



# 21.5" HD Rugged Multifunction Display

## Overview

AVI's D2100 HD rugged multifunction display is a true 1920x1080 resolution, high-contrast, high-brightness unit that provides impressive image clarity. With a 21.5" diagonal viewing area, this light-weight 4.94 Kg (10.9 lbs) unit provides a small foot print of only 512mm x 334mm x 52mm (20.1" x 13.2" x 2.1"). The D2101 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 heat dissipating enclosure, this rugged display provides up to four 3G-SDI inputs and one 3G-SDI loop-through output. Standard or customized button icons (up to 18), 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.



## Standard Features

- 1920x1080 resolution with 24-Bit 16.7M colors for pristine images
- Full cover AR coated glass for optimal viewing and strength
- Optically bonded LCD and cover glass for additional strength and higher contrast ratio
- Sealed enclosure (NMEA 6, IP67) for extreme environments
- 3G SDI video Input and Loop Through
- Direct sunlight viewable ( $\geq 800 \text{ cd/m}^2$ )
- Power, Brightness, and Video Input Selection control
- PCAP Function buttons that will never wear out
- VESA Mount, Corner Mounts or three-point mounts on all sides provides flexible mounting options
- AVI's Open Command Protocol over USB or TCP/IP for subsystems control and interface
- -10 C° to 50 C° operation
- Heat dissipating frame
- 9 – 36 V DC Power input
- MIL-STD 38999 circular power and I/O connectors
- Two year warranty
- Heater glass for -30° C to 50° C operation



### PCAP button controls.

The D2101'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 D2101'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.

The 16:9 aspect ratio of the



### MIL-38999 Rear Connectors

D2100 provides optimal viewing of HD video sensors.

Stand-alone or in combination with various AVI system components, AVI's rugged 21.5" display offers a high performance, light weight, rugged solution for display of video sensor data.



## 21.5" HD Rugged Multifunction Display - Specifications

<b>Video Inputs</b>  <b>Video Outputs</b>  <b>Supported SDI Video Formats</b>	<ul style="list-style-type: none"> <li>SD, HD, and 3-G SDI - BNC <ul style="list-style-type: none"> <li>Input equalization &gt; 100m (Belden 1694A)</li> </ul> </li> <li>SD, HD, and 3-G SDI - BNC <ul style="list-style-type: none"> <li>Re-clocked, 10 bit, 4:2:2 color encoding</li> </ul> </li> <li>SMPTE 259M <ul style="list-style-type: none"> <li>525i @ 59.94Hz (NTSC)</li> <li>625i @ 50Hz (PAL)</li> </ul> </li> <li>SMPTE 292M/296M <ul style="list-style-type: none"> <li>720p @ 60/59.94/50Hz</li> <li>1080i @ 60/59.94/50Hz</li> </ul> </li> <li>SMPTE 425 (level A) <ul style="list-style-type: none"> <li>1080p @ 60/59.94/50Hz</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>Screen Diagonal 546.86mm [21.53 in]</li> <li>Pixel Pitch 0.24825x0.24825mm</li> <li>Pixel Arrangement R.G.B Vertical Stripe</li> <li>Display Mode Normally Black</li> <li>White Luminance ≥ 800 cd/m2</li> <li>Contrast Ratio ≥ 5000:1</li> <li>Response Time 16 ms (typical, on/off)</li> <li>Supported Colors 16.7 M</li> <li>Color Depth 24 bit (8-Bit RGB)</li> <li>Viewing Angles 89L, 89R, 89U, 89D typical</li> <li>Luminance Uniformity 80% typical</li> </ul>
<b>Model Numbers</b>  <b>Option Numbers</b>	<ul style="list-style-type: none"> <li>D210101-00 1 Channel, no options</li> <li>D210104-00 4 Channel, no options</li> <li>D210201-00 1 Channel portrait mode, no options</li> <li>D210204-00 4 Channel portrait mode, no options</li> </ul> <ul style="list-style-type: none"> <li>-00 none</li> <li>-01 Touch Screen</li> <li>-02 Glass Heater</li> <li>-03 Touch Screen, Glass Heater</li> <li>-04 NVGS compliant</li> <li>-05 NVGS compliant, Touch Screen</li> <li>-06 NVGS compliant, Glass Heater</li> <li>-07 NVGS compliant, Glass Heater, Touch Screen</li> </ul>	<b>Environmental*</b>  <small>* Design criteria. Testing to be completed.</small>	<ul style="list-style-type: none"> <li>Operating Temp Low -10°C / 14°F DO-160G Cat B4</li> <li>Operating Temp High +50° C / +140°F DO-160G Cat B4</li> <li>Short Term Op Temp Low -15°C / -4°F DO-160G Cat B4</li> <li>Short Term Op Temp High +60° C / +149°F DO-160G Cat B4</li> <li>Ground Survival Low Temp -55°C / -67°F DO-160G Cat B4</li> <li>Ground Survival High Temp +85°C / +185°F DO-160G Cat B4</li> <li>Temp Variation 5C° per minute DO-160G Cat B</li> <li>Humidity 0 to 95±4% @ 50C° DO-160G Cat A</li> <li>Operational Shock &amp; Crash 6g @ 20ms, 20g Sus DO-160G Cat A, R</li> <li>Vibration Random, 10-2000Hz DO-160G Cat U2</li> <li>EMI/EMC Sec 18, 19, 20, 21 DO-160G Cat B, CC, R, B</li> <li>Voltage Spike 2x Line Voltage DO-160G Cat B</li> <li>Waterproofness Drip Test DO-160G Cat W</li> <li>Ingress Rating IP67</li> <li>Altitude Operating 25,000ft DO160G Cat B</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>+9 to +36 DC</li> <li>2.1A @ 28V DC (full brightness)</li> <li>Connector Type MIL-STD D38999/20MB98PN</li> </ul>	<b>Dimensions and Weight</b>	<ul style="list-style-type: none"> <li>511.6 mm [20.5 in] W, 334.2 mm [13.2 in] H, 56.9 mm [2.2 in] D</li> <li>4.94 kg [10.9 lbs]</li> </ul>

