

# CCX-15

## 1U Rackmount Keyboards

# RUGGED Military Grade

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The CCX-15 is a military grade high performance 1U clamshell LCD keyboard drawer offering a 15" transmissive display with LED backlight for exceptional high bright environment use. The CCX-15 is designed to meet Mil-Std 901D and 810F and includes a solid milled aluminum front panel, lightweight 5052-H32 aluminum construction and locking stainless hardware throughout. The drawer is held closed by two captive thumb screws. Lock out friction slides are included. Friction slides assure the drawer does not randomly slide in and out in the back of a moving vehicle. The CCX is ideal for mounting in a transit case for adverse environments that would destroy lesser displays.

The display is a high quality long life Apollo TFT LCD with a maximum resolution of 1024x768. A bonded anti-reflective (AR) filter with an EMI coating "pops" the displayed image for unparalleled clarity. Included is a high quality 113 key Nema 4 / IP65 rated keyboard with integrated pointing device and wrist pad. Video inputs of analog VGA, DVI-D, DVI-I, NTSC/PAL/SECAM, Composite, SVideo and Component (YCbCr) are available on selected models.

A 4- or 8-port KVM switch is available with front panel button selection and active port LED indication.

As with all Chassis Plans products, a wide variety of custom options are available including paint color, customer logo, and display options.

### ENCLOSURE

- 1U (1.75") x 24" deep
- Rugged 5052-H32 aluminum construction with milled solid aluminum front panel
- Designed to meet MIL-STD 901D and 810F for extreme environmental conditions
- Compact enclosure for limited depth installation
- Rugged thumbscrews to lock in rack
- Includes rugged friction slides and cable management arm

### DISPLAY

- 15" Transmissive 1024x768 XGA TFT LCD
- LED Backlight
- 1024 x 768 Native Resolution
- Bonded anti-reflective contrast enhancement glass overlay with ITO EMI coating

### VIDEO CONTROLLER

- Options for VGA, DVI-D, DVI-I, NTSC/PAL/SECAM, Composite, S-Video and Component (YCbCr)
- OSD (On Screen Display) for Monitor Setup and Control

### KEYBOARD

- 133-Key low profile NEMA 4 / IP65 sealed
- Built-in sealed pointing device
- Spill Proof (Spilled Coffee / Coke Proof)

### KVM

- Several options 4 & 8 port, VGA & DVI video inputs, PS2 or USB keyboard interface

### OPTIONAL FEATURES / OPTIONS

- Enhanced Backlighting
- Protective Glare Filters
- Customer Specified Paint Color
- Customer Logo
- Keyboard options



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**ENCLOSURE**

1U x 19" (wide) x 24.4" (deep) (w/ cable arm)  
 High strength 5052-H32 aluminum construction  
 Solid milled front panel  
 Fits 24"-36" Rack  
 Weight: 35lbs (w/o KVM)  
 38lbs (w/ KVM)  
 Color: Powder coated black, light texture  
 (Custom colors and logos available)

**DISPLAY ENHANCEMENTS**

Size 15"  
 Resolution 1024 x 768  
 Contrast Ratio 1300:1  
 Brightness 560 cd/m<sup>2</sup>  
 Pixel Pitch .297 x .297mm  
 Viewing Angle 80° L/R/U/D  
 Response Time 8mS GTG  
 Operating Temp -30 to +70 Deg C  
 Storage Temp -40 to +80 Deg C

1.1mm soda lime glass with ITO conductive EMI coating (<13.5 ohms/sq in) bonded to LCD  
 1.1mm soda lime glass w/ anti-reflective coating bonded to ITO EMI filter  
 3mm thick bonded copper bus bar around entire periphery of the display

**KEYBOARD**

Sealed silicone rubber keyboard  
 113 Keys  
 20 Function keys  
 Integrated numeric pad  
 High quality carbon-on-gold contacts  
 Protection to NEMA 4 / IP65 dust & splash proof (spilled Coke & coffee proof!)  
 PS/2 or USB Connection  
 Tactile Keystroke  
 10,000,000 lifecycles per switch

**Pointing Device**

Incorporated pointing device for precise tracking  
 3 Mouse buttons  
 Built in to silicone rubber keyboard  
 Hall sensor motion detection  
 USB or PS/2 interface



**Power Supply Options**

**AC Input**

100 to 260VAC, auto selecting  
 47-66Hz

**12VDC Input Transient Filter**

Line transient protection for 12VDC vehicular applications

**Mil-Std-1275A / 704 DC/DC Converter**

True 1275/704 compliance for military 28VDC nominal vehicle inputs  
 12 to 26VDC input

**48VDC DC/DC Converter**

36 to 75VDC Input  
 Isolated Inputs for +/- input levels

See the appropriate power supply section in the manual for complete power supply specifications.

**KVM Options**

**KVMX**

Ports: 4  
 Inputs: DVI-D, USB, Speaker, Microphone  
 Console: DVI-D, 2x USB, Speaker, Microphone  
 Provides 2 additional USB ports



**KVMX-4VGA**

Ports: 4  
 Inputs: aRGB VGA, 2x PS/2  
 Console: aRGB VGA, 2x PS/2, 2x USB  
 Daisy Chain capable

**KVMX-8VGA**

Ports: 8  
 Inputs: aRGB VGA, 2x PS/2  
 Console: aRGB VGA, 2x PS/2, 2x USB  
 Daisy Chain capable



The KVMX-4VGA and -8VGA are identical with the exception of the number of ports.

## LCD CONTROLLERS

The three controllers are highly integrated with multiple inputs and capabilities. These are Harsh Environment versions with wide range operating temperatures of  $-40$  to  $+80$  Deg C, shock and vibration tolerance and conformal coating for extreme environmental applications.

The chipsets are provided by Genesis for state of the art performance. These are road mapped controllers offering long term availability for revision controlled multi-year programs.

### VGA / DVI-I HE-1400

Inputs:

Analog RGB: 60Hz at SXGA, WXGA, XGA, SVGA, VGA

With auto detect of Digital Separate Sync, Sync-On-Green & Composite Sync. Auto detects VGA ~ SXGA interlaced & non-interlaced.

DVI-D: 60Hz at SXGA, WXGA, XGA, SVGA, VGA

Image Scaling: Up / down scaling to fit input to panel resolution.

Image Control: Brightness, Contrast, Saturation, Hue, Frequency, Phase, Color Temperature, Image position, Hue, Gamma.

Other Features: Auto picture setup, Auto RGB calibration, Auto source seek, OSD timeout, OSD position, Input source select, OSD menu lock, Direct key for brightness level adjustment.



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### Multi-Input VGA/DVI-D/Video HE-1600

Inputs:

Analog RGB: 60Hz @ UXGA  
75Hz @ SXGA, WXGA, SVGA, VGA  
1152 x 900 @ 66Hz (SUN)  
1152 x 900 @ 76Hz (SUN)  
1280 x 1024 @ 76Hz (SUN)

With auto detect of Digital Separate Sync, Sync-On-Green & Composite Sync. Auto detects VGA ~ USXGA interlaced & noninterlaced.

DVI-I: 60Hz @ UXGA  
75Hz @ SXGA, WXGA, XGA, SVGA, VGA

Video: NTSC / PAL / SECAM (Interlaced)  
Composite Video, S-Video  
Component (YCbCr) (Optional)

Image Scaling: Up / down scaling to fit input to panel resolution.

Image Control: Brightness, Contrast, Saturation, Hue, Frequency, Phase, Color Temperature, Image position, Hue, Gamma.

Other Features: Auto Picture Setup, Auto Color Gain, Auto Power, OSD Timeout Position and Transparency, Hot Keys, Auto Source Seek.

### Multi-Input VGA/DVI-I/Video w/ PIP HE-1920

Inputs:

Analog RGB: 60Hz at UXGA  
75Hz at SXGA, WXGA, XGA, SVGA, VGA

With auto detect of Digital Separate Sync, Sync-On-Green & Composite Sync. Auto detects VGA ~ UXGA interlaced & noninterlaced.

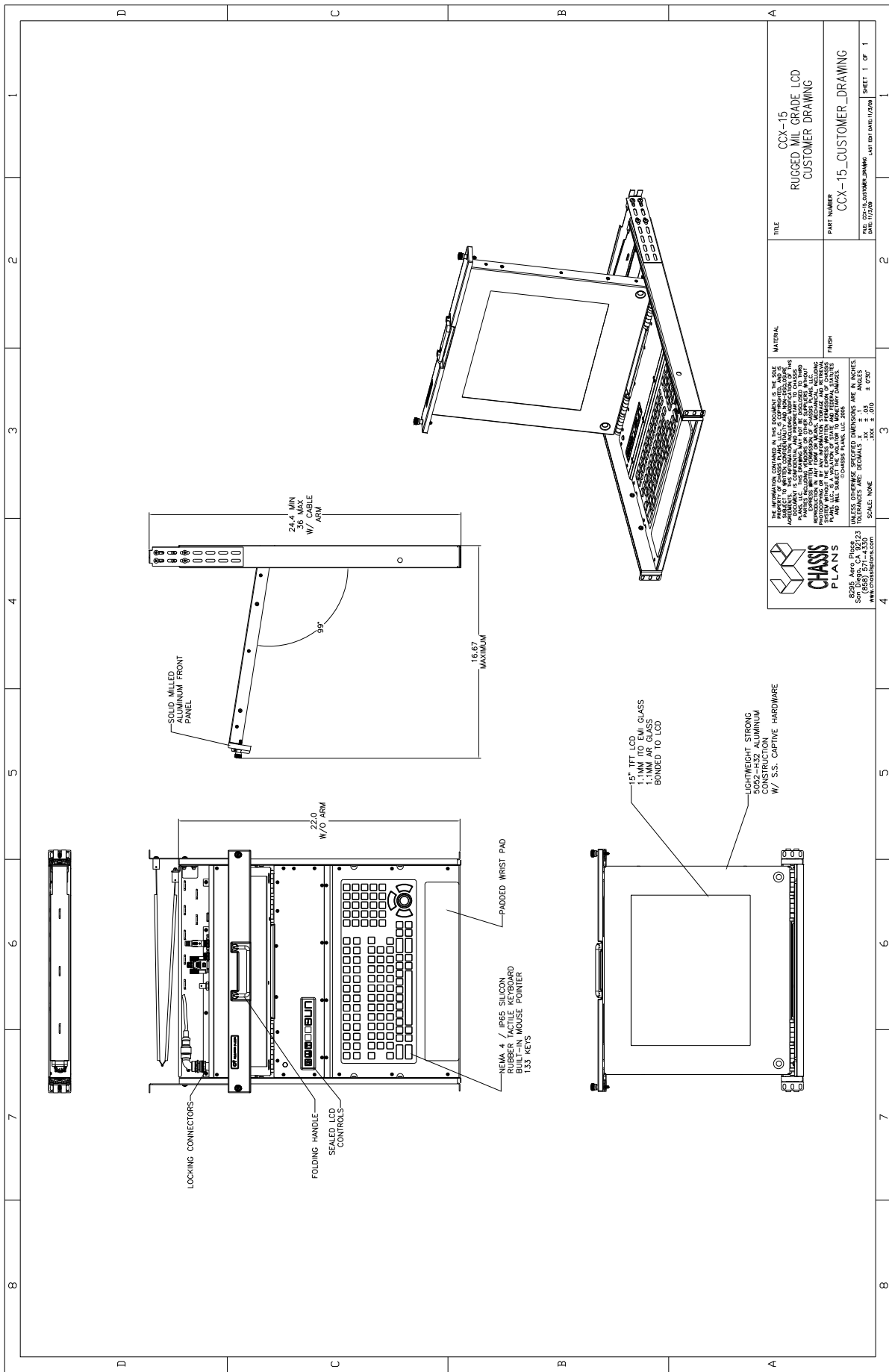
DVI-D: 60Hz at WUXGA, UXGA  
75Hz at SXGA, WXGA, XGA, SVGA, VGA

Video: NTSC / PAL / SECAM (Interlaced)  
Composite Video, S-Video, RGB Video, SD Component (YCbCr) (Optional)

Image Scaling: Up scaling to fit input to panel resolution.

Image Control: Auto configuration, Brightness, Contrast, Clock, Phase, Color Temperature, Image position, Saturation, Hue, Gamma.

Other Features: System Information, OSD position, Scaling to fill screen and fill to aspect ratio, OSD timeout, Factory reset, OSD menu transparency, Horizontal & Vertical image inversion, Picture in Picture.



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