

SAAB MK II MFC

Multi Function Console

Flexible defence and commercial platform

The Saab Multi Function Console (MFC) provides a stable, intuitive platform for monitoring and controlling multiple systems simultaneously.

It has been developed in cooperation with naval operators, universities and ergonomics experts to enhance operator comfort and increase efficiency.

When used in conjunction with Saab's 9LV Command and Control software, these characteristics combine to help reduce operator mental load and fatigue. This, in turn, helps to increase reaction times, saving valuable seconds in critical situations.

With a large, widescreen display, the MFC provides a clear and distinct presentation of the tactical and operational environment. This, together with a logical human-computer interaction concept, makes it suitable for all types of defence and/or commercial applications.



Construction and Design

The MFC is modular in design and comprises of five main modules:

- Pedestal/base unit (including cooling fans)
- Main monitor
- Desk (including keyboard and trackballs or joysticks)
- Touch Input Display (including optional communication unit)
- Computer assembly (including power supply)

Supplied with hard and soft covers to protect the MFC during shipping and/or maintenance activities.

The five modules can be individually modified or changed to allow full customization to any specific customer requirement. For example:

- Main monitor module can be changed to accommodate different sized screens or twin screens that replace the base model 32" wide screen module
- Desk module itself or components fitted can be interchanged between joysticks and trackballs
- The MFC can be easily dismantled into smaller and more manageable units that allow easy installation during new ship/site construction or as an upgrade for existing ships/sites without the need to alter the access apertures and walkways.

Technical Data

The MFC base configuration comprises of the following:

- 32" full-colour widescreen Main Tactical Display with a resolution of up to 4K
- 15" Touch Input Display with a resolution of 1024x768 pixels
- Customized alphanumeric keyboard including a numeric keypad with backlit keys and two trackballs with alternative joystick options
- Weapon safety switch, firing pushbuttons and an interface for a firing pedal
- Audio line output to an intercom system or audio via built-in stereo speakers
- MFC control unit for power and standby status indicators
- Space for an optional control panel or dedicated communication system
- Built-in white boards for operator notes
- Storage for binders, pens and note pads
- Multi-purpose storage in desk module
- CPU with the following specification:
 - Standard 19" Rack
 - Processor: Intel i7-9700TE
 - Ram: 32GB DDR4 (upgradable to 128GB)
 - Video card: Nvidia GT1030 with 2GB GDDR5
 - Number of USB inputs: 8 (4 x USB 3.1, 4 x USB 2.0)
 - Number of Ethernet ports: 2 GbE, (upgradable to 4 GbE ports)

Exportable Data and In-Country Manufacture

The MFC's core design methodology utilizes current and readily available manufacturing technology, materials and techniques that result in a cost-effective product that can be reproduced anywhere in the world within an optimized timeframe (subject to export approvals and licensing agreement).

Based on COTS

The components used in the MFC are based on proven and/or ruggedized commercial off-the-shelf (COTS) products, taking advantage of the rapid development of the commercial market to create a truly generic multi-functional concept that can be rapidly upgraded when required.

Ease of Access and Maintainability

All areas of the MFC can be quickly accessed through the hinged touch input display (TID) module, allowing for the main computing module and other modules to be fully removed, serviced or upgraded according to customer requirements. This means the MFC can be mounted directly against bulkheads as access is not required to the rear for maintenance activity.

Space, Weight and Power

To allow easy access and installation, when disassembled no module dimension exceeds 560mm in width. Assembled dimensions are 1410mm (height) x 760 (width) x 974 mm (depth).

- Weight: less than 100 kg (baseline configuration)
- Power supply requirement: 115/230V at 50/60 Hz
- Power Usage and Heat: 350w (typical) to 700w (max)
- Fan forced air-cooling is standard

Environmental Qualifications

The MFC has been designed and qualified for use in naval sheltered applications. It has been tested and verified against the following standards:

- EMI/EMC - MIL-STD-461F
- Shock - 15G to IEC60068-2-27
- Vibration - MIL-STD-167-1A
- Ingress Protection - IP23
- Noise Levels equal to or less than 50dB(A)
- Inclination testing to +/-45 degree pitch and roll (dynamic) and to +/-35 degrees (static)

