SABER[™] SERIES

Standard Issue Military-/Industrial-Grade LCD Monitors

Housed in rugged military-grade enclosures, **SABER SERIES** LCD monitors are built to endure harsh conditions, whether on the battlefield or the factory floor. They are in compliance with military standards. The workhorse of the monitor world, the Saber's configuration flexibility has kept in constant production for three decades. Options are varied and numerous.

The wide viewing angles and fast response times serve only to enhance the brilliant, colorful images. A protective glass overlay, with double-sided antiglare etch coatings, guards your LCD investment and diffuses surface glare.

The low power units are designed to operate from a single +12 Vdc regulated source. Customers can provide their own power supply, request a custom supply, or choose one of our specially-designed AC switching supplies, many featuring power factor correction.

Saber PanelMount 19.0 901E custom built to be in compliance with multiple military requirements

STANDARD FEATURES

- » 6.5" to 24.0" LCDs (Rack Mount: 10.4" to 20.1")
- » VGA (640 x 480) to 4K UHD (3840 x 2160) resolution
- » Support for most video inputs, including:
 - › ARGB
 - Separate
 - Composite
 - Sync-On-Green
 - › Composite
 - NTSC
 - DVI-D
 - HDMI
- » Panel mount, rack mount, VESA mount/standalone enclosure configurations available
 - All-metal construction is lightweight yet rugged enough to endure harsh environments
- » Built to meet many military standards, including:
 - > MIL-DTL-901, MIL-STD-810, MIL-STD-167, MIL-STD-461
 - > UL 60950 & FCC Class A Certification

AVAILABLE OPTIONS

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- » Support for SECAM, PAL, RS-170, DisplayPort
- » High brightness levels, including brightness dimming control
- » NVIS-compatible displays in compliance with MIL-STD-3009
- » Numerous display enhancements, including:
 - > Touch screens: capacitive, resistive, more
 - Optical bonding for increased display clarity and shatter resistance
 - › Extended operating and storage temperature range
- » VESA mounting arms and pedestals
- » Remote control via serial/Ethernet
- » Variety of AC-DC power inputs



6" **DISPLAY** (Inquire about alternate configurations)

Properties	105 Series ¹	9004 Series ¹	9005 Series ¹	
Size (diagonal)	6.5″	6.5″	6.5″	
Viewing Area (W x H)	5.22″ x 3.91″	5.20" x 3.90"	5.22″ x 3.91″	
Resolution (pixels)	640 x 480	1024 × 768	640 × 480	
Number of Colors	16.2 Million	16.7 Million	16.7 Million	
Luminance (0° maximum)	700 Nits	650 Nits	600 Nits	
Contrast (maximum)	1000:1	500:1	800:1	
Response Time (rise/decay)	15/10 ms	6/19 ms	3/15 ms	
Viewing Angle (horizontal – L/R)	±80°	±80°	±80°	
Viewing Angle (vertical – U/D)	±70°	+80°, -60°	±80°	
Shock ²	50 G, 20 ms ½ Sine Wave	54 G, 11 ms ½ Sine Wave	54 G, 11 ms ½ Sine Wave	
Vibration ²	1.5 G (10–200 Hz)	2.0 G (5–100 Hz) 2.0 G (5–10		
Temperature, Operating	-30° to 85°C	25°C -20° to 70°C -30		
Temperature, Storage	-30° to 85°C -30° to 80°C -30°		-30° to 80°C	
Humidity, Operating	5% to 95% RH Non-condensing			
Humidity, Storage	5% to 95% RH Non-condensing			
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone		7.50" x 9.25" x 1.43"		
Saber PanelMount		6.25" x 8.25" x 3.07"		
Construction		5052-H32 Aluminum		
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 75 mm, 4 Places, Rear			
Weight, Operating⁵	7 Pounds			
Weight, Shipping⁵	12 Pounds			
Power Input (default)	+12 Vdc			



The compact Saber PanelMount 6.5 easily fits in space-constrained environments

8" DISPLAY (Inquire about alternate configurations)

Properties	166 Series ¹	166-DUAL Series ¹	917 Series ¹	9007 Series ¹	
Size (diagonal)	8.4″	8.4″ (x2)	8.4″	8.4″	
Viewing Area (W x H)	6.71″ x 5.03″	6.71″ x 5.03″	6.71″ x 5.03″	6.71″ × 5.03″	
Resolution (pixels)	800 x 600	800 x 600	1024 × 768	800 x 600	
Number of Colors	16.2 Million	16.2 Million	16.7 Million	16.7 Million	
Luminance (0° maximum)	450 Nits	450 Nits	600 Nits	800 Nits	
Contrast (maximum)	600:1	600:1	1000:1	800:1	
Response Time (rise/decay)	20/10 ms	20/10 ms	13/12 ms	3/15 ms	
Viewing Angle (horizontal – L/R)	±80°	±80°	±88°	±80°	
Viewing Angle (vertical – U/D)	+80°/-60°	+80°/-60°	±88°	±80°	
Shock ²	50 G, 20 ms ½ Sine Wave	50 G, 20 ms ½ Sine Wave	54 G, 11 ms ½ Sine Wave	54 G, 11 ms ½ Sine Wave	
Vibration ²	1.5 G (10–200 Hz)	1.5 G (10–200 Hz)	2.0 G (5–100 Hz)	2.0 G (5–100 Hz)	
Temperature, Operating	-30° to 85°C	-30° to 85°C	-20° to 70°C	-30° to 80°C	
Temperature, Storage	-30° to 85°C	-30° to 85°C	-30° to 80°C	-30° to 80°C	
Humidity, Operating	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	
Humidity, Storage	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	
Case Dimensions (H x W x D) ^{3, 4}					
Saber Standalone	7.50" × 10.50" × 1.48"	N/A	7.50" × 10.50" × 1.48"	7.50" × 10.50" × 1.48"	
Saber PanelMount/PanelMount Dual	9.50″ × 11.25″ × 2.50″	8.72″ (5U) × 17.75″ × 3.87″	9.50″ × 11.25″ × 2.50″	9.50″ × 11.25″ × 2.50″	
Saber RackMount Dual	N/A	8.72″ (5U) × 17.75″ × 3.87″	N/A	N/A	
Construction		5052-H32	Aluminum		
Finish	Black Matte Powder Coat				
Mounting (Saber Standalone only)	VESA Standard, 75 mm, 4 Places, Rear				
Weight, Operating⁵	9 Pounds	12 Pounds	9 Pounds	9 Pounds	
Weight, Shipping⁵	14 Pounds	17 Pounds	14 Pounds	14 Pounds	
Power Input (default)		+12	Vdc		



10" DISPLAY (Inquire about alternate configurations)

Properties	228 Series			
Size (diagonal)	10.4″			
Viewing Area (W x H)	8.31″ × 6.24″			
Resolution (pixels)	640 x 480			
Number of Colors	16.2M			
Luminance (0° maximum)	450 Nits			
Contrast (maximum)	700:1			
Response Time (rise/decay)	20/10 ms			
Viewing Angle (horizontal – L/R)	±80°			
Viewing Angle (vertical – U/D)	+60°, -80°			
Shock ²	50 G, 20 ms, ½ Sine Wave			
Vibration ²	1.5 G (10–200 Hz)			
Temperature, Operating	-30° to 80°C			
Temperature, Storage	-30° to 80°C			
Humidity, Operating	5% to 95% RH Non-condensing			
Humidity, Storage	5% to 95% RH Non-condensing			
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	9.50″ x 11.63″ x 2.50″			
Saber PanelMount	10.00" × 12.00" × 3.00"			
Saber RackMount	10.00" × 12.00" × 3.00"			
Construction	5052-H32 Aluminum			
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 75 mm & 100 mm, 4 Places (x2), Rear			
Weight, Operating⁵	11 Pounds			
Weight, Shipping⁵	16 Pounds			
Power Input (default)	+12 Vdc			

Custom-designed for the U.S. Air Force, the Saber PanelMount 10.4 features a custom bezel with 12 function buttons



12" DISPLAY (Inquire about alternate configurations)

Properties	308 Series			
Size (diagonal)	12.1″			
Viewing Area (W x H)	9.69" × 7.26"			
Resolution (pixels)	800 x 600			
Number of Colors	16.2 Million			
Luminance (0° maximum)	600 Nits			
Contrast (maximum)	1500:1			
Response Time (rise/decay)	13/12 ms			
Viewing Angle (horizontal – L/R)	±89°			
Viewing Angle (vertical – U/D)	±89°			
Shock ²	200 G, 2 ms, ½ Sine Wave			
Vibration ²	1.5 G (10–300 Hz)			
Temperature, Operating	-30° to 80°C			
Temperature, Storage	-30° to 85°C			
Humidity, Operating	20% to 90% RH Non-condensing			
Humidity, Storage	10% to 90% RH Non-condensing			
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	9.00" × 14.00" × 2.04"			
Saber PanelMount	11.00″ × 14.00″ × 3.00″			
Saber RackMount	8.47" x 13.50" x 2.50"			
Construction	5052-H32 Aluminum			
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 75 mm & 100 mm, 4 Places (x2), Rear			
Weight, Operating⁵	13 Pounds			
Weight, Shipping⁵	18 Pounds			
Power Input (default)	+12 Vdc			

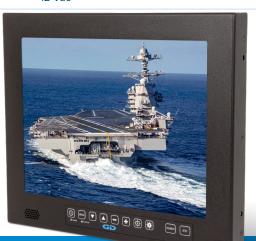


15" DISPLAY (Inquire about alternate configurations)

Properties	408 Series	409 Series	989 Series	
Size (diagonal)	15.0″	15.0″	15.0″	
Viewing Area (W x H)	11.97″ x 8.98″	11.97" x 8.98" 11.97" x 8		
Resolution (pixels)	1024 X 768	1024 x 768	1024 × 768	
Number of Colors	16.7 Million	16.2 Million	16.7 Million	
Luminance (0° maximum)	400 Nits	400 Nits	600 Nits	
Contrast (maximum)	600:1	700:1	600:1	
Response Time (rise/decay)	6/2 ms	5.7/2.3	3/5 ms	
Viewing Angle (horizontal – L/R)	±80°	±80°	±80°	
Viewing Angle (vertical – U/D)	±80°	+60°/-80°	±80°	
Shock ²	30 G, 11 ms ½ Sine Wave	50 G, 20 ms ½ Sine Wave	30 G, 11 ms ½ Sine Wave	
Vibration ²	1.0 G (5–100 Hz)	1.5 G (10–200 Hz)	1.0 G (5–100 Hz)	
Temperature, Operating	-20° to 70°C	-30° to 85°C -20° to		
Temperature, Storage	-30° to 85°C	-30° to 85°C -30° to		
Humidity, Operating	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	
Humidity, Storage	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	11.22″ × 14.22″ × 1.99″	11.22″ × 14.22″ × 1.99″	11.22″ x 14.22″ x 1.99″	
Saber PanelMount	12.50" × 15.00" × 2.50"	12.50" × 15.00" × 2.50"	12.50" × 15.00" × 2.50"	
Saber RackMount	12.50" x 15.00" x 2.35"	12.50" × 15.00" × 2.35"	12.50″ × 15.00″ × 2.35″	
Construction		5052-H32 Aluminum		
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 75 mm & 100 mm, 4 Places (x2), Rear			
Weight, Operating⁵	15 Pounds			
Weight, Shipping⁵	20 Pounds			
Power Input (default)	+12 Vdc			



The Saber Standalone Solar 15.0 features dedicated buttons for high brightness and standard luminance, capacitive touch screen, speaker and quick release VESA mounting bracket



17" DISPLAY (Inquire about alternate configurations)

Properties	510 Series	524 Series	956 Series⁵		
Size (diagonal)	17.0″	17.3″	17.0″		
Viewing Area (W x H)	13.30″ × 10.64″	15.03" x 8.46" 13.30" x 10.64			
Resolution (pixels)	1280 × 1024	1920 x 1080	1280 x 1024		
Number of Colors	16.7 Million	16.7 Million	16.7 Million		
Luminance (0° maximum)	350 Nits	400 Nits	930 Nits		
Contrast (maximum)	1000:1	600:1	810:1		
Response Time (rise/decay)	3.5/1.5 ms	37/3 ms	3.5/1.5 ms		
Viewing Angle (horizontal – L/R)	±85°	±80°	±85°		
Viewing Angle (vertical – U/D)	±85°	+60°/-80°	±85°		
Shock ²	50 G, 20 ms ½ Sine Wave	50 G, 20 ms ½ Sine Wave	50 G, 20 ms ½ Sine Wave		
Vibration ²	1.5 G (10–200 Hz)	1.5 G (10–200 Hz)	1.5 G (10–200 Hz)		
Temperature, Operating	-30° to 85°C	0° to 70°C	-30° to 85°C		
Temperature, Storage	-30° to 85°C	-30° to 85°C -20° to 70°C			
Humidity, Operating	8% to 90% RH Non-condensing 5% to 95% RH Non-condensing		8% to 90% RH Non-condensin		
Humidity, Storage	8% to 90% RH Non-condensing 5% to 95% RH Non-condensing		8% to 90% RH Non-condensin		
Case Dimensions (H x W x D) ^{3, 4}					
Saber Standalone	12.18" x 16.23" x 2.22"	13.625" x 19.50" x 2.75"	12.18" x 16.23" x 2.22"		
Saber PanelMount	13.50" x 16.00" x 2.69"	12.00" × 18.00" × 2.75"	13.50" × 16.00" × 2.69"		
Saber RackMount	13.50" x 16.00" x 2.56"	10.22" × 17.00" × 3.00"	13.50" × 16.00" × 2.56"		
Construction		5052-H32 Aluminum			
Finish	Black Matte Powder Coat				
Mounting (Saber Standalone only)	VESA Standard, 75 mm & 100 mm, 4 Places (x2), Rear				
Weight, Operating⁵	16 Pounds				
Weight, Shipping⁵	21 Pounds				
Power Input (default)		+12 Vdc			





The Saber PanelMount 17.0 can be configured with an unpainted perforated rear enclosure for natural cooling. This rugged unit also features a resistive touch screen for improved HMI interaction.

19" DISPLAY (Inquire about alternate configurations)

Properties	701 Series	711 Series	993 Series ⁶	
Size (diagonal)	19.0″	19.0″	19.0″	
Viewing Area (W x H)	14.81″ × 11.85″	14.81" × 11.85" 14.81" × 11.8		
Resolution (pixels)	1280 × 1024	1280 x 1024	1280 x 1024	
Number of Colors	16.7 Million	16.7 Million	16.7 Million	
Luminance (0° maximum)	350 Nits	450 Nits	1000 Nits	
Contrast (maximum)	1000:1	1000:1	700:1	
Response Time (rise/decay)	3.6/1.4 ms	7/3 ms	3.6/1.4 ms	
Viewing Angle (horizontal – L/R)	±85°	±85°	±85°	
Viewing Angle (vertical – U/D)	±80°	±80°	±80°	
Shock ²	50 G, 20 ms ½ Sine Wave	50 G, 20 ms, ½ Sine Wave	50 G, 11 ms ½ Sine Wave	
Vibration ²	1.5 G (10–200 Hz)	1.5 G (10–200 Hz) 1.5 G (10–200 Hz)		
Temperature, Operating	0° to 50°C -30° to 85°C		-30° to 85°C	
Temperature, Storage	-20° to 60°C	-20° to 60°C -30° to 85°C		
Humidity, Operating	5% to 90% RH Non-condensing	5% to 90% RH Non-condensing 5% to 95% RH Non-condensing 8%		
Humidity, Storage	5% to 90% RH Non-condensing	5% to 95% RH Non-condensing	8% to 90% RH Non-condensing	
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone		15.00" x 17.75" x 2.66"		
Saber PanelMount		14.25″ x 17.00″ x 3.35″		
Saber RackMount		14.25" × 17.00" × 4.80"		
Construction		5052-H32 Aluminum		
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 75 mm & 100 mm, 4 Places (x2), Rear			
Weight, Operating⁵	19 Pounds			
Weight, Shipping⁵	24 Pounds			
Power Input (default)	+12 Vdc			

With a front bezel over $\frac{1}{2}$ " thick, this Saber PanelMount Solar/NVIS 19.0 is ready for the toughest of tasks. On the bezel face is a membrane keypad with buttons for switching from sunlight readable luminance to an NVIS-compatible screen.



20" DISPLAY (Inquire about alternate configurations)

Properties	845 Series			
Size (diagonal)	20.1″			
Viewing Area (W x H)	16.06″ × 12.05″			
Resolution (pixels)	1600 x 1200			
Number of Colors	16.7 Million			
Luminance (0° maximum)	260 Nits			
Contrast (maximum)	1000:1			
Response Time (rise/decay)	30 ms (total)			
Viewing Angle (horizontal – L/R)	±85°			
Viewing Angle (vertical – U/D)	±85°			
Shock ²	50 G, 6 ms ½ Sine Wave			
Vibration ²	1.0 G (58–500 Hz)			
Temperature, Operating	0° to 50°C			
Temperature, Storage	-25° to 60°C			
Humidity, Operating	5% to 90% RH Non-condensing			
Humidity, Storage	5% to 90% RH Non-condensing			
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	15.30″ × 21.70″ × 2.50″			
Saber PanelMount	16.30″ × 19.50″ × 4.00″			
Saber RackMount	15.50″ × 17.63″ × 3.25″			
Construction	5052-H32 Aluminum			
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 100 mm & 200 mm, 4 Places (x2), Rear			
Weight, Operating⁵	21 Pounds			
Weight, Shipping⁵	26 Pounds			
Power Input (default)	+12 Vdc			



The Saber Standalone Solar 20.1 is equipped with a rear-mounted power supply and VESA mounting bracket <image>

22" DISPLAY (Inquire about alternate configurations)

Properties	813 Series	987 Series ⁶		
Size (diagonal)	21.5″	21.5″		
Viewing Area (W x H)	18.77″ × 10.56″	18.77″ x 10.56″		
Resolution (pixels)	1920 x 1080	1920 x 1080		
Number of Colors	16.7 Million	16.7 Million		
Luminance (0° maximum)	300 Nits	1040 Nits		
Contrast (maximum)	5000:1	7430:1		
Response Time (rise/decay)	20/5 ms	20/5 ms		
Viewing Angle (horizontal – L/R)	±89°	±89°		
Viewing Angle (vertical – U/D)	±89°	±89°		
Shock ²	50 G, 20 ms ½ Sine Wave	50 G, 20 ms ½ Sine Wave		
Vibration ²	1.5 G (10–200 Hz)	1.5 G (10–200 Hz)		
Temperature, Operating	0° to 60°C	0° to 60°C		
Temperature, Storage	-20° to 60°C	-20° to 60°C		
Humidity, Operating	5% to 90% RH Non-condensing	10% to 90% RH Non-condensing		
Humidity, Storage	5% to 90% RH Non-condensing	10% to 90% RH Non-condensing		
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	14.25″ x 2	21.75″ × 3.00″		
Saber PanelMount	14.00″ × 2	2.00″ × 3.00″		
Saber RackMount	Data U	Inavailable		
Construction	5052-H3	32 Aluminum		
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 100 mm & 200 mm, 4 Places (x2), Rear			
Weight, Operating⁵	24 Pounds			
Weight, Shipping⁵	29 Pounds			
Power Input (default)	+1	2 Vdc		



The Saber Standalone NVIS 21.5 is compatible with night vision goggles via the NVIS button on the monitor bezel. This rugged VESA mount unit includes a capacitive touch screen and internal power supply.



24" DISPLAY (Inquire about alternate configurations)

Properties	819 Series			
Size (diagonal)	24.0″			
Viewing Area (W x H)	20.92" × 11.77"			
Resolution (pixels)	1920 x 1080			
Number of Colors	16.7 Million			
Luminance (0° maximum)	300 Nits			
Contrast (maximum)	3000:1			
Response Time (rise/decay)	16/9 ms			
Viewing Angle (horizontal – L/R)	±89°			
Viewing Angle (vertical – U/D)	±89°			
Shock ²	50 G, 20 ms ½ Sine Wave			
Vibration ²	1.5 G (10–200 Hz)			
Temperature, Operating	0° to 50°C			
Temperature, Storage	-20° to 60°C			
Humidity, Operating	5% to 90% RH Non-condensing			
Humidity, Storage	5% to 90% RH Non-condensing			
Case Dimensions (H x W x D) ^{3, 4}				
Saber Standalone	15.25″ x 24.25″ x 3.00″			
Saber PanelMount	15.94″ × 21.90″ × 3.00″			
Saber RackMount	Data Unavailable			
Construction	5052-H32 Aluminum			
Finish	Black Matte Powder Coat			
Mounting (Saber Standalone only)	VESA Standard, 100 mm & 200 mm, 4 Places (x2), Rear			
Weight, Operating⁵	25 Pounds			
Weight, Shipping⁵	30 Pounds			
Power Input (default)	+12 Vdc			



The Saber PanelMount 24.0 is a militaryspec COTS monitor. The display has an optically bonded vandal shield for durability, while the rear features louvered vents and mil-spec circular connectors.



VIDEO CONTROLLER^{7,8}

Properties	117 Series	121 Series	125 Series	132 Series	151 Series
Maximum Resolution @ Vertical Frequency	1920 x 1200 WUXGA @ 60 Hz	1920 x 1200 WUXGA @ 60 Hz	3840 x 2160 4K UHD @ 30, 60 Hz	1440 x 900 WXGA+ @ 60 Hz	1920 x 1200 WUXGA @ 60 Hz
Video Inputs Supported ^{9, 10}	ARGB, DVI-D, HDMI	ARGB, Composite, DVI-I, S-Video	DisplayPort, DVI-I, HDMI (x3)	ARGB, DVI-D	ARGB, Composite, DVI-D, HDMI (x2), HD/SD Component

VIDEO STANDARDS SUPPORTED⁹

Analog Computer Video	Digital Computer Video	Composite (Live) Video	HD Video
ARGB, RGB, Separate Sync, Composite Sync, Sync-On-Green, DVI-A, RS-343A (Optional), STANAG 3350 A / B / C (Optional)	DVI-D, HDMI	NTSC, PAL, SECAM, RS-170. S-Video. CCTV	HD-SDI, HDMI

CALIBRATION

Properties	117 Series	121 Series	125 Series
Interface	On-screen Displays Navigated by 8-button Membrane Pad	On-screen Displays Navigated by 8-button Membrane Pad	On-screen Displays Navigated by 8-button Membrane Pad
Functions	Brightness, Contrast, Saturation, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities	Brightness, Contrast, Saturation, Hue, Sharpness, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities	Volume, Brightness, Contrast, Saturation, Hue, Sharpness, Backlight Brightness, Display Mode, Input Signal, Aspect Size (Scaling), Information
Advanced	Picture-In-Picture (PIP), PIP Size, PIP Position, PIP Transparency, Auto Picture Setup, Auto Color Gain, Wide Screen Mode Detection, Manual Clock/Phase, Auto Source Seek, Auto Power Off, Video Standard, OSD (Position, Timeout, Language [English, Spanish, French, German, Chinese], Transparency, Display Input), Image Freeze, Image Zoom & Pan, Color Temperature, Hot Keys, Backlight Setup	Picture-In-Picture (PIP), PIP Size, PIP Position, PIP Transparency, Auto Picture Setup, Auto Color Gain, Wide Screen Mode Detection, Manual Clock/Phase, Auto Source Seek, Auto Power Off, Video Standard, OSD (Position, Timeout, Language [English, Spanish, French, German, Chinese], Transparency, Display Input), Image Freeze, Image Zoom & Pan, Color Temperature, Hot Keys, Backlight Setup, Image Orientation (Normal, Horizontal Flip, Vertical Flip, Rotate)	Image Rotate, Color Temperature, Gamma, Color Effect, Color Format, OSD (Position, Timeout, Language, Transparency, Rotate, Border Width, Border Color), Picture- In-Picture (PIP), Picture-By- Picture (PBP)

Properties	132 Series	151 Series
Interface	On-screen Displays Navigated by 8-button Membrane Pad	On-screen Displays Navigated by 8-button Membrane Pad
Functions	Brightness, Contrast, Sharpness, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Gamma, Utilities	Brightness, Contrast, Black Level, Sharpness, Hue, Saturation, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities
Advanced	OSD (Languge, Position, Timeout, Transparency), Image Auto Adjust, Color Auto Adjust, Auto Source Seek, Clock, Phase, Color Temperature, Backlight Dimming, Backlight Frequency, Backlight Invert	OSD (Timeout, Transparency), Clock, Phase, Color Temperature, Auto Color Gain, Auto Picture Setup, Auto Source Seek, Auto Power On/Off, Image Orientation, Hot Keys, Backlight Invert, Backlight Dimming, Backlight Frequency, Backlight Control (D/A or PWM), Minimum Backlight Level Adjustment, Failover, Software Update (USB), Audio Volume

I/O CONNECTORS

Power	On/Standby	Analog	Composite	DisplayPort	DVI	HDMI	Serial/Touch	Audio
(DC)	(DC)	Video	Video (Optional)	(Optional)	(Optional)	(Optional)	Screen (Optional)	(Optional)
2W2 D-sub. ¹¹	LED on Membrane Pad	High Density 15-pin Socket	BNC Socket	DisplayPort	DVI-D / DVI-I	HDMI, Type A	DE-9 Socket	3.5 mm Headphone Jack

OPTIONS & ACCESSORIES

General Digital provides an ample selection of options and accessories to complement your LCD monitor. A partial listing of popular choices is provided below. Please visit our Web site for more choices, or inquire with a Sales Engineer to discuss your specific requirements. Note that nearly all options and accessories are ordered separately, at additional cost.

DISPLAY OVERLAY (Popular choices listed—contact General Digital for additional selections)

DO Option No.	Description				
00	None				
02	Clear Float Glass, Antiglare Etch Two Sides				
04	Clear Float Glass, Antireflective Coating Two Sides				
21	Vandal Shield, Polycarbonate or Acrylic				
23	Vandal Shield, Clear Float Glass, Antiglare Etch Two Sides, 2 Panes Bonded (Laminated) Together (Not Bonded to LCD)				
24	Vandal Shield, Soda Lime Glass, Chemically Strengthened (Tempered), Antireflective Coating Two Sides				
35	Capacitive Touch Screen, Ideal Etch				
51	Resistive Touch Screen				
65	Resistive Touch Screen, 5-Wire, with Laminated ITO Glass				

Saber Standalone 24.0 equipped with optional speaker and panel mount adaptor



OPTIONS & ACCESSORIES

PS Option No.	Input Voltage Range	Output					Frequency	Line Entry	Power
		6.5″–12.1″	15.0″–19.0″	20.1″–21.5″	23.8″	24.0″	Range	Module/ Filter	Factor Correction
EP01 (Rear Mount)	85–264 Vac	50 W/+12 Vdc	50 W/+12 Vdc (15″ Only)	-	_	-	47–63 Hz	Yes	0.95
EP02 (Rear Mount)	85–264 Vac	_	75 W/+12 Vdc	_	_	75 W/ +24 Vdc	47–63 Hz	Yes	0.95
EP03 (Rear Mount)	85–264 Vac	_	100 W/+12 Vdc	_	_	_	47–63 Hz	Yes	0.95
EP07 (Rear Mount)	85–264 Vac	_	_	_	_	150 W/ +12 Vdc	47–63 Hz	Yes	0.99
IA04 (Internal)	85–132, 170–264 Vac	_	_	100 W/+12 Vdc	_	_	47–63 Hz	Yes	_
IP14 (Internal)	85–264 Vac	-	-	-	75 W/ +24 Vdc	—	47–63 Hz	Yes	0.99
SA30 (Separate)	90–264 Vac	66 W/+12 Vdc	-	—	—	_	47–63 Hz	—	_
SP31 (Separate)	90–264 Vac	100 W/+12 Vdc	100 W/+12 Vdc	100 W/+12 Vdc	_	_	47–63 Hz	_	0.95
90-186 ¹³ (Separate)	90–264 Vac	66 W/+12 Vdc	-	_	—	_	47–63 Hz	—	_
0092 (none)	+12 Vdc		Filterin	g and regulation	provided by a	customer (de	efault selection)		

POWER SUPPLY¹² (Popular choices listed—contact General Digital for additional selections)

MISCELLANEA

NVIS Compatibility Night Vision displays in compliance with MIL-STD-3009						
Sunlight Readable LCDs	High Brightness displays to 1000+ nits					
Optical Enhancements	Bonding of filter and display using indice-matched optical materials; Brightness- and contrast-enhancing films and lamination					
Power Supplies	AC and DC supplies; Various input ranges, input frequencies; Separate or attached; Power Factor Correction; AC and DC power cables					
Video Accessories	Video cables; Signal extenders; Picture-In-Picture (PIP); Picture-By-Picture (PBP); NTSC PAL SECAM RS-170 S-Video DisplayPort DVI-D HD-SDI SD-SDI HDMI HD Component Support					
Remote Control	IR or Serial calibration/control interface					
Customization	Custom mechanical and electrical modifications; Custom finishing; Custom software and performance modifications; Private labeling					



Four Saber Standalone 21.5 monitors ready for duty in a flight simulator

FOOTNOTES

- 1 Displays smaller than 10" are not available in rack mount configuration (except the Dual 8" display model).
- 2 Shock and Vibration data reflect parameters for baseline industrial monitors. Military-grade monitors could sustain even greater shock and vibration levels. Please inquire with a Sales Engineer for more information.
- 3 Standard base enclosure dimensions listed. For a control drawing with complete dimensions, please contact a Sales Engineer.

<u>SYSTEM</u>

CERTIFIED

- 4 An attached power supply will add 2"-2.5" to the overall depth of the unit.
- 5 Add 2 pounds to the weight when a separate power supply is included.
- 6 This model has been designed and tested to be in NVIS compliance with MIL-STD-3009. Inquire with a Sales Engineer about obtaining other night vision goggle-compatible models.
- 7 Maximum video resolution listed. Speak with a Sales Engineer for a complete list of available resolutions.
- 8 Dual 8" display models utilize two video controller boards.
- 9 Primary video inputs listed. Speak with a Sales Engineer about other video modes supported.
- **10** Although the video controllers can support multiple video inputs, space limitations may prevent access to certain connectors or routing of certain cables. Discuss your requirements with a Sales Engineer to devise a configuration that best suits your needs.
- 11 Default connector; specific configuration may require a different connector type.
- **12** Includes 6'7" AC power cable.
- 13 Must be ordered as a separate line item.



Engineering What's Next

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