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

* Cables not included

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)

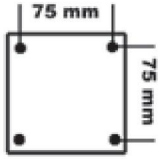
MOUNT OPTIONS:

Corner

Panel

RAM

Side



VESA

i-Tech Company LLC
EMAIL: info@itechlcd.com • WEB: www.iTechLCD.com

Modified: 03-16-23

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.				

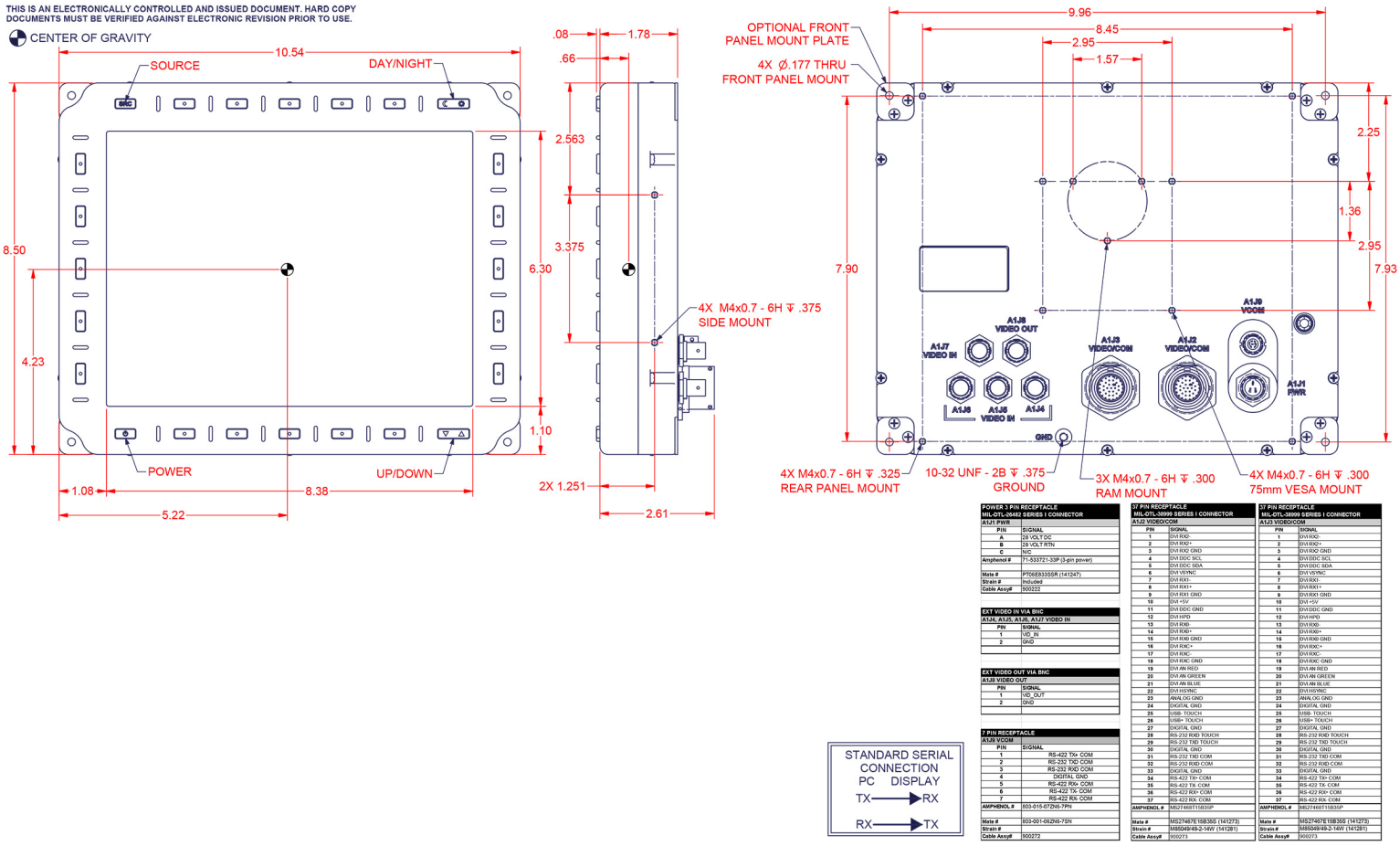
MILITARY SPECIFICATIONS			
MIL-STD-461	EMI	**MIL-STD-810**	Method 512, Immersion
MIL-STD-704	Aircraft Power Requirements	**MIL-STD-810**	Method 512; Immersion
MIL-STD-810	Method 500; Altitude	**MIL-STD-810**	Method 513; Acceleration
MIL-STD-810	Method 501; I & II; High Temperature	**MIL-STD-810**	Method 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.



POWER 3 PIN RECEPTACLE
MIL-DTL-26482 SERIES I CONNECTOR
A1J1 PWR

PIN	SIGNAL
A	28 VOLT DC
B	28 VOLT RTN
C	N/C
Amphenol #	71-533721-33P (3-pin power)
Mate #	PT06E8333SSR (141247)
Strain #	Included
Cable Assy#	800222

EXT VIDEO IN VIA BNC
A1J4, A1J5, A1J6, A1J7 VIDEO IN

PIN	SIGNAL
1	VID_IN
2	GND

EXT VIDEO OUT VIA BNC
A1J8 VIDEO OUT

PIN	SIGNAL
1	VID_OUT
2	GND

7 PIN RECEPTACLE
A1J9 VCOM

PIN	SIGNAL
1	RS-422 TX+ COM
2	RS-232 TXD COM
3	RS-232 RXD COM
4	DIGITAL GND
5	RS-422 RX+ COM
6	RS-422 TX- COM
7	RS-422 RX- COM
AMPHENOL #	803-015-07ZN6-7PN
Mate #	803-001-06ZN6-7SN
Strain #	
Cable Assy#	800272

37 PIN RECEPTACLE
MIL-DTL-38999 SERIES I CONNECTOR
A1J2 VIDEO/COM

PIN	SIGNAL
1	DVI RX2-
2	DVI RX2+
3	DVI RX2 GND
4	DVI DDC SCL
5	DVI DDC SDA
6	DVI VSYNC
7	DVI RX1-
8	DVI RX1+
9	DVI RX1 GND
10	DVI +5V
11	DVI DDC GND
12	DVI HPD
13	DVI RX0-
14	DVI RX0+
15	DVI RX0 GND
16	DVI RXC+
17	DVI RXC-
18	DVI RXC GND
19	DVI AN RED
20	DVI AN GREEN
21	DVI AN BLUE
22	DVI HSYNC
23	ANALOG GND
24	DIGITAL GND
25	USB- TOUCH
26	USB+ TOUCH
27	DIGITAL GND
28	RS-232 RXD TOUCH
29	RS-232 TXD TOUCH
30	DIGITAL GND
31	RS-232 TXD COM
32	RS-232 RXD COM
33	DIGITAL GND
34	RS-422 TX+ COM
35	RS-422 TX- COM
36	RS-422 RX+ COM
37	RS-422 RX- COM
AMPHENOL #	MS27468T15B35P
Mate #	MS27467E15B35S (141273)
Strain #	M85049/49-2-14W (141281)
Cable Assy#	800273

37 PIN RECEPTACLE
MIL-DTL-38999 SERIES I CONNECTOR
A1J3 VIDEO/COM

PIN	SIGNAL
1	DVI R1X2-
2	DVI R1X2+
3	DVI R1X2 GND
4	DVI DDC SCL
5	DVI DDC SDA
6	DVI VSYNC
7	DVI R1X1-
8	DVI R1X1+
9	DVI R1X1 GND
10	DVI +5V
11	DVI DDC GND
12	DVI HPD
13	DVI R1X0-
14	DVI R1X0+
15	DVI R1X0 GND
16	DVI R1XC+
17	DVI R1XC-
18	DVI R1XC GND
19	DVI AN RED
20	DVI AN GREEN
21	DVI AN BLUE
22	DVI H1SYNC
23	ANALOG GND
24	DIGITAL GND
25	USB- TOUCH
26	USB+ TOUCH
27	DIGITAL GND
28	RS-232 RXD TOUCH
29	RS-232 TXD TOUCH
30	DIGITAL GND
31	RS-232 TXD COM
32	RS-232 RXD COM
33	DIGITAL GND
34	RS-422 TX+ COM
35	RS-422 TX- COM
36	RS-422 RX+ COM
37	RS-422 RX- COM
AMPHENOL #	MS27468T15B35P
Mate #	MS27467E15B35S (141273)
Strain #	M85049/49-2-14W (141281)
Cable Assy#	800273

Drawing No.: DOT1040-X-TR-03162023-V1