

IMPACT™ MONITOR KIT

Industrial-/Military-Grade, Open Frame LCD Monitor Kit



In its native form, the **IMPACT MK SERIES** is intentionally designed as the most basic turnkey monitor General Digital can produce. Unlike many of our other LCD monitor offerings, the Impact is comprised of the bare necessities and does not include features such as a protective enclosure, thermal management, etc. The kit is intended to offer our OEM (Original Equipment Manufacturer) customers with an economical, turnkey product that can be easily integrated into your existing products, consoles, protective enclosures or kiosks.

Integrated into every unit are the latest advances in LCD display technology, while providing the equivalent viewing area of much larger CRTs. Most of our active matrix TFT LCD screens offer millions of colors, wide viewing angles, and fast response times (suitable for live video). We qualify multiple sources of supply to ensure product availability and long life.

The LCD display, control electronics and cabling are all secured to a sturdy, metal mounting frame, which facilitates installation.

Modular adaptability is the **IMPACT CM SERIES'** domain. Their lightweight enclosures have been optimized to reduce cost, protect the monitors' electronics and facilitate a variety of mounting schemes. This inherent flexibility permits Integrators and VARs (Value Added Resellers) to quickly and easily design and manufacture their end-products around our fully functional display modules.

For OEMs/End Users, General Digital offers a series of optional bezels and enclosures that allow the Impact Monitor Kit to be transformed into standalone, panel mount or rack mount monitor units.

The low power Impact CM Series is designed to operate from a single +12V regulated source. Customers can provide their own power supply, request a custom supply, or choose our standard power supply configuration, featuring a power-factor-corrected AC switching supply. Additionally, this series is designed with the intent to meet UL 60950 and FCC Class A Certification.

Please feel welcome to consult a General Digital Sales Engineer for additional information, or visit www.GeneralDigital.com.

QUICK LOOK

ENCLOSURE

- » Light Weight, Modular Enclosure of CM Series Facilitates Customer Integration
- » Pre-designed Bezels & Enclosures Available with the CM Series to Transform Into a Panel Mount, Rack Mount or Standalone Device
- » Low Cost, Open Frame Design of MK Series is Ideal for OEMs
- » Sturdy Metal Mounting Frames/Panels Simplify OEM Integration
- » Versatile Enclosures may be Mounted from the Front or the Rear
- » Rugged, All-Metal Construction

DISPLAY

- » 6" to 24" Diagonal Active Matrix TFT LCD Display
- » VGA (640 x 480 pixels) to 4K UHD (3840 x 2160 pixels) Resolution
- » Wide Viewing Angle (Horizontal & Vertical)
- » High Brightness and Contrast Enhances Display Quality

VIDEO CONTROLLER

- » Support for Interlaced and Non-Interlaced Video Sources
- » Support for Separate, Composite, Sync-On-Green, DVI-D, SDI Standards
- » Support for NTSC, SECAM, PAL, RS-170 Video Input
- » Resolutions to 4096 x 2160 @ 60 Hz (Native); Sub-resolutions to 75 Hz
- » Intuitive On-screen Menus for Display Calibration and User's Control
- » Advanced Imaging Features
 - Auto Adjust, Brightness/Contrast/Color Adjustments, Image Expansion, Image Zoom, Foreign Languages, PIP, PBP, More

POWER

- » Separate AC Input Supply Provides +12 VDC to Monitor
- » Low Power Consumption (<50 Watts)

OPTIONS

- » NVIS-Compatible Displays Compliant with MIL-STD-3009
- » Sunlight Readable Displays and Other Optical Enhancements
- » Automatic Brightness Adjustment Sensor
- » Protective Glass Display Overlay
- » NVIS Compatibility to MIL-STD-3009 Requirements
- » Capacitive and Resistive Touch Screens
- » Support for DVI-D Video, HDMI Video, NTSC Video (Composite)
- » External Power Supplies (AC, DC, Power Factor Correction, More)
- » Audio Add-on Board for Stereo Speaker Control

CERTIFICATIONS

- » The Impact CM Series is Designed with the Intent to Meet UL 60950 and FCC Class A Certification when Configured with the General Digital-Supplied Power-Factor-Corrected AC Power Supply

Designed and Manufactured in the U.S.A.

DISPLAY

	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]
MK-06X-103	6.5"	5.20" x 3.90"	1024 x 768	16.7 Million	650 Nits	500:1	6/19 ms	± 80°	+ 80°, -60°	54 G, 11 ms ½ Sine Wave	2.0 G (5–100 Hz)
MK-08S-166	8.4"	6.71" x 5.03"	800 x 600	16.2 Million	450 Nits	600:1	20/10 ms	± 80°	+ 80°, -60°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
MK-10V-212	10.4"	8.31" x 6.24"	640 x 480	262,144	500 Nits	1500:1	14/9 ms	± 88°	± 88°	200 G, 2 ms ½ Sine Wave	1.5 G (10–200 Hz)
MK-10X-224	10.4"	8.28" x 6.37"	1024 x 768	16.2 Million	500 Nits	1000:1	14/11 ms	± 88°	± 88°	50 G, 11 ms ½ Sine Wave	1.5 G (10–300 Hz)
MK-12S-304	12.1"	9.69" x 7.26"	800 x 600	16.2 Million	600 Nits	1500:1	13/12 ms	± 89°	± 89°	200 G, 2 ms ½ Sine Wave	1.5 G (10–300 Hz)
MK-12X-305	12.1"	9.68" x 7.26"	1024 x 768	16.2 Million	500 Nits	700:1	5/11 ms	± 80°	± 80°	200 G, 2 ms ½ Sine Wave	1.5 G (10–300 Hz)
CM-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)
CM-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)
CM-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)
MK-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)
CM-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)
CM-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)
CM-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)
CM-22D-813	21.5"	18.77" x 10.56"	1920 x 1080	16.7 Million	300 Nits	5000:1	20/5 ms	± 89°	± 89°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
CM-24D-819	24.0"	20.92" x 11.77"	1920 x 1080	16.7 Million	300 Nits	3000:1	16/9 ms	± 89°	± 89°	50 G, 20 ms ½ Sine Wave	1.5 G (10–200 Hz)
MK-24K-848	23.8"	20.75" x 11.67"	3840 x 2160	1.07 Billion	300 Nits	1000:1	9.5 ms (Total)	± 89°	± 89°	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.

VIDEO CONTROLLER [2]

ddd	Display Supported	Resolution/Frequency [3]								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	3840 x 2160 4K UHD			
115 [4,5]	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 [4]	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 [4]	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
125	848	60, 72, 75 Hz	56, 60, 72, 75 Hz	60, 70, 75 Hz	60 Hz	60, 75 Hz	60 Hz	60 Hz	30, 60 Hz	On/Off	PIP, PBP (NTSC/PAL only)	VGA, DVI-I, HDMI, DisplayPort

2 Most common video inputs listed. See below for a comprehensive list of supported video standards. Speak with a Sales Engineer for more information.

3 Most common video modes listed. Other video modes supported. Speak with a Sales Engineer for more information.

4 Supports advanced features such as Live Video, Picture-in-Picture (multiple user-selectable sizes), and Picture-by-Picture.

5 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 [5]	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)
125	On-screen Displays Navigated by 8-button Membrane Pad	Volume, Brightness, Contrast, Saturation, Hue, Sharpness, Backlight Brightness, Display Mode, Input Signal, Aspect Size (Scaling), Information	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)

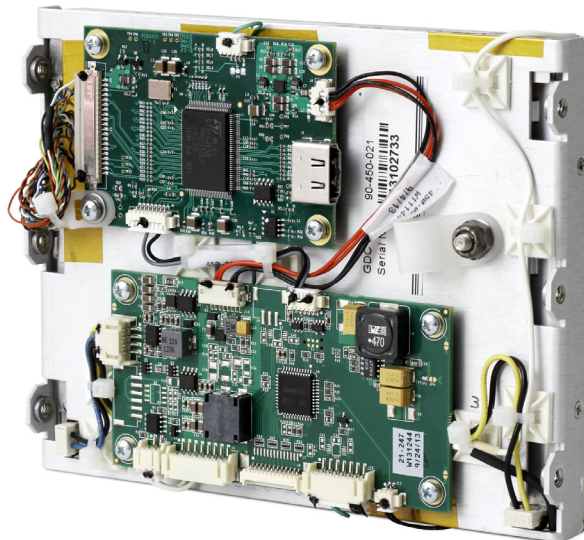
MTBF

	Display	LED Backlight [6]	LED Controller	Power Supply (Optional)
MK-06X-103	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-08S-166	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-10V-212	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-10X-224	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-12S-304	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-12X-305	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-15X-408	50,000 Hours (Minimum)	> 50,000 Hours (Typical)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-15X-409	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-17W-510	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-17D-524	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-19W-701	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-19W-703	50,000 Hours (Minimum)	30,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-20U-845	> 50,000 Hours (Typical)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-22D-813	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
CM-24D-819	50,000 Hours (Minimum)	50,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected
MK-24K-848	50,000 Hours (Minimum)	30,000 Hours (Minimum)	182,000 Hours (Minimum)	Depends on Supply Selected

⁶ 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

	Temperature, Operating	Temperature, Storage	Humidity, Operating	Humidity, Storage	Altitude, Operating	Altitude, Storage
MK-06X-103	-20° C to 70° C	-30° C to 80° C	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
MK-08S-166	-30° C to 85° C	-30° C to 85° C	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
MK-10V-212	-30° C to 80° C	-30° C to 80° C	10% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
MK-10X-224	-30° C to 70° C	-30° C to 80° C	20% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
MK-12S-304	-30° C to 80° C	-30° C to 85° C	20% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
MK-12X-305	-30° C to 80° C	-40° C to 85° C	20% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
CM-15X-408	-30° C to 85° C	-20° C to 70° C	8% to 90% RH Non-condensing	8% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
CM-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
CM-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
MK-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
CM-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
CM-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
CM-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
CM-22D-813	0° C to 60° C	-20° C to 60° C	5% to 90% RH Non-condensing	5% to 90% RH Non-condensing	10,000 Feet	30,000 Feet
CM-24D-819	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
MK-24K-848	0° C to 50° C	-20° C to 60° C	20% to 90% RH Non-condensing	10% to 90% RH Non-condensing	10,000 Feet	30,000 Feet



MECHANICAL

	Dimensions (H x W x D)	Construction	Finish	Weight, Operating [7]	Weight, Shipping [7]
MK-06X-103	7.50" x 9.25" x 1.43"	5052-H32 Aluminum Mounting Panel	Clear Iridite	3 Pounds	8 Pounds
MK-08S-166	7.50" x 10.50" x 1.48"	5052-H32 Aluminum Mounting Panel	Clear Iridite	4 Pounds	8 Pounds
MK-10V-212	9.50" x 11.63" x 2.50"	5052-H32 Aluminum Mounting Panel	Clear Iridite	4 Pounds	8 Pounds
MK-10X-224	8.81" x 11.81" x 1.38"	5052-H32 Aluminum Mounting Panel	Clear Iridite	4 Pounds	8 Pounds
MK-12S-304	9.00" x 14.00" x 2.04"	5052-H32 Aluminum Mounting Panel	Clear Iridite	6 Pounds	12 Pounds
MK-12X-305	9.00" x 14.00" x 2.04"	5052-H32 Aluminum Mounting Panel	Clear Iridite	6 Pounds	12 Pounds
CM-15X-408	11.22" x 14.22" x 1.99"	5052-H32 Aluminum Mounting Panel	Clear Iridite	8 Pounds	14 Pounds
CM-15X-409	11.22" x 14.22" x 1.99"	5052-H32 Aluminum Mounting Panel	Clear Iridite	8 Pounds	14 Pounds
CM-17W-510	12.18" x 16.23" x 2.22"	5052-H32 Aluminum Mounting Panel	Clear Iridite	8 Pounds	14 Pounds
MK-17D-524	12.18" x 16.23" x 2.22"	5052-H32 Aluminum Mounting Panel	Clear Iridite	8 Pounds	14 Pounds
CM-19W-701	13.12" x 16.04" x 2.94"	5052-H32 Aluminum Mounting Panel	Clear Iridite	13 Pounds	19 Pounds
CM-19W-703	13.12" x 16.04" x 2.94"	5052-H32 Aluminum Mounting Panel	Clear Iridite	13 Pounds	19 Pounds
CM-20U-845	15.30" x 21.7" x 2.50"	5052-H32 Aluminum Mounting Panel	Clear Iridite	14 Pounds	20 Pounds
CM-22D-813	Pending	5052-H32 Aluminum Mounting Panel	Clear Iridite	17 Pounds	24 Pounds
CM-24D-819	15.3" x 21.7" x 2.5"	5052-H32 Aluminum Mounting Panel	Clear Iridite	19 Pounds	26 Pounds
MK-24K-848	15.3" x 21.7" x 2.5"	5052-H32 Aluminum Mounting Panel	Clear Iridite	19 Pounds	26 Pounds

7 Add 2 pounds to the weight when a separate power supply is included.

I/O CONNECTIONS

	Power (DC)	Analog Video	On/Standby (DC)	S-Video	Composite Video	Serial/Touch (Optional)	DVI (Optional)	Other
MK-06X-103	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-08S-166	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-10V-212	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-10X-224	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-12S-304	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-12X-305	2-pin, 0.156" sp., Molex	High Density 15-pin Socket	Button on OSD PCB	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-15X-408	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-15X-409	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-17W-510	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-17D-524	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-19W-701	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-19W-703	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-20U-845	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-22D-813	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
CM-24D-819	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-D	HDMI
MK-24K-848	2W2 D-sub.	High Density 15-pin Socket	LED on Membrane Pad	4-pin Mini DIN	RCA Jack	DE-9, Socket	DVI-I	HDMI, DisplayPort

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

POWER SUPPLY [8]

hijj	Input Voltage Range	Output				Frequency Range	Line Entry Module/Filter	Power Factor
		6.5"/8.4"/10.4"/12.1"	15.0"/17.0"/19.0"	20.1"/21.5"	23.8"			
SA30 (Separate)	90–264 VAC	–	66 W / +12 VDC	–	–	–	47–63 Hz	–
SA49 (Separate)	100–264 VAC	30 W / +12 VDC	–	–	–	–	50–60 Hz	–
SP07 (Separate)	85–264 VAC	–	–	–	–	150W / +12 VDC	47–63 Hz	Yes 0.95
SP14 (Separate)	85–264 VAC	–	–	–	75 W / +24 VDC	–	47–63 Hz	Yes 0.99
SP31 (Separate)	90–264 VAC	–	–	100 W / +12 VDC	–	–	47–63 Hz	– 0.95
0092 (None)	+12 VDC							Filtering and regulation provided by customer (default selection)

8 Includes 6'7" AC power cable.

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

gg	Description	gg	Description
00	None	35	Capacitive Touch Screen, Ideal Etch
02	Clear Float Glass, Antiglare Etch Two Sides	51	Resistive Touch Screen
04	Clear Float Glass, Antireflective Coating Two Sides	65	Resistive Touch Screen, 5-Wire, with Laminated ITO Glass
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		

OTHER

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 Indice-Matched Optical Materials; Brightness and Contrast Enhancing Films and Laminations
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, NTSC/PAL/SECAM/RS-170/S-Video/DVI-D/HD-SDI/ SD-SDI/HDMI/HD Component Support, Picture-In-Picture, Picture-By-Picture
Remote Control	IR or Serial Calibration/Control Interface
Customization	Custom Mechanical and Electrical Modifications; Custom Finishing; Custom Software and Performance Modifications; Private Labeling

MODEL NUMBER CONFIGURATOR [9]

Model Style	Size & Resolution (aab)	Display (ccc)	Video Controller (ddd)	Keyboard/Pointer (ee)	Industrial Enclosure (ff)	Display Overlay (gg)	Power Supply (hijj)
MK-	06X-	103-	###-	00-	00-	##-	####
MK-	08S-	166-	###-	00-	00-	##-	####
MK-	10V-	212-	###-	00-	00-	##-	####
MK-	10X-	224-	###-	00-	00-	##-	####
MK-	12S-	304-	###-	00-	00-	##-	####
MK-	12X-	305-	###-	00-	00-	##-	####
CM-	15X-	408-	###-	00-	00-	##-	####
CM-	15X-	409-	###-	00-	00-	##-	####
CM-	17W-	510-	###-	00-	00-	##-	####
MK-	17D-	524-	###-	00-	00-	##-	####
CM-	19W-	701-	###-	00-	00-	##-	####
CM-	19W-	703-	###-	00-	00-	##-	####
CM-	20U-	845-	###-	00-	00-	##-	####
CM-	22D-	813-	###-	00-	00-	##-	####
CM-	24D-	819-	###-	00-	00-	##-	####
MK-	24K-	848-	###-	00-	00-	##-	####

9 The hashtags (#) indicate customer-defined values.

ORDERING

Model Number [10]	Description
MK-06X-103- ddd -00-00- gg-hijj	Impact 6, Ruggedized 6.5" XGA Open Frame Monitor Kit
MK-08S-166- ddd -00-00- gg-hijj	Impact 8, Ruggedized 8.4" SVGA Open Frame Monitor Kit
MK-10V-212- ddd -00-00- gg-hijj	Impact 10, Ruggedized 10.4" VGA Open Frame Monitor Kit
MK-10X-224- ddd -00-00- gg-hijj	Impact 10, Ruggedized 10.4" XGA Open Frame Monitor Kit
MK-12S-304- ddd -00-00- gg-hijj	Impact 12, Ruggedized 12.1" SVGA Open Frame Monitor Kit
MK-12X-305- ddd -00-00- gg-hijj	Impact 12, Ruggedized 12.1" XGA Open Frame Monitor Kit
CM-15X-408- ddd -00-00- gg-hijj	Impact 15, Ruggedized 15.0" XGA Open Frame Monitor Kit
CM-15X-409- ddd -00-00- gg-hijj	Impact 15, Ruggedized 15.0" XGA Open Frame Monitor Kit
CM-17W-510- ddd -00-00- gg-hijj	Impact 17, Ruggedized 17.0" SXGA Open Frame Monitor Kit
MK-17D-524- ddd -00-00- gg-hijj	Impact 17, Ruggedized 17.3" WUXGA Open Frame Monitor Kit
CM-19W-701- ddd -00-00- gg-hijj	Impact 19, Ruggedized 19.0" SXGA Open Frame Monitor Kit
CM-19W-703- ddd -00-00- gg-hijj	Impact 19, Ruggedized 19.0" SXGA Open Frame Monitor Kit
CM-20U-845- ddd -00-00- gg-hijj	Impact 20, Ruggedized 20.1" UXGA Open Frame Monitor Kit
CM-22D-813- ddd -00-00- gg-hijj	Impact 22, Ruggedized, 21.5" WUXGA Open Frame Monitor Kit
CM-24D-819- ddd -00-00- gg-hijj	Impact 24, Ruggedized, 24.0" WUXGA Open Frame Monitor Kit
MK-24K-848- ddd -00-00- gg-hijj	Impact 24, Ruggedized, 23.8" 4K UHD Open Frame Monitor Kit

10 Bold italicized letters refer to standard customer-defined configurations (see Model Number Configurator above).

