10.1-inch CANbus Display for Vehicles

- Ideal for gauges, diagnostics, cameras, guidance and other vehicle functions
- Sealed to IP67
- VESA MIS-D standard mount
- Four video inputs: capable of displaying three simultaneous cameras
- Easy apps creation and integration with VUI Builder (J1939) and Linux Qt (J1939 and CANopen)
- Scratch resistant/Anti-glare cover glass
- Optically bonded display for superior mechanical and sunlight readability
- Wide viewing angle
- 1000 NITS backlight intensity
- WXGA resolution (1280 X 800)
- 16-Bit color TFT, LED backlight
- Optional touch screen
- 3 second boot time (VUI Builder)

Processor AND MEMORY
- 800 MHZ i.MX6 Dual Core Processor
- 512MB DDR3
- 4GB e.MMC
- Linux Operating System
- Real time clock with 10 year battery backup

INTERFACES
- 1 USB host port
- 3 CAN bus ports
- 10/100 ethernet port

INPUT / OUTPUT
- 4 NTSC/PAL video inputs
- 1 RS-232 ports
- 4 I/O Ports (200 mA max)
- Input voltage: 9VDC to 32VDC

MATING CONNECTOR
- AMP 776164-1 mating connector with AMP 770520-1 or AMP 770854-1 contacts
- USB, M12, 5 PIN, A CODE
- ETHERNET, M12, 4 PIN, D CODE

Grayhill, Inc.
561 Hillgrove Avenue
LaGrange, Illinois 60525
Phone: (708) 354-1040
Fax: (708) 354-2820

www.grayhill.com
**PART NUMBERS**

**PINOUTS**

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<tr>
<th>MAIN CONNECTOR PINOUT</th>
<th>USB PINOUT</th>
<th>ETHERNET PINOUT</th>
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<tr>
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<td>FUNCTION</td>
<td>PIN</td>
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<tr>
<td>2</td>
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<td>14</td>
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<tr>
<td>3</td>
<td>CAN1 HI</td>
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<th>CAN3</th>
<th>VIDEO1</th>
<th>VIDEO2</th>
<th>VIDEO3</th>
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<td>Development Kit with 3D101VT-200 display</td>
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**DEVELOPMENT KIT**

A development kit is offered to provide the hardware and software required to set up a programmer's workstation for the use with the chosen development environment.

**Inside the Kit:**
- 3D101 Display
- Development Stand
- Interface PCB
- Interface Cables
ENVIRONMENTAL SPECIFICATIONS

Operating temperature ANSI/ASAE EP455 Sec 5.1.1 Level 2 -30°C to +65°C

Storage Temperature ANSI/ASAE EP455 Sec 5.1.2 Level 2 -40°C to +85°C

Thermal Shock ANSI/ASAE EP455 Sec 5.1.3 -40°C to 70°C at a rate of 4°C/min (1 hour at extremes)

Altitude (Barometric Pressure) ANSI/ASAE EP455 Sec 5.2 101.3kPa to 80.6kPa

Sand and Dust ANSI/ASAE EP455 Sec 5.3 24 hours with 0.88g/m3

Solar Radiation ANSI/ASAE EP455 Sec 5.4 38 to 45 W/m2 UV Radiation (280-400nm wavelength) 300h

Ingress Protection / Rain ANSI/ASAE EP455 Sec 5.6 Level 2 375 kPa and 8.3 L/min for 10 minutes at 15°C water temp

Humidity ANSI/ASAE EP455 Sec 5.13 96% humidity at 35°C for 240 hours

Salt Fog ANSI/ASAE EP455 Sec 5.9 5% aqueous solution of NaCl at 35°C and a pH between 6.5 and 7.2 for 48 hours

Chemical resistance ISO 16750-5 EP 455 (5.8.2)

Thermal Cycling ISO 16750-4 -40°C to 85°C 2 hours at extremes change rate = 1°C/min (8 hours) repeat for 30 cycles.

MECHANICAL PERFORMANCE SPECIFICATIONS

Vibration, Random ANSI/ASEA EP455 5.15.1 2h each axis @52.4m/s² RMS overall acceleration and spectral power density of 2m²/s³ from 50Hz to 2000Hz

Vibration, Sinusoidal ANSI/ASEA EP455 5.15.2 A logarithmic sweep from 10Hz to 2000Hz to 10Hz over a period of 20 minutes for 4 hours in each of 3 orthogonal axes with an amplitude of 1.5mm from 10Hz to 40Hz and a constant acceleration of 35m/s² RMS from 40Hz to 20KHz

Shock / Crash Safety ANSI/ASEA EP455 5.14 11ms half sine pulse of 490 m/s² in 3 perpendicular axes

Drop ANSI/ASEA EP455 5.14.2 Level 1 Drop component 400 mm onto a hardwood benchtop on all practical edges.

Weight 1400 Grams Typical

ELECTRICAL PERFORMANCE SPECIFICATIONS

Maximum Load ANSI / ASAE EP455 Sec 5.1.1 T(min) = -40°C, T(max) = +65°C

Over-voltage ANSI / ASAE EP455 Sec 5.10.2 Level 1, extended to 36V

Reverse Polarity ANSI / ASAE EP455 Sec 5.10.3 extended to -36V

Short-circuit Protection ANSI / ASAE EP455 Sec 5.10.4 extended to 36V

Starting Profile ISO 16750-2 Sec. 4.6.3 12V, Code C / 24V Code E

Battery-less Operation ANSI / ASAE EP455 Sec 5.11.3 Level 1

Load Dump ISO 7637-2 Pulse 5a Us = 174V, Ri = 2 Ohms, Td = 350ms

Switching Spikes ISO 7637-2 Pulse 3a and 3b Pulse 3a: Us = 200V, Pulse 3b: Us = 200V, 3000 reps

Wire Harness Inductance ISO 7637-2 Pulse 2a Us = 50V, t1 = 5s, 60 reps

Motor Shutdown Transients ISO 7637-2 Pulse 2b Us = 20V, t1 = 5s, Ri < .05 Ohms, 60 reps

Wire Harness Inductance Switching ISO 7637-3 Pulse a and b Pulse a: -80V, Pulse b: 80V, Class A, 6 min.

Inductive Load Switching ANSI / ASAE EP455 Sec 5.11.4 Level 1

Mutual Coupling (Power) ANSI / ASAE EP455 Sec 5.11.6.1 Level 2

Mutual Coupling (Signal/ Input) ANSI / ASAE EP455 Sec 5.11.6.2 Level 2

Alternator Field Decay ANSI / ASAE EP455 Sec 5.11.2

ESD ANSI / ASAE EP455 Sec 5.12 Level 2

Radiated Immunity ANSI / ASAE EP455 Sec 5.16 Level 1

Broadband Radiated Emissions ISO 14982 Sec 6.4

Narrowband Radiated Emissions ISO 14982 Sec 6.5

Conducted Emissions SAE J1113-41 Class 3

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