

**CHASSIS PLANS®**  
Systems Engineered to Perform®

# **INDUSTRIAL & COMMERCIAL SOLUTIONS**

## **RUGGED SERVERS, COMPUTERS & LCD DISPLAYS**

*EDITION 2017*

FOR MORE INFORMATION VISIT

**CHASSIS-PLANS.COM**



## **SOLUTIONS**

- Custom Design Solutions
- Transit Case and Rack Integration Systems
- Industrial Computer Systems
- Commercial Computer Systems
- Portable Computer Systems
- Rugged LCDs and Keyboards
- Rugged Zero/Thin Clients
- RAID Disk Storage



# CAPABILITIES



## ***COMPANY OVERVIEW***

Chassis Plans domestically designs, manufactures, and integrates standard and custom high-performance computing platforms, LCD displays, storage arrays and networking hardware for military, industrial, and commercial markets.

Our product focus centers around ruggedizing systems for harsh environments and maintaining revision control over COTS components and multi-year programs requiring hardware consistency. Chassis Plans is an ITAR registered and ISO 9001:2008 certified company that has been in operation in Southern California for over a decade.

With an in-house engineering department utilizing SolidWorks modeling software, Chassis Plans offers standard ruggedized products (COTS) and can design and build rapid prototype products that meet a client's unique environmental requirements in areas such as shock and vibration, storage and operating temperatures, and air filtration.

## ***CAPABILITIES***

Chassis Plans has a large selection of standard products that can serve as the basis for your specific design. By utilizing off-the-shelf hardware, coupled with application-specific modifications, a client can realize significant cost savings and quicker deployment time. Modifications can include something as simple as custom paint and/or logos or front panel modifications for product identification. Rear panel modifications are available to accommodate specific I/O cards, connectors, or a doghouse for an all-circular mil connector interface. Virtually any component in a standard product is eligible for modification.

Sometimes, an application mandates a custom solution. Chassis Plans' team of engineers can help you to define these custom requirements and bring the design to fruition. The Chassis Plans team has been responsible for more custom rugged computer systems and enclosures than anybody else in the field.

## ***FIVE YEAR LIMITED WARRANTY***

Chassis Plans' servers are all covered by our standard 5-year warranty and covers all parts and labor caused by component failure. Our warranty covers return to factory repair and the cost of the return of the product to you. Enhanced service policies are also available upon request. All LCDs, keyboards and other accessory products are protected by a 3 year limited warranty. This warranty policy covers replacement or repair of the original product at Chassis Plans' option and is made solely to the purchaser. It also assumes that the product has not been modified or subjected to unusual physical or electrical stress. This warranty is void for any product damaged due to improper packaging when returned for RMA purposes

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# CUSTOM COMPUTER SYSTEM DESIGN AND MANUFACTURE

CUSTOM SYSTEMS  
& SERVICES

Chassis Plans' design philosophy is to provide you ruggedly engineered, cost-effective, and highly customized commercial, industrial and military-grade computers and LCD displays.

Our systems can be rackmounted, panel mounted, free standing and/or completed integrated solutions with computer, LCD display, storage, power management and distribution.

TRANSIT CASE  
SERVICES&SYSTEMS

From prototype to production, Chassis Plans prides itself on quality custom computer systems, LCD displays, storage arrags, switches and keyboards. For turnkey projects or specialized engineering services, Chassis Plans understands how to overcome the technical challenges involved in converting innovative concepts into successful, timely products which exactly meet customer application requirements.

With an extensive database of off-the-shelf designs to draw upon, we'll be able to quickly create you a custom system that meets your application and environmental requirements.

INDUSTRIAL  
COMPUTER SYSTEMS

Chassis Plans is certified to ISO 9001:2008 standards, indicating that our engineering documentation and management standards meet the rigorous industry requirements of the ISO Certifying body. Full revision control and traceability for all engineered components and manufactured systems ensures viable long-term support.

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



# CUSTOM DESIGN SOLUTIONS

**PRODUCT:** CUSTOM RUGGED BULKHEAD-MOUNT ALL-IN-ONE COMPUTER

**MARKET:** MINING

**SEGMENT:** LARGE PRODUCTION EQUIPMENT PREDICTIVE FAILURE DETECTION

This customer required an “all-in-one” monitoring computer for their giant shovels. To avoid failures and unscheduled shutdowns in the field, this system would monitor all the moving parts, bearings, and so forth, and report any impending failures to a central location via a wireless modem. This would significantly improve production by these shovels by predicting failures and enabling the mechanics to proactively replace the faulty parts at scheduled shutdowns before the equipment failed in the field, thus eliminating down time. The system was composed of a GSM Modem with GPS, 5 port Ethernet switch, 15” LED backlit LCD with optically bonded glass and infrared touch panel, solid-state drive and built-in sealed keyboard with trackball in a sealed bulkhead mounted housing. Standard operating temperature requirements were -40 to +85°C with military-level vibration and shock specs.



**PRODUCT:** ULTRA-RUGGED WALL-MOUNTED COMPUTER

**MARKET:** MINING

**SEGMENT:** LARGE PRODUCTION EQUIPMENT MONITORING

Chassis Plans adapted an existing rugged 4U computer to work in the harsh environment inside a large dragline shovel in a mining operation. This system monitors the complex hydraulics and electronics on-board the shovel to provide predictive failure analysis. This wall-mount platform utilized rope coil isolators and other internal modifications to dampen and absorb the repetitive shock events and constant vibration experienced inside the shovel. These systems have been very successful with the customer and are deployed worldwide in the extreme environments found in open pit mining.



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

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ZERO/THIN CLIENTS RUGGED LCDS & KEYBOARDS

RAID ISK STORAGE

CUSTOM SYSTEMS  
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SERVICES&SYSTEMS

INDUSTRIAL  
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COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

**PRODUCT: ULTRA-RUGGED 4U COMPUTER**

**MARKET: OIL AND GAS**

**SEGMENT: MOBILE WELL LOGGING TRUCK**

This ruggedized 4U computer system was designed for mounting into oil well logging trucks as well as for installation onto off-shore oil drilling platforms. The enclosures were constructed from triple plated aluminum and stainless steel fasteners were used throughout. The system interior was cross braced for additional structural integrity during shock and vibration events and also included enhanced add-in card retention mechanism. Multiple internal removable hard drives with a custom cabling harness gave the system hard drive redundancy and the ability to quickly swap components as needed in the field. Unique to this design was a custom painted front panel and customer logo that allowed this product to integrate within the customer's existing product line for continued brand awareness.



**PRODUCT: CUSTOM 4U RACKMOUNT COMPUTER SYSTEM**

**MARKET: DATA ACQUISITION**

**SEGMENT: TELEMETRY DATA RECOVERY**

This customer requested a rugged 4U Chassis for a ground based telemetry recorder. They requested a design that incorporated a modular rear panel for a wide array of I/O connectors for the interface to various recording instrumentation. The recovered data may displayed, processed, distributed, exported, analyzed and recorded onto a removable storage device in IRIG106, Chapter 10, compliant files. The system can record and reproduce any combination of available channel types with a maximum of 14 available hardware interface slots.



# TRANSIT CASE AND RACK INTEGRATION SERVICES



Chassis Plans offers a comprehensive Integration Service that allows us to offer the Computer, LCD Display, Storage, Keyboard, Network Switches, Routers and power management devices including UPS and PDU's in either a Transit Case or 19" Rack. This allows the customer to have a system ready solution with one part number and system revision control. We manage the entire system integration with suppliers and our internal design and manufacturing team to allow you to have a single source of supply. The system will come fully tested and be ready to load your operating system. Systems are designed to meet Industrial standards to be able to perform in adverse environments.



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## INTEGRATION SERVICES MANAGEMENT INCLUDES

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RAID DISK STORAGE

- Clarify the Application and Environment
- Define Processing Needs, Memory Requirements, Drives, I/O Requirements
- Select an Appropriate Computer, Display and Keyboard
- Select the Appropriate Motherboard or Single Board Computer/Backplane
- Select the Right Power Supply
- Select Appropriate Drives
- Define and Select Other I/O (Video, Communications, Analog/Digital, Etc.)
- Specify Operating System and Application Software
- Define Environmental and Safety Certifications
- Complete System Documentation: BOM, Drawings, Assembly Instructions, Source Control
- Complete Revision Control for Components, BIOS, OS, Golden Disks
- Complete Turnkey Solutions Meeting Your Application Requirements
- All Rack Hardware Including Breakout Panels, Cabling, Shelves, UPSs
- Partnered With Several Case and Rack Manufacturers
- Integration and Management of third Party or Customer Supplied Equipment and Software
- Primary Customer Support for All Third Party Hardware & Software
- Cooling Optimized Solutions
- Feature Rich Designs
- Multiple Power Supply Options
- Appropriately Engineered Shipping Crates / Pallets
- Components Assembled in the USA
- Systems Engineered To Perform®





# TCS6U FAMILY

## 6U INDUSTRIAL-GRADE INTEGRATED TRANSIT CASE SYSTEMS



The TCS6U family is a pre-configured transit case system offering state of the art display technology with a tri-fold LCD supporting 1280 x 1024 resolution for each panel, the latest long-life motherboards, processors and chip sets in a 2U industrial-grade computer with a variety of slot configurations, a rugged sealed keyboard with a 38mm trackball, and an industrial-grade UPS to ensure filtered, clean power. Order as a turn-key, pre-tested system ready to run your application software. Your Configuration - One Part Number™ for ease of acquisition.

Please contact your Sales Engineer for current configuration information and pricing.

### ***ELECTRICAL FEATURES***

- All components are Revision Controlled for Long Availability
- Components Designed and Built to Meet Rugged Industrial Standards
- Tri-fold LCD with 1280 x 1024 Each Panel
- LED Backlights on LCD panels
- Latest Industrial-Grade LCD Controller
- Extended Temperature Option for System
- Option for Bonded Anti-Reflective, EMI on LCDs
- Sealed Industrial-Grade Keyboard & 38mm Trackball
- Latest Long-Availability Motherboard Selection
- Options for Core 2 Duo/Quad, Core i5/i7 and XEON E5 Processors
- Four 3-1/2" Hard Drives (rotating media or SSD)
- Variety of Slot Configurations Including Multiple PCIe x16
- Three Horizontal Full-Height or Seven Vertical Low-Profile Plug-in Cards

### ***MECHANICAL FEATURES***

- Transit Case to Meet Customer Specifications
- Watertight End Caps
- Shock-Isolated Components
- Easily Removable Shock-Isolated Inner Rack
- Industrial-Grade 5052-H32 Aluminum Construction for Computer, LCD and Keyboard
- Computer and LCD Front Panels are Milled Aluminum Billet for Strength
- Self-Locking Stainless Steel Hardware
- Captive Fasteners Where Appropriate
- Computer Provides Three High-Flow, High-MTBF Aluminum Body Fans
- SysCool® Adaptive Fan Controller in Computer
- Front Door on Computer Provides Air Filter and Honeycomb EMI Filter
- System Designed, Assembled and Supported in the USA

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RUGGED LCDs  
& KEYBOARDS

RAID DISK STORAGE

# INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

Chassis Plans' rugged industrial-grade systems are available in 1U through 5U (3U coming soon). These systems were designed from the ground up to ensure reliable operation when installed in your harshest environments. The different sizes all share a common design theme and all offer unparalleled performance.

## CHASSIS FEATURES

- Rugged 5052-H32 Aircraft Grade Aluminum
- Milled Solid Billet Front Panel
- Environmental Gasket on Front Panel
- Formed Welded Front Door
- Shock-Mounted Hard Drive Bays
- High-Reliability, Long-Life, High-Velocity Fans
- SysCool® Intelligent Fan Controller/Alarm Board
- 45PPI Air Filter
- ANSI/VITA 40-2003 Compliant Alarm LEDs
- Stainless Steel Self Locking Hardware

## ELECTRONICS FEATURES

- High-Performance Long-Availability Motherboards
- Intel® Core® i5, i7
- XEON® E3/E5 Processor Options
- Multiple Chipset Options
- Multiple Slot Options Including Four PCIe x16 Slots
- Multiple Hard Drive Options—Fixed & Removable
- High Performance Graphics
- Intel® Roadmap Components for Long-Term Availability
- Single & Redundant Power Supplies to 1500W

## LCD POWER ALTERNATIVE

Chassis Plans' 2U-5U industrial-grade computer systems offer an optional Exterior Power Jack to provide power to connected Chassis Plans LCD displays. By running the display with the computer system's power supply, this Exterior Power Jack option can provide many benefits:

- Reduction in the number of required cables
- Elimination of additional equipment, i.e., a power brick
- Reduction in total system weight and cost

To enjoy these benefits, power up your new display with a Chassis Plans' server.



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## CHASSIS CONSTRUCTION

The enclosures in the Chassis Plans industrial product lineup are ruggedly built specifically to survive harsh environments typical of industrial applications. We start with lightweight but strong aircraft grade 5052-H32 aluminum alloy. We install a large number of stainless steel self-locking fasteners to hold it all together and not loosen in high vibration environments. The lid is held with captive screws to prevent losing hardware in the field.

The front panel is formed from a solid 1/4-inch thick aluminum billet. Into that we install an environmental gasket. The front door is welded and machined for a tight seal and held closed with multiple captive screws. We install a washable 45PPI air filter into the door to keep dirt out.

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

### HIGH TEMPERATURE

- 60°C Operational, 85°C Storage

### LOW TEMPERATURE

- 0°C Operational, -20°C Storage

### HUMIDITY

- 5-95%, Non-condensing

### VIBRATION

- 2G RMS 5-500Hz

### BENCH HANDLING SHOCK

- 20G @ 11ms

Dependent on Installed Components

## COOLING

These systems are equipped with ultra-high MTBF fans providing positive chassis pressure and more than enough air flow for cooling these high power systems. A SysCool® Intelligent Adaptive Fan Control Board runs the fans at the optimum speed to ensure reliable operation with minimum fan noise. The front panel LED indicators follow the ANSI/VITA 40-2003 standard for unambiguous alarm notification.

## MOTHERBOARDS

We offer you these systems with a selection of high-quality long-life motherboards providing a selection of chip sets and processors from Core 2 Duo to i3/i5/i7 and E5 and including 4/6/8/10/12 core dual XEON. Chip sets and processors are on Intel's Road Map for ensured future availability for multi-year program deployment. A variety of slot configurations allow installation of virtually any plug-in card. One example is a motherboard offering four PCIe x16 slots on double-wide spacing, which is perfect for constructing a four card GPU server. These are full bandwidth x16 slots and are not switched as on a backplane.

## DISK DRIVES

Enterprise-grade drives are offered for superior performance and reliability. The drives are shock mounted and can be fixed or removable. Rotating media or SSDs can be installed depending on your mission requirements. Systems offer options for slim DVDRW drives including Blu-Ray.



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RUGGED LIDS  
& KEYBOARDS

RAID DISK STORAGE

# R1U-20 FAMILY

## 1U INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

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COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 20" Deep
- Single or Dual XEON E5 CPU's
- 2x PCIe x16 (Gen 3.0) Card Slots
- Up to 3x 2-1/2" Shock-Isolated Removable Drives, and 1x Slim DVD
- 5x Fans with SysCool® Intelligent Fan Controller
- Front Panel Smart Card Reader (Optional)
- Redundant Power Supply



The R1U-20 system is ideal for those seeking a rugged rackmount 1U system designed to perform in confined spaces. A unit with high computational speed for industrial applications, the R1U-20 offers Intel® E5 processing power. Provision is made for (2x) PCI-e x16 (Gen 3.0) add-in cards secured with Delrin® blocks for high shock/vibration environments. Uniquely offered with an attached front door with installed air filter, this feature serves to protect the drive bays and other components from dust and dirt.

# CHASSIS SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 1.75" (H) x 19.0" (W) x 20.0" (D)
- 20 lbs. Fully Configured, Varies by Configuration

## POWER SUPPLY

- Output Power 600W
- Redundant Configuration
- Input 100 to 240Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available

## COOLING

- 5X 40mm Fans, 18CFM Each, Mounted Mid-Chassis
- Fans Are Aluminum Body 100,000 Hour MTBF
- Air Filter Mounted In Front Door
- SysCool® Intelligent Fan Control and Alarm Board

## FRONT PANEL DETAILS

- Power On/Off Momentary Switch, Alarm Reset Switch
- 2x USB
- LEDs - Power On, HDD Activity, Fan Fail, Over Temperature Alarm
- Single Front Door With 4 Thumbscrews, 45PPI Air Filter In Door

## DRIVE BAYS

- 3x 2-1/2" Hard Drive Bays
- Drives are Shock Mounted
- Slim DVDRW Installed Standard

## EXPANSION SLOTS

- 2x PCIe x16 (Gen 3.0)

## ENVIRONMENT

- Operating Temperature: 0° to 40°C (32° to 104°F)
- Storage Temperature: -40° to 70°C (-40° to 158°F)
- Humidity: 5 to 95% RH Non-condensing

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

### HIGH TEMPERATURE

- 40°C Operational, 70°C Storage

### LOW TEMPERATURE

- 0°C Operational, -40°C Storage

### HUMIDITY

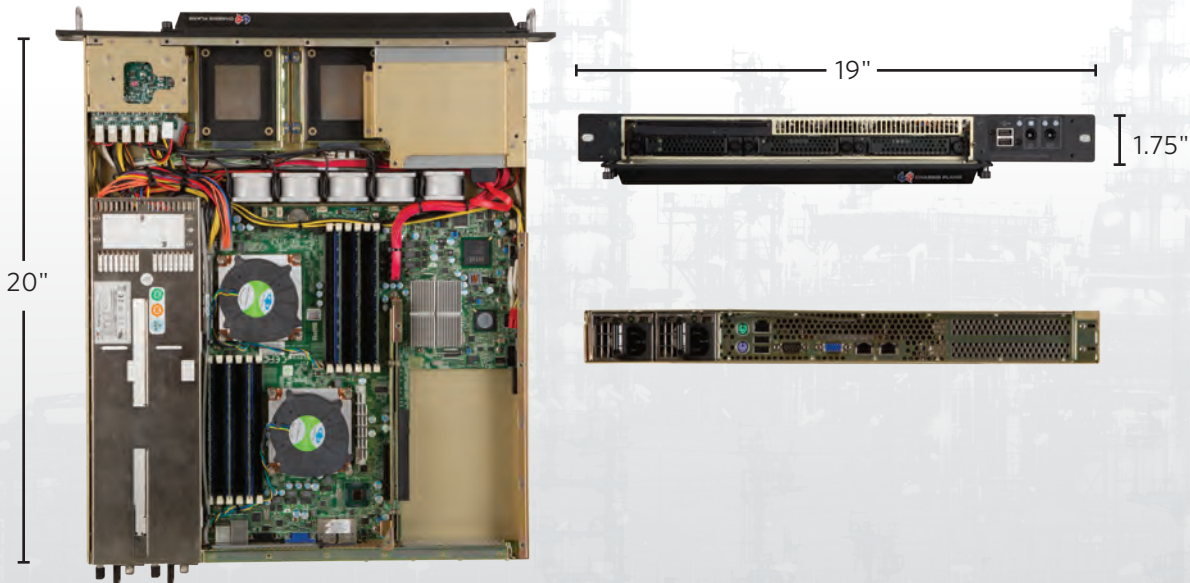
- 5-95%, Non-condensing

### VIBRATION

- 2G RMS 5-500Hz

### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/TWIN CLIENTS RUGGED LODS & KEYBOARDS

RAID DISK STORAGE

# R2U-20 FAMILY

## 2U INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 20" Deep
- Core Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 3x Horizontal or Seven Vertical Plug-in Card Slots
- Up to 3x 3-1/2" Drives, Fixed or Removable, Shock-Isolated
- 3x High Performance Fans with SysCool® Fan Controller
- Single or Redundant Power Supply



The R2U-20 system offers high performance with a variety of processor and chipset options including the latest Intel® i7 and E5 series and up to 256GB of high speed RAM. Two configurations offer three side mounted full-height or seven vertical low-profile plug-in cards. The heavier horizontal full-height cards are secured in place with Delrin® blocks for high vibration and shock environments. The system is exceptionally well cooled with three 80mm high-velocity, high-reliability fans for high-power CPUs in hot environments.

# CHASSIS SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 3.5" (H) x 19.0" (W) x 20.0" (D)
- 27 lbs. Fully Configured, Varies by Configuration

## POWER SUPPLY

- Output Power 600W
- Single or Redundant Options
- Input 100 to 240Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available

## COOLING

- 3x 80mm Long-Life Fans, 42CFM Each, Mounted Mid-Chassis
- Fans Are Aluminum Body 100,000 Hour MTBF
- Air Filter Mounted In Front Door.
- SysCool® Intelligent Fan Control and Alarm Board

## FRONT PANEL DETAILS

- Power On/Off Momentary Switch, Alarm Reset Switch
- 2x USB
- LEDs - Power On, HDD Activity
- Single Front Door with 3 Thumbscrews
- 45PPI Washable Air Filter Mounted in Front Door

## DRIVE BAYS

- 4x 3-1/2" Hard Drive Bays
- Drives are Shock Isolated
- Slim DVDRW Installed Standard

## EXPANSION SLOTS

- Systems can be Configured with 3x Horizontal Slots with Riser Card or with 7x Vertical Slots for Low-profile Cards.

## ENVIRONMENT

- Operating Temperature: 0° to 60°C (32° to 140°F)
- Storage Temperature: -20° to 85°C (-40° to 185°F)
- Humidity: 5 to 95% RH Non-condensing

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

### HIGH TEMPERATURE

- 60°C Operational, 85°C Storage

### LOW TEMPERATURE

- 0°C Operational, -20°C Storage

### HUMIDITY

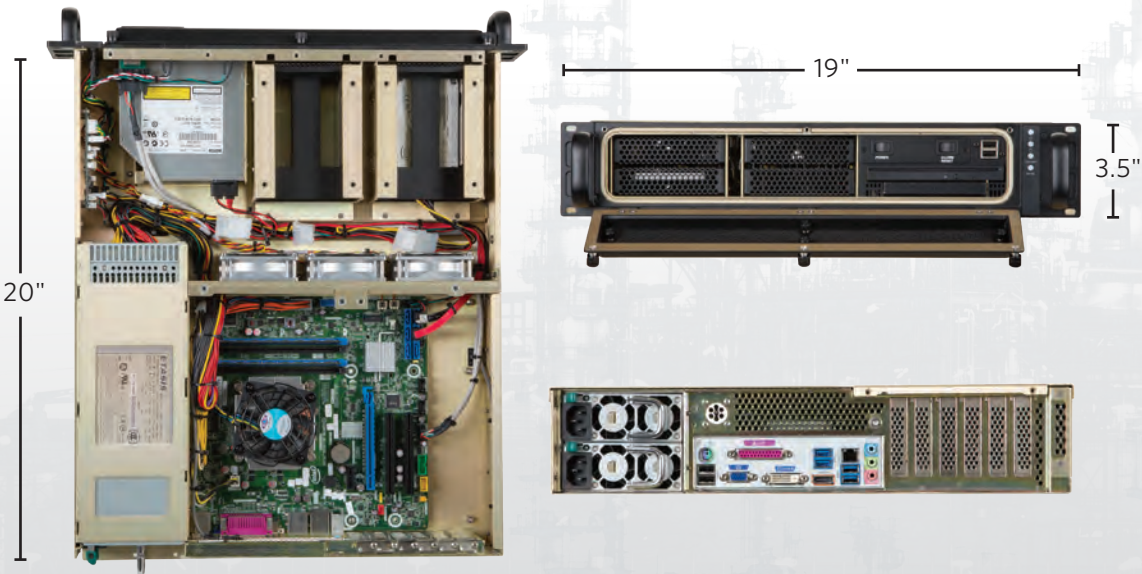
- 5-95%, Non-condensing

### VIBRATION

- 2G RMS 5-500Hz

### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS & SERVICES

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INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LOGS & KEYBOARDS

RAID DISK STORAGE

# R4U-20 FAMILY

## 4U INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 20" Deep
- Core Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- Motherboard with Seven Plug-in Card Slots
- Up to 3x 5-1/4" Drive Bays, Fixed or Removable, with Slim DVD
- 2x High Performance Fans with SysCool® Fan Controller
- Single or Redundant Power Supply



The R4U-20 system is a short 20" and is perfect for transit case installation with its rugged construction. The system offers the highest performance with a variety of processor and chipset options including the latest Intel® i7 and E5 series and up to 256GB of high-speed RAM. A card hold-down system secures plug-in cards in high vibration and shock environments to ensure reliable operation. The system is well cooled with two 92mm high-velocity, high-reliability fans for high-power CPUs in hot environments.



# CHASSIS SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 7.0" (H) x 19.0" (W) x 20.0" (D)
- 45 lbs. Fully Configured, Varies by Configuration

## POWER SUPPLY

- Output Power 600W
- Single or Redundant Options
- Input 100 to 240Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available

## COOLING

- 2 x 92mm Long-Life Fans, 60CFM Each, Mounted Front Panel
- Fans Are Aluminum Body 100,000 Hour MTBF
- Air Filter Mounted In Front Door
- SysCool® Intelligent Fan Control and Alarm Board

## FRONT PANEL DETAILS

- Power On/Off Momentary Switch, Alarm Reset Switch
- 2x USB
- LEDs - Power On, HDD Activity, Over Temperature, Fan Failure
- Single Front Door with 3 Thumbscrews
- 45PPI Washable Air Filter in Door

## DRIVE BAYS

- 3x Horizontal 5-1/4" Reduced-Height Drive Bays
- Multiple Options for Hot Swap Drives
- Slim DVD

## EXPANSION SLOTS

- 7x Card Slots With Card Hold Down Bracket

## ENVIRONMENT

- Operating Temperature: 0° to 60°C (32° to 140°F)
- Storage Temperature: -20° to 85°C (-4° to 185°F)
- Humidity: 5 to 95% RH Non-condensing

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

### HIGH TEMPERATURE

- 60°C Operational, 85°C Storage

### LOW TEMPERATURE

- 0°C Operational, -20°C Storage

### HUMIDITY

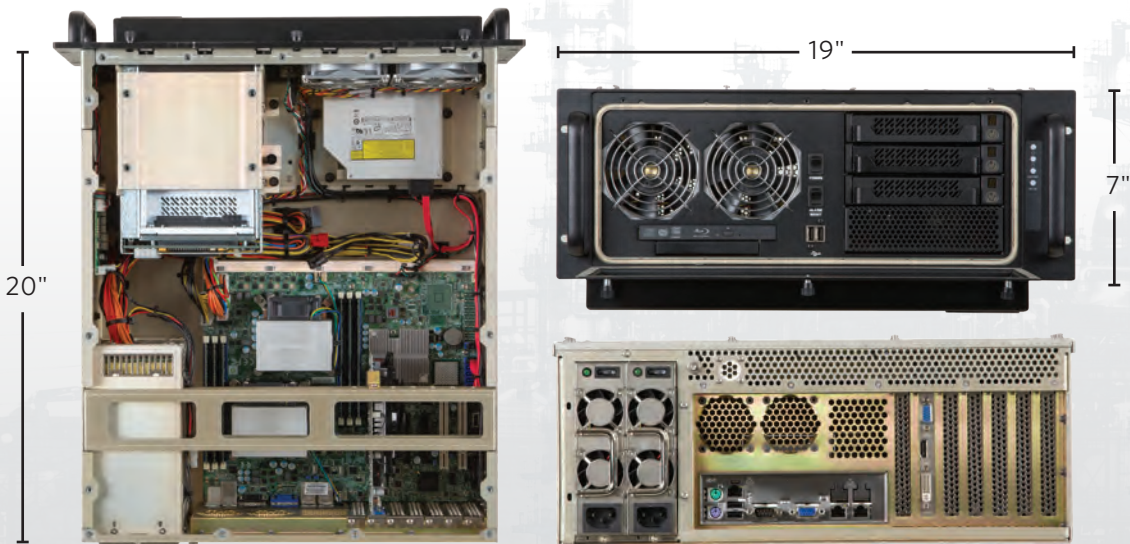
- 5-95%, Non-condensing

### VIBRATION

- 2G RMS 5-500Hz

### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS & SERVICES

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COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/TWIN CLIENTS  
RUGGED LOGS & KEYBOARDS

RAID DISK STORAGE

# R4U-26 FAMILY

## 4U INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 26.4" Deep
- Support for 11-Slot 13.2" x 15.2" Motherboards
- Support for Up To 20-Slot Passive Backplanes
- XEON E3/E5, Single and Dual Options
- 3x 5-1/4" Drive Bays
- 3x High Performance Fans with SysCool® Fan Controller
- Single or Redundant Power Supply



The R4U-26 system is optimized for high-performance 11-slot motherboards (13.2 x 15.2") offering either four x16 PCIe slots on double width spacing or ten x8 slots. The double-wide x16 slots allow the installation of such boards as GPU processors for ultimate performance. A card hold-down secures the plug-in cards in high vibration and shock environments to ensure reliable operation. Outstanding cooling is provided by the three 120mm high-performance fans to cool the highest power system in high-temperature environments.

# CHASSIS SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 7.0" (H) x 19.0" (W) x 26.4" (D)
- 47 lbs. Fully Configured, Varies by Configuration

## POWER SUPPLY

- Output Power 600W
- Single or Redundant Options
- Input 100 to 240Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available

## COOLING

- 3x 120mm Long-Life Fans, 120CFM Each, Mounted Mid Chassis
- Fans Are Aluminum Body 200,000 Hour MTBF
- Air Filter Mounted In Front Door
- SysCool® Intelligent Fan Control and Alarm Board

## FRONT PANEL DETAILS

- Power On/Off Momentary switch, Alarm Reset Switch
- 2x USB
- LEDs - Power On, HDD Activity, Over Temperature, Fan Failure
- Single Front Door with 3x Thumbscrews
- 45PPI Washable Air Filter in Door

## DRIVE BAYS

- 3x Horizontal 5-1/4" Half-Height Drive Bays
- Multiple Options for Hot Swap Drives
- Slim DVD

## EXPANSION SLOTS

- 7, 11, or 20x Card Slots With Card Hold-Down Bracket

## ENVIRONMENT

- Operating Temperature: 0° to 60°C (32° to 140°F)
- Storage Temperature: -40° to 70°C (-40° to 158°F)
- Humidity: 5 to 95% RH Non-condensing

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

### HIGH TEMPERATURE

- 60°C Operational, 70°C Storage

### LOW TEMPERATURE

- 0°C Operational, -40°C Storage

### HUMIDITY

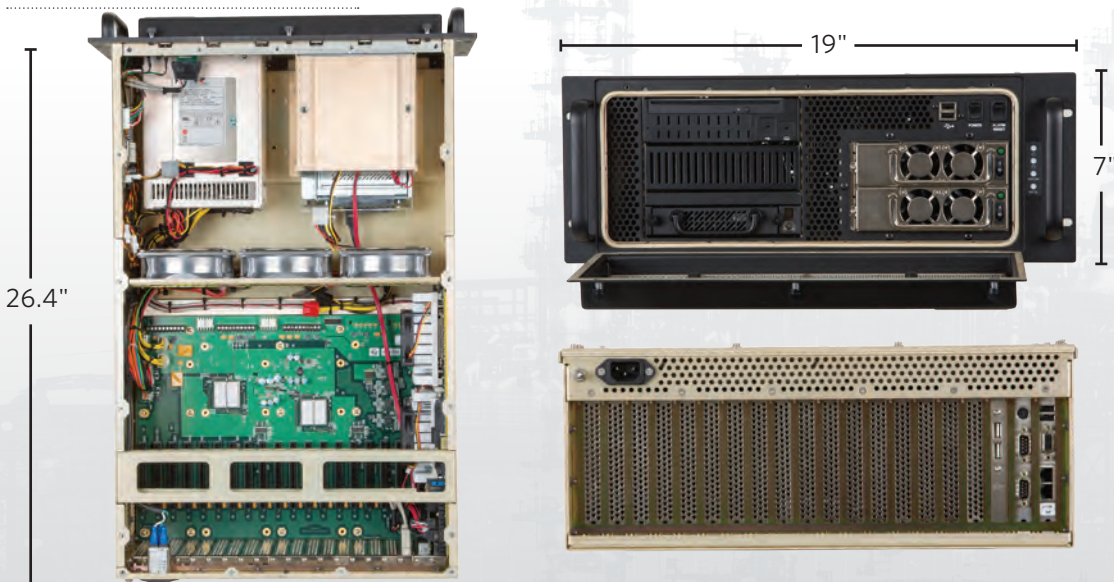
- 5-95%, Non-condensing

### VIBRATION

- 2G RMS 5-500Hz

### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LOGS & KEYBOARDS

RAID DISK STORAGE

# R5U-22 FAMILY

## 5U INDUSTRIAL-GRADE RACKMOUNT SYSTEMS

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 22" Deep
- Support for 11-Slot 13.2" x 15.2" Motherboards
- Support for Up To 20-Slot Passive Backplane
- XEON E3/E5, Single and Dual Options
- Up To 4x 3-1/2" Drive Bays
- 3x High Performance Fans with SysCool® Fan Controller
- 3+1 Redundant Power Supply



The R5U-22 system is optimized for large, high-performance, power hungry 11-slot motherboards with systems offered providing four double-wide x16 PCIe slots or ten x8 PCIe slots. The short 22" depth allows installation in areas that require a minimum depth chassis such as a transit case or submarine. The R5U-22 system is ideal for high power applications such as a GPU server platform powered by a reliable 3+1 redundant 1500W power supply. The system is cooled by three high-velocity, 200K hrs. MTBF 120mm fans.

## CHASSIS SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 8.75" (H) x 19.0" (W) x 22" (D)
- 62 lbs. Fully Configured
- Varies by Configuration

### POWER SUPPLY

- Output Power 1500W
- 3+1 Redundant Configuration
- Input 100 to 240Vac, 50/60Hz
- Auto Switching High Efficiency
- Other Options Available

### HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

#### ALTITUDE

- 12,000 ft. Operational
- 40,000 ft. Storage

#### HIGH TEMPERATURE

- 50°C Operational, 70°C Storage

#### LOW TEMPERATURE

- 0°C Operational, -20°C Storage

#### HUMIDITY

### COOLING

- 3x 120mm Long-Life Fans, 120CFM Each, Mounted Front Panel
- Fans Are Aluminum Body 200,000 Hour MTBF
- Air Filter Mounted in Front Door.
- SysCool® Intelligent Fan Control and Alarm Board

### FRONT PANEL DETAILS

- Power On/Off Momentary Switch, Alarm Reset Switch
- 2x USB
- LEDs - Power On, HDD Activity, Over Temperature, Fan Failure
- Single Front Door with 3x Thumbscrews
- 45PPI Washable Air Filter in Door

### DRIVE BAYS

- 4x 3-1/2" Hard Drive Bays
- Multiple Options for Hot Swap Drives
- Slim DVD

### EXPANSION SLOTS

- 7, 11 or 20x Card Slots With Card Hold Down Bracket

### TRANSPORT

- Operating Temperature: 0° to 50°C (32° to 122°F)
- Storage Temperature: -20° to 70°C (-4° to 158°F)
- Humidity: 5 to 95% RH Non-condensing

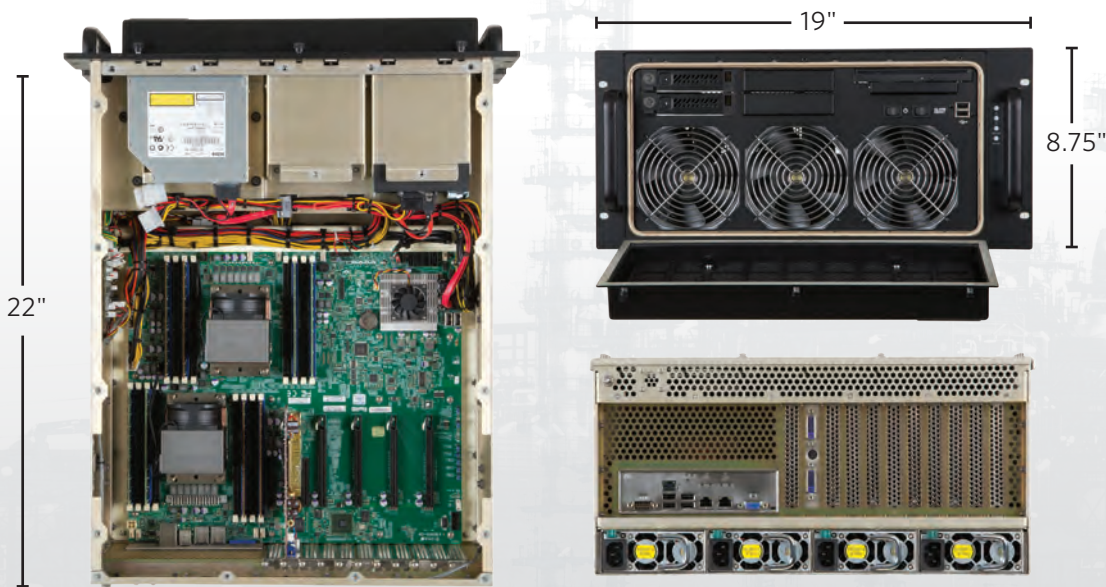
- 5-95%, Non-condensing

#### VIBRATION

- 2G RMS 5-500Hz

#### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS  
& SERVICES

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PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LODS  
& KEYBOARDS

RAID DISK STORAGE

# MTB-7 TABLET

## INDUSTRIAL-GRADE RUGGED TABLET

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Durable, chemical- and shock-resistant design
- Lightweight and ergonomic design
- Easy-to-grip, impact-absorbing, overmolded bumpers
- Quad-core Intel® Atom™ Z37453x Processor
- 4 GB RAM (LPDDR3) Memory
- 64 GB or 128 GB Flash Storage Options
- Intel® HD Graphics

In a sleek package with the highest-rated protection against water and dust, the Rugged Tablet can go with you into the harshest environments out there. Running Windows 10, the new MTB-7 brings powerful functionality to your mobile data collection, featuring a large, 7-inch, extra-bright display for easily viewing maps or images, all-day battery power lasting up to 15 hours, and of course, the unmatched ruggedness that Chassis Plans is known for.

## TABLET SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 5.40" (W) x 8.48" (L) x 1.36" (D)
- 1.5-2 lbs; Varies by Configuration

### TOUCH SCREEN

- Projected Capacitive Multi-Touch Interface for Use with Gloves, Small Tip Stylus, and in Wet Conditions
- Optically Bonded for Increased Visibility and Strength
- Chemically-Strengthened Dragontrail™ High Ion-Exchange (HIE™) Coverglass for Excellent Impact and Scratch Resistance

### DISPLAY

- Display Active Area: 7" (178 mm)
- Resolution: WXGA (1280 x 800)
- High-Visibility Backlit LCD for Best-In-Class Sunlight Viewability
- Portrait or Landscape Orientation with Automatic Screen Rotation

### BATTERY

- Removable Li-Ion battery, 39 Whr
- Operates 8-10 Hours on one Charge
- Battery Easily Changeable in Field
- Optimized for Strong Performance in Cold Temperatures
- Excellent Lifecycle Performance

### PORTS

- Peripheral(s): USB 3.0 x 1
- Aux Power Input: 12 VDC
- Docking Port Connections (Pwr, USB 2.0, & HDMI)
- Loud Output Speaker for Noisy Environments
- Dual Digital Microphone Input for Improved Clarity

### KEYBOARD

- Adjustable LED Backlit Keys
- Four-Way Directional Navpad
- Windows/Home Key
- Power Key
- Enter Key
- Three User-Programmable Function Keys
- OEM Configurable/Customizable

### OPTIONS

- Optional Built-in 19-Whr Battery Provides Additional 4-5 hours Runtime and Hot-Swap Capability
- Wireless Connectivity
- Optional RS-232 9-Pin D-Sub Connector with 5VDC Power Output
- Camera (Rear: 8 MP, Front: 2 MP)
- GPS/GNSS (2-5 Meter Typical Accuracy)
- Barcode 1D/2D Imager
- UH RFID

### HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

#### ALTITUDE

#### HIGH TEMPERATURE

- 50°C Operational, 70°C Storage

#### LOW TEMPERATURE

- -20°C Operational, -30°C Storage

#### HUMIDITY

#### TRANSPORT

#### BENCH HANDLING SHOCK

- Multiple Drops from 4' (1.2-1.5m) onto Concrete

#### BLOWING SAND AND DUST

#### RAIN

- IP68 Waterproof and Dustproof

 CUSTOM SYSTEMS  
& SERVICES

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COMPUTER SYSTEMS

 COMMERCIAL  
COMPUTER SYSTEMS

 PORTABLE  
COMPUTER SYSTEMS

 ZERO/THIN CLIENTS  
RUGGED LIDS  
& KEYBOARDS

RAID DISK STORAGE

# MTB-11 TABLET

## INDUSTRIAL-GRADE RUGGED TABLET

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 11.6" HD (1920 x 1080) Sunlight Readable Display
- Intel® Core™ i3-6100U Processor
- One DDR3L SO-DIMM Socket, up to 8 GB
- One M.2 for SSD, 64GB as the Default
- Projective Capacitive Multi-Touch Panel
- Two Hot-swappable Battery, 14.8V/ 2200mAh/ 2.2A
- 10/100/1000 Base-T Ethernet & RS-232/422/485 COM Port
- USB3.0 x 1 (Standard Connector), USB2.0 x 2 (Standard Connector)
- Programmable Function Key: Windows, Volume Up/Down, P1, P2, P3 with LED Illumination
- Kensington Lock Hole x 1
- Docking Connector with Pass-through ANT GNSS/WWAN
- Windows® 7, 8.1, 10



## TABLET SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 310.4 mm x 200 mm x 24.5 mm
- 3.3 lbs

### SYSTEM

- **Processor:**  
Intel® Skylake Core™ i3  
6100U 2.3GHz
- **System Memory:**  
One DDR3L SO-DIMM Socket,  
up to 8GB
- **LCD Display:**  
11.6" FHD(1920 X1080) TFT  
LCD with Projected Capacitive  
Multi-Touch screen
- **Storage:**  
1 x M.2(NGFF) slot for SSD
- **Communication:**  
WiFi 802.11 a/b/g/n  
Bluetooth® 4.0+EDR  
(Bluetooth® Keyboard/Mouse  
support )  
3G modem module (optional)
- **Navigation:**  
GPS
- **Camera:**  
Front camera: 2M  
Real camera: 5M with flash light
- **Sensor:**  
Light Sensor, Accelerometer,  
Gyroscope, E-Compass
- **OS:**  
Windows® 7,8,10(optional)
- **MTBF (Hours):** TBD

- **I/O Port:**  
DC-in Jack x 1  
USB 3.0 x 1  
USB 2.0 x 2  
RJ45 x 1  
COM x 1  
HDMI x1  
Micro SD Card Slot x 1  
3.5-mm stereo headphone jack  
x1  
Built-in Speaker & Microphone  
SIM Card Slot x 1

## HARSH ENVIRONMENTS

### HIGH TEMPERATURE

- 60°C Operational, 70°C Storage

### LOW TEMPERATURE

- -20°C Operational, -55°C Storage

### RAIN

- IP65 Waterproof and Dustproof

### BENCH HANDLING SHOCK

- 26 drop of 48 inches height to  
2" plywood over concrete with  
unit off

### VIBRATION

- ASTM 4169-99 Truck Assurance  
Level II, Schedule E (Unit is  
operating)

### ESD

- AIR +/- 16KV, CONTACT +/- 8KV

### EMC/SAFETY

- CE / FCC Class B / UL

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COMPUTER SYSTEMS

 PORTABLE  
COMPUTER SYSTEMS

 ZERO/TWIN CLIENTS  
RUGGED LQDS  
& KEYBOARDS

RAID DISK STORAGE

# COMMERCIAL GRADE COMPUTERS

Chassis Plans' commercial grade systems are available in 1U through 5U. These systems provide cost-effective solutions with quick delivery fit for use where your environment is harsher than an office IT space but less severe than where our fully rugged military-grade systems should be used. These systems offer revision control, for consistent long-term program deployment, and easy customization for when an off-the-shelf solution does not quite fit your requirements. Assembled in the USA for great quality and support.

## CHASSIS FEATURES

- Steel Construction
- Cost-Effective Solutions
- Revision Control for Long-Term Consistency
- Easy Customization to Your Requirements
- Variety of Drive Configurations
- Variety of Slot Configurations
- Front Door On Some Models
- Short Chassis Depths with Some Models
- Custom Paint and/or Logo Available
- Fit 19" Rack Systems

## ELECTRONICS FEATURES

- High-Performance, Long-Availability Motherboards
- Intel® Core® i5, i7 Options
- XEON® E3/E5 Processor, Single/Dual
- Multiple Chipset Options
- Multiple Slot Options Including Four PCIe x16 Slots
- Multiple Hard Drive Options—Fixed & Removable
- High-Performance Graphics
- Intel® Roadmap Components for Future Availability
- Single & Redundant Power Supplies to 1500W



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ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

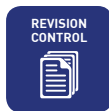
# C112 FAMILY

## 1U COTS CONFIGURED RACKMOUNT SYSTEM



### FEATURES

- Only 16" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 1x PCIe x16 Plug-In Card Slot
- 1x Internal Hard Drive, 1x Slim DVD
- 3x Cooling Fans
- 400W Power Supply



The C112 Series is a very short 1U system at only 16" deep. This is a perfect system for space constrained applications. Three motherboard options provide i5/i7 or XEON E3 performance. A single horizontal card slot provides for a single PCIe x16 card. Mounted in the front panel are a slim DVDRW drive and a single internal 3-1/2" hard drive is provided. The system is cooled by three 40mm fans mounted mid-chassis and a 400W power supply provides ample power. A front door protects the system.



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COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/TWIN CLIENTS  
RUGGED LODS  
& KEYBOARDS

RAID DISK STORAGE

# C105 FAMILY

## 1U COTS CONFIGURED RACKMOUNT SYSTEM

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 21.3" Deep
- Core-i5/i7 Options
- XEON E3 Option
- 1x PCIe x16 Plug-In Card Slot
- 1x Internal Hard Drive, 1x Slim DVD
- 5x Cooling Fans
- 400W Power Supply



The C105 Series is 1U by 21.3" and offers four motherboard choices providing Core-i5/i7 or XEON E3 performance. These systems provide a good balance of size versus performance. A single horizontal card slot supports a PCIe x16 plug-in card. Mounted in the front panel is a slim DVDRW, and two internal fixed 3-1/2" hard drives can be fitted. Cooling is provided by four 40mm fans mounted mid-chassis and two 40mm fans mounted on the rear panel. The power supply is rated at 400W. The front door protects the system.



# C213 FAMILY

## 2U COTS CONFIGURED RACKMOUNT SYSTEM



### FEATURES

- Only 17.7" Deep
- Core-i5/i7 Options
- XEON E3 Option
- 3x Plug-In Card Slots
- 1x 5-1/4" and 1x 3-1/2" External, 3x 3-1/2" Internal Drive Bays
- 3x Cooling Fans
- 400W Power Supply



The C213 Series is an ultra-short 17.7" deep and is perfect for your space constrained application. Four choices of motherboards offer Core-i5 / i7 or XEON E3 performance. Three horizontal plug-in card slots are provided offering a PCIe x16 option. A 5-1/4" drive bay is populated with a DVDRW, and three internal 3-1/2" drives can be configured as a RAID array. Cooling is provided by three 80mm fans. A 500W power supply is standard. A front door protects the system.



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/TWIN CLIENTS  
RUGGED LODS & KEYBOARDS

RAID DISK STORAGE

# C220 FAMILY

## 2U COTS CONFIGURED RACKMOUNT SYSTEM

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

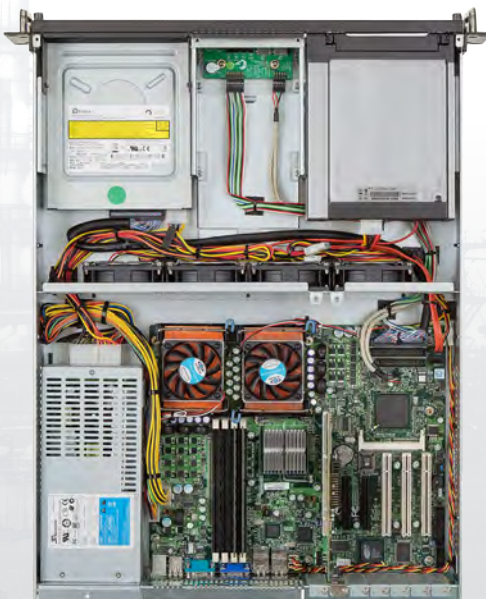


### FEATURES

- Only 22.4" Deep
- Core-i5/i7 Options
- XEON E3 Option
- 3x Horizontal or Seven Vertical Plug-in Card Slots
- 4x 5-1/4", 1x 3-1/2", 2x Internal 3-1/2" Drive Bays
- 4x Cooling Fans
- 500W Power Supply



The C220 Series provide Core i5/i7 or XEON E3 performance in a short 2U 22.4" deep chassis. Three horizontal or seven vertical card slots are provided. A wide variety of card slot options allow you to install your choice of plug-in cards. Four 5-1/4" drives are offered, one populated with a DVDRW drive. Two internal 3-1/2" drives are available. A high quality 500W power supply is provided. This system is ideal for your small area installation.



# C221 FAMILY

## 2U COTS CONFIGURED RACKMOUNT SYSTEM



### FEATURES

- 25.6" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 3x Plug-In Card Slots
- 4x 5-1/4", 1x 3-1/2", 2x Internal 3-1/2" Drive Bays
- 4x Cooling Fans
- 600W Power Supply



The C221 Series provide server-class performance in only 2U high supporting EATX motherboards. Three horizontal plug-in card slots are provided supporting full-length cards. A wide variety of slot configurations allows you to install your choice of plug-in cards. Four 5-1/4" drives can be configured for fixed or removable operation and support a RAID array. Two additional internal 3-1/2" drives can be fitted. Cooling is provided by four mid-chassis 80mm fans. A single or redundant 600W power supply provides ample power for your high-performance system.



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LODS & KEYBOARDS

RAID DISK STORAGE

# C313 FAMILY

## 3U COTS CONFIGURED RACKMOUNT SYSTEM

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 20.7" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 7x Plug-In Card Slots
- 2x 5-1/4" and 1x 3-1/2" Drive Bays, 7x Internal 3-1/2" Drives
- Four Cooling Fans
- 600W Power Supply, Single or Redundant



The C313 Series is a short 20" deep and only 3U high, allowing installation in your space-constrained spaces. The selection of high-performance motherboards offer Core-i5/i7 and XEON E3/E5 power for your application and cost-effective pricing. Two 5-1/4" drive bays can be configured as fixed or removable, and seven internal 3-1/2" drives can be configured as RAID. Two 92mm and two 60mm fans provide ample cooling. A front door with air filter protects the system.





# C346 FAMILY

## 3U COTS CONFIGURED RACKMOUNT SYSTEM



### FEATURES

- 25.6" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 7x Plug-In Card Slots
- 6x 5-1/4" Drive Bays, Fixed or Removable
- 2x Internal Fixed Drives, 1x 3-1/2" Drive Bay
- 4x Cooling Fans
- 600W Power Supply, Single or Redundant



The C346 Series systems offer superb performance choices in a low 3U package. EATX motherboards offer server-class operation supporting single and dual high-performance XEON processors. Six 5-1/4" drives can be configured as fixed or removable and support RAID arrays. Seven vertical plug-in slots and a wide selection of slot configurations will support your choice of plug-in cards. Ample cooling for power hungry systems is provided by four mid-chassis fans. A 600W single or redundant power supply is offered.



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/TWIN CLIENTS  
RUGGED LODS & KEYBOARDS

RAID DISK STORAGE

# C402 FAMILY

## 4U COTS CONFIGURED RACKMOUNT SYSTEM

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only 17.8" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 7x Plug-In Card Slots
- 3x 5-1/4" Drive Bays, Fixed or Removable
- 1x 3-1/2" Drive Bay
- 2x Cooling Fans with Filter
- 600W Power Supply, Single or Redundant



The C402 Series systems are the ideal solution for space-constrained applications. At only 17.8" deep, they will easily fit any short-depth rack. They offer superb performance with Core i5/i7 and XEON E3/E5 processor options. Three 5-1/4" drives can be configured as fixed or removable in a RAID array. Cooling is ample with two 92mm fans. A selection of plug-in card slot choices allow you to fit your choice of boards. A hold-down bar secures the plug-in cards.



# C414 FAMILY

## 4U COTS CONFIGURED RACKMOUNT SYSTEM



### FEATURES

- Only 20.1" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 7x Plug-In Card Slots
- 3x 5-1/4" Drive Bays, Fixed or Removable
- 1x 3-1/2" -Drive Bay
- 2x Cooling Fans with Filter
- 600W Power Supply, Single or Redundant



The C414 Series systems are our number-one seller for a variety of reasons. They are competitively priced with a good feature set and great value. The ATX motherboard offers Core i5/i7 and XEON E3/E5 processors to hit your performance point. A variety of plug-in card slot configurations are available. Three 5-1/4" drives can be configured as fixed or removable drives. Two huge 120mm fans cool the system. A card-hold down bar secures the plug-in cards.



CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/TWIN CLIENTS  
RUGGED LODS  
& KEYBOARDS

RAID DISK STORAGE

# C431 FAMILY

## 4U COTS CONFIGURED RACKMOUNT SYSTEM

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 26.4" Deep
- Core-i5/i7 Options
- XEON E3/E5, Single and Dual Options
- 7x Plug-In Card Slots
- 6x 5-1/4" Drives Bays Fixed or Removable
- 1x 3-1/2" Drive Bay
- 4x Cooling Fans with a Filter in the Door
- 700W Power Supply, Single or Redundant



The C431 Series provide server-class operation in a 4U system. Dual processor EATX motherboards and a variety of PCI Express slot configurations allow for installation of a wide variety of plug-in cards. XEON processors will power your application. Six 5-1/4" drive bays can be configured with fixed or removable drives and set up in a RAID configuration. A 700W power supply can be single or redundant. A card hold-down bar secures the plug-in cards.



# C528 FAMILY

## 5U COTS CONFIGURED RACKMOUNT SYSTEM

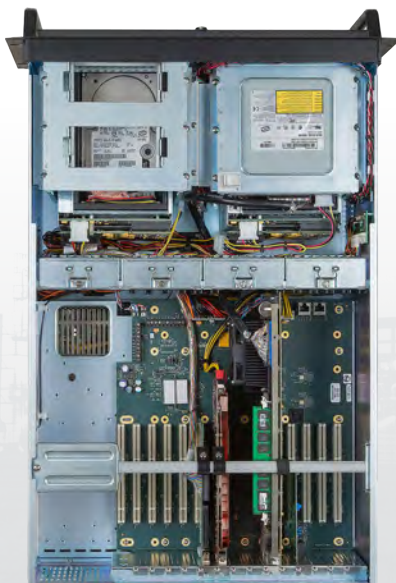


### FEATURES

- 26.4" Deep
- XEON E5
- 4x PCIe x16 Double-Wide or 10x PCIe x8 Card Slot Options
- 8x 5-1/4" Drives, Fixed or Removable
- 1x 3-1/2" Drive Bay
- 4x Cooling Fans with a Filter in the Door
- 1350W Redundant Power Supply



The C528 Series systems offer server-class performance with XEON processors. High-speed RAM can be populated for memory intensive applications. Eight 5-1/4" drive bays allow a wide variety of drive configurations with fixed or removable carriers and a selection of RAID setups. The 1550W N+1 redundant power supply provides more than enough power for anything you can configure in this system. And the selection of PCI Express slot counts allow you to install a wide variety of plug-in cards including up to four double-wide x16 cards.



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RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

Many mobile applications require the functionality of a full-size computer with multiple drives and plug-in cards for which a laptop or tablet will not suffice. Chassis Plans offers two models of high-quality portable computers with the features you require. These systems offer the same functionality of a desktop computer with the advantage of all necessary peripherals built in. These rugged portable PCs are designed for applications such as computer forensics, UAV flight control systems, remote GIS and mapping, and flight line data acquisition, analysis, and control.

**CHASSIS FEATURES**

- Rugged Aluminum Alloy Construction
- 17" 1280 x 1024 and 21.5" 1920 x 1080 TFT LCDs
- Fits ATX Motherboard
- Seven Full Height Card Slots
- Variety of Drive Configurations
- High Flow Cooling Fans
- Various Power Supply Options
- Detachable Full Feature Keyboard
- Padded Wheeled Transit Case Included

**ELECTRONICS FEATURES**

- High-Performance, Long-Availability Motherboards
- Core i5 and i7 Processor Options
- XEON E3/E5 Multiple Chipset Options
- Multiple Card Slot Options
- Multiple Hard Drive Options—Fixed & Removable
- High-Performance Graphics
- Intel Roadmap Components for Future Availability
- Single and Redundant Power Supplies



# P321 FAMILY

## PORTABLE COMPUTER



### FEATURES

- 3x 21.5" SXGA 1920 x 1080 LCDs
- Core i5/i7 Processor Options
- XEON E3 Option
- 6x 3-1/2" Hot Swap Drive Carriers
- 3x 5-1/4" Drive Bays
- 7x Plug-In Card Slots with 1x PCIe x16
- Detachable Keyboard
- 1000W Power Supply

The P321 is unique in offering three 21.5" 1920 x 1080 resolution LCD displays with LED backlights in a portable computer system. Effective viewing area is 5760 x 1080. The displays in the P321 system are connected to high-performance Graphics Processor offering outstanding video performance. The motherboard choices provide ample processing power. Six hot swap drive carriers provide up to 24TB of RAID storage. Three 5-1/4" drive bays offer expansion. Seven plug-in cards are accommodated and held in place with a card hold-down bar. A full feature detachable keyboard is included. Also included is a wheeled padded transit case.

### SYSTEM SPECIFICATIONS

#### PHYSICAL DIMENSIONS

- 15.3" (H) x 21.1" (W) x 11.7" (D) (Closed)
- 15.3" (H) x 59.1" (W) x 11.7" (D) (Open)
- 55 lbs (Varies by Configuration)

#### LCD FEATURES

- Three 21.5" TFT Displays
- 1920 x 1080 Each (5760 x 1080 Effective)
- 250cd/m<sup>2</sup> Brightness
- 1000:1 Contrast
- 160° Viewing Angle
- 5ms Response Time
- Anti-Glare Hard Coat Standard

#### COOLING

- 1x 120mm External Fan
- Positive Chassis Pressure

#### CHASSIS DETAILS

- Rugged Aluminum Construction
- Accommodates an ATX Motherboard
- 7x Full Height Card Slots
- Rubber Corner Bumpers
- Detachable Full-Feature Keyboard

#### DRIVE BAYS

- 6x 3-1/2" Hot Swap Hard Drive Bays
- 3x 5-1/4" Drive Bays
- RAID 0, 1, and 5 Supported
- Slim DVDRW Installed Standard

#### ENVIRONMENT

- Operating Temperature: 0° to 50°C (32° to 122°F)
- Storage Temperature: -20° to 60°C (-4° to 140°F)
- Humidity: 5 to 95% RH Non-condensing

#### POWER SUPPLY

- Output Power 1000W
- Single or Redundant options
- Input 90 To 260Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LODS & KEYBOARDS

RAID DISK STORAGE

# P370 FAMILY

## PORTABLE COMPUTER

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& SERVICES

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COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

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ZERO/TIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 17" SXGA 1280 x 1024 TFT LCDs
- Core i5/i7 Processor Options
- XEON E3 Option
- 2x 5-1/4" and 1x 3-1/2" Drive Slots
- 7x Plug-In Card Slots with 1x PCIe x16
- Detachable Keyboard
- 600W ATX Power Supply

The P370 offers one 17" 1280 x 1024 resolution LCD display in a portable computer system. A touch screen can be fitted and optional enhancement filters can be provided for improved viewing. Pre-configured systems provide a choice of Core i5/i7 or XEON E3 high-performance processors. Memory can be installed in the Core i5 and i7 systems. A full feature detachable keyboard is included. Also included is a wheeled padded transit case.

### SYSTEM SPECIFICATIONS

#### PHYSICAL DIMENSIONS

- 14.1" (H) x 17.1" (W) x 9.0" (D)
- 29 lbs (Varies by Configuration)

#### LCD FEATURES

- One 17" TFT Display
- 1280 x 1024 Each (3840 x 1024 Effective)
- 300cd/m<sup>2</sup> Brightness
- 800:1 Contrast
- 160° Viewing Angle
- 5ms Response Time
- Anti-Glare Hard Coat Standard

#### COOLING

- 2x 120mm External Fans
- Positive Chassis Pressure

#### CHASSIS DETAILS

- Rugged Aluminum Construction
- Accommodates an ATX Motherboard
- 7x Full Height Card Slots
- Rubber Corner Bumpers
- Detachable Full Feature Keyboard

#### DRIVE BAYS

- 2x 5-1/4" and 1x 3-1/2" Hard Drive Bays, 1x 3-1/2" Drive Bay
- RAID 0, 1, and 5 Supported
- Slim DVDRW Installed Standard

#### ENVIRONMENT

- Operating Temperature: 0° to 50°C (32° to 122°F)
- Storage Temperature: -20° to 60°C (-4° to 140°F)
- Humidity: 5 to 95% RH Non-condensing

#### POWER SUPPLY

- Output Power 650W
- Single or Redundant options
- Input 90 To 260Vac, 50/60Hz Auto Switching High Efficiency
- Other Options Available



# RUGGED INDUSTRIAL GRADE RACKMOUNT AND PANEL MOUNT LCD DISPLAYS



Utilizing the highest quality LCD displays and keyboards, Chassis Plans' rackmount keyboards, rackmount LCD monitors, and monitors with keyboards are assembled in the USA. All share a rugged industrial-grade design philosophy to provide systems that will reliably perform in the harshest environments. The LCD panels are enterprise grade for high performance and extended availability. LCD enhancements include bonded anti-reflective oleophobic and EMI overlays. Hi-bright panels for direct sunlight use are available. The LCD controllers are industrial-grade providing the inputs and features you need to meet your installation objectives.

## CHASSIS FEATURES

- Lightweight Rugged 5052-H32 Aircraft-Grade Aluminum
- Milled Solid Billet Front Panel (1U and 2U Displays)
- Extended Availability Enterprise-Grade LCD Panels
- Standard Temperature Range: -20°C to +70°C Operating
- Bonded EMI Filter Option
- Bonded EMI Glass
- Variety of LCD Resolutions
- Variety of Keyboards
- 12VDC, 110/220VAC, 28VDC
- Designed to Meet and Tested to Stringent Industrial Standards

## CONTROLLER FEATURES

- High Performance Industrial Grade LCD Controllers
- aRGB, DVI-D, HDMI, Composite Video Inputs
- Optional HD & SD Component and HD-SDI Inputs
- Picture-In-Picture / Picture-By-Picture
- Image Up / Down Scaling
- Variable Aspect
- Freeze and Zoom Function
- Auto Setup and Wide Screen Detection
- RS232 and Ethernet Remote Command Protocol
- Text Overlay Function
- Custom Display Scaling

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& KEYBOARDS

RAID DISK STORAGE

# TFX TRI-FOLD

## 2U RACKMOUNT INDUSTRIAL-GRADE LCD DISPLAY

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& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Only Tri-Fold Rugged Industrial Display with Height of 2U
- Long Life 19" TFT LCDs with LED Backlight
- 1280 x 1024 Max Resolution Per Panel
- aRGB, DVI-D, HDMI, Composite Video Inputs
- Bonded Oleophobic Anti-Reflective Glass Option
- Industrial-Grade LCD Controller



The TFX is a rugged industrial-grade high performance 2U rackmount LCD display offering three 19" TFT LCD displays with per panel resolution of 1280 x 1024. Display options include a bonded oleophobic anti-reflective glass cover and a bonded ITO EMI filter. The system is built to stringent industrial standards and includes an industrial-grade wide temperature range LCD controller and other rugged components. The highly sophisticated controller accepts aRGB, DVI-D, and HDMI inputs. The TFX also includes an audio amplifier with speakers.



# DISPLAY SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 3.5" (H) x 24.0" (D)  
x 19.0" (W) Closed
- 19.2" (H) x 24.0" (D)  
x 50.0" (W) Open
- 37 lbs

## EXTENDED TEMPERATURE DISPLAY

- -20° to 70°C Operating Temperature
- 1500cd/m<sup>2</sup> Brightness
- 800:1 Contrast Ratio
- 160° Viewing Angle

## STANDARD TEMPERATURE DISPLAY

- 0° to 50°C Operating Temperature
- 350cd/m<sup>2</sup> Brightness
- 1500:1 Contrast Ratio
- 170° Viewing Angle
- Anti-Glare Hardcoat Standard

## DISPLAY ENHANCEMENTS

- Bonded Oleophobic Anti-Reflective Glass Overlay
- Bonded EMI Shield

## VIDEO CONTROLLER FEATURES

- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.3
- Image Up/Down-Scaling
- Picture-In-Picture
- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function
- S-Video Input

## POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 10,000 ft. Operational, 30,000 ft. Storage

### HIGH TEMPERATURE

- 70°C Operational, 80°C Storage

### LOW TEMPERATURE

- -20°C Operational, -40°C Storage

### HUMIDITY

- 5-95%, Non-condensing

### BLOWING SAND AND DUST

### VIBRATION

- 2G RMS 5-500Hz

## CONFIGURATOR

FAMILY	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT
TFX1= Trifold Extreme	191A= 19" Std Bright LCD (1.1mm Coated Cover Glass w/Dura-Block Coating)	H1= VGA, DVI=D & HDMI VIDEO Inputs	A= Universal AC Input Adapter
	191B= 19" Std Bright LCD (No Cover Glass)	J1= VGA, DVI-D, COMPOSITE & S-VIDEO Inputs	B= 12 VDC
	191E= 19" Std Bright LCD (1.1mm AR Coated Cover Glass w/EMI Shield & Dura-Block Coating)		C= 28 VDC
	193A= 19" High Bright LCD (3.0mm AR Coated Cover Glass w/Dura-Block Coating)		D= 12 VDC to Chassis Plans Workstation
	193B= 19" High Bright LCD (No Cover Glass)		
	193E= 19" High Bright LCD (1.1mm AR Coated Cover Glass w/1.1mm EMI Shield & Dura-Block Coating)		

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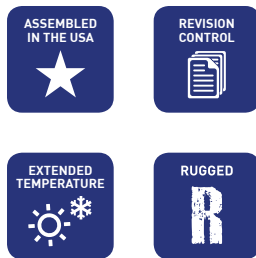
# CCI-19 DISPLAYS

## 1U RACKMOUNT INDUSTRIAL-GRADE LCD KEYBOARD



### FEATURES

- 1U High Rugged Industrial Design
- Short 24.4" Deep Clamshell Design
- Rigorously Tested to Stringent Industrial Environmental Standards
- Long Life 19" LCD with LED Backlight
- 1280 x 1024 Max LCD Resolution
- Sealed Keyboard with Hula Point or Glide Point Mouse Pointer
- Bonded Oleophobic Anti-Reflective EMI Overlay
- Two Industrial-Grade LCD Controller Options



The CCI rackmount LCD keyboard drawers offer all the features you need for your harsh environment application. This extremely rugged, industrial-grade design has passed a rigorous set of industrial environmental tests. The LCDs are best in class offering LED backlights and long product availability. A variety of sophisticated industrial-grade LCD controllers are offered to accommodate virtually any input signal including DVI-D, HDMI, VGA, Video and even HD Component. Rugged 5052-H32 aluminum construction and sealed, NEMA4 spill-proof keyboards are standard features.

### CONFIGURATOR

FAMILY	KEYBOARD	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT
CCI= CP Clamshell Industrial	A= NEMA 4/IP65 113(key) Keyboard "Hula-Point"	191A= 19" LCD (Bonded EMI Shield & A/R Coating)	C1= VGA & DVI-D Video Inputs	A= Universal AC Input Adapter
	B= NEMA 4/IP65 Touch Pad Keyboard w/97 keys	191B= 19" LCD (No Bonding)	H1= VGA, DVI-D & HDMI Video Inputs	B= 12 VDC (Unterminated Cable)
		191C= 19" LCD (Bonded Vandal Shield & A/R Coating)	J1= VGA, DVI-D, COMPOSITE & S-VIDEO Inputs	C= 28VDC
		192A= 19" High Bright LCD (Bonded EMI Shield & A/R Coating)		D= 12 VDC to Chassis Plans Workstation
		192B= 19" High Bright LCD (No Bonding)		E= 48 VDC
		192C= 19" High Bright LCD (Bonded Vandal Shield & A/R Coating)		

## DISPLAY SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 1.75" (H) x 24.4" (D) x 19.0" (W)
- 21 lbs

### 19" LCD FEATURES

- LED Backlight
- 0° to 50°C Operating Temperature
- 350cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- 5ms Response
- 160° Viewing Angle
- Anti-Glare Hardcoat Standard

### DISPLAY ENHANCEMENTS

- Bonded Oleophobic Anti-Reflective Glass Option
- Bonded EMI Shield Option

### VIDEO CONTROLLER FEATURES

- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.3
- Composite Video Input
- S-Video Input
- PAL / NTSC / SECAM
- Sync On Green/Composite

- Image Up/Down-Scaling
- Picture-In-Picture
- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function  
Depends on Controller Selected

### POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC

### KEYBOARD FEATURES

- 97 Keys Sealed Silicone Rubber Keyboard with Touch Pad
- 113 Keys Sealed Silicone Rubber Keyboard with Hula Point
- Sealed Spill-Proof Design
- Full-Travel Keyboard Feel
- Tactile Keystroke

### HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

#### ALTITUDE

- 10,000 ft. Operational, 30,000 ft. Storage

#### HIGH TEMPERATURE

- 50°C Operational, 60°C Storage

#### LOW TEMPERATURE

- 0°C Operational, -40°C Storage

#### HUMIDITY

- 5-95%, Non-condensing

#### BLOWING SAND AND DUST

#### VIBRATION

- 2G RMS 5-500Hz

#### BENCH HANDLING SHOCK

- 20G @ 11ms


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& KEYBOARDS

RAID DISK STORAGE

# CCIR-17 DISPLAY

## 1U SIDE ACCESS LCD KEYBOARD



### FEATURES

- 1U High Rugged Industrial Design
- Unique Short-Depth Side-Access (Patent Pending)
- Long Life 17" LCD with LED Backlight
- 1280 x 1024 Max Resolution Per Panel
- Extended Temperature (-20° to +70°C) Operation
- Built-in 4-Port KVM
- Models for Right or Left Access



The CCIR-17 is a side-access, space efficient, industrial-grade, high-performance 1U rackmount clamshell LCD keyboard offering an extended-temperature 17" TFT display. The unique patent-pending side-access feature minimizes required aisle space by placing the operator next to the rack instead of sitting or standing in the aisle. There is no other 1U LCD keyboard which offers this space saving feature. Included are a single DVI-D port and a 4-port VGA KVM. Optional LCD enhancements include a bonded MIL-STD-461 EMI shield and/or bonded oleophobic anti-reflective glass overlay.

### CONFIGURATOR

FAMILY	KEYBOARD	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT
CCIR= RT Side Access LCD Industrial	A= NEMA 4/IP65 113(key) Keyboard "Hula-Point"	171A= 17" LCD (Bonded EMI Shield & A/R Coating)	C1= VGA & DVI-D Video Inputs	A= Universal AC INPUT Adapter
		171B= 17" LCD (No Bonding)		B= 12 VDC (Unterminated Cable)
		171C= 17" LCD (Bonded Vandal Shield & A/R Coating)		C= 28 VDC
				D= 12 VDC to Chassis Plans Workstation

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RAID DISK STORAGE

## DISPLAY SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 1.75" (H) x 24.4" (D) x 19.0" (W)
- 20 lbs with KVM

### LCD FEATURES

- 17" TFT LCD with LED Backlight
- -20° to 70°C Operating Temperature
- 350cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- 160° Viewing Angle
- Anti-Glare Hardcoat Standard

### VIDEO CONTROLLER FEATURES

- DVI-D and VGA Inputs
- Up Scaling to Fit Input To Panel
- Brightness, Contrast, RGB Adjust
- Color Temperature Adjust
- Input Source Select
- Conformal Coated
- RS-232 Serial Command Protocol

### DISPLAY ENHANCEMENTS

- Bonded Oleophobic Anti-Reflective Glass Option
- Bonded EMI Shield Option

### KVM FEATURES

- 4 Ports
- VGA Video Inputs
- PS/2 and USB Keyboard/Mouse Signals
- Hotkey Operation
- Auto Scan Option

### POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC

### KEYBOARD FEATURES

- 113 Keys Sealed Silicone Rubber Keyboard with Hula Point
- Sealed Spill-Proof Design
- Full-Travel Keyboard Feel
- Tactile Keystroke

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

#### ALTITUDE

- 10,000 ft. Operational, 30,000 ft. Storage

#### HIGH TEMPERATURE

- 70°C Operational, 80°C Storage

#### LOW TEMPERATURE

- -20°C Operational, -40°C Storage

#### HUMIDITY

- 5-95%, Non-condensing

#### BLOWING SAND AND DUST

#### TRANSPORT VIBRATION

- 2G RMS 5-500Hz

#### BENCH HANDLING SHOCK

- 20G @ 11ms


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# CLX-173/19 DISPLAY

## 1U INDUSTRIAL GRADE RACKMOUNT DISPLAY

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& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Industrial Grade LCD Panels in 17.3" HD and 19" Screen Sizes in Both Standard and High Bright Configurations.
- Screen Enhancements Include Bonded 3mm Cover Glass and EMI Shielding
- Controller Features Include Picture in Picture, Image Scaling and Control, Ethernet Control for Remote Management
- Rackmount Design for Multiple Rack Depths

The 1U CLX industrial grade rackmount display is designed to perform and engineered to last. The CLX-173/19 is designed to meet stringent industrial standards and its 5052-H32 aluminum construction and locking stainless steel hardware make the display inherently rugged and reliable. The CLX offers two LCD screen sizes and multiple LCD screen enhancement options. The unit offers two keyboard choices, a 83-key full travel or splash proof 82-key full travel keyboard with input in either touchpad or trackball formats.





# DISPLAY SPECIFICATIONS

## LCD FEATURES

- Industrial Grade LCD Panels in 17.3" HD and 19" Screen Sizes in Both Standard and High Bright Configurations

## VIDEO CONTROLLER FEATURES

- DVI-D and VGA Inputs
- HDMI
- S-Video and Composite

## DISPLAY ENHANCEMENTS

- Bonded 3mm Cover Glass
- Bonded EMI Shield Option
- Branding Options

## POWER OPTIONS

- AC/110V
- 12VDC
- 28VDC
- 48VDC

## KEYBOARD OPTIONS

- Standard Full Travel 83-Key with Either Integrated Optical Trackball or Touchpad and Two Mouse Buttons
- Splash Proof 82-Key, with Red Backlit Keys, with Optional 38mm Sealed Trackball or Multi-Gesture Trackpad and Two Mouse Buttons

## CUSTOMIZATION

- Multiple LCD Panel Size and Mounting Options Available
- LCD Upgrades Such As: High Bright, Circular Polarizers, NVIS and LCD Heaters
- Enclosure Modifications As Well As Complete Custom Housings
- Paint, Silk Screen and OEM

## RUGGEDIZED ENHANCEMENTS

- Milled 0.375" 6061-T6 Aluminum Front Panel with Integrated Front USB 3.0 Port, and Fold Down Pull Handle
- Ruggedized Lightweight 5052-H32 Aluminum Enclosure, Locking Hardware
- Optional Bonding of Soda Lime Cover Glass Not Only Ruggedized the LCD, But to Also Enhance the Mechanical, Optical and EMI Properties
- Video Controller Featuring Wide-Tolerance Power Supplies (+/-25%), Low Mass Tantalum Capacitors for Maximum Vibration and Shock Tolerance, Conformal Coating, Operating Temperature Range from -20°C to +70°C, Plus Calculated MTBF in Excess of 200K hours.
- Integrated Cable Management Arm

## CONFIGURATOR

FAMILY	KEYBOARD	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT
CLX= CP 1U Layflat	C= Cherry/TG3 Trackball USB	1731A= 17.3" LCD (Bonded EMI Shield & A/R Coating)	C1= VGA & DVI-D Video Inputs (Not for use with 17.3)	A= Universal AC Input Adapter
	D= Cherry/TG3 Glide Pad USB	1732B=17.3" LCD (No Bonding)	H1= VGA,, DVI-D & HDMI Video Inputs	B= 12 VDC (Unterminated Cable)
	G= Full Travel & Trackball USB	1731C= 17.3" LCD (Bonded Vandal Shield & A/R Coating)	J1= VGA, DVI-D, COMPOSITE & S-VIDEO Video Inputs	C= 28 VDC
	H= Full Travel & Glide Pad USB	1732A= 17.3" High Bright LCD (Bonded EMI Shield & A/R Coating)		D= 12 VDC to Chassis Plans Workstation
		1732B= 17.3" High Bright LCD (No Bonding)		E= 48 VDC
		1732C= 17.3" High Bright LCD (Bonded Vandal Shield & A/R Coating)		
		191A= 19" LCD (Bonded EMI Shield & A/R Coating)		
		191B= 19" LCD (No Bonding)		
		191C= 19" LCD (Bonded Vandal Shield & A/R Coating)		
		192A= 19" High Bright LCD (Bonded EMI Shield & A/R Coating)		
		192B= 19" High Bright LCD (No Bonding)		
		192C= 19" High Bright LCD (Bonded Vandal Shield & A/R Coating)		

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RAID DISK STORAGE

# CPI-241 DISPLAY

## 9U 24" RACKMOUNT LCD DISPLAY

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COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 9U High Rugged Industrial Design
- Designed to Meet Industrial Environmental Standards
- Long Life 24" LCD with LED Backlight
- 1920 x 1200 Max LCD Resolution
- Bonded Oleophobic Anti-Reflective and/or EMI Overlay
- Optional Infrared Multi-Touch Touch Screen
- Advanced Industrial-Grade LCD Controller
- Supports Virtually Any Input Signal



The CPI-241 mount-on-rack display is ideal for many rugged industrial applications, particularly ones that require extensive screen space, e.g., HD video plus a dashboard with gauges. The display has an InfraRed Touch Screen and supports Multi Touch Gesture technology (Windows 7/8/10). A bonded oleophobic anti-reflective glass overlay is standard and an optional micromesh EMI Filter is available. The advanced industrial grade LCD controller accepts virtually any video signal with optional HD-SDI. The controller provides advanced features such as picture-in-picture, picture-by-picture and text overlay. An amplifier and speakers are included.



# DISPLAY SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 15.47" (H) x 3.2" (D) x 23" (W)
- 26 lbs

## LCD FEATURES

- 24" LCD
- 1920 x 1200 Resolution
- LED Backlight
- 300cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- 14ms Response

- 178° Viewing Angle
- 0° to 50°C Operating Temperature
- Standard Bonded Oleophobic Anti-Reflective Glass Overlay
- Optional Bonded MicroMesh EMI Filter
- Standard 2W Audio Amp with Speakers

## DISPLAY ENHANCEMENTS

- Bonded EMI Shield Option
- Multi-Touch Touch Screen Option

## VIDEO CONTROLLER FEATURES

- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.3
- Composite Video Input
- PAL / NTSC / SECAM
- Sync On Green/Composite
- HD-SDI - SMPTE259M, 4.2.2
- 3G HD-SDI 424M 4.4.4
- Image Up/Down-Scaling
- Picture-In-Picture
- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function
- Infra-Red Remote Control

## POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 10,000 ft. Operational, 30,000 ft. Storage

### HIGH TEMPERATURE

- 50°C Operational, 60°C Storage

### LOW TEMPERATURE

- 0°C Operational, -40°C Storage

### HUMIDITY

- 5-95%, Non-condensing

### BLOWING SAND AND DUST

### TRANSPORT VIBRATION

- US Highway Truck and Air Transport

### BENCH HANDLING SHOCK

- 20G @ 11ms

## CONFIGURATOR

FAMILY	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT	MOUNTING OPTIONS
CPI1= 9U Panel Mount Display Industrial	241A= 24" LCD (A/R Coated Cover Glass w/Dura-Block Coating)	H1= VGA, DVI-D & HDMI Video Inputs	A= Universal AC Input Adapter	A= 19" Rack Fixed/Flush Mount
	241C= 24" LCD w/IR Touch (A/R Coated Cover Glass w/Dura-Block Coating)	H2= VGA, DVI-D, HDMI & 3G HD-SDI Video Inputs	B= 12 VDC	B= Articulated Arm Mount
	241D= 24" LCD w/IR Touch (A/R Coated Cover Glass w/EMI Shield & Dura-Block Coating)	J1= VGA, DVI-D & COMPOSITE Video Inputs	C= 28 VDC	
	241E= 24" LCD (A/R Coated Cover Glass w/EMI Shield & Dura-Block Coating)	J2= VGA, DVI-D & COMPOSITE & 3G HD-SDI Video Inputs	D= 12 VDC to Chassis Plans Workstation	

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LKDS & KEYBOARDS

RAID DISK STORAGE

# CPI-19/201 DISPLAY

## 8U RACKMOUNT LCD

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

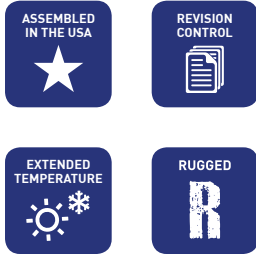
ZERO/THIN CLIENTS RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE



### FEATURES

- 8U High Rugged Design
- Long Life 19" LCD with LED Backlight & 1280 x 1024 Resolution
- Long Life 20.1" LCD with LED Backlight & 1600 x 1200 Resolution
- Bonded Oleophobic Anti-Reflective and/or EMI Overlay
- Multiple Industrial-Grade LCD Controller Options



The CPI -19 and -201 rackmount LCD displays offer all the features you need for your harsh environment application. These extremely rugged, industrial-grade displays are engineered to meet rugged industrial standards. The LCDs are best in class offering LED backlights and revision controlled long product availability. Sophisticated industrial-grade LCD controllers are offered to accommodate virtually any input signal including DVI-D, HDMI, VGA, Video, HD Component and even HD-SDI. Rugged 5052-H32 aluminum construction is a standard feature. An optional RhinoTouch® multi-touch touch screen is available.

### CONFIGURATOR

Family	Monitor	Video Controller Options	Power Input
CPI1= 8U Panel Mount Industrial	191A= 19" LCD (Bonded EMI Filter & A/R Cover Glass)	C1= VGA AND DVI-D STD Inputs	A= Universal AC Input Adapater
	191B= 19" LCD (No Bonding)	H1= VGA, DVI-D AND HDMI Video Inputs	B= 12 VDC
	191C= 19" LCD (Bonded 3.0mm Dura-Block A/R Cover Glass)	H2= VGA, DVI-D, HDMI & 3G HD-SDI Video Inputs <i>(NOT FOR USE WITH "E" TOUCHSCREEN)</i>	C= 28 VDC
	191E= 19" LCD (Bonded USB Resistive Touch)	J1= VGA, DVI-D, COMPOSITE & S-VID-EO Video Inputs	D= 12 VDC to Chassis Plans Workstation
	191F= 19" LCD (Bonded Projected Capacitive USB Touch)	J2= VGA, DVI-D, COMPOSITE, S-VIDEO & HD-SDI Video Inputs <i>(NOT FOR USE WITH "E" TOUCHSCREEN)</i>	E= 48 VDC
	192A= 19" High Bright LCD (Bonded EMI Filter & A/R Cover Glass)		
	192B= 19" High Bright LCD (No Bonding)		
	192E= 19" High Bright LCD (Bonded USB Touch)		
	201A= 20.1" LCD (Bonded Shield & A/R Coat)		
	201B= 20.1" LCD (No Bonding)		
	201C= 20.1" LCD (Bonded Vandal Shield & A/R Coat)		
	201E= 20.1" LCD (Bonded USB Resistive Touch)		

# DISPLAY SPECIFICATIONS

## PHYSICAL DIMENSIONS

- 14.00" (H) x 3.15" (D) x 19.0(W)
- 20 lbs

## 19" LCD FEATURES

- LED Backlight
- 0° to 50°C Operating Temperature
- 350cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- 5ms Response
- 170° Viewing Angle
- Anti-Glare Hardcoat Standard

## 20.1" LCD FEATURES

- LED Backlight
- 0° to 50°C Operating Temperature
- 260cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- 30ms Response
- 160° Viewing Angle
- Anti-Glare Hardcoat Standard

## DISPLAY ENHANCEMENTS

- Bonded Oleophobic Anti-Reflective Glass Option
- Bonded EMI Shield Option
- Multi-Touch Touch Screen Option

## VIDEO CONTROLLER FEATURES

- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.3
- Composite Video Input
- PAL / NTSC / SECAM
- Sync On Green/Composite
- HD Component YPbPr
- SD Component YCbCr
- Image Up/Down-Scaling
- Picture-In-Picture
- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function  
Depends on Controller Selected

## POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC
- 48VDC

## HARSH ENVIRONMENTS

Designed to meet rugged industrial standards to the below specifications.

### ALTITUDE

- 10,000 ft. Operational, 30,000 ft. Storage

### HIGH TEMPERATURE

- 19"/20.1" = 50°C Operational, 60°C Storage

### LOW TEMPERATURE

- 19"/20.1" = 0°C Operational, -40°C Storage

### HUMIDITY

- 5-95%, Non-condensing

### BLOWING SAND AND DUST

### TRANSPORT VIBRATION

- US Highway Truck and Air Transport

### BENCH HANDLING SHOCK

- 20G @ 11ms



CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LIDS & KEYBOARDS

RAID DISK STORAGE

# CPI-27 DISPLAY

## RACKMOUNT LCD

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES&SYSTEMS

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COMPUTER SYSTEMS

COMMERCIAL  
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PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Rugged Industrial Design
- Designed to Meet Rugged Industrial Standards
- Long Life 27" LCD with 1920 x 1920 Resolution
- Bonded Cover Glass Standard with Options for Oleophobic Anti-Reflective and/or EMI Overlay
- Picture-in-Picture and Split Screen
- Optional Multi-Touch Touch Screen



The CPI1-27 square rackmount LCD displays offer all the features you need for your harsh environment application. This extremely rugged, industrial-grade display is engineered to meet rugged industrial standards. The LCD is best in class offering revision controlled long product availability. It can be driven from multiple video sources including VGA, DVI-D, HDMI, DisplayPort or optionally 3G HD-SDI. It supports Picture-In-Picture or Picture-By-Picture to allow multiple video streams to be viewed at once. It is designed for the harshest of environments constructed off aircraft grade aluminum, optically bonded LCD glass and stainless steel hardware.

### CONFIGURATOR

FAMILY	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT	MOUNTING OPTIONS
CPI1= CP Panel Industrial	271A= 27" LCD (A/R Coated Cover Glass w/EMI Shield & Dura-Block Coat)	K1= VGA, DVI-D, HDMI & Display Port	A= Universal AC Input Adapter	A= 19" Rack Fixed/ Flush Mount
	271C= 27" LCD (A/R Coated Cover Glass w/Dura-Block Coat)		B= 12 VDC	
	271D= 27" LCD (IR Touch, A/R Coated Cover Glass w/EMI Shield & Dura-Block Coat)		C= 28 VDC	
	271E= 27" LCD (IR Touch, A/R Coated Cover Glass w/Dura-Block Coat)		D= 12 VDC to Chassis Plans Workstation	

## DISPLAY SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 22.7"(H) x 23.0" (W) x 3.2" (D)
- 34 lbs (Standard Configuration)

### LCD FEATURES

- 300cd/m<sup>2</sup> Brightness
- 1000:1 Contrast Ratio
- Active Area: 26.5 Inch
- 5mm Bonded Cover Glass Standard
- Standard 2W Audio Amp with Speakers

### DISPLAY ENHANCEMENTS

- Bonded Oleophobic Anti-Reflective Glass Option
- Bonded EMI Shield Option
- Multi-Touch Touch Screen Option

### VIDEO CONTROLLER FEATURES

- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.4
- PAL / NTSC / SECAM
- Sync On Green/Composite
- Image Up/Down-Scaling
- Picture-In-Picture
- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function  
Depends on Controller Selected

### POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC
- 48VDC


 CUSTOM SYSTEMS  
& SERVICES

 TRANSIT CASE  
SERVICES & SYSTEMS

 INDUSTRIAL  
COMPUTER SYSTEMS

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COMPUTER SYSTEMS

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COMPUTER SYSTEMS

 ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

# CPI-173 DISPLAY

6U HI-BRIGHT WIDE-SCREEN  
RACKMOUNT LCD

CUSTOM SYSTEMS  
& SERVICES

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SERVICES & SYSTEMS

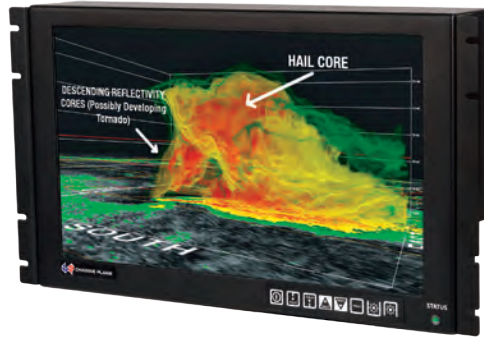
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COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

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COMPUTER SYSTEMS

ZERO/TIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



## FEATURES

- 6U High Rugged Industrial Design
- Designed to Meet Rugged Standards
- Long Life Wide-Screen 17.3" LCD with LED Backlight
- 1920 x 1080 Max LCD Resolution
- Extended Temperature (0° to +70°C) Operation
- Hi-Bright Daylight Readable Option
- Bonded Oleophobic Anti-Reflective and/or EMI Overlay
- Two Industrial-Grade LCD Controller Options Supporting HD-SDI

## DISPLAY SPECIFICATIONS

### PHYSICAL DIMENSIONS

- 10.47" (H) x 3.2" (D) x 19.0" (W)
- 9.7 lbs

### LCD FEATURES

- 17.3" 1920 x 1080 Display (Wide-Screen High Definition)
- LED Backlight
- 0° to 70°C Operating Temperature
- 400cd/m<sup>2</sup> (Standard) or 1000cd/m<sup>2</sup> (Hi-Bright) Brightness
- 600:1 Contrast Ratio
- 40ms Response
- 160° Viewing Angle

### DISPLAY ENHANCEMENTS

- Bonded EMI Shield Option
- Bonded Oleophobic Anti-Reflective Cover Glass Option
- RhinoTouch Touch Screen Option

The CPI2-173 is a rugged industrial-grade, high-performance 6U rackmount LCD display offering a wide-screen 1920 x 1080 17.3-inch display with LED backlighting. Optional bonded oleophobic anti-reflective cover glass, ITO EMI filter and other LCD enhancements are available. An enhanced hi-bright display is available for daylight viewability. The CPI2-173 is designed to meet rugged industrial standards with lightweight 5052-H32 aluminum construction and locking stainless hardware throughout. Electrical components are selected for their inherent ruggedness and mounted to enhance that. An optional RhinoTouch® touch screen is available.

### VIDEO CONTROLLER FEATURES

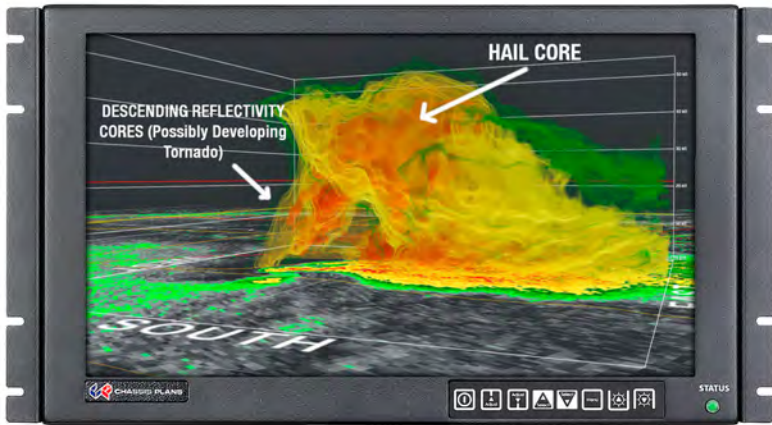
- ARGB (15 Pin VGA)
- DVI-D Input
- HDMI 1.3
- Display Port
- HD-SDI & 3G HD-SDI
- Composite Video Input
- PAL / NTSC / SECAM
- Sync On Green/Composite
- HD Component YPbPr
- SD Component YCbCr
- Image Up/Down-Scaling
- Picture-In-Picture

- Picture-By-Picture
- Variable Aspect
- Freeze & Zoom Function
- Wide Screen Mode Detection
- Auto Picture Setup
- Memory Buffer
- RS-232 Serial Command Protocol
- Ethernet Command Protocol
- Text Overlay Function  
Depends on Controller Selected

### POWER OPTIONS

- 85-260VAC, 47-63Hz
- 28VDC
- 12VDC





## CONFIGURATOR

FAMILY	MONITOR	VIDEO CONTROLLER OPTIONS	POWER INPUT
CPI2= 6U Panel Mount Industrial	1731A= 17.3" LCD (Bonded EMI, A/R Coated Cover Glass w/ Dura-Block Coating)	G1= VGA, DISPLAY PORT, HD-SDI & HDMI Video Inputs	A= Universal AC Input Adapter
	1731B= 17.3" LCD (No Screen Enhancement)	H1= VGA, DVI-D & HDMI Video Inputs	B= 12 VDC
	1731C= 17.3" LCD (Bonded Cover Glass w/Dura-Block Coating)	J1= VGA, DVI-D, S-VIDEO & COMPOSITE Video Inputs	C= 28 VDC
	173E= 17.3" LCD (Bonded Resistive Touch Screen USB)		
	1732A= 17.3" High Bright LCD (Bonded EMI, W/R Coated Cover Glass w/Dura-Block Coating)		
	1732B= 17.3" High Bright LCD (No Screen Enhancement)		
	1732C= High Bright LCD (Bonded Cover Glass w/Dura-Block Coat)		
	1732E= 17.3" High Bright LCD (Bonded Resistive Touch Screen, USB)		

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

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COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

# CPZ-156T ZERO CLIENT

## 15.6" RUGGED ZERO CLIENT

CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

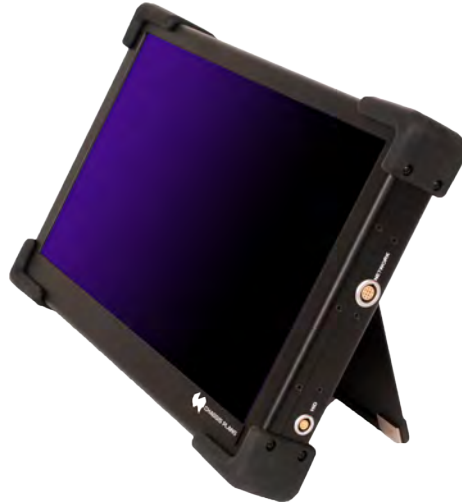
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COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE



### FEATURES

- Innovative Patent Pending Design
- Processor: Teradici TERA2321 PCoIP
- Memory: 32MB Flash (Firmware), 512MB DDR3
- Certifications: VMware Ready
- Power over Ethernet - Single Cable Operation
- Peripheral(s): (2) USB 2.0 for HID
- Networking: 10/100/1000 Base-T
- IEEE 802.3at Compliant
- Ethernet: 12 Pin Push/Pull
- Peripherals: 6 Pin Push/Pull

### DISPLAY SPECIFICATIONS

#### PHYSICAL DIMENSIONS

- 9.5" (H) x 1.5" (D) x 15" (W)
- 6.0 lbs / 15.0 lbs in Protective Case

#### LCD FEATURES

- 15.6" LED Backlit TFT LCD w/ Antiglare Hard Coating
- -10° to 60°C Operating Temperature
- 300cd/m<sup>2</sup> (Standard)
- 700:1 Contrast Ratio
- 6ms/3ms (Tr/Tf) Response
- 80/80/70/70deg (L/R/T/B) Viewing Angle

#### DISPLAY ENHANCEMENTS

- Durable Antiglare Hard Coating
- Borosilicate Strengthened Cover Glass
- Oleophobic Coating

#### TOUCH PANEL

- 10 Point Multi-Touch Projected Capacitive
- Display Active Area: 13.5" x 7.6"
- 0G Operating Force
- 1920 x 1080 Resolution
- < 25 ms Response Time
- < + / - 1% Accuracy

Designed to be a state-of-the-art secure information device, the CPZ-156T is designed from the beginning for security, first and foremost. Utilizing the industry standard PCoIP Protocol (Teradici Chipset), Chassis Plans' Zero Clients are designed to be compliant with currently available Desktop Zero Clients but in a rugged form factor for deployment abroad. To further ensure security, the Chassis Plans' CPZ-156T is powered through the IEEE-802.3at Power over Ethernet connection. This means a single push-pull connector is all that is required to lose all display information on the Ruggedized Client. As in all true Zero Client Architectures, no information is ever contained on the Client, it is just an encrypted rendering of the actual Virtualized Desktop (VDI) on the server.

#### POWER CONSUMPTION

- 20W
- IEEE 802.3at Compliant
- 12VDC + / - 5%

#### ZERO CLIENT SPEC

- Teradici TERA2321 PCoIP
- 32MB Flash (Firmware)
- 512MB DDR3
- VMware Ready
- PCoIP Connected
- (2) USB 2.0 for HID
- 10/100/1000 Base-T
- IEEE 802.3at Compliant
- 12 Pin Push/Pull
- 6 Pin Push/Pull



# CKX RACKMOUNT KEYBOARD



## FEATURES

- Rackmount - Utilizes 1RU (1.75")
- Waterproof / Dustproof Assembly
- High Quality NEMA4 Sealed 83-Key Keyboard
- Sealed Optical 38mm Trackball
- Ergonomic Wrist Rest
- Lightweight Aluminum Construction
- Solid Bearing Slides
- Captive Thumb Screws

RUGGED

**R**

EXTENDED TEMPERATURE

ASSEMBLED IN THE USA

★

REVISION CONTROL

CUSTOM SYSTEMS & SERVICES

TRANSIT CASE SERVICES & SYSTEMS

INDUSTRIAL COMPUTER SYSTEMS

COMMERCIAL COMPUTER SYSTEMS

PORTABLE COMPUTER SYSTEMS

ZERO/THIN CLIENTS RUGGED LCDS & KEYBOARDS

RAID DISK STORAGE

# CKC RACKMOUNT KEYBOARD



## FEATURES

- Rackmount - Utilizes 1RU (1.75")
- High Quality 83-Key Keyboard
- Optical Track Ball or Touch Pad
- Ergonomic Wrist Rest
- Lightweight Aluminum Construction
- Solid Bearing Slides
- Captive Thumb Screws

REVISION CONTROL

ASSEMBLED IN THE USA

★

RUGGED

**R**

# HIGH PERFORMANCE STORAGE

High-performance, high-speed, enterprise-grade disk storage delivering a fast response and the right intelligence to battlefield decision makers is what today's command and control infrastructure is all about. Today's C4ISR infrastructure is an incredibly complex system of hardware, software and networks – all working together to Find, Fix, Track, Target, Engage and Assess the enemy in as short a time as possible. Intelligence fused from multiple input sources such as SIGINT, IMINT and MOVINT create a complete and integrated picture of the battlefield which requires large amounts of reliable data storage. It is essential that the network centric storage systems used to support these mission-critical applications provide maximum uptime and complete redundancy to ensure decision makers have more information all of the time.

## CHASSIS FEATURES

- Wide Range of Drive Options
- 2U Chassis with 12 or 24 Drives
- Built-In Redundancy in Controllers and Power Supplies
- Redundant, Hot Swap Components
- 2-1/2" and 3-1/2" SAS, SATA or SSD Drives
- 1 To 3 Terabyte Energy-Saving Enterprise-Grade Drives
- DC Power Options
- Tested To Meet NEBS Level 3

## CONTROLLER FEATURES

- RAID 0, 1, 3, 5, 6, 10, 50
- Optional Snapshot Capability
- Additional Data Protection with Full Volume Copies
- Built-In Schedule Capability
- Dual or Single Raid Controller or JBOD
- Data Rates Up To 8GB/Sec FC or 6GB/Sec SAS
- OS Support - Windows, Linux, Solaris
- Low Latency Cache Mirroring
- Battery-Free Cache Backup
- 1.6GB/Sec Read / 1.3GB/Sec Write
- Same Sector Cache Hits Of 375,000 IOPS



CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

# HIGH PERFORMANCE 2U RAID DISK ARRAYS

## SA2U-12EHP

- Ultra-High IOPS Performance - 375,000 IOPS
- Data Rates Up To 4Gb/sec
- Rugged - Tested to NEBS Level 3
- 12 SAS, SATA or SSD Drives
- Redundancy Built In - Drives, Controllers & Power
- Supports Raid 0, 1, 3, 5, 6, 10, 50 or JBOD
- Full Volume Copies and Snapshot Capability

## SA2U-24

- 24 2-1/2" SAS, SATA or SSD Drives
- Data Rates Up To 3Gb/sec
- Can Daisy-Chain Up To 7 Additional Units
- Redundancy Built In - Drives, Controllers & Power
- Supports Raid 0, 1, 3, 5, 6, 10, 50 or JBOD
- Full Volume Copies and Snapshot Capability
- Low Latency Cache Mirroring

## SA2U-4000

- 24 2-1/2" SAS or SSD Drives
- Data Rates Up To 8Gb/sec
- Rugged - Tested to NEBS Level 3
- Redundancy Built In - Drives, Controllers & Power
- Supports Raid 0, 1, 3, 5, 6, 10, 50 or JBOD
- Full Volume Copies and Snapshot Capability
- 99.999% Uptime Availability



SA2U-12EHP



SA2U-24 / SA2U-4000



CUSTOM SYSTEMS  
& SERVICES

TRANSIT CASE  
SERVICES & SYSTEMS

INDUSTRIAL  
COMPUTER SYSTEMS

COMMERCIAL  
COMPUTER SYSTEMS

PORTABLE  
COMPUTER SYSTEMS

ZERO/THIN CLIENTS  
RUGGED LCDS  
& KEYBOARDS

RAID DISK STORAGE

# INDUSTRIAL AND COMMERCIAL APPLICATIONS

Oil and Gas



Process Automation



Mining



Transportation



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