



10.6" Rugged Multifunction Display

Overview

AVI's D1001 rugged multifunction display is a 1280 x768 resolution, 8-bit color, high-contrast, high-brightness unit that provides impressive image clarity. With a 10.6" diagonal viewing area, this light-weight 1.95 Kg (4.3 lbs) unit provides a small foot print of only 269mm x 198mm x 78mm (10.6" x 7.3" x 2.6"). The D1701 features innovative AR coated full cover glass with Projective Capacitive (PCAP) function controls, direct sunlight readable, 3G-SDI input and output, and many other outstanding features.

Enclosed in a water-tight aluminum 6061 enclosure, this rugged display provides up to four 3G-SDI inputs with up to four 3G-SDI loop-through outputs and one selectable 3G-SDI output for routing to recorders or other video devices. Standard or customized button icons provide direct operator functional control for video input selection, brightness control,



Day/Night/NVGS mode control, or control of other AVI products such as Quad Processors, Video Switches, and Recorders.

The 5:3 aspect ratio and native LCD resolution of the D1001 supports superior viewing of HD video sensor inputs. It can also be used in Portrait mode with AVI's Quad Processor allowing up to three HD images to be displayed at the same time in a space-saving configuration.

The D1001's internal controller host AVI's Open Command Protocol used for controlling both the PCAP functionality and external system components such as AVI's switches and quad processor via the D1001's I/O signal suite. AVI's Open Command Protocol can also be easily embedded in customer's systems for seamless integration of command and control from the display.

Stand-alone or in combination with various AVI system components, AVI's rugged 10.6" display offers a high performance, light weight, rugged solution for display of video sensor data. Now all sensors and mission video sources can be



displayed in HD resolution, maximizing the capability of the mission system.

Standard Features

- 1280x768 resolution with 8-Bit color (RGB) for pristine images
- Optically bonded LCD and AR coated cover glass for additional strength and higher contrast
- Sealed enclosure (NMEA 6, IP67) for extreme environments
- 3G SDI video Input and Loop Through
- Direct sunlight viewable ($\geq 1000 \text{ cd/m}^2$)
- PCAP Function buttons that will never wear out
- VESA Mount, Panel Mount, or 3/2 point mounts on all sides provides flexible mounting options
- Open command protocol over USB or TCP/IP for subsystems control and interface
- -30 C° to 65 C° operation
- Heat dissipating frame
- 9 – 36 V DC Power
- MIL-STD 38999 circular power, signal, and Ethernet connectors
- Two year warranty

Options

- Four 3-G SDI Inputs
- NVGS Class B
- Custom ICONs



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Video Inputs	<ul style="list-style-type: none"> SD, HD, and 3-G SDI <ul style="list-style-type: none"> Connector type – BNC Coax 75Ω Input equalization > 100m (Belden 1694A) 	LCD Specifications	<ul style="list-style-type: none"> Screen Diagonal 269.24mm [10.6 in] Pixel Pitch 0.18075x0.18075mm Pixel Arrangement R.G.B Vertical Stripe Display Mode Normally Black White Luminance Max $\geq 1000 \text{ cd/m}^2$, 1300 cd/m^2 Typical White Luminance Min 0.65 cd/m^2 Contrast Ratio $\geq 1000:1$ Response Time 12 ms (typical, on/off) Supported Colors 16.7 M, 24 bit (8-Bit RGB) Viewing Angles 85L, 85R, 85U, 85D typical Backlight Dual CH hi-bright LED NVGS Class B (option)
Video Outputs	<ul style="list-style-type: none"> SD, HD, and 3-G SDI (Loop-Through) <ul style="list-style-type: none"> Re-clocked, 10 bit, 4:2:2 color encoding Connector type – BNC Coax 75Ω 	I/O	<ul style="list-style-type: none"> USB 2.0 RS-232, RS-422, RS-485 <ul style="list-style-type: none"> Connector Type MIL-STD D38999/20MC35 1000BaseT Ethernet <ul style="list-style-type: none"> Connector Type MIL-STD D38999 Type TV07RF-9-9PA-P2
Supported SDI Video Formats	<ul style="list-style-type: none"> SMPTE 259M <ul style="list-style-type: none"> 525i @ 59.94Hz (NTSC) 625i @ 50Hz (PAL) SMPTE 292M/296M <ul style="list-style-type: none"> 720p @ 60/59.94/50Hz 1080i @ 60/59.94/50Hz SMPTE 425 (level A) <ul style="list-style-type: none"> 1080p @ 60/59.94/50Hz 	Environmental	<ul style="list-style-type: none"> Operating Temp Low -30°C / -22°F DO-160G Cat B4 Operating Temp High +65°C / +149°F DO-160G Cat B4 Short Term Op Temp Low -35°C / -31°F DO-160G Cat B4 Short Term Op Temp High +70°C / +158°F DO-160G Cat B4 Ground Survival Low Temp -55°C / -67°F DO-160G Cat B4 Ground Survival High Temp +85°C / +185°F DO-160G Cat B4 Temp Variation 5C° per minute DO-160G Cat B Humidity 0 to 95±4% @ 50C° DO-160G Cat A Operational Shock & Crash 6g @ 20ms, 20g Sus DO-160G Cat A, R Vibration Random, 10-2000Hz DO-160G Cat U2 EMI/EMC Sec 18, 19, 20, 21 DO-160G Cat B, CC, R, B Voltage Spike 2x Line Voltage DO-160G Cat B Waterproofness Drip Test DO-160G Cat W Ingress Rating IP67 Altitude Operating 25,000ft DO160G Cat B
Model Numbers	<ul style="list-style-type: none"> D100101-00 1 Channel, no options D100104-00 4 Channel, no options D100201-00 1 Channel portrait mode, no options D100204-00 4 Channel portrait mode, no options 	Dimensions and Weight	<ul style="list-style-type: none"> 268.6 mm [10.57 in] W, 198.0 mm [7.8 in] H, 66 mm [2.6 in] D 2.43 kg [5.4 lbs]
Option Numbers	<ul style="list-style-type: none"> -00 none -01 Touch Screen -02 Glass Heater -03 Touch Screen, Glass Heater -04 NVGS compliant -05 NVGS compliant, Touch Screen -06 NVGS compliant, Glass Heater -07 NVGS compliant, Glass Heater, Touch Screen 		
Power	<ul style="list-style-type: none"> +9 to +36 DC 0.85 A @ 28V DC (full brightness) Connector Type MIL-STD D38999/24FB98PN 		

