

# TwoVIEW™ / TwoVIEW SOLAR™

Industrial-/Military-Grade, Rack Mount, Standard/Sunlight Readable, Dual Flip-up LCD Monitors/Keyboard/Trackball



The **TwoVIEW**SERIES dual LCD monitors/keyboard/trackball is optimized for its low profile (3.50" high) and designed to save valuable rack space while increasing your video content capacity.

The TwoView's compact design and industrial durability, combined with General Digital's legendary configuration control and long product life cycles, make it the ideal rack mount solution for network administration, telecommunications, mobile applications (transit case), and more.

The enclosure is constructed from a combination of steel and aluminum, providing a cost-effective, lightweight housing that can be used in most applications. Two large format display heads unfold and slide laterally to provide twice the viewing capacity.

A spring coil latch is used to secure the displays while they are stowed to minimize vertical "chatter" when subjected to shock and vibration. A pair of 24" long chassis slides facilitate rack mounting and ease of operation. Interface connectors are located on the rear of the device. The overall depth of the system is 24".

The TwoView Series is available with integrated 15.0", 17.0", 17.3", 19.0", or 20.1" (diagonal) LCDs, offering a wide selection of price vs. performance options from which to choose. Regardless of the display size selected, all of the LCD displays offer the latest advances in LCD technology, providing users with high brightness/contrast images, fast response times (suitable for live video) and wide viewing angles. We offer several models with both standard luminance and sunlight readable displays.

Customers may also select from our current offering of supported video controllers to achieve the desired balance of price and performance. All of the video controllers are operated via intuitive On-screen Display (OSD) menus that are controlled via a membrane keypad. Advanced features such as Live Video support, Picture-in-Picture (graphics + video) and Image Rotation are supported on specific controller configurations.

Additionally, users can choose from General Digital's list of approved keyboard/trackball combinations to satisfy their specific requirements. Please speak with a sales engineer to discuss substituting the keyboard/trackball with a storage compartment and optional cup holder. ☺

Please feel welcome to consult with a General Digital Sales Engineer for additional information, or visit [GDdisplaysystems.com](http://GDdisplaysystems.com).

OVER 35 YEARS OF FLAT PANEL SOLUTIONS

QUICK LOOK

## ENCLOSURE

- » Rugged, All-Metal Construction
- » Spring Coil Latch Secures Displays in Stowed Position
- » Low Profile Rack Mount Enclosure
- » Easily Mounts in Rack Chassis Via 24" Slides (provided)

## DISPLAYS

- » Dual 15"/17"/19"/20" Active Matrix TFT LCD Displays
- » XGA (1024 x 768 pixels) to WUXGA (1900 x 1200 pixels) Resolution
- » Wide Viewing Angle (Horizontal & Vertical)
- » High Brightness and Contrast Enhances Display Quality
- » Fast Response Time Ideal for Real-Time and Video Applications

## VIDEO CONTROLLERS

- » Support for Interlaced and Non-Interlaced Video Sources
- » Support for Separate, Composite, Sync-On-Green and DVI-D Standards
- » Support for NTSC, SECAM, PAL, RS-170 Video with Input Format of Composite Video, S-Video and Component Video (YCrCb) [Optional]
- » Resolutions to 1920 x 1200 @ 60 Hz; Sub-resolutions to 75 Hz
- » Intuitive On-screen Menus for Display Calibration and User Control
- » Advanced Imaging Features
  - Auto Adjust, Brightness/Contrast/Color Adjustments, Image Expansion, Image Zoom, Foreign Languages, PIP, PBP, More

## KEYBOARD/POINTING DEVICE

- » Commercial-, Industrial- and Military-Grade Keyboards Supported
- » Integrated 3-Button, 1-3/8" Diameter, Sealed Trackball

## POWER

- » +12 VDC Operation
- » Low Power Consumption (<80 Watts Typical)

## OPTIONS

- » NVIS-Compatible Displays Compliant with MIL-STD-3009
- » Sunlight Readable Displays and Other Optical Enhancements
- » Keyboard/Trackball May Be Substituted with Storage Compartment and Optional Cup Holder ☺
- » Support for DVI-D Video, HDMI Video, NTSC Video (Composite)
- » Live Video (NTSC, SECAM, PAL, RS-170)
- » External and 1U Rack Mount Power Supplies (AC, DC, Power Factor Correction, More)
- » Cable Management Systems
- » Front-mounted CD/DVD-RW or Blu-ray Drive
- » Stereo Speakers and 3.5 mm Headphone Jack
- » Integrated 4-Port KVM Switch (TV-20U Only)
- » Fiber Optic Receiver
- » Custom Designs

## APPLICATIONS

- » Telecommunications
- » Network Administration
- » Mobile Applications (e.g., Transit Cases)
- » Department of Defense (COTS)

**Designed and Manufactured in the U.S.A.**

### STANDARD LUMINANCE DISPLAY (x2)

	Size (Diagonal)	Viewing Area (W x H)	Resolution (Pixels)	Number of Colors	Luminance (0° Max.)	Contrast (Max.)	Response Time (Rise/Decay)	Horizontal Viewing Angle	Vertical Viewing Angle	Shock [1]	Vibration [1]
TV-15X-408	15.0"	11.97" x 8.98"	1024 x 768	16.7 Million	400 Nits	600:1	3/5 ms	± 80°	± 80°	30 G, 11 ms ½ Sine Wave	1.0 G (5–100 Hz)
TV-15X-409	15.0"	11.97" x 8.98"	1024 x 768	16.2 Million	400 Nits	700:1	5.7/2.3 ms	± 80°	+ 60°, -80°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
TV-17W-510	17.0"	13.30" x 10.64"	1280 x 1024	16.7 Million	350 Nits	1000:1	3.5/1.5 ms	± 85°	± 85°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
TV-17D-524	17.3"	15.03" x 8.46"	1920 x 1080	16.7 Million	400 Nits	600:1	37/3 ms	± 80°	+ 60°, -80°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
TV-19W-701	19.0"	14.81" x 11.85"	1280 x 1024	16.7 Million	350 Nits	1000:1	3.6/1.4 ms	± 85°	± 80°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
TV-19W-703	19.0"	14.81" x 11.85"	1280 x 1024	16.7 Million	330 Nits	900:1	7/11 ms	± 89°	± 89°	100 G, 2 ms ½ Sine Wave	1.0 G (10–300 Hz)
TV-20U-845	20.1"	16.06" x 12.05"	1600 x 1200	16.7 Million	260 Nits	1000:1	30 ms	± 85°	± 85°	50 G, 6 ms ½ Sine Wave	1.0 G (58–500 Hz)

**1** 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.

### MTBF Standard Luminance

	Display	LED Backlight [2]	LED Controller	Power Supply (Optional)
TV-15X-408	50,000 Hours (Minimum)	> 50,000 Hours (Typical)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-15X-409	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-17W-510	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-17D-524	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-19W-701	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-19W-703	50,000 Hours (Minimum)	30,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
TV-20U-845	> 50,000 Hours (Typical)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected

**2** The hours for LED Backlight refer to the half-life of the backlight; that is, the point at which the LEDs reach half of their original brightness. *It does not indicate the life expectancy of the LED backlight.*

### ENVIRONMENTAL Standard Luminance

	Temperature, Operating	Temperature, Storage	Humidity, Operating	Humidity, Storage	Altitude, Operating	Altitude, Storage
TV-15X-408	-20° C to 70° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
TV-15X-409	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
TV-17W-510	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
TV-17D-524	0° C to 70° C	-20° C to 70° C	5% to 95% RH Non-condensing	5% to 95% RH Non-condensing	10,000 Feet	40,000 Feet
TV-19W-701	0° C to 50° C	-20° C to 60° C	5% to 90% RH Non-condensing	5% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
TV-19W-703	-10° C to 70° C	-20° C to 80° C	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	16,000 Feet	40,000 Feet
TV-20U-845	0° C to 50° C	-25° C to 60° C	8% to 95% RH Non-condensing	8% to 95% RH Non-condensing	10,000 Feet	40,000 Feet

### MECHANICAL Standard Luminance

	Dimensions (H x W x D)	Construction	Finish	Weight, Operating [3]	Weight, Shipping [3]
TV-15X-408	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	43 Pounds	53 Pounds
TV-15X-409	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	43 Pounds	53 Pounds
TV-17W-510	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	48 Pounds	58 Pounds
TV-17D-524	3.50" (2U) x 19.00" x 22.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	48 Pounds	58 Pounds
TV-19W-701	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	50 Pounds	60 Pounds
TV-19W-703	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	50 Pounds	60 Pounds
TV-20U-845	5.25" (3U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	60 Pounds	70 Pounds

**3** Add 10 pounds to the Operating and Shipping Weight when the Rack Adaptor Option is included.

### MODEL NUMBER CONFIGURATOR Standard Luminance [4]

Model Style	Size & Resolution (aab)	Display (ccc)	Video Controller (dd)	Keyboard/Pointer (ee)	Industrial Enclosure (ff)	Display Overlay (gg)	Power Supply (hijj)
TV-	15X-	408-	##-	##-	10-	##-	0092
TV-	15X-	409-	##-	##-	10-	##-	0092
TV-	17W-	510-	##-	##-	10-	##-	0092
TV-	17D-	524-	##-	##-	10-	##-	0092
TV-	19W-	701-	##-	##-	10-	##-	0092
TV-	19W-	703-	##-	##-	10-	##-	0092
TV-	20U-	845-	##-	##-	22-	##-	0092

**4** The hashtags (#) indicates customer-defined values.

**ORDERING** Standard Luminance

Model Number [5]	Description
TV-15X-408- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 15.0, 2U Rack Mount Ruggedized Dual 15.0" XGA Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-15X-409- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 15.0, 2U Rack Mount Ruggedized Dual 15.0" XGA Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-17W-510- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 17.0, 2U Rack Mount Ruggedized Dual 17.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-17D-524- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 17.3, 2U Rack Mount Ruggedized Dual 17.3" WXGA + Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-19W-701- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 19.0, 2U Rack Mount Ruggedized Dual 19.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-19W-703- <b>dd-ee</b> -10- <b>gg</b> -0092	TwoView 19.0, 2U Rack Mount Ruggedized Dual 19.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball
TV-20U-845- <b>dd-ee</b> -22- <b>gg</b> -0092	TwoView 20.1, 3U Rack Mount Ruggedized Dual 20.1" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball

**5 Bold Italicized letters** refer to standard customer-defined configurations (see Model Number Configurator above).

**SUNLIGHT READABLE/NVIS COMPATIBLE DISPLAY (x2)**

	Size (Diagonal)	Viewing Area (W x H)	Resolution (Pixels)	Number of Colors	Luminance (0° Max.)	Contrast (Max.)	Response Time (Rise/Decay)	Horizontal Viewing Angle	Vertical Viewing Angle	Shock [1]	Vibration [1]
DTV-15X-989	15.0"	11.97" x 8.98"	1024 x 768	16.7 Million	600 Nits	600:1	3/5 ms	± 80°	± 80°	30 G, 11 ms ½ Sine Wave	1.0 G (5–100 Hz)
SNTV-17W-956 [3]	17.0"	13.30" x 10.64"	1280 x 1024	16.7 Million	932 Nits [2]	813:1 [2]	3.5/1.5 ms	± 85°	± 85°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
DTV-19W-991	19.0"	14.81" x 11.85"	1280 x 1024	16.7 Million	485 Nits [2]	1276:1 [2]	3.6/1.4 ms	± 85°	± 80°	50 G, 11 ms ½ Sine Wave	1.5 G (10–300 Hz)
STV-19W-992	19.0"	14.81" x 11.85"	1280 x 1024	16.7 Million	1000 Nits [2]	700:1 [2]	3.6/1.4 ms	± 85°	± 80°	50 G, 11 ms ½ Sine Wave	1.5 G (10–300 Hz)
SNTV-19W-993 [3]	19.0"	14.81" x 11.85"	1280 x 1024	16.7 Million	1000 Nits [2]	700:1 [2]	3.6/1.4 ms	± 85°	± 80°	50 G, 11 ms ½ Sine Wave	1.5 G (10–300 Hz)

**1** 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.

**2** Brightness and Contrast values reflect measurements obtained with a Minolta® CS100 photometer; these values are nominal and may vary.

**3** This model has been designed and tested to be NVIS compatible to MIL-STD-3009. Inquire with a Sales Engineer about obtaining other night vision goggle-compatible models.

**MTBF** Sunlight Readable/NVIS

	Display	LED Backlight [4]	LED Controller	Power Supply (Optional)
STV-15X-989	50,000 Hours (Minimum)	70,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
SNTV-17W-956 [3]	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
DTV-19W-991	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
STV-19W-992	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
SNTV-19W-993 [3]	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected

**4** The hours for LED Backlight refer to the half-life of the backlight; that is, the point at which the LEDs reach half of their original brightness. *It does not indicate the life expectancy of the backlight.*

**ENVIRONMENTAL** Sunlight Readable/NVIS

	Temperature, Operating	Temperature, Storage	Humidity, Operating	Humidity, Storage	Altitude, Operating	Altitude, Storage
STV-15X-989	-20° C to 70° C	-30° C to 80° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
SNTV-17W-956 [3]	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
DTV-19W-991	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
STV-19W-992	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
SNTV-19W-993 [3]	-30° C to 85° C	-30° C to 85° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet

**MECHANICAL** Sunlight Readable/NVIS

	Dimensions (H x W x D)	Construction	Finish	Weight, Operating [5]	Weight, Shipping [5]
STV-15X-989	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	43 Pounds	53 Pounds
SNTV-17W-956 [3]	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	48 Pounds	58 Pounds
DTV-19W-991	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	50 Pounds	60 Pounds
STV-19W-992	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	50 Pounds	60 Pounds
SNTV-19W-993 [3]	3.50" (2U) x 19.00" x 24.00"	5052-H32 Aluminum/Steel	Black Matte Powder Coat & Clear Iridite	50 Pounds	60 Pounds

**5** Add 10 pounds to the Operating and Shipping Weight when the Rack Adaptor Option is included.



TV-19W in Storage Position

**MODEL NUMBER CONFIGURATOR** Sunlight Readable/NVIS [6]

Model Style	Size & Resolution (aab)	Display (ccc)	Video Controller (ddd)	Keyboard/Pointer (ee)	Industrial Enclosure (ff)	Display Overlay (gg)	Power Supply (hijj)
STV-	15X-	989-	###-	##-	10-	##-	0092
SNTV-	17W-	956-	###-	##-	10-	##-	0092
DTV-	19W-	991-	###-	##-	10-	##-	0092
STV-	19W-	992-	###-	##-	10-	##-	0092
SNTV-	19W-	993-	###-	##-	10-	##-	0092

6 The hashtags (#) indicates customer-defined values.

**ORDERING** Sunlight Readable/NVIS

Model Number [7]	Description
STV-15X-989- <b>ddd-ee-10-gg</b> -0092	TwoView Solar 15.0, 2U Rack Mount Ruggedized Dual Sunlight Readable 15.0" XGA Flip-up LCD Monitors with Integral Keyboard and Trackball
SNTV-17W-956- <b>ddd-ee-10-gg</b> -0092	TwoView Solar/NVIS 17.0, 2U Rack Mount Ruggedized Dual Sunlight Readable Night Vision Goggle-Compatible 17.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball [3]
DTV-19W-991- <b>ddd-ee-10-gg</b> -0092	TwoView Solar 19.0, 2U Rack Mount Ruggedized Dual Sunlight Readable 19.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball
STV-19W-992- <b>ddd-ee-10-gg</b> -0092	TwoView Solar 19.0, 2U Rack Mount Ruggedized Dual Sunlight Readable 19.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball
SNTV-19W-993- <b>ddd-ee-10-gg</b> -0092	TwoView Solar/NVIS 19.0, 2U Rack Mount Ruggedized Dual Sunlight Readable Night Vision Goggle-Compatible 19.0" SXGA Flip-up LCD Monitors with Integral Keyboard and Trackball [3]

7 **Bold Italicized letters** refer to standard customer-defined configurations (see Model Number Configurator above).

**VIDEO CONTROLLER (x2)** [1] All Models

ddd	Display Supported	Resolution/Frequency [2]							Scaling	NTSC / SECAM / PAL / RS-170	Video Supported
		640 x 480 VGA	800 x 600 SVGA	1024 x 768 XGA	1366 x 768 WXGA	1280 x 1024 SXGA	1600 x 1200 UXGA	1920 x 1200 WUXGA			
115 [3, 4]	All	60, 72, 75 Hz	56, 60, 72, 75 Hz	60, 70, 75 Hz	60 Hz	60, 75 Hz	60 Hz	60 Hz	On/Off	—	Separate, Composite, Sync-On-Green, DVI-D
117 [3]	All	60, 72, 75 Hz	56, 60, 72, 75 Hz	60, 70, 75 Hz	60 Hz	60, 75 Hz	—	60 Hz	On/Off	—	Separate, Composite, Sync-On-Green, DVI-D
121 [3]	All	60, 72, 75 Hz	56, 60, 72, 75 Hz	60, 70, 75 Hz	60 Hz	60, 75 Hz	—	60 Hz	On/Off	Digital Processor, Picture-In-Picture	Separate, Composite, Sync-On-Green, DVI-D

- 1 Most common video inputs listed. See below for a comprehensive list of supported video standards. Speak with a Sales Engineer for more information.
- 2 Most common video modes listed. Other video modes supported. Speak with a Sales Engineer for more information.
- 3 Supports advanced features such as Live Video, Picture-In-Picture (multiple user-selectable sizes), and Picture-By-Picture.
- 4 Video controller 115 is obsolete and shown for reference only.

**VIDEO STANDARDS SUPPORTED** All Models

Analog Computer Video	Digital Computer Video	Composite (Live) Video	HD Video	Others
VGA, SVGA, ARGB, RGB, Separate Sync, Composite Sync, Sync-On-Green, DVI-A, STANAG 3350 A / B / C	DVI-D, DVI-I, SD-SDI, HD-SDI	NTSC, PAL, SECAM, RS-170, S-Video, CCTV	HD-SDI, HDMI	CGI, CCR, EGA, RS-343A, EIA-343A, Custom Sync

**CALIBRATION** All Models

ddd	Interface	Functions	Advanced
115 [7]	On-screen Displays Navigated by 8-button Membrane Pad	Volume, Brightness, Contrast, Saturation, Hue, Sharpness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities	Auto Source Seek, Auto Picture Setup, Auto Color Gain, Auto Power Off, Picture-In-Picture, Color Temperature, Hot Keys, OSD (Position, Timeout, Language [English, Chinese], Transparency), Manual Clock & Phase, Video Standard, Image Orientation, Gamma
117	On-screen Displays Navigated by 8-button Membrane Pad	Brightness, Contrast, Saturation, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities	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
121	On-screen Displays Navigated by 8-button Membrane Pad	Brightness, Contrast, Saturation, Hue, Sharpness, Backlight Brightness, Input Signal, Aspect Size (Scaling), Image Position (Horizontal & Vertical), Utilities	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)

**I/O CONNECTIONS** All Models

Power (DC)	Analog Video	Keyboard/Pointing Device	On/Standby (DC)	Audio	S-Video (Optional)	Composite Video (Optional)
2W2 D-sub. Plug	Two (2) High Density 15-pin Socket	DE-9 Socket to Two PS/2	Membrane Pad	3.5 mm Jack	4-pin Mini DIN	BNC Socket

**OPTIONS** All Models (Ordered separately – Please inquire with a Sales Engineer for additional options and accessories)

**KEYBOARD** [5]

ee	Grade	Keyboard Enclosure	Keyboard			Pointing Device	
			No. of Keys	Compatibility	Special Features	Type	Compatibility
51	Heavy-Duty Industrial	Metal	82	PS/2	None	1-3/8" Trackball/ 3 Mouse Buttons	PS/2
52	Heavy-Duty Industrial	Metal	82	PS/2	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	PS/2
53	Heavy-Duty Industrial	Metal	82	Sun® Type 5 (8-pin Mini DIN)	None	1-3/8" Trackball/ 3 Mouse Buttons	Sun® Type 5 (8-pin Mini DIN)
54	Heavy-Duty Industrial	Metal	82	Sun® Type 5 (8-pin Mini DIN)	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	Sun® Type 5 (8-pin Mini DIN)
55	Military [6]	Metal	82	PS/2	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	PS/2
57	Military [6]	Metal	82	Sun® Type 6 (USB)	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	Sun® Type 6 (USB)
58	Military [6]	Metal	82	PC USB	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	PC USB
59	Military [6]	Metal	82	Sun® Type 5 (8-pin Mini DIN)	Backlit Keys	1-3/8" Trackball/ 3 Mouse Buttons	Sun® Type 5 (8-pin Mini DIN)
60	Heavy-Duty Industrial	Metal	82	Sun® Type 6 (USB)	Black Keycaps	1-3/8" Trackball/ 3 Mouse Buttons	Sun® Type 6 (USB)
64	Heavy-Duty Industrial	Metal	82	PC USB	Black Keycaps	1-3/8" Trackball/ 3 Mouse Buttons	PC USB

5 All keyboard electronics, switch activators, optical pick-ups, bearings and connectors are protected against dirt, dust, liquids and general contamination.

6 Certified for MIL-STD-810: Sand/Dust, Salt/Fog, Spill/Rain, Shock (30 G), Vibration (1 G, 4–33 Hz).

**POWER SUPPLY** [7]

Model Number	Mounting Style	Input Voltage	Input Frequency	Output Voltage	Power (Maximum)	Power Factor Correction
PS-1U-1275-PFC [8, 9]	1U Rack Mount	85–264 VAC (Auto-Sensing)	47–63 Hz	+ 12 VDC	75 Watt	0.95
90-1105-015/90-160 [9]	Standalone/ Rack Mount Bracket	90–264 VAC	50–60 Hz	+ 12 VDC	100 Watt	—
External Power Supplies	Consult with a Sales Engineer to select from a multitude of AC switching or DC–DC supplies that can be mounted within the customer’s rack. General Digital can assist in specifying a commercial, industrial or military power supply that will meet your specific requirements.					

7 Includes 6'7" AC Power Cable.

8 FCC Certified and UL Approved.

9 Since the TwoView Series does not include an embedded power supply, we strongly recommend the purchase of a General Digital-manufactured power supply, which is specially designed and tested to work with our LCD monitors. Please note that this supply includes the required DC harness and connector to interface to the TwoView.

**DISPLAY OVERLAY** (Other overlays available – Please inquire with a Sales Engineer)

gg	Description	gg	Description
00	None	21	Vandal Shield, Polycarbonate or Acrylic
02	Clear Float Glass, Antiglare Etch Two Sides	24	Vandal Shield, Soda Lime Glass, Chemically Strengthened (Tempered), Antireflective Coating Two Sides
04	Clear Float Glass, Antireflective Coating Two Sides		

**OTHER OPTIONS & ACCESSORIES** (Ordered separately – Please inquire with a Sales Engineer for additional options and accessories)

NVIS Compatibility	Night Vision Displays Compliant to MIL-STD-3009
Sunlight Readable LCDs	High Brightness Displays to 1000+ Nits
Optical Enhancements	Bonding of Filter and Display Using Indices-Matched Optical Materials; Brightness and Contrast Enhancing Films and Laminations
Video Accessories	Video Cables; Signal Extenders; NTSC / PAL / SECAM / RS-170 / S-Video / DVI-D / HD-SDI / SD-SDI / HDMI / HD Component Support; Picture-In-Picture; Picture-By-Picture; Fiber Optic Receiver
Remote Control	IR or Serial Calibration / Control Interface
Customization	Custom Mechanical and Electrical Modifications; Custom Finishing; Custom Software and Performance Modifications; Private Labeling; CD/DVD-RW or Blu-ray Drive; 4-Port KVM Switch (TV-20U Only)