

FULL HIGH DEFINITION RUGGED MONITORS



15.6" Rugged Display, HDMI Input, DVI Input, HD-SDI Input, Composite Video Inputs (3), HD-SDI Output, Composite Video Output, Resistive Touch Screen (RS-232 Interface), LED Backlight, 15 User Programmable Buttons, FHD Resolution (1920 x 1080), IP67 Sealed, MIL-STD Design, 12-36Vdc Power Input

Model: DHFW1560TR

Built with a Full HD 1920x1080 LCD, the DHFW Display Series deliver a MIL-Spec design with low-power consumption, high brightness backlight, and an ultra-thin form factor for critical operations requiring 1080p detail. The rugged DHFW monitor ensures complete optical performance and full reliability while providing a small footprint for constrained spaces. User Programmable Bezel Keys allow full control of external systems or a custom interface of internal display features (video processing, picture layout, user interface preferences, and navigation shortcuts). Multiple mounting options allow for seamless integration within any rugged system.

STANDARD FEATURES

- HDMI Input
- DVI Input
- HD-SDI Input
- Composite Video Inputs (3)
- HD-SDI Output
- Composite Video Output
- Auto Sensing NTSC, PAL Formats
- Up to 1080p30 High Definition Video
- User Programmable Bezel Keys (15), RS232
- MIL-C Power*
- LED Backlight (1000:1 Dimming Ratio1)
- Anti-Reflective and Anti-Glare Treatments
- Enhanced Sunlight Readability
- IP67/NEMA 6 Enclosure (Sealed Connectors*)
- 15.6" TFT AMLCD
- MIL-STD-461, 704, 810, 1275
- Resistive Touch Screen (RS-232 Interface)



* Cables not included

OPTIONAL FEATURES

- Resistive Touch Screen (USB or RS232 Interface)
- Night Vision Compatible – Monochrome Red/Green
- NVIS MIL-STD-3009 Class B White Compliant

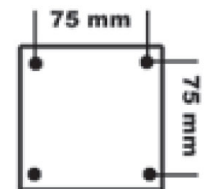
MOUNT OPTIONS *(Quoted individually)*



PANEL



RAM



VESA

SPECIFICATIONS

LCD SIZE	Resolution	Luminance	Viewing Angle	Contrast Ratio	Maximum Power Consumption
15.6" TFT AMLCD	1920x1080	400 nits	178° (H) x 178° (V)	1000:1	35 Watts
TECHNICAL SPECIFICATIONS					
Display	8-bit color, 16,777,216 colors. TFT AMLCD (Thin-Film Transistor Active-Matrix Liquid-Crystal Display)				
Dimming Ratio	1000:1				
Video Inputs/Outputs	HDMI Input, DVI Input, HD-SDI Input, Composite Video Inputs (3), HD-SDI Output, Composite Video Output				
Housing	Milled Aluminum, Black Hard Anodized				
Mount Options	Panel, RAM, VESA (75mm); Quoted individually.				
Wide Range DC Power Input	12-36 VDC (12, 24, 28 VDC nominal)				
Power Conditioning	Protected against Internal Short Circuit, Load Dump, Over Voltage and Reverse Polarity				
ENVIRONMENTAL SPECIFICATIONS					
IP Rating	IP67 (NEMA 6 Submersible)				
Operating Temperature	-46°C to 71°C (-51°F to 160°F); -20°C (-4°F) with Touch Option				
Storage Temperature	-54°C to 71°C (-65°F to 160°F)				
Humidity and Altitude	0-100%; 45,000 ft.				

MILITARY SPECIFICATIONS			
MIL-STD-461	EMI	MIL-STD-810	Method 512; Immersion
MIL-STD-704	Aircraft Power Requirements	MIL-STD-810	Method 513; Acceleration
MIL-STD-810	Method 500; Altitude	MIL-STD-810	Method 514; Procedure I, II, V, VI; General Vibration
MIL-STD-810	Method 501; I & II; High Temperature	MIL-STD-810	Method 516; Procedure I, Functional Shock
MIL-STD-810	Method 502; I & II; Low Temperature	MIL-STD-810	Method 520; Temp, Humidity, Vibe and Altitude
MIL-STD-810	Method 503; Temperature Shock	MIL-STD-1275	Vehicle Power Requirements
MIL-STD-810	Method 505; Solar Radiation	MIL-STD-1472	Thermal Contact Hazard
MIL-STD-810	Method 506; Rain	MIL-STD-3009	NVIS Compatible (Optional)
MIL-STD-810	Method 507; Humidity	MIL-PRF-22885	Sunlight Readability for Push Buttons
MIL-STD-810	Method 508; Fungus	MIL-A-8625	Standard Finish, Type III, Class 1 & 2
MIL-STD-810	Method 509; Salt/Fog	MIL-PRF-22750	Painted Finish, Optional, Minimum Quantity Required
MIL-STD-810	Method 510; Blowing Sand and Dust	MIL-DTL-26482	Connector, Qualified
MIL-STD-810	Method 511; Explosive Atmosphere	MIL-DTL-38999	Connector, Qualified

**Specifications subject to change without notice, not responsible for typographical errors.*

*- Cables not included

†-Power range specified covers momentary environmental fluctuations generally found in a mobile environment while display is operating. For power initialization and continual operation, nominal voltages are required

1 - Dimming Ratio is LCD-specific.

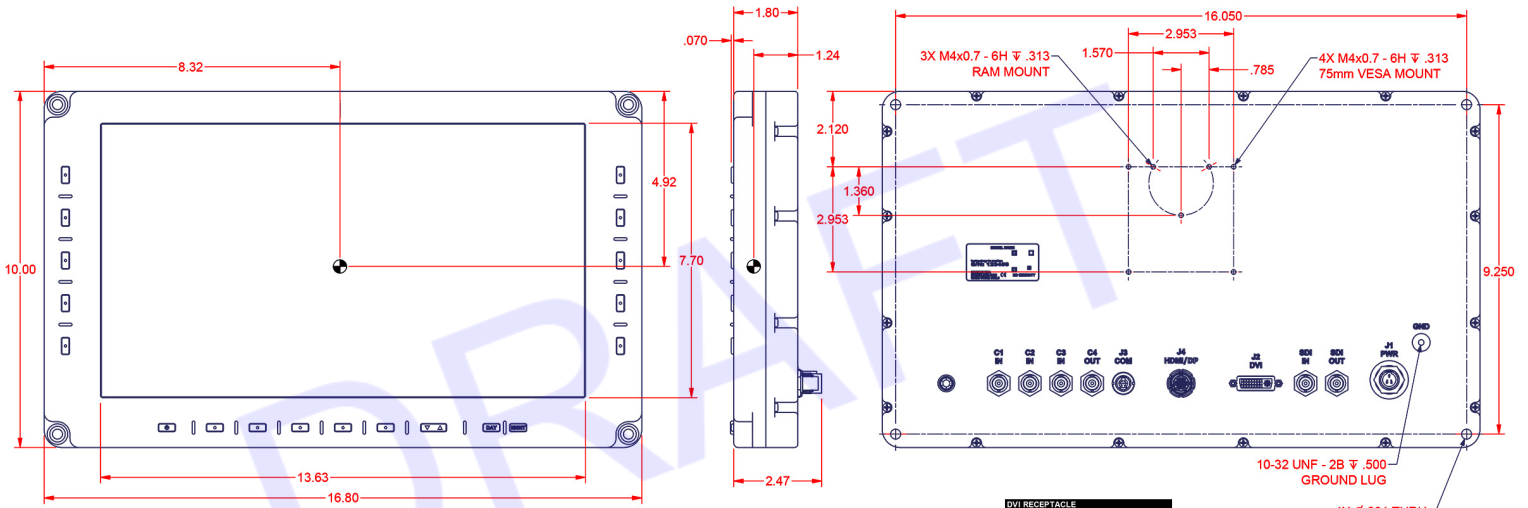
2 - Configuration-Specific; Contact iTech for details.

PHOTOS:



MECHANICAL DRAWINGS:

This is subject to change without Notice. Final Drawings Will be Provided for Approval after Order.



7 PIN RECEPTACLE	
J3 COM	SIGNAL
1	USB- or RS-232 TXD (TOUCH SCREEN)
2	RS232 RXD (BUTTONS)
3	RS232 RXD (BUTTONS)
4	GND
5	GND
6	USB+ or RS-232 RXD (TOUCH SCREEN)
7	N/C
Vendor P/N#	803-014-07296-7PIN
Matn #	803-001-68296-7PIN
Strain #	
Cable Assy#	900297

3 PIN RECEPTACLE	
J1 POWER	SIGNAL
A	28 VOLT DC
B	28 VOLT RVN
C	N/C
Vendor P/N#	71-53371-33P (3-pin power)
Matn #	141227
Strain #	PT06833SR (141247)
Cable Assy#	900222

SDI OUT VIA BNC	
SDI OUT	SIGNAL
CENTER	COAX CORE
SHELL	SHIELED BRAD

SDI IN VIA BNC	
SDI IN	SIGNAL
CENTER	COAX CORE
SHELL	SHIELED BRAD

VIDEO OUT VIA BNC	
C4 OUT	SIGNAL
CENTER	COAX CORE
SHELL	SHIELED BRAD

VIDEO IN (V3) VIA BNC	
C1 IN, C2 IN, C3 IN	SIGNAL
CENTER	COAX CORE
SHELL	SHIELED BRAD

DVI RECEPTACLE	
J2 DVI	SIGNAL
1	TMDS DATA 2-
2	TMDS DATA 2+
3	TMDS DATA 2 SHIELD
4	N/C
5	N/C
6	DDC CLOCK
7	DDC DATA
8	ANALOG VSYNC
9	TMDS DATA 1-
10	TMDS DATA 1+
11	TMDS DATA 1 SHIELD
12	N/C
13	N/C
14	+5V
15	GND
16	HOT PLUG DETECT
17	TMDS DATA 0-
18	TMDS DATA 0+
19	TMDS DATA 0 SHIELD
20	N/C
21	N/C
22	TMDS CLOCK SHIELD
23	TMDS CLOCK+
24	TMDS CLOCK-
C1	ANALOG RED
C2	ANALOG GREEN
C3	ANALOG BLUE
C4	ANALOG HSYNC
C5	ANALOG GND
AMPHENOL #	LW101D-29PPFF-SL8001
Matn #	LW101D-29AMMMSL7A0X
Strain #	
Cable Assy#	

HDMI PINOUT	
J4 HDMI/DP	SIGNAL
1	ROC IN
2	ROG IN
3	GND
4	GND
5	GND
6	GND
7	GND
8	ROG IN
9	GND
10	DDC SDA
11	DDC SCL
12	ROV IN
13	REV IN
14	ROC IN
15	HOT PLUG DETECT
16	DDC +5V
17	ROC IN
18	ROG IN
19	ROV IN
Resistor #	URS1W11_F0T8P-BK1-E1AA
Matn #	URS1W11_F0T8P-BK1-E1AA
Strain #	URS1A13C
Cable Assy#	900302

DISPLAY PORT PINOUT	
J4 HDMI/DP	SIGNAL
1	ML LANE 0-
2	ML LANE 0+
3	GND
4	GND
5	GND
6	GND
7	GND
8	ML LANE 2-
9	GND
10	AUX CH
11	AUX CH
12	ML LANE 1+
13	ML LANE 1-
14	GND
15	HOT PLUG
16	EP PWR
17	ML LANE 3-
18	ML LANE 3+
19	ML LANE 2+
Resistor #	URS1W11_F0T8P-BK1-E1AA
Matn #	URS1W11_F0T8P-BK1-E1AA
Strain #	URS1A13C
Cable Assy#	900302



Drawing No.: DHFW1560TR-11162022-V1

