | 0.5 sine, 30 g for 11 milleseconds.                              |
| EMI                            | EC-945, MIL-STD-461C class RE02, CE03, RS03, CS02, CS06.         |
| Acoustic noise                 | MIL - STD - 740 - grade A3.                                      |

### OPTIONAL

- 12" LCD Multifunctionalt keyboard,, TFT 800x600 pixel.
- Speaker with volume control
- Back Plain on bus PCI or VME.

### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1770 mm |
| Width  | 610 mm  |
| Depth  | 880 mm  |
| Weight | 130 Kg. |

### STANDARD INTERFACES

- 1 frame grabber module for analog TV signal acquisition
- 4 Ethernet 100 base T interfaces
- 5 USB interfaces
- 5 RS-232 serial interfaces
- 1 audio card for a microphone integrated in the console. I/O jacks for headphone/microphone.
- 1 SCSI/IDE DVD/CDROM R/W drive
- 1 Floppy IDE 3 1/2 inch drive.
- 1 DAT SCSI 4 mm drive.

# CONSOLE FREMM

MULTI-MONITOR CONSOLE  
FOR THE MANAGEMENT  
OF THE COMBAT SYSTEM



## Description

### MULTIFUNCTIONAL CONSOLE FOR THE MANAGEMENT OF THE COMBAT SYSTEM

#### TECHNICAL SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Display                   | Three 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.<br>1 additional optional 23" LCD monitor, Si-TFT, 1600x1200 pixels resolution. |
| Control desk              | 1 programmable "touch screen" 12.1" keyboard, 1 trackball.<br>1 additional optional for an optional keyboard   |
| Processor                 | Pentium IV, 2.0 GHz or better – 512 KB cache.  |
| RAM Memory                | 1 GB expandable up to 4 GB.  |
| Backplane                 | PCI technology, single PICMG (SBC) board,<br>N.8 slots available.  |
| Operating System          | Windows o Linux .  |
| Graphic Processor         | with 32 MB memory.   |
| Hard disk                 | 2 removable 80 GB (or better) disks,<br>optional Flash disk EIDE.  |
| Additional Memory support | For CD-R/RW, DAT, DVDR, Floppy Disk drive).  |
| Diagnostics               | Built-in test equipment (BITE) with fault detection and isolation capabilities.  |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz - 1.8 KVA Power Consumption.   |
| BITE                      | Integrated BITE for hardware testing and fault isolation.  |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From +5°C to +50°C.  |
| Storage range of temperature   | From -40°C to +70°C.   |
| Humidity                       | From 30% to 70% for the aforementioned range of temperature.       |
| Salt                           | IEC 60945.   |
| Vibration                      | 0,25 mm from 5 to 14 Hz,<br>0.2 g from 14 to 100 Hz.               |
| Water resistance               | IEC 60945.   |
| Shock                          | Transport: 30g half sine 18 ms,<br>Operation: 15g half sine 11 ms. |
| Atmosferic pressure            | From 860 mb to 1085 mb (with no performance degradation).          |
| EMI                            | MIL-STD-461D e IEC 60945.  |

#### DIMENSIONS

|        |  |
|--------|--|
| Height | 1230 mm (3 monitor)<br>1662 mm (4 monitor) |
| Width  | 1902 mm                                    |
| Depth  | 876 mm                                     |
| Weight | 180 Kg. (3 monitor)<br>200 kg. (4 monitor) |

#### INTERFACES STANDARD

- 2 Ethernet 10/100 Mbit/s or 2 GigaBit T or S/LX)
- 4 RS-232 serial ports
- 5 USB ports
- 1 frame grabber module for analog TV signal acquisition

# CONSOLE MFC-TSC-TLG

MULTIFUNCTIONAL CONSOLE  
FOR THE MANAGEMENT  
OF THE COMBAT SYSTEM



Supplied to: ALENIA MARCONI SYSTEMS

## Description

### MULTIFUNCTIONAL CONSOLE FOR THE MANAGEMENT OF THE COMBAT SYSTEM

#### TECHNICAL SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Display                   | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.  |
| Control desk              | 1 QWERTY (82 keys) keyboard, 1 trackball.  |
| Processor                 | PowerPC 750, 366 MHz.  |
| RAM Memory                | 128 MB PC.   |
| Backplane                 | 20 slots VME64x Bus.   |
| Operating System          | LINX-OS with drivers for all installed peripherals.  |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.                                     |
| Hard disk                 | 9 GB.  |
| Additional Memory support | 4GB DAT.<br>Driver CD-ROM SCSI.  |
| Diagnostics               | Comprehensive built-in test equipment (BITE) with fault detection and fault isolation.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>1.7 KVA Power Consumption.<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds. |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non condensing.                                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.  |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak.                             |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                    |
| Safety                         | MIL-STD 2036 par.4.10.   |
| EMI                            | MIL-STD-461E.  |

#### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1560 mm |
| Width  | 610 mm  |
| Depth  | 1125 mm |
| Weight | 220 Kg  |

#### INTERFACES STANDARD

|                     |
|---------------------|
| N. 1 FDDI interface |
| N. 1 NTDS interface |

# SUPERMAC 230/S

COMBAT MANAGEMENT SYSTEM CONSOLE



MULTIFUNCTIONAL CONSOLE FOR "ELETTRA"



## Description

MULTIFUNCTIONAL CONSOLE FOR INFORMATION MANAGEMENT RELEVANT TO THE COMBAT AND INTELLIGENCE SYSTEMS.

### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | One 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.   |
| Control desk              | 1 "rugged" QWERTY keyboard, 1 trackball. Can support a multifunctional keyboard.  |
| Processor                 | PC Pentium-M 1,6 GHz, 1 MB L2 cache.  |
| RAM Memory                | 512 MB DDR SDRAM.   |
| Backplane                 | 10 slots VME64x Bus, 1 slot available.  |
| Operating System          | Windows XP Professional with drivers for all installed peripherals.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.<br>S-Video and Composite Video acquisition capability. |
| Hard disk                 | 73.5 GB with SCSI Ultra320 interface.   |
| Floppy disk               | 1 IDE floppy disk driver.   |
| DAT                       | 1 DAT drive with SCSI interface for back-up data.   |
| Additional Memory support | Driver CD-R/RW capable of all format read/write functions.  |
| Diagnostics               | Built-in test equipment (BITE) with fault detection and isolation capabilities.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>1.5 KVA Power Consumption.<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds.                    |
| EMI                       | MIL-STD-461E  |

### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.  |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak.                             |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                    |
| Safety                         | MIL-STD 2036 par.4.10.   |

### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1301 mm |
| Width  | 610 mm  |
| Depth  | 875 mm  |
| Weight | 145 Kg. |

### AVAILABLE INTERFACES

N.2 GigaBIT Ethernet interfaces  
N.4 USB 2.0 interfaces  
N.1 RS/232 serial port  
N.2 audio jacks for headphones (3.5 e 6.3 mm standard)  
N.1 audio jacks for audio signals from external sources  
N.1 microphone

# IBDC CONSOLE

INTEGRATED BRIDGE DISPLAY CONSOLE



FITTED ON THE "HORIZON" FRIGATES

## Description

### MULTIFUNCTIONAL CONSOLE FOR NAVIGATION MANAGEMENT

#### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.   |
| Control desk              | ECDIS: 1 QWERTY keyboard, 1 trackball<br>RADAR: 1 programmable "touch screen" keyboard, 1 trackball.                  |
| Processor                 | ECDIS: PC Pentium-IV, 2.4 GHz.  |
| RAM Memory                | ECDIS: 512 MB SDRAM.  |
| Backplane                 | N.2 VME64x Bus in 2 racks.<br>Extractor and tracker module.   |
| Operating System          | SUN Solaris ver. 8.0, patch 21.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.  |
| Hard disk                 | ECDIS: 80GB slim hard disk, IDE interface.  |
| Additional Memory support | Driver CD-R/RW capable of all format read/write functions.<br>It supports 1 5.25" reader on the front panel.          |
| UPS                       | ECDIS: battery 12V, 4 Ah.   |
| Floppy                    | 3,5" slim floppy drive  |
| Diagnostics               | Built-in test equipment (BITE) for hardware checking and fault isolation.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz<br>3.0 KVA Power Consumption.<br>Power Distribution Unit and 2 VME modules. |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C.                                     |
| Storage range of temperature   | From -40°C to 70°C as per MIL-STD 2036 par. 5.1.2.17.1 |
| Humidity                       | More than 80% at +40°C non-condensing.                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.                          |
| Vibration                      | MIL-STD-167-1:14-100 Hz, Ampl. 0.2g peak.              |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                    |
| Safety                         | MIL-STD 2036 par.4.10.                                 |
| EMI                            | MIL-STD-461E.  |

#### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1380 mm |
| Width  | 1230 mm |
| Depth  | 730 mm  |
| Weight | 430 Kg. |

#### AVAILABLE INTERFACES

|                                    |
|------------------------------------|
| N. 3 Ethernet 100BaseTX interfaces |
| N. 1 RS/422 serial port            |

# ECDIS CONSOLE

ECD 700 DESKTOP VERSION

Type-approved ECDIS 

The top of class instrument aiding navigation management and safety



## Description

CONSOLE ECDIS FOR NAVIGATION MANAGEMENT.

### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | High resolution, 20.1" diagonal, colour LCD. The LCD is a Si/TFT active matrix.     |
| Control desk              | Keyboard group with dedicated keys and 2 trackball for rapid positioning of cursor. |
| Processor                 | Pentium IV - 2 GHz or better.   |
| RAM Memory                | 512 Mbytes RAM minimum.   |
| Operating System          | Windows 2000 with service pack3.  |
| Graphic Processor         | AGP 32 Mbyte VRAM or better.  |
| Hard disk                 | 80 Gbytes or more.  |
| Additional Memory support | CD ROM RW, DVD, Floppy Disk.  |
| On board multi I/O        | Fast Ethernet 10/100 MB, PCI bus, USB ports, RS-232 or RS-422 serial ports.         |
| Diagnostics               | Comprehensive built-in test equipment (BITE) with fault detection and isolation.    |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz, 200 W max power consumption.             |
| Ethernet                  | Standard IEEE 802.3U 10/100 Mbps CSMA/CD.   |

### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0C to +50C as per MIL-STD 2036 par. 5.1.2.17.1 for internal units |
| Humidity                       | Up to 95% at +40C, non condensing                                      |
| Salt                           | As per MIL-STD 2036 par. 5.1.2.12.2                                    |
| Vibration                      | As per MIL-STD-167-1   |
| Drip-proof                     | As per MIL-STD-108E  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds                                     |
| Safety                         | As per MIL-STD-2036 par. 4.10  |
| EMI                            | As per MIL-STD-461C methods RE02, CE03, RS03, CS02 and CS06            |

### DIMENSIONS

|        |          |
|--------|----------|
| Height | 579 mm   |
| Width  | 610 mm   |
| Depth  | 640,5 mm |
| Weight | 40 Kg.   |

### AVAILABLE INTERFACES

|   |
|---|
| Serial multiplexer                                  |
| Pedestal Console mounting                           |
| Interface unit for military or special applications |
| UPS   |

# CONSOLE NETTUNO

EW CONSOLE DISPLAY UNIT



### MULTIFUNCTIONAL CONSOLE FOR THE MANAGEMENT OF ELECTRONIC WARFARE SYSTEMS

#### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | ONE 20" LCD monitors, Si/TFT technology, 1280x1024 pixels resolution, swapping function available.  |
| Control desk              | 1 rugged QWERTY keyboard, 1 trackball. 1 Control Panel, 21 keys/pointers for several modes of operations.<br>1 audio panel with a loudspeaker, a volume control knob, a selector of the audio source and a connector for the headphone.<br>20W Lighting lamp. |
| Processor                 | 4 PowerPC modules with Processor UltraSPARC-II  |
| RAM Memory                | 512 MB SDRAM.   |
| Backplane                 | N.2 VME64x Bus with n. 2 racks overlapping.   |
| Operating System          | SUN Solaris ver. 8.0, patch 21.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.  |
| Hard disk                 | 18,3 GB with interface SCSI Ultra160.   |
| DAT                       | N.1 DAT drive with SCSI interface for backup data.  |
| Additional Memory support | 1 CD-R/W Driver, compatible to all formats.   |
| Diagnostics               | Built-in test equipment (BITE) with fault detection and isolation.  |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz<br>1.5 KVA Power Consumption<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds.  |

#### ENVIRONMENTAL REQUIREMENTS

|                                |   |
|--------------------------------|---|
| Operating range of temperature | From 0°C to +50°C as per MIL-S TD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                  |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.   |
| Vibration                      | MIL-STD-167-1:14-100 Hz, Ampl. 0.2g peak.                               |
| Drip-proof                     | MIL-STD-108E.   |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                     |
| Safety                         | MIL-STD 2036 par.4.10.  |
| EMI                            | MIL-STD-461E.   |

#### DIMENSIONS

|        |           |
|--------|-----------|
| Height | 1841,5 mm |
| Width  | 610 mm    |
| Depth  | 980 mm    |
| Weight | 160 Kg    |

#### AVAILABLE INTERFACES

N. 70 connectors available on the front and rear panels for:

- audio signals from several sources
- blanking signals
- RS/232 and 422 serial ports
- bias
- "battle short"
- fire
- Ethernet
- radar
- SS
- Reset

# CONSOLE TBI (mod. A-C)

TORPEDO BOARD INTERFACE CONSOLE





## Descriptions

### TORPEDO BOARD INTERFACE CONSOLE

#### TECHNICAL SPECIFICATIONS

|                   |   |
|-------------------|---|
| Display           | One 10" LCD monitor only for diagnostic purposes.   |
| Control desk      | 1 control panel, 1 panel for emergency commands. During operation this unit is driven through an ETHERNET line.     |
| Processor         | PowerPC 603.  |
| RAM Memory        | 16 MB, expandable up to 128 MB.   |
| Backplane         | 10/20 slots Bus VME.  |
| Operating System  | VXWorks.  |
| Graphic Processor | Graphic PCI mezzanine module.   |
| Diagnostics       | Modular, redundant Built-in test equipment (BITE).  |
| Power Supply      | 115 VAC 60Hz Double Power Supply, redundant three phases, 115VAC Service Power Supply, 1 phase, with emergency UPS. |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | MIL-STD-2036 par. 5.1.2.17.1 for inner units |
| Humidity                       | More than 80% at +40°C, non condensing       |
| Vibration                      | MIL-STD-167-1                                |
| Shock                          | 20g-11ms as per MIL -STD-810E method 516.4   |

#### DIMENSIONS

|        |           |
|--------|-----------|
| Height | 2018,5 mm |
| Width  | 1350 mm   |
| Depth  | 435 mm    |
| Weight | 400 Kg    |

#### AVAILABLE INTERFACES

- Double redundant ETHERNET line
- 12 interfaces for on-board torpedoes
- 6 interfaces for launching pipes

# CONSOLE SCLAR H-HO

MULTIFUNCTIONAL CONSOLE FOR CHAFF-LAUNCH SYSTEM



Supplied to: ALENIA MARCONI SYSTEMS

## Description

### MULTIFUNCTIONAL CONSOLE FOR CHAFF-LAUNCH SYSTEM

#### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | One 20" LCD monitor DL20000.  |
| Control desk              | 1 alphanumeric keyboard, 1 trackball, 1 multifunctional TAMUL keyboard.                     |
| Processor                 | 2 PowerPC 750, 366 MHz.   |
| RAM Memory                | 16 MB expandable up to 128 MB.  |
| Backplane                 | 20 slots Bus VME.   |
| Operating System          | LynxOS.   |
| Graphic Processor         | CPCI-Gx module.   |
| Hard disk                 | 9 GB with SCSI interface.   |
| DAT                       | 1 DAT drive with SCSI interface for back-up data.   |
| Additional Memory support | No.   |
| Diagnostics               | Built-in test equipment (BITE).   |
| Power Supply              | 115VAC, single phase, 50/60 Hz.<br>1.5 KVA Power Consumption.<br>1 Power Distribution Unit. |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.  |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak.                             |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                    |
| Safety                         | MIL-STD 2036 par.4.10.   |
| EMI                            | MIL-STD-461E.  |

#### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1120 mm |
| Width  | 610 mm  |
| Depth  | 880 mm  |
| Weight | 145 Kg  |

#### AVAILABLE INTERFACES

- 1 Ethernet 10/100 interface
- 1 synchro interface
- 1 NTDS interface

# CDU CONSOLE

EW CONSOLE DISPLAY UNIT



## Description

### EW CONSOLE DISPLAY UNIT

#### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution, swapping function available.  |
| Control desk              | 1 rugged QWERTY keyboard, 1 trackball. 1 Control Panel, 21 keys/pointers for several modes of operations.<br>1 audio panel with a loudspeaker, a volume control knob, a selector of the audio source and a connector for the headphone.<br>20W Lighting lamp. |
| Processor                 | 4 schede PowerPC modules with UltraSPARC-II Processor.  |
| RAM Memory                | 512 MB SDRAM.   |
| Backplane                 | N.2 VME64x Bus with 2 racks overlapping.  |
| Operating System          | SUN Solaris ver. 8.0, patch 21.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.  |
| Hard disk                 | 18,3 GB with SCSI Ultra160 interface.   |
| DAT                       | N.1 DAT drive with interface SCSI for back-up data.   |
| Additional Memory support | 1 CD-R/W Driver, compatible to all formats.   |
| Diagnostics               | Built-in test equipment (BITE) with fault detection and isolation.  |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz<br>1.5 KVA Power Consumption<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds.  |

#### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C.                                   |
| Humidity                       | MIL-STD 2036 par. 5.1.2.17.1 for inner units         |
| Salt                           | More than 80% at +40°C non-condensing.               |
| Vibration                      | MIL-STD-2036 par. 5.1.2.12.2.                        |
| Drip-proof                     | MIL-STD-167-1:14-100 Hz, Ampl. 0.2g peak.            |
| Shock                          | MIL-STD-108E.<br>0.5 sine, 30 g for 11 milliseconds. |
| Safety                         | MIL-STD 2036 par.4.10.                               |
| EMI                            | MIL-STD-461E.  |

#### DIMENSIONS

|        |           |
|--------|-----------|
| Height | 1841,5 mm |
| Width  | 610 mm    |
| Depth  | 980 mm    |
| Weight | 160 Kg    |

#### AVAILABLE INTERFACES

- N. 70 connectors on the front and rear panels for:
- audio signals from several sources
  - blanking signals
  - serial RS/232 e 422 serial ports
  - bias
  - "battle short"
  - fire
  - Ethernet
  - radar
  - SSR reset

# CONSOLE EWSS

ELECTRONIC WARFARE SUPPORT SYSTEM CONSOLE



## Description

### MULTIFUNCTIONAL CONSOLE FOR THE MANAGEMENT OF THE COMBAT SYSTEM

#### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | One 20" LCD monitor, Si/TFT technology, 1600x1200 pixels resolution.  |
| Control desk              | 1 rugged QWERTY keyboard, 1 trackball.  |
| Processor                 | 1 PowerPC 19'650 MHz, ultraPARC-IIi (sun Fire V120), with 832 bit,33 MHz graphic adaptor, 1900x1200 pixels resolution ed hard disk da 34.4 GB SCSI. |
| RAM Memory                | 512 MB SDRAM.   |
| Backplane                 | N.2 VME64x Bus with 2 racks overlapping.  |
| Operating System          | SUN Solaris ver.8.0.  |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.                                |
| Hard disk                 | 18,3 GB with SCSI Ultra160 interface.   |
| Additional Memory support | 1 CD-R/W driver, compatible to all formats  |
| Diagnostics               | Built-in test equipment (BITE) with fault detection and isolation capabilities  |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz<br>1 KVA Power Consumption.<br>UPS providing back-up to 31.6 minutes at half load.                        |

#### ENVIRONMENTAL REQUIREMENTS

|                                |   |
|--------------------------------|---|
| Operating range of temperature | MIL-STD-2036 par. 5.1.2.17.1 For inner units            |
| Humidity                       | More than 80% at +40°C non-condensing.                  |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.                           |
| Vibration                      | 0,25 mm from 2 Hz to 14 Hz, 0.2 g from 14 Hz to 100 Hz. |
| Drip-proof                     | MIL-STD-108E.   |
| Shock                          | 0.5 sine, 30 g per 11 milliseconds.                     |
| Safety                         | MIL-STD 2036 par.4.10.                                  |
| EMI                            | MIL-STD-461E.   |

#### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1042 mm |
| Width  | 610 mm  |
| Depth  | 1100 mm |
| Weight | 130 Kg. |

#### AVAILABLE INTERFACES

|                                    |
|------------------------------------|
| n.1 Ethernet 10/100BaseT interface |
| n.1 SCSI interface                 |

# CONSOLE DMSS-2000LF

MULTIFUNCTIONAL CONSOLES FOR SONAR APPLICATIONS



Supplied to: WASS



## Description

MULTIFUNCTIONAL CONSOLE FOR SONAR CONTROL AND FOR THE DISPLAY OF TACTICAL INFORMATION RELATED TO UNDERWATER.

### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | 2 LCD 20.1" monitors, Si/TFT technology, 1280x1024 pixels resolution.   |
| Control desk              | ECDIS: 1 QWERTY keyboard, 1 trackball<br>RADAR: 1 programmable "touch screen" keyboard, 1 trackball.                                |
| Processor                 | ECDIS: PC Pentium-IV, 2.4 GHz.  |
| RAM Memory                | ECDIS: 512 MB SDRAM.  |
| Backplane                 | N.2 VME64X buses in 2 racks .<br>Extractor and tracker modules.   |
| Operating System          | SUN Solaris ver. 8.0, patch 21.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.                |
| Hard disk                 | ECDIS: slim 80 GB, IDE interface.   |
| Additional Memory support | N.1 DVD/CD-R/W driver, compatible to all formats.<br>It supports 1 5.25" reader on the front panel.                                 |
| UPS                       | ECDIS: 12V, 4 Ah battery pack.  |
| Floppy                    | 3,5" slim floppy drive.   |
| Diagnostics               | Built-in test equipment (BITE) for hardware checking and fault isolation.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>3.0 KVA Power Consumption.<br>Power distribution unit and 2 VME power supply modules. |

### ENVIRONMENTAL REQUIREMENTS

|                                |   |
|--------------------------------|---|
| Operating range of temperature | From 0°C to +50°C.  |
| Storage range of temperature   | From -40°C to 70°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                  |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.   |
| Vibration                      | MIL-STD-167.<br>1:14-100 Hz, Ampl. 0.2g peak.                           |
| Drip-proof                     | MIL-STD-108E.   |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                     |
| Safety                         | MIL-STD 2036 par.4.10.  |
| EMI                            | MIL-STD-461E.   |

### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1380 mm |
| Width  | 1230 mm |
| Depth  | 730 mm  |
| Weight | 430 Kg. |

### AVAILABLE INTERFACES

- 3 Ethernet 100BaseTX interfaces
- 1 RS/422 serial port

# CONSOLE SEA90

MULTIFUNCTIONAL CONSOLE  
FOR HYDRO SOUND SHEETS APPLICATIONS



## Description

MULTIFUNCTIONAL CONSOLE FOR HYDRO SOUND SHEETS APPLICATIONS AND THE DISPLAY OF THE RELEVANT TACTICAL INFORMATION.

### TECHNICAL SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Display                   | 2 20.1" LCD monitors, Si/TFT technology, 1280x1024 pixels resolution.  |
| Control desk              | 1 QWERTY (82 keys) keyboard, 1 trackball.  |
| Processor                 | PowerPC 604, 200 MHz.  |
| RAM Memory                | 128 MB PC.   |
| Backplane                 | VME64x Bus with n.10 slots, n.6 available slots.   |
| Operating System          | LINX-OS, with drivers for all installed peripherals.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with a 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.   |
| Hard disk                 | 4 GB with SCSI interface.  |
| DAT                       | 4 GB.  |
| Additional Memory support | 1 DVD/CD-R/W Driver, compatible to all formats.<br>It supports 1 5.25" reader on the front panel   |
| Diagnostics               | Comprehensive built-in test equipment (BITE) with fault detection and fault isolation.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>Power Consumption 1.5 KVA.<br>Power Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds. |

### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.  |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak.                             |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                    |
| Safety                         | MIL-STD 2036 par.4.10.   |
| EMI                            | MIL-STD-461E.  |

### DIMENSIONS

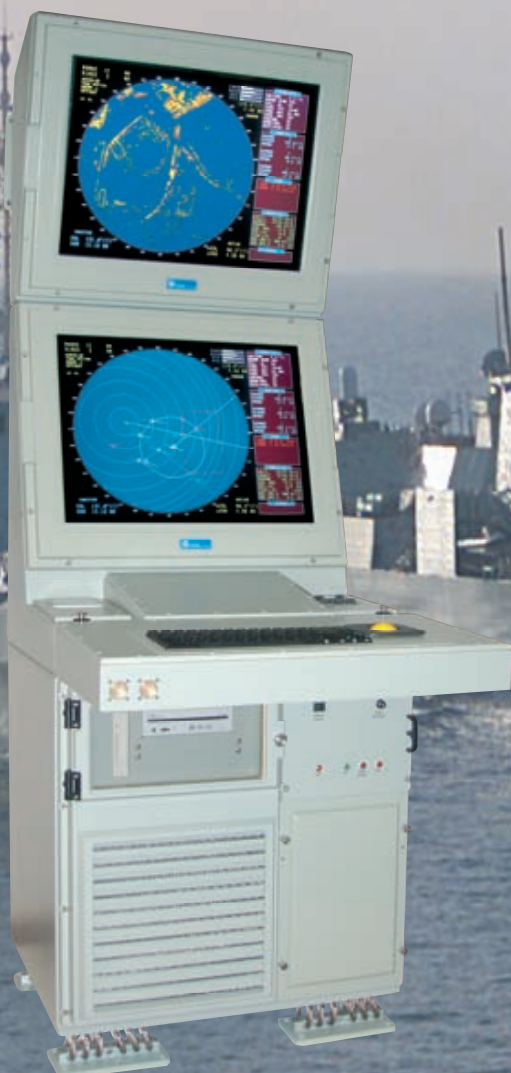
|        |         |
|--------|---------|
| Height | 1560 mm |
| Width  | 584 mm  |
| Depth  | 855 mm  |
| Weight | 165 Kg  |

### STANDARD INTERFACES

|                    |
|--------------------|
| - 1 FDDI interface |
| - 1 NTDS interface |

# SUPERMAC 230/D/IR

MULTIFUNCTIONAL CONSOLE FOR INFRA RED  
SURVEILLANCE SYSTEM MANAGEMENT



Supplied to: GALILEO AVIONICA

## Description

MULTIFUNCTIONAL CONSOLE FOR THE DISPLAY AND PROCESSING OF INFORMATION ABOUT IR SURVEILLANCE AND TRACKING SYSTEMS

### TECHNICAL SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Display                   | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution.   |
| Control desk              | 1 rugged QWERTY keyboard, 1 trackball. Can support a multifunctional keyboard.  |
| Processor                 | PC Pentium-III, 1,26 GHz.   |
| RAM Memory                | 512 MB PC-133 SDRAM.  |
| Backplane                 | 10 slots VME64x Bus, 8 slots available.   |
| Operating System          | Windows 2000 Professional with Service Pack 4 Drivers for all installed peripherals.  |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with a 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.                                    |
| Hard disk                 | 147.3 GB with SCSI Ultra320 interface.  |
| Additional Memory support | 1 DVD/CD-R/RW Driver, compatible to all formats.<br>It supports 1 5.25" reader on the front panel   |
| Floppy                    | 1 IDE floppy driver.  |
| Diagnostics               | Comprehensive built-in test equipment (BITE) with fault detection and fault isolation.  |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>Power Consumption 1.5 KVA.<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP.ALARM leds. |

### ENVIRONMENTAL REQUIREMENTS

|                                |   |
|--------------------------------|---|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par.5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.   |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak .                           |
| Drip-proof                     | MIL-STD-108E.   |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                   |
| Safety                         | MIL-STD 2036 par.4.10.  |
| EMI                            | MIL-STD-461E.   |

### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1798 mm |
| Width  | 610 mm  |
| Depth  | 875 mm  |
| Weight | 175 Kg. |

### INTERFACES STANDARD

- N. 3 Ethernet 100BaseTX interfaces
- N. 1 RS/422 serial port

# SUPERMAC 230/D/PAR

MULTIFUNCTIONAL CONSOLE  
FOR PRECISE APPROACH RADAR



Supplied to: GALILEO AVIONICA

## Description

MULTIFUNCTIONAL CONSOLE FOR THE OPERATION OF PRECISE APPROACH RADAR SYSTEMS.

### TECHNICAL SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Display                   | Two 23" LCD monitors, Si/TFT technology, 1600x1200 pixels resolution   |
| Control desk              | One rugged QWERTY keyboard, 1 trackball. Can support a multifunctional keyboard.   |
| Processor                 | PC Pentium-III, 1,26 GHz.  |
| RAM Memory                | 512 MB PC-133 SDRAM.   |
| Backplane                 | 10 slots VME64x Bus, 6 slots available.  |
| Operating System          | Windows 2000 Professional with Service Pack 4 Drivers for all installed peripherals.   |
| Graphic Processor         | PCM "Dual-head" graphic adaptor, with 1 16 MB SGRAM/channel and RGB video resolution better than 1900 x 1200 pixels.                                     |
| Hard disk                 | 147.3 GB with interface SCSI Ultra320.   |
| Additional Memory support | 1 DVD/CD-R/RW Driver, compatible to all formats.<br>It supports 1 5.25" reader on the front panel.   |
| Diagnostics               | Comprehensive built-in test equipment (BITE) with fault detection and fault isolation.   |
| Power Supply              | 220 VAC or 115VAC, single phase, 50/60 Hz.<br>1.5 KVA Power Consumption.<br>Distribution Unit on the front panel with ON/OFF, FAIL and TEMP. ALARM leds. |

### ENVIRONMENTAL REQUIREMENTS

|                                |  |
|--------------------------------|--|
| Operating range of temperature | From 0°C to +50°C as per MIL-STD 2036 par. 5.1.2.17.1 for inner units. |
| Humidity                       | More than 80% at +40°C non-condensing.                                 |
| Salt                           | MIL-STD-2036 par. 5.1.2.12.2.  |
| Vibration                      | MIL-STD-167-1: 14-100 Hz, Ampl. 0.2g peak.                             |
| Drip-proof                     | MIL-STD-108E.  |
| Shock                          | 0.5 sine, 30 g for 11 milliseconds.                                    |
| Safety                         | MIL-STD 2036 par.4.10.   |
| EMI                            | MIL-STD-461E.  |

### DIMENSIONS

|        |         |
|--------|---------|
| Height | 1798 mm |
| Width  | 610 mm  |
| Depth  | 875 mm  |
| Weight | 175 Kg. |

### INTERFACES STANDARD

- 8 VME Ethernet Hub 100baseTX
- 1 gateway VME Ethernet-FDDI with n.2 FDDI ring optical interfaces
- 1 Ethernet 100BaseTX interface
- 2 fibre-optic interfaces with FDDI communications
- 1 interface for BIT remote control



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