

*Total Solution for Industrial, Rugged & Mil-Spec Computers and Peripherals*

## MRC-7002 Rugged Computer

### FEATURES

- Low Power Supports Intel® Core 2 Duo, Core Duo, Core Solo family processors with 533/667 MHz Intel® Embedded Processor List Microprocessor up to 1.4 GHz..
- Memory up to 4 Gbyte un-buffered non-ECC DDR2 533/667 SDRAM
- Expandable Construction. PCI User defined Interface.
- Support Compact Flash Type II
- Complete Array of Rugged Peripherals
- Shock & Vibrations enhancement Kits Available.

### DESCRIPTION

MILPER's MRC-7002 is a high performance rugged computer designed specifically for Airborne, Naval and Military Tactical field applications.

**MRC-7002 Standard Interfaces:**

**LAN** - 2 x Intel® 82573L PCI Express Gigabit Ethernet Supports Boot From LAN (PXE)

**Display** Intel® 945GM chipset with integrated graphics controller, up to 64 MB of dynamic video memory allocation.

- Analog VGA interface:  
Resolution up to 1400X1050,
- LVDS interface: (Internal),  
Single (18bit) or dual pixel (36bit) LVDS panel
- CCFL interface :  
1 x CCFL for LCD Panel Backlight Inverter Power  
Pin 2,3 support 12VDC power source for inverter  
(Max. 12VDC@2A for each)

**Audio** - Realtek RTL655 CODEC for AC97 v2.1 CODECI, Interface: Mic in and Speaker out

**Expansion:**

- 1 x PCI Express slot
- 1 x PCIe x16 slot
- 1 x PCI slot

**I/O Interface:**

USB 2.0: 2 ports connector on front



USB 2.0: 4 ports, with 1x6 JST (2.5 mm )

Serial ports: 4 x SIO, support RS-232 only 1 x jumper to switch 5V and 12V power source

Parallel port: 1 port, with 2x13 box-header (2.0 mm)

Keyboard/Mouse

GPIO: Support 4 sets of general purpose I/O each with TTL level (5V) interface

**Storage:**

CF: 1x Internal CompactFlash socket Supports One Type I& II Compact Flash Card (Primary Master)

SATA: 2 x SATA ports, bandwidth: 150 MB/s

IDE: 1 x 44-pin IDE connector

DOM: 1 x 2-pin Jst power (+5V, GND ) for DOM

**System Monitor:**

5 voltage (For +3.3V, +5V, +12V, Vcore and +2.5V)

3 Temperatures (CPU, two external Temperature Sensor)

3 FANs speed (CPU and System FANs)

#### Watchdog Timer:

Watchdog Timer is programmable by software from 1 to 255 seconds (Tolerance 10% under room temperature 25°C)

#### On-board RTC

On-chip RTC with battery back up RTC Tolerance less than 2sec (24 hours) under 25°C environment

The modular construction of the MRC-7000-2 allows for the attachment of a range of peripherals, accessories, and interfaces.

120GB Internal Fix Hard Disk is a standard option.

The MRC-7002 can run MS-DOS, UNIX, QNX, WINDOWS or any other operating system designed for the PC.

The standard MRC-7002 operates from 20 - 30 VDC power source. With dimensions of only 5.87" High x 8.45" Wide x 12" Deep, the MRC-7000A is ideally suited for embedded applications requiring to survive tough environments.

## OPTIONS

- Up to 16 Gbyte Flash Disk
- Up to 120 GB Hard Disk
- MIL-STD-1553 Interface
- ARINC 429 Interface
- Customer Defined.
- Additional Serial Ports
- Customer's Interface
- More – Consult Factory

## ENVIRONMENTAL CHARACTERISTICS

### TEMPERATURE

|                |              |
|----------------|--------------|
| Operating:     | -18 - +55 °C |
| Optional       | -30 - +55 °C |
| Intermittent:  | -20 - +60 °C |
| Non Operating: | -30 - +71 °C |

### HUMIDITY

|                   |  |
|-------------------|--|
| Operating/Storage | MIL-STD-810C Method 507.1 Proc. I95% RH (non condensation) |
|-------------------|--|

### VIBRATIONS

|                   |   |
|-------------------|---|
| Hard Mount:       | MIL-STD-810D, Method 514.3, Category 4, Table 514.3-II & Fig. 514.3-25A |
| Shock Tray Mount: | MIL-STD-810D, Method 514.3, Category 6.                                 |

### SHOCK

|                       |   |
|-----------------------|---|
| Operating(Hard Mount) | MIL-STD-810D, Method 516.4, Proc. I, -15g 11ms. Saw Tooth |
| Shock Tray            | Designed to Customer Requirements                         |

### EXPLOSIVE

MIL-5400, Par. 3.2.2.4.10

### EMI/RFI

MIL-STD-461E

### DRIP PROOF

MIL-STD-810E

### ALTITUDE

|                |                                      |
|----------------|--------------------------------------|
| Operating:     | 15,000 ft.                           |
| Non Operating: | 45,000 ft. is optional<br>60,000 ft. |

### PHYSICAL CHARACTERISTICS

|        |                         |
|--------|-------------------------|
| SIZE   | 5.87"H x 8.45" W x 12"D |
| WEIGHT | 6 Kg.                   |
| POWER  | 20 - 30 VDC             |

These specifications are subject to change without notice