Cyberchron
Rugged Systems

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**Features:**
- Sealed high strength Monocoque Aluminum chassis
- Intel Pentium III or Celeron processor to 1GHz+
- 15” XGA Color Display, High-Brite option
- Up to 1GB RAM, up to 64MB video RAM
- Easily Removable shock tolerant hard drive
- Internal CD-ROM and Floppy drive (CD-R/W option)
- Sealed Backlit keyboard & pointing device, blackout
- Swappable Li-Ion rechargeable smart battery
- Dual slot PCMCIA Type I, II, III compatible
- Internal PC-104 expansion slot
- Pentium M and Mobile P4 CPU options

**Specifications:**
- Dimensions 14”D x 11.75”W x 3.75”H
- Operation Temperature: 0°C to + 50°C (-25 option)
- Shock absorbing corner bumpers
- Fully sealed against liquids and dust
- Internal 8 – 40VDC input; 86 – 264VAC adapter
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 15 lbs. (approx.)
**Features:**
- Sealed Magnesium alloy die-cast chassis
- Intel Pentium IV-M processor to 2.6GHz
- Up to 1GB RAM, up to 64MB video RAM
- 3 Removable Bays support mix of hard drive, flash drive, Li-Ion battery, DVD-R/W and Floppy
- PCMCIA support for 2 x Type 2 or 1 x Type 3
- Sealed, backlit keyboard and pointing device
- Internal Wireless/Radio support (mini-PCI), touch screen, docking station and GPS options

**Specifications:**
- Dimensions 10.2”D x 13.43”W x 2.09”H
- Operation Temperature: -10°C to + 55°C.
- Fully sealed against liquids and dust
- Internal 8 – 28VDC input; 86 – 264VAC adapter
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 9.9 lbs.
Features:
- High strength monocoque Aluminum chassis
- Internal dual Removable 2.5” hard drives, CD-ROM and floppy drive (CD-R/W & DVD-R/W option)
- Internal Militarized AC/DC power supply / charger
- Pentium III/4 CPUs to 3GHz+; up to 2GB RAM
- 12.1” to 17” SVGA, XGA & SXGA color TFT displays
- High-Brite display option
- Sealed keyboard & pointing device
- Internal Rechargeable UPS battery option
- Dual slot PCMCIA Type I, II, III compatible
- User accessible 7-slot passive PCI/ISA backplane

Specifications:
- Dimensions 18.62”D x 16.00”W x 6.87”H
- Operation Temperature: 0°C to + 50°C (-25 option)
- Shock absorbing corner bumpers, rackmount option
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 20 - 32 lbs.
**Features:**
- Sealed high strength monocoque Aluminum chassis
- Internal dual Removable 2.5” hard drives, CD-ROM and floppy drive (CD-R/W & DVD-R/W option)
- Internal Militarized AC/DC power supply / charger
- Pentium III/4 CPUs to 3GHz+; up to 2GB RAM
- 12.1” to 17” SVGA, XGA & SXGA color TFT displays
- High-Brite display option
- Sealed keyboard & pointing device
- Internal Rechargeable UPS battery option
- Dual slot PCMCIA Type I, II, III compatible
- User accessible 7-slot passive PCI/ISA backplane

**Specifications:**
- Dimensions 18.62”D x 16.00”W x 6.87”H
- Operation Temperature: 0°C to + 50°C (-25 option)
- Shock absorbing corner bumpers, rackmount option
- Fully Sealed against liquids and dust
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 20 - 32 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Internal dual Removable 2.5” hard drives, CD-ROM and floppy drive (CD-R/W & DVD-R/W option)
- Internal Militarized AC/DC power supply / charger
- All UltraSPARC Series CPUs with up to 2GB RAM
- 12.1” to 17” SVGA, XGA & SXGA color TFT displays
- High-Brite display option
- Sealed keyboard & pointing device
- Internal Rechargeable UPS battery option
- Dual slot PCMCIA Type I, II, III compatible
- User accessible PCI, Compact-PCI or S-Bus expansion slots (CPU dependent)

**Specifications:**
- Dimensions 18.7”D x 14.7”W x 5.5”H
- Operation Temperature: 0°C to + 50°C (-25 option)
- Shock absorbing corner bumpers, rackmount option
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 20 - 32 lbs.
- Peripheral and battery expansion modules available
Features:
- High strength monocoque Aluminum chassis
- Front accessible hard drive, Tape and Floppy drive
- Internal Militarized AC or DC power supply
- Large Custom Rear panel I/O cable/connector area
- User accessible 5-slot VME or Compact-PCI backplane
- Hinged, swing-out card cage for easy card access

Specifications:
- Dimensions 22.0”D x 17.00”W x 5.25”H
- Operation Temperature: 0°C to + 55°C (-25C option)
- Standard 19” rackmount or tabletop mount chassis
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 30-35 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Large front accessible drive bay, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- Intel Pentium III/4, PowerPC, UltraSPARC or any other VME or Compact-PCI processor
- 12.1” SVGA or XGA color TFT display, High-Brite options
- Sealed, fold-up and detachable front mounted keyboard and pointing device
- User accessible 8 or 10-slot VME or Compact-PCI backplane

**Specifications:**
- Dimensions 21.78”D x 16.56”W x 10.31”H
- Operation Temperature: 0°C to + 55°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 45 to 50 lbs.
Features:
- High strength monocoque Aluminum chassis
- Large front accessible drive bay, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- Intel Pentium III/4, Celeron or Alpha processors
- 10.4” or 12.1” VGA, SVGA or XGA color TFT displays, High-Brite option
- Sealed, fold-up and detachable front mounted keyboard & pointing device
- User accessible 10-slot PICMG backplane

Specifications:
- Dimensions 20.00”D x 16.9”W x 8.7”H
- Operation Temperature: 0°C to + 55°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 35 to 50 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Large front accessible drive bay, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- Single or multiple Pentium III/4 processors or Sun UltraSPARC CPU options
- Detachable, hinged Portrait-15 XGA or Portrait-19 SXGA color TFT displays
- Detachable, sealed keyboard & pointing device
- 6-7-slot PCI/ISA slots on ATX-type motherboard
- Passive PCI/ISA backplane option

**Specifications:**
- Dimensions 20.25”D x 17.75”W x 10.41”H
- Operation Temperature: 0°C to +50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 50 to 70 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Dual Removable hard drives plus floppy drive; CD-ROM, CD-R/W, DVD-R/W and Tape options
- Internal Militarized AC/DC power supply / charger
- Single or multiple Pentium III/4 processors or Sun UltraSPARC CPU options
- Detachable 10.4”, 12.1”, 15.4” or 17” VGA, SVGA, XGA and SXGA color TFT display options
- Dual slot PCMCIA Type I, II and III option
- PCI or S-Bus expansion slots (CPU dependent)
- Internal, rechargeable UPS battery option

**Specifications:**
- Dimensions 18.7”D x 14.7”W x 5.5”H
- Operation Temperature: 0°C to + 50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 30 lbs.
- Peripheral & battery expansion modules available
**Features:**
- High strength monocoque Aluminum chassis
- Large front accessible drive bay, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- Single or multiple Pentium III/4 processors or Sun UltraSPARC CPU options
- 6-7-slot PCI/ISA slots on ATX-type motherboard
- Passive PCI/ISA backplane option

**Specifications:**
- Dimensions 23.5”D x 16.9”W x 6.97”H
- Operation Temperature: 0°C to + 50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 25.5 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Large front accessible drive bay, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- Dual Redundant Power Supplies and Cooling Fans
- Dual Redundant Low Temp Drive Heater elements
- Dual Redundant RAID controller option, supports RAID 1, 3, 5, 1+0, 15, with hot swap/hot spare
- Full EMI shielding gasketing and easily removable dust filter elements
- U160/U320 SCSI, 12 drives per enclosure, all drive capacities and speeds, scalable to 3.6TB
- 1GB/2GB Fiber or U160/U320 SCSI interface

**Specifications:**
- Dimensions 23.5”D x 19”W x 6.97”H
- Operation Temperature: 0°C to + 50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 45.5 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Large front accessible drive bays, multiple configurations and support for all peripheral devices
- Internal Militarized AC/DC power supply
- RISC processor, 512MB RAM, Gigabit Ethernet
- Up to 2TB capacity in a single 1U (1.7”H) unit
- Supports all SATA drives with RAID 0,1, 5 and hot swap/hot spare
- Full Open Systems compatibility with easy to use browser based RAID/NAS management

**Specifications:**
- Dimensions 18.5”D x 16.9”W x 1.7”H
- Operation Temperature: 0°C to +50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 19.5 lbs.
**Features:**
- Sealed high strength monocoque Aluminum chassis
- Internal militarized AC or DC power supply
- 15.1” XGA, 19” and 20.1” SXGA color TFT displays
- High-Brite and Sunlight readable options
- Touch screen / pen input options
- NVG compatibility options
- State-of the art OSD controls for display parameters
- 170 degree Horizontal/Vertical viewing angles
- Panel mount, 19” rack mount and Tilt/swivel mount
- NEMA-4 ingress protection

**Specifications:**
- Dimensions: 15” 17.38”W x 13.94”H x 5”D  
  19” 16.72”W x 14.69”H x 3”D  
  20” 18.95”W x 17.62”H x 4.5”D
- Operation Temperature: 0°C to + 50°C (-25 option)
- Standard 19” rackmount or tabletop tilt/swivel mount
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 15 - 20 lbs.
Features:
- Sealed high strength monocoque Aluminum chassis
- Internal militarized AC or DC power supply
- 15” XGA, 19” and 20.1” SXGA color TFT displays
- Embedded Pentium III/4 CPU, HDD, PCMCIA and PC-104 expansion, Solid State mass memory option
- High-Brite and Sunlight readable options
- Touch screen / pen input options
- NVG compatibility options
- State-of the art OSD controls for display parameters
- 170 degree Horizontal/Vertical viewing angles
- External sealed keyboard & pointer
- NEMA-4 ingress protection

Specifications:
- Dimensions 15” 17.38W x 13.94H” x 5”D
  19” 16.72W x 14.69H x 5”D
  20” 18.95W x 17.62H x 5”D
- Operation Temperature: 0°C to + 50°C (-25 option)
- Standard 19” rackmount or tabletop tilt/swivel mount
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 20 - 24 lbs.
Features:
- Sealed, lightweight monocoque Aluminum chassis
- All keys and pointing device fully sealed against dust and liquids
- 19” rack mount drawer and custom options
- Standard PS/2 and Sun interfaces and layout
- Custom designs & layouts available
- NEMA-4 ingress protection

Specifications:
- Dimensions 16.0”W x 7.0”D x 1.70”H
- Operation Temperature: 0°C to + 50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Powered by computer keyboard port
- Net Weight: 4 lbs.
**Features:**
- High strength monocoque Aluminum chassis
- Internal militarized AC or DC power supply
- Up to 8 removable SCSI, FC-AL or EIDE drives
- Individual drive controls and indicators
- RAID and JBOD configurations
- Hot Swap / Hot Spare options
- 19” rack mount and bulkhead mount
- Hermetically sealed and dry nitrogen purged drive options
- Solid State drive options

**Specifications:**
- Dimensions 16.72”W x 19.25”D x 8.25”H
- Operation Temperature: 0°C to +50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- Net weight: 30 to 40 lbs.
**Features:**
- Custom rugged canisters
- High reliability blind-mating contacts
- Hermetically sealed and dry nitrogen purged options
- Peripheral trays and quick access designs
- Internal Shock and Vibration isolation
- SCSI, EIDE, FC-AL and other interfaces
- Solid State drive options

**Specifications:**
- Operation Temperature: 0°C to + 50°C, (-25 option)
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- NEMA-4 ingress protection option
**Features:**
- Lightweight high strength chassis designs
- Militarized DC or AC or dual AC/DC power supplies
- Custom display and interface options
- Embedded CPUs, drives and other electronics
- High-Brite and Sunlight readable options
- Touch screen / pen input option / NVG compatibility
- Intelligent System Monitors and Controls
- Custom mounting and interface arrangements
- VME, Compact-PCI, PCI/ISA, S-Bus and motherboard designs

**Specifications:**
- Operation Temperature: 0°C to + 50°C, (-25 option)
- Standard 19” rackmount or tabletop mount
- 86-264VAC; 10-20VDC / 18-36VDC power supplies
- MIL-STD-810E rugged; MIL-461 EMI/EMC option
- NEMA-4 ingress protection option
### General Performance Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Operating</th>
<th>Non-Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature</strong></td>
<td>0°C (32°F) to +50°C (+131°F)</td>
<td>-45°C (-49°F) to +70°C (+158°F)</td>
</tr>
<tr>
<td><strong>Altitude</strong></td>
<td>-1,000 Feet to 15,000 Feet</td>
<td>to 60,000 Feet</td>
</tr>
<tr>
<td><strong>Fungus</strong></td>
<td>Will Not Support Growth</td>
<td></td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>0-95% Non-Condensing</td>
<td></td>
</tr>
<tr>
<td><strong>Rain</strong></td>
<td>per MIL-STD-810E, Method 506.3, Procedure II</td>
<td></td>
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<tr>
<td><strong>Salt Fog</strong></td>
<td>per MIL-STD-810E, Method 509.3, Procedure I</td>
<td></td>
</tr>
<tr>
<td><strong>Sand / Dust</strong></td>
<td>per MIL-STD-810E, Method 510.3, Procedure I</td>
<td></td>
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<tr>
<td><strong>Solar Radiation</strong></td>
<td>Operation in Direct Sunlight, Minimum 30 Minutes</td>
<td></td>
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<tr>
<td><strong>Shock</strong></td>
<td>20g @ 11ms half sine, per MIL-STD-810E, Method 516.3, Procedure I</td>
<td>75g @ 11ms half sine, per MIL-STD-810E, Method 516.3, Procedure V &amp; 4 Feet Drop (in Transit Case)</td>
</tr>
<tr>
<td><strong>Vibration</strong></td>
<td>Specifications for Shipboard, Common Carrier, Mobile, Aircraft, Tactical Wheeled Vehicle per MIL-STD-810E, Method 514.3 &amp; MIL-STD-167/1 Type 1</td>
<td></td>
</tr>
<tr>
<td><strong>MTBF</strong></td>
<td>It is unrealistic to provide a generic MTBF, as it will vary with every configuration. The actual MTBF calculation for a specific configuration can be generated at an additional cost.</td>
<td></td>
</tr>
<tr>
<td><strong>MTTR</strong></td>
<td>&lt;30 Minutes</td>
<td></td>
</tr>
<tr>
<td><strong>EMI/EMC</strong></td>
<td>Designed to Meet FCC Class A &amp; B</td>
<td>MIL-STD-461C, D, E Class A1, A3, A4, A5</td>
</tr>
</tbody>
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Environmental Performance

Each product Cyberchron Rugged Systems manufacturers is designed and tested to meet a broad range of environmental conditions. Whether it is a military/government or an industrial/commercial application,

Cyberchron's many years of experience in equipment ruggedization allow us to provide the ultimate in environmental protection. Through continuous in-house testing, testing by outside certified houses, and a variety of deployed systems, we have verified the performance and reliability of our units.

Provided herein are the standard environmental characteristics for our products. Please note these characteristics are configuration-dependent and the data is subject to a final test on the specific configuration.

If your application requires additional environmental protection, Cyberchron Rugged Systems does have the ability to extend the characteristics beyond what is shown above. These extended conditions must be fully defined and agreed to by all parties in a written form. In most cases, this will increase the quoted price of a unit.
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