

**TFX****2U RACKMOUNT  
TRIFOLD  
LCD MONITOR**

## RUGGED TRIFOLD

Our TFX Displays are rugged, military grade, high performance, 2U rackmount LCD panel displays offering three 17.3-inch or 19-inch TFT LCD displays with per panel resolution of 1280x1024.

With exceptional strength, the displays provide expansive working space. The TFX is optimal for extreme outdoor environments due to its brightness and ability to operate in widely varied temperatures.

Specifications for our standard products can always be customized to fit your unique application requirements



## APPLICATIONS

- Airborne Operations
- Land-based Operations
- Seaborne Operations
- Telemetry
- Severe Environment Operations
- C4ISR
- Communications
- Imaging
- Persistent Surveillance
- Diagnostics
- Simulation
- UAVs
- Automation

## FEATURES

- Three 19" monitors in a 2U form factor
- Optional high-bright displays
- Audio capability standard

*CP Technologies' 2U-5U rackmount computer systems are designed with a removable back plate that allows a 12V power cord to run from the computer's power supply to a display or keyboard video monitor. This optional feature, the Exterior Power Jack, is available for this monitor. By running the display with the computer systems' 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 CP Technologies' server*

## 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**

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# TECH SPECS

## TFX ENCLOSURE DETAILS

<b>CONSTRUCTION</b>	High-strength 5052-H32 aircraft-grade aluminum. 0.38" solid milled front panel Stainless self-locking hardware throughout
<b>POWDERCOATING</b>	Black per MIL-PRF-24712, Type IV, Class 3 Cardinal C214- BK110 polyester semi-gloss, fine texture
<b>PLATING</b>	Chem-Film per MIL-C-5541F, Class 1A
<b>SLIDES</b>	Solid Bearing Slides (Friction Slides), 15.4-inches of travel Lock-out button. Stainless self-locking hardware throughout Includes Extension Bracket (0 to 6.5" extension) Includes Extension Bracket (3 to 11" extension)
<b>SUPPORT AND STABILIZATION</b>	Gas strut assisted opening and lock down. Left/right monitor positions adjustable

## TFX PANEL DETAILS

	<b>3 x 17.3"</b>	<b>3 x 19"</b>
<b>SCREEN DIAGONAL</b>	17.3"	19"
<b>OPERATING/STORAGE TEMP</b>	0°C to 70°C / -20°C to 70°C	-15°C to 65°C / -25°C to 65°C
<b>CONTRAST RATIO</b>	600:1	1000:1
<b>VIEWING ANGLE</b>	160° L/R, 140° U/D	170° L/R, 170° U/D
<b>RESPONSE TIME</b>	40ms	35ms
<b>NATIVE RESOLUTION</b>	1920x1080	1280 x 1024
<b>BRIGHTNESS</b>	400 cd/m2 (1000 cd/m2)	350 cd/m2 (1000 cd/m2)
<b>BACKLIGHT</b>	LED, edge-lit	LED, edge-lit
<b>COLORS</b>	16.7M	16.7M
<b>POWER INPUT</b>	AC input 85 to 264VAC, 1275/704 28VDC	AC input 85 to 264VAC, 1275/704 28VDC
<b>POWER DISSIPATION</b>	123 Watts	155 Watts
<b>EXTERIOR POWER JACK</b>	Yes	Yes
<b>AUDIO</b>	Yes, includes (2x) water-resistant speakers	Yes, includes (2x) water-resistant speakers

## FEATURES

- Image Up-Scaling
- Image Down-Scaling
- Picture In Picture
- Memory Buffer
- DV RS-232 Serial Protocol
- Picture By Picture
- Text Overlay Function
- Variable Aspect
- Programmable Hot Keys
- Ethernet Command Protocol
- Sync On Green/Composite
- Freeze & Zoom Function



# TECH SPECS

## CHASSIS SPECIFICATIONS

<b>DIMENSIONS (DEPLOYED)</b>	19" X 3.5" X 24.1" (482.6mm X 88.9mm X 613.2mm) 49.9" wide x 19.6" high (from bottom of front panel)
<b>WEIGHT</b>	37lbs
<b>OPTIONAL DISPLAY ENHANCEMENTS</b>	<p><b>SAFETY GLASS</b> - Using smudge-resistant AR coated soda lime float glass, bonded to the LCD panel with optical index matched adhesive</p> <p><b>EMI PROTECTION</b> - Using a laminate of smudge-resistant AR coated soda lime float glass panel and ITO coated glass panel (&lt;math&gt;&lt;12.5\Omega/\text{sq}&lt;/math&gt;) grounded via a copper buss bar, bonded to the LCD panel with optical index matched adhesive</p>

## HARSH ENVIRONMENTS

Designed to meet or exceed MIL-STD-810G to the below specifications.

<b>ALTITUDE</b>	10,000 ft Operational, 30,000 ft Storage MIL-STD-810, Method 500.6
<b>HUMIDITY</b>	5-95%, Non-condensing MIL-STD-810, Method 507.6
<b>BLOWING SAND AND DUST</b>	Procedures I and II MIL-STD-810, Method 510.6 (Front Surface, Bonded Glass only)
<b>TRANSPORT VIBRATION</b>	MIL-STD-810, Method 514.7
<b>BENCH HANDLING SHOCK</b>	MIL-STD-810, Method 516.7 Procedure VI

## INPUTS

- RGBA (15 Pin VGA)
- DVI-D Input
- PAL / NTSC / SECAM
- HDMI 1.3
- Composite Video Input (optional)

## SUPPORTED RESOLUTIONS

- VGA (640 x 480)
- WVGA (800 x 480)
- SVGA (800 x 600)
- XGA (1024 x 768)
- SXGA (1280 x 1024)
- WXGA (1366 x 768)
- WSXGA+ (1680 x 1050)
- WXGA (1280 x 768, 1280 x 800, 1440 x 900)
- HD-1080 (1920 x 1080)
- WUXGA (1920 x 1200)

## 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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