

## **Rugged Mobile Workstation For Any Environment** *"On Land, at Sea or in the Air"*



### **A Complete Solution for Mobile Computing**

On land, at sea or in the air, the Demand™-9002 is your reliable, rugged companion when you need computing power in places where other systems cannot go.

The Demand™-9002, has been carefully designed and constructed to meet an extensive set of electrical and mechanical specifications that lets it perform in virtually any kind of environment.

The system is comprised of 3 major components; Main Console, Detachable Display Unit and Detachable Keyboard Unit. The Keyboard serves as front protection when the system is being transported. The external housing is made of extruded aluminium with a hard anodized finish to assure both a high-tech design and a very rugged structure.

The Demand™-9002 comes standard with a passive backplane but can also accept a standard motherboard. You can choose from a full range of Single Board Computers to define your computing power.

### **Features**

- Rugged extruded aluminium case
- Highly reliable precision design
- Compact transportable packaging
- Optimal flexibility with respect to operating conditions
- Frame structure offering resistance to high impacts
- Unique detachable keyboard and display
- Dual fans cross flow air cooling of all components
- Shock absorbing drive bay assembly
- Complete EMI/RFI shielding
- Adaptable to nearly any environment
- Power input capable of operation in any country
- Full PC capabilities
- Operable in either vertical or horizontal position
- Upgradable to MIL and/or DO-160C standards
- Meets or exceeds the highest industry standards

## MAIN CONSOLE

A big advantage of the Demand™-9002's Main Console design is that all card interfaces and slots are located at the right side. This allows the system to be positioned and operated in both horizontal- and vertical position while still providing full access to card interface connectors and wiring.

The unit, with its 4 large durometer rubber corner bumpers, may be safely positioned on any surfaces.

A specially designed Mounting Rail, which extends around the system, provides for the attachment of various external devices. Additionally, this rail enables the system to be securely mounted and operated on any kind of working surface, under a dash board, in a cabinet, in an equipment rack, or on the wall.



***Closed system with keyboard covering display unit***

During transport the detachable Keyboard Unit is in the locking position, providing the front protection of the system.

## FLOATING-MOUNT DRIVE ASSEMBLY

The Floating-Mount™ Drive-Bay Assembly is a metal frame structure mounted to the Lower-Rear panel with screws, and located on the Drive-Side (right side) inside the Main Console.

The assembly provides space to two 5¼" half-high drives and one 3½" drive. Other combinations are available in optional drive bays.



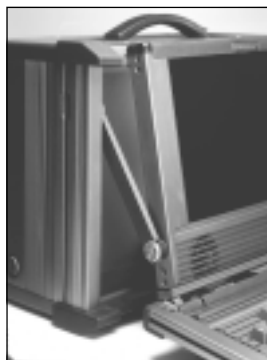
***Floating-Mount Drive Bay***

In between frame and drive(s), a shock and vibration absorbing rubber media is standard with all drive bays. The rubber media provides a proven vibration absorbing mounting environment to improve dynamic operating stability of the drive itself.

## DETACHABLE DISPLAY UNIT

The detachable Display Unit is an all-aluminium structure located at the front of the Main Console and attached to the inner walls of the Console by means of dual Display Swing Arm Assembly.

The Display Unit may be manually positioned and set to rest at any desired



***Display Arm***

viewing position with the Main Console remaining in either horizontal or a vertical operating position.

The Display Unit may be detached from the Main Console, with or without the Display Swing-Arm attachment, simply by removing the thumb screw which are located at the ends of the Display Swing-Arm.

All major system controls and indicators have been positioned on the Display Unit to facilitate system control when remotely operating display and keyboard.

## MULTIFUNCTION KEYBOARD

The detachable Keyboard Unit is an all-aluminium assembly comprising of 101-keys with alternated standard keys layout, together with a coiled cord keyboard cable.

A special feature of the keyboard is that it is designed to be attached to the main console to protect the display when transporting the unit. The stands on the bottom side of the keyboard function in the closed position as locking arms. There is no need for any latches or screws.



***Keyboard with Stands / Locking arms***

The keyboard is equipped with a Remote Display Sliding Rail that allows mounting of the Display Unit on the Keyboard when system is configured for remote display/keyboard operation.

Two mounting slots cutouts are provided on both side of the keyboard for attachment of adapters. The cutouts also facilitate mounting of the keyboard in almost any position.

## Specifications

- **Chassis** : 6061-T6 aluminium alloy with hard anodized finish per MIL-A-8625D
- **Cooling** : dual fans, forced air cross-flow
- **Drive Bays** : three 3½" drives (standard) or two 5¼" drives and one 3½" drive (optional)
- **Keyboard** : detachable 101 keys, water-resistant

## PASSIVE BACKPLANE

- **Slots** : 7-slot ISA (PCI/ISA optional)
- **PCB** : 4-layer with ground and power planes for reduced noise and low power supply impedance
- **Connectors** : high quality Molex
- **LED Power Indicators** : +5 V, -5 V, +12 V, -12 V

## TFT DISPLAY

- **Type I (standard)** : TFT active matrix color screen, 10.4" (26 cm) diagonal 800 x 600 RGB dots, 0.264 x 0.264 mm pitch, RGB vertical stripe
- **Type II (optional)** : TFT active matrix color screen, 12.1" (31 cm) diagonal 800 x 600 RGB dots, 0.24 x 0.24 mm pitch, RGB vertical stripe
- **Backlight** : 2.1 W typical power consumption, lifetime > 10,000 Hrs

## PCI SVGA FLAT PANEL CONTROLLER

- **Chipset** : C&T 65555
- **Memory** : 2 MB (4 MB optional)
- **Bus** : 32-bit PCI local bus
- **Display** : CRT and Panel Mono/TFT/DSTN/EL (simult.)
- **Connectors** : 15-pin external connector for CRT monitor and 40-pin internal connector for Flat Panel

## POWER SUPPLY

- **Output Rating** : 200 W
- **Characteristics** : 95~260 V<sub>AC</sub> @ 2.0 A (typical) or 4.5 A (max), 47~440 Hz
- **Over Temperature** : 55°C +/- 5°C internal air warning signal 65 dB min. audible alarm
- **Input Protection** : dual fuse / inrush current limiter on both LINE and NEUTRAL Line Inputs
- **Output Protection** : voltage and amperage, short circuit detection on all circuits
- **Compliance** : FCC Class A, CE, UL, CSA, CE

## ENVIRONMENTAL

- **Operating Temperature** : 0~50°C (operating)
- **Storage Temperature** : -10~55°C
- **Shock (all axis)** : 3 G's (operating), 30 G's (storage)
- **Vibration (all axis)** : 1 G's @ 10~2000 Hz (operating), 10 G's @ 10~2000 Hz (storage)
- **Altitude** : 25,000 ft (operating), 40,000 ft (storage)
- **Net Weight** : 26 lbs (11.8 Kgs)
- **Carrying Bag** : nylon, padded soft interior

## Ordering

- ☐ **Demand9002-T** : Rugged Mobile Workstation Main Console, Display Housing and Keyboard includes :  
10.4" TFT SVGA Color Screen  
7-slot ISA Passive Backplane  
ISA Flat Panel SVGA controller  
Universal 220 Volt, 200 Watt Power supply  
Nylon, padded Carrying Bag
- ☐ **Option1** : 12.1" TFT version same as Demand-9002-T but with 12.1" TFT SVGA Color Screen
- ☐ **Option2** : PCI/ISA backplane version same as Demand-9002-T but with 6-slot PCI/ISA passive backplane and PCI SVGA Flat Panel Controller (PDC-555)
- ☐ **Option3** : Standard Baby AT motherboard version same as Demand-9002-T but with PCI SVGA Flat Panel Controller (PDC-555) (no backplane, no motherboard installed !)

