DuraVIS™ 4300

Avionics Multi-Function Display (MFD) Panel



FEATURES

Backlight - 800 Nit Daylight Readable LED Backlight (Optimized for Wide Temperature Operation and Dimming)

Color AMLCD - 6.5" Color Thin Film Transister (TFT) Liquid Crystal Display (LCD)

Pushbuttons - 18 Backlit Keycaps, Keypad Emulates USB Keyboard and Provides Brightness/OSD Control, Firmware API Enables Keys to be User-Mapped to Desired Functions

Integrated Computer - Pre-loaded Linux image or Windows XPe Eval license to Boot-Up Out of Box, 800MHz Intel Pentium III or 400MHz Intel Celeron CPU with Standard Data/Com Interfaces (Ethernet, Serial, USB, Keyboard, Mouse, Audio)

Expandability - Two Open PC/104 Card Slots (in Card Cage), User-Defined 79-pin MIL-C-38999 Expansion Connector Pre-wired to Internal Breakout Board for Integration of Add-on Cards, Modular Embedded PC Architecture Supports Perpetual Upgrades and Retrofits

MIL Compliance - Designed to meet MIL-STD-461E, and MIL-STD-810F for EMI/EMC, Thermal, Shock, Vibration, Rapid Decompression, Humidity, and Altitude

Platform Experience - Legacy Parvus MFDs have Platform Experience Onboard the QF-4, P-3, AC-130, and Other Airframes

The DuraVIS™ 4300 represents Parvus' fourth-generation Commercial-Off-the-Shelf (COTS) Multi-Function Display (MFD) – an ideal solution for presenting flight, sensor, mapping, advisory and other information for civil and military aircraft retrofit/upgrade programs. This cockpit control panel incorporates LED backlighting and upgraded processing performance over legacy Parvus MFDs used onboard the QF-4, P-3, AC-130 and other airframes.

Designed to meet MIL-STD-810F, MIL-STD-704E and MIL-STD-461E standards, the DuraVIS 4300 offers exceptional low-temperature operation (-20C) and resistance to shock and vibration profiles experienced by jet and rotary aircraft. The unit is based around an expandable PC/104-Plus x86 computer architecture, avionics power supply and sunlight-readable 6.5" flat panel LCD. Designed to accommodate standard 1/4-turn (Dzus) rail mount installations, the unit features 18 user-programmable push buttons located around the front panel, an anti-glare protective cover for impact protection and a high luminance (800 Nit) LED backlight for long lamp life, excellent dimming capabilities (down to 4%), and exceptional low-temperature operation.

Compatible with analog VGA inputs and customer-furnished x86 software, the DuraVIS 4300 integrates rear panel MIL-C-38999 connectors bringing out Ethernet, Video, Power, Audio, USB, Serial, Keyboard and Mouse signals. The DuraVIS 4300 boasts a 160-degree viewing angle, 600:1 contrast ratio, and a 79-pin expansion connector, which is conveniently routed to an internal breakout board and headers so that up to two application-specific PC/104(+) cards can be easily integrated without mechanical changes.

Professional services are available by Parvus to deliver semi-customized versions of this product, including integration of application specification expansion cards (i.e. MIL-STD-1553, GPS, DIO).



DuraVIS™ 430

Avionics Multi-Function Display (MFD) Panel





6.5" (16.6cm) Diagonal a-SI TFT LCD with LED Backlight Viewable Area (W x H): 5.2" (132.5mm) x 3.9" (99.4mm) LIQUID CRYSTAL DISPLAY:

Acrylic Front Protective Window

Anti-Reflective Coated (MIL-C-14806 Compliant)

ITO Coated for Glare and EMI Control

OPTICAL CHARACTERISTICS: Luminance (Brightness): 800 cd/m² (nit)

Resolution: 640 x 480 Pixels

Colors: 262,144 Contrast: 600:1 (typ) Response Time: 13ms (typ) Screen Orientation: Portrait Viewing Angle: 160° (H), 140° (V)

VIDEO INPUT: VGA Analog Video Input

PROCESSOR: 800MHz Intel ULV Pentium III, 512KB L2 cache, 133MHz FSB, or

400MHz Intel ULV Celeron, 256KB L2 cache, 100MHz FSB

MEMORY:

1GB CompactFlash Solid State Disk (Capacity Upgrades Available)

Removable Rear Panel Access to SSD

10/100 Ethernet, 2x RS-232, 4x USB 2.0, Keyboard, Mouse, AC97 Audio I/O & DATACOM:

Pre-installed Linux or XP Embedded Image (120-day eval license) **OPERATING SYSTEM:**

Hardware Compatible with All x86 Embedded and Real-Time Operating

Systems (Windows XPe, WinCE, Linux, QNX, VxWorks)

POWER: 28VDC Filtered Input (9-32 VDC)

> MIL-STD-704E Compliant; Reverse, Over Voltage, Surge Protected Approx. 20 Watts Power Consumption (max) for Base System

Up to 55W Add'l Power Available for Expansion Cards

Dimensions (WxHxD): Approx. 5.750" (146.05) x 7.50" (190.5mm) x 8.80" (223.52) - without Connectors PHYSICAL:

Installation: MS25212 Mounting (4 Quarter-Turn Dzus Fastener Studs)

Chassis: Aluminum alloy 6061-6063, Corrosion Resistant Finish: Black Anodize (MIL-A-8625, Type II, Class 2)

Weight: Approx. 6 lbs (2.24kg) Connectors: MIL-C-38999 Cooling: Forced Air Cooling

Designed to Meet MIL-STD-810F: **ENVIRONMENTAL:**

Operating Temperature: -20°C to +60°C (-4°F to +140°F)
Storage Temperature: -55°C to +71°C (-67°F to +160°F)
Operating Shock: 15g, 11ms, ½ Sine Wave, 3 Pos/Neg per Axis
Random Vibration: 0.022-G²/10-Hz to 0.0026-G²/2000-Hz

Operating: 6 to 95% RH Non-Operating: 6 to 100% RH

Rapid Decompression: -15K Ft to Sealevel, Sealevel to 41K Ft (12,497m) Fungus, Salt Fog, Sand, Dust, Volcanic Ash, Explosive Atmosphere Altitude: Sea level to 41,000 feet (12,497 meters) @ 4°C to 50°C

EMI/EMC: Designed to Meet MIL-STD-461E CE101, CE102, CS114, RE101, RE102, RS103





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