

# PROGRAMMABLE DISPLAY

**Military Graded Rugged Programmable Tactical Awareness Controller**  
10.4" IP67/NEMA 6 Enclosure, VGA/DVI-I/RS170/(20) Tactile Programmable Buttons,  
LED Backlight (3000:1 Dimming Ratio) ,AR and AG Treatments, Enhanced Sunlight Readability  
MIL-STD461/704/810/1275.External cables are not included.  
**Note: All Military grade related units are NCNR. Non-cancellable and Non-returnable**  
+Upgrade Resolution from SVGA (800 X 600) to XGA (1024 X 768)  
+Resistive Touchscreen with USB Controller  
+12-36VDC



## Model: DOT1040-X-TR

Highly Ruggedized Display offers Programmable Bezel Keys (ASCII or HEX code via RS-232 or RS-422 protocol) for control of external systems and/or internal display features. Multiple video and computer inputs (DVI-I, RS-170, VGA) and multiple mounting options allow for seamless integration within any rugged system.

### STANDARD FEATURES

- User Programmable Bezel Keys (20), RS-232/RS-422 -Internal and/ or External Use
- Composite Video Inputs (4), PIP Capable
- Composite Video Output (1)
- Auto Sensing NTSC, PAL Formats
- DVI-I/VGA Inputs (2)
- SVGA Resolution (800x600)
- MIL-C Power\*
- LED Backlight (3000:1 Dimming Ratio)
- Anti-Reflective and Anti-Glare Treatments
- Enhanced Sunlight Readability
- IP67/NEMA 6 Enclosure (Sealed Connectors\*)
- 10.4" TFT AMLCD
- MIL-STD-461, 704, 810, 1275



### PROGRAMMABLE BUTTON INTERFACE FEATURES:

- Integrated Bezel Key Assignment/Naming Capability
- Computer-based software available for integration of existing code

### OPTIONAL FEATURES:

- Resistive Touch Screen (USB or RS-232 Interface)
- XGA Display Resolution (1024x768)
- Night Vision Compatible – Monochrome Red/Green
- NVIS MIL-STD-3009 Class B White Compliant
- Remote Backlight Control (via Serial Command)

### MOUNT OPTIONS: \* Cables not included



Corner



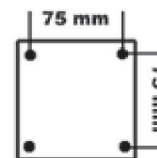
Panel



RAM



Side



VESA

**SPECIFICATIONS:**

LCD SIZE	RESOLUTION	BRIGHTNESS	VIEWING ANGLE	CONTRAST RATIO	MAXIMUM POWER CONSUMPTION
10.4" TFT AM LCD	XGA (1024x768)	1000 nits	160° (H) x 130° (V)	700:1	30 Watts

**TECHNICAL SPECIFICATIONS**

Display	8-bit color, 16,777,216 colors. TFT AMLCD (Thin-Film Transistor Active-Matrix Liquid-Crystal Display)
Dimming Ratio	3000:1
Video Inputs	Composite Video (4), Auto Sensing NTSC, PAL-BGHID Formats; DVI-I/VGA (2)
Video Outputs	Composite Video (1)
Housing	Milled Aluminum, Black Hard Anodized
Mount Options	Corner, Panel, RAM, VESA (75mm), Side (12.1"-15.0" sizes); Quoted individually.
Wide Range DC Power Input	10-36 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	-40°C to 71°C (-40°F to 160°F); (-20°C (-4°F) with Touch Option)
Storage Temperature	-51°C to 71°C (-60°F to 160°F)
Humidity	0-100%
Altitude	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 512; Immersion
MIL-STD-810	Method 500; Altitude	MIL-STD-810	Method 513; Acceleration
MIL-STD-810	Method 501; I & II; High Temperature	MIL-STD-810	Method 514; Procedure I, II, V, VI; General Vibration
MIL-STD-810	Method 502; I & II; Low Temperature	MIL-STD-810	Method 516; Procedure I, Functional Shock
MIL-STD-810	Method 503; Temperature Shock	MIL-STD-810	Method 520; Temp, Humidity, Vibration, and Altitude
MIL-STD-810	Method 505; Solar Radiation	MIL-STD-1275	Vehicle Power Requirements
MIL-STD-810	Method 506; Rain	MIL-STD-1472	Thermal Contact Hazard
MIL-STD-810	Method 507; Humidity	MIL-STD-3009	NVIS Compatible (Optional)
MIL-STD-810	Method 508; Fungus	MIL-PRF-22885	Sunlight Readability for Push Buttons
MIL-STD-810	Method 509; Salt/Fog	MIL-A-8625	Standard Finish, Type III, Class 1 & 2
MIL-STD-810	Method 510; Blowing Sand and Dust	MIL-PRF-22750	Painted Finish, Optional, Minimum Quantity Required
MIL-STD-810	Method 511; Explosive Atmosphere	MIL-DTL-26842	(and 38999) Connector, Qualified

\* - 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.

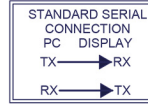
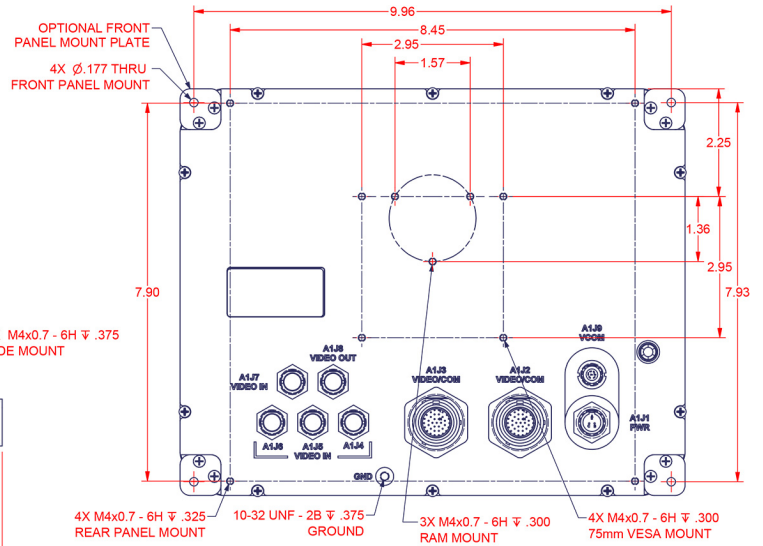
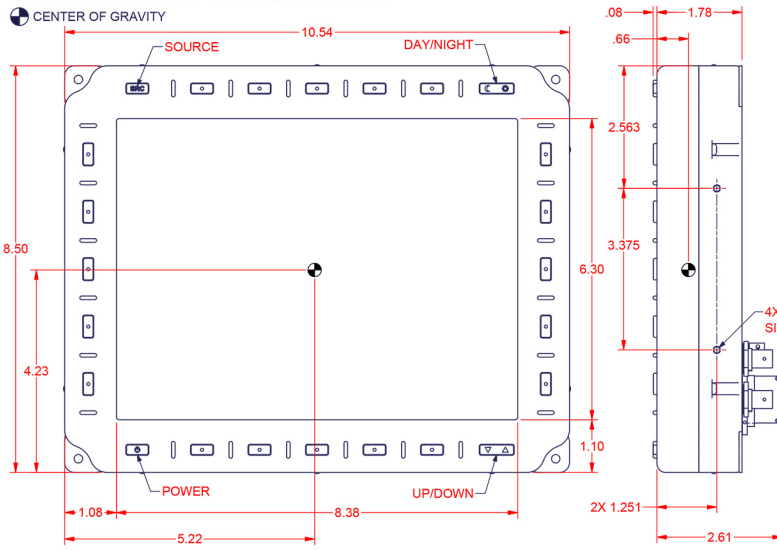
**\*Specifications subject to change without notice, not responsible for typographical errors.**

# MECHANICAL DRAWINGS:

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

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CENTER OF GRAVITY



10 PIN RECEPTACLE MILCPL1044Y SERIES I CONNECTOR	
Pin	SIGNAL
1	DR VOL+5VDC
2	DR VOL-1.8VDC
3	DR VOL+1.8VDC
4	DR VOL+5VDC
5	DR VOL+5VDC
6	DR VOL+5VDC
7	DR VOL+5VDC
8	DR VOL+5VDC
9	DR VOL+5VDC
10	DR VOL+5VDC
Amphenol # 17-53371-33P (3-pin power)	
Mater # P1066333SR (141247)	
Mater # 100000	
Cable Assy# 100033	

14 PIN VIDEO IN VIA BNC	
Pin	SIGNAL
1	VIDEO IN
2	VIDEO IN
3	VIDEO IN
4	VIDEO IN
5	VIDEO IN
6	VIDEO IN
7	VIDEO IN
8	VIDEO IN
9	VIDEO IN
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Cable Assy# 100037	

14 PIN VIDEO OUT VIA BNC	
Pin	SIGNAL
1	VIDEO OUT
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100	VIDEO OUT
Mater # 100-001-0206-75N	
Mater # 100-001-0206-75N	
Cable Assy# 100037	

17 PIN RECEPTACLE MILCPL1044Y SERIES I CONNECTOR	
Pin	SIGNAL
1	DR VOL+5VDC
2	DR VOL-1.8VDC
3	DR VOL+1.8VDC
4	DR VOL+5VDC
5	DR VOL+5VDC
6	DR VOL+5VDC
7	DR VOL+5VDC
8	DR VOL+5VDC
9	DR VOL+5VDC
10	DR VOL+5VDC
11	DR VOL+5VDC
12	DR VOL+5VDC
13	DR VOL+5VDC
14	DR VOL+5VDC
15	DR VOL+5VDC
16	DR VOL+5VDC
17	DR VOL+5VDC
Amphenol # 17-53371-33P (3-pin power)	
Mater # P1066333SR (141247)	
Mater # 100000	
Cable Assy# 100033	

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