



# STCS

SMALL TACTICAL  
COMPUTER  
SYSTEMS

## RUGGED SMALL TACTICAL COMPUTER SYSTEMS

CP Technologies STCS are small form factor modules that provide powerful Xeon processing performance optimized for virtualization applications, gigabit switching and routing capabilities and over 10 minutes of sustained battery backup time. All modules are ROHS compliant and made with high-strength 5052-H32 aircraft-grade aluminum. CP STCS are optimized for low size, weight and power (SWaP) to meet the demand of portability, reliability, and performance from any customer.

These systems accommodate flexible mounting options with brackets that can be mounted in a standalone configuration, to a bulkhead, in a half rack/case, or a standard 19" rack. In a sealed system configuration, these STCS are designed for IP65 environments, as well as harsh environmental specs such as MIL-STD-810G, 901E, and 461G.



## Who We Are

CP Technologies designs, fabricates and integrates standard and customized high-performance computing platforms and LCD monitors for military, industry, and commercial applications.

Using COTS components, CP Technologies provides solutions for customers who need reliable systems that will operate in a variety of harsh conditions and who require revision control and hardware consistency for multi-year programs.

CP Technologies is an ITAR Registered and SBA-certified small business that has been operating in Southern California for over a twenty years.

**Assembled in the USA**  
**ISO 9001:2015 Certified**  
**ITAR Registered**

**CP Technologies**  
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# TECH SPECS

## SERVER SPECIFICATIONS

|                         |  |
|-------------------------|--|
| <b>CPU</b>              | Intel® Xeon® D1577 (16 x 1.3 / 2.1 GHz, 32 Threads, 24MB cache, 45 W)                            |
| <b>SYSTEM MEMORY</b>    | Up to 48GB DDR4 2400 MT/s ECC  |
| <b>GRAPHICS</b>         | 1 x VGA (1920 x 1080)  |
| <b>NETWORKING</b>       | 2 / 4 LAN with 1000Base-T / 10GBase-T  |
| <b>STORAGE</b>          | 4x Removable 1TB SATA SSD  |
| <b>OPERATING SYSTEM</b> | Windows Server, VMware   |
| <b>SPECIAL FEATURES</b> | Serial RS232, Hardware RAID Controller (RAID 0, 1, 5), software sanitization of drives (Zeroize) |
| <b>FRONT PANEL IO</b>   | 12VDC in, Serial Port, 2x USB (3.0), 2 / 4 Ethernet ports, 3x Drive bays, Video port             |

## SWITCH SPECIFICATIONS

|                              |  |
|------------------------------|--|
| <b>SYSTEM BOARD</b>          | Embedded Cisco Catalyst 3560-CX <ul style="list-style-type: none"> <li>8x 10/100/1000 GE ports</li> <li>2x 1GE copper uplinks</li> <li>2x 1GE SFP uplinks</li> <li>IP base (IP services with RTU license)</li> </ul> |
| <b>SYSTEM MEMORY</b>         | 128 MB on-board flash memory, 512 GB DRAM  |
| <b>FRONT I/O CONNECTIONS</b> | 12VDC in, (8x) 10/100/1000 GE ports (12 ports optional), (2x) GE uplink, (2x) 10GB SFP uplink (optional), USB  |

## ROUTER SPECIFICATIONS

|                              |  |
|------------------------------|--|
| <b>FEATURES</b>              | <ul style="list-style-type: none"> <li>Onboard hardware encryption processor supporting IP Security (IPsec)</li> <li>Secure Sockets Layer with transparent LAN services (SSL/TLS)</li> <li>Secure Real-time Transport Protocol (SRTP)</li> <li>Triple Digital Encryption Standard (3DES)</li> <li>Advanced Encryption Standard (AES)</li> <li>Internet Key Exchange (IKE)</li> </ul> |
| <b>SYSTEM BOARD</b>          | Embedded Cisco ESR 5915 <ul style="list-style-type: none"> <li>5x 10/100 ports</li> <li>2x routed</li> <li>3x switched</li> <li>1x RS-232 Console port</li> </ul>  |
| <b>SYSTEM MEMORY</b>         | 256 MB on-board flash memory, 512 GB DRAM  |
| <b>FRONT I/O CONNECTIONS</b> | 12VDC in, (8x) 10/100/1000 GE ports (12 ports optional), (2x) GE uplink, (2x) 10GB SFP uplink (optional), USB  |

## UPS SPECIFICATIONS

|                              |   |
|------------------------------|---|
| <b>FEATURES</b>              | <p>500 Watt UPS<br/> Lithium Iron Phosphate battery with &gt;10 min Hold Time @ 80%<br/> Field Replaceable Washable Air Filter<br/> Universal AC Input of 96-132VAC and from 47-63 Hz<br/> SNMP Based Network Connectivity for Status Monitoring<br/> Over Voltage Capacity for Managed In-Rush and Startup Demands<br/> Over Voltage and Over Temperature Protection Circuits<br/> Common Safety Ground Connection<br/> Integrated Battery Switch for long term storage protection</p> |
| <b>FRONT I/O CONNECTIONS</b> | 1X 110-240 VAC in, 3x 10-33 VDC out, Status and Indicator LEDs  |



# TECH SPECS

## HARSH ENVIRONMENTS

**LEAD TIME:  
APPROX. 14 WEEKS ARO**

|                              |  |
|------------------------------|--|
| <b>ALTITUDE</b>              | MIL-STD-810, Method 500.6  |
| <b>HIGH TEMPERATURE</b>      | 65°C (60°C for the Server) Operational, 70°C Storage<br>MIL-STD-810, Method 501.6    |
| <b>LOW TEMPERATURE</b>       | -40°C (-20°C for the Server) Operational, -40°C Storage<br>MIL-STD-810, Method 502.6 |
| <b>HUMIDITY</b>              | MIL-STD-810, Method 507.6  |
| <b>BLOWING SAND AND DUST</b> | MIL-STD-810, Method 510.6  |
| <b>TRANSPORT VIBRATION</b>   | MIL-STD-810, Method 514.7  |
| <b>BENCH HANDLING SHOCK</b>  | Multiple drops from 4' (1.2-1.5m) onto concrete<br>MIL-STD-810, Method 516.7         |

## CHASSIS SPECIFICATIONS

|                        |  |                                |                          |
|------------------------|--|--------------------------------|--------------------------|
| <b>DIMENSIONS</b>      | Server 3.45"H x 9.125"W x 11.25"D<br>Switch 3.45"H x 10.20"W x 10.125"D<br>Router 1.74"H x 9.125"W x 11.25"D<br>UPS 3.45H x 11.25D x 9.125w x 11.25D | <b>TRANSIT CASE DIMENSIONS</b> | 22.25"H x 15.66"W x 24"D |
| <b>SHIPPING WEIGHT</b> | Server/UPS unit - 10 lbs ( 4.5 kg )<br>Switch/Router unit - 12 lbs ( 5.4 kg )  |                                |                          |

## CONSTRUCTION

Sheet/Milled Aluminum  
ROHS Compliant  
Clear Chem Film and Black Powder Coating  
IP65 Compliant Sealing  
Conduction Cooled

### QUESTIONS?

Reach out to us at  
[cp-techusa.com](http://cp-techusa.com)  
or call 858.571.4330

## ENGINEERED TO YOUR SPECIFICATIONS

- In-house engineering department
- Design and build of rapid prototypes. Experience with solving difficult customer application problems through knowledge of the industry and custom system design and manufacturing capability
- Our Engineers use Solid Works 3D CAD modeling software for mechanical design and thermal simulation
- Design experience with MIL-STD-167, MIL-STD-461, MIL-STD-810, and MIL-S-901, in addition to FCC, UL, CE, and country specific agency requirements

## REVISION CONTROL & CONFIGURATION MANAGEMENT

- Our Program Managers will assure your products are revision controlled for the life of the program
- Configuration Management to assure TAA Compliance and system compatibility
- One part number for life of the program
- Counterfeit and obsolescence management

## FACILITY AND TEST

- All integration work is performed in a state-of-the-art, ESD-controlled facility
- Our facility has 23,000 sqft and has dedicated 12,000 sqft to manufacturing and 3,000 sqft to engineering
- Operate to anti-static standard ANSI/ESD S20.20-2007 and electronics assembly standard IPC-A-610, Revision E-2010

## QUALITY COUNTS

- ISO 9001:2015 Certified
- 100% system inspection before shipment
- All integrated systems undergo a minimum 24-hour system test and burn-in before shipment to the customer
- Assistance with 3rd party verification of system specifications
- 5-year warranty on all servers and 3-year warranty on LCD monitor products
- TAA compliant
- Built in the USA

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