



**Palomar
Display
Products**

Mission Computer & Video Matrix

Palomar Display Products' Advanced Mission Computer and Advanced Video Matrix are compact, rugged and lightweight systems designed to MIL Specifications for both airborne and ground vehicle applications.

Advanced Mission Computer

The Advanced Mission Computer is a small, rugged, and highly configurable computer that supports Intel ETX Pentium-M, up to Intel Core™ 2 Duo CPU's. It's available in different packaging styles for flexible installation options including remote mounting. The panel mount version is available with a 4.0" integrated display or as a standalone computer.

The Advanced Mission Computer supports various communication busses allowing easy integration with typical helicopter and transport aircraft avionics systems. This includes 10/100Mbps Ethernet, 1553, Arinc 429, Arinc 575, and other serial interfaces.

The modularity of the Advanced Mission Computer allows great flexibility permitting :

- * Adding PC peripherals via Dual PCI and Enhanced Ultra DMA EIDE busses.
- * Adding pre-defined graphical user interface overlays.
- * Adding extended interface cards.
- * Adding an Advanced Video Matrix.



- * Use with external VGA and DVI digital displays.
- * Upgrading the computer card with the most advanced computer technology.

Advanced Video Matrix

The Advanced Video Matrix is a versatile video control and switching system designed to integrate and distribute a large number of video sources, including cameras, displays, and recorders.

It provides the means to allow each crew member to independently select any of the connected video sources and may also be used in a default mode where crew member stations are connected to pre-assigned video sources. Additionally the Advance Video Matrix features an override function allowing the system controller to remotely select video sources for each crew member.

All products are designed and manufactured to meet specific customer requirements. They can be tailored to operate with various video and communication standards.

Palomar Display Products, Inc.

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Mission Computer & Advanced Video Matrix Specifications

General / Common Features

Power input:	16-32VDC, MIL-STD 704A-F, MIL-STD 1275
Connectors:	D38999 (Various pin counts)
Comm. Interfaces:	Up to 2x 1553, 5x Arinc 429/575, 1x 10/100Base-T Ethernet, 8x RS-422/485, 2x USB, 1x CAN
Discretes:	Up to 28x discrete inputs/outputs including opto isolators & SSR's, 4x Analog A/D inputs, 1x Analog input, 1x Audio output
Environmental:	MIL-STD 810C/F, EMC / EMI: MIL-STD 461E

Advanced Mission Computer (Remote Mount)

Power consumption:	Less than 50W
Computer card:	Intel ETX Pentium-M up to Intel Core™ 2 Duo CPU's
Video Format / Interface:	NTSC / PAL/ RS-170, up to 7 in and 7 out, VGA: Up to 3 outputs, DVI (digital): Up to 3 outputs
Operating temp.:	-20°C to +75°C (Cooling free air)
Physical Dimensions:	(H x W x D) = 3.0"x 5.75"x 9.85" (76mm x 146mm x 250mm)
Weight:	Less than 5.5 Lbs. (2.5 Kg)

Advanced Mission Computer (Panel Mount)

Power consumption:	Less than 30W
Computer card:	Intel ETX Pentium-M up to Intel Core™ 2 Duo CPU's
Video Format / Interface:	NTSC / PAL / RS-170, up to 7 in and 7 out, VGA: Up to 3 outputs, DVI (digital): Up to 3 outputs
Display:	Optional 4.0" (Diag.)
Resolution:	640 x 480 pixels (VGA)
Brightness:	.01 nits up to 850 nits (cd/m ²)
Contrast:	Better than 300:1
Viewing angle:	Horizontal ±60°, Vertical ±35°
Color:	256,000 (6 bits per color)
NVG compatibility:	MIL-STD 3009 / NVIS Class A/B
Operating temp.:	-20°C to +65°C (Cooling free air)
Physical Dimensions:	(H x W x D) = 4.72"x 5.90"x 7.08" (120mm x 150mm x 180mm)
Weight:	Less than 9.1 Lbs. (4.2 Kg)

Advanced Video Matrix

Power consumption:	6W
Video Interfaces:	Configurable up to 32 x 32
Video Formats:	NTSC / PAL / RS-170, VGA, DVI (Digital), DVR
Serial and I/O:	RS422/485, RS232, and Discretes
Operating temp.:	-20°C to +75°C (Cooling free air)
Physical Dimensions:	(H x W x D) = 3.62"x 7.2"x 1.37" (92mm x 185mm x 35mm)
Weight:	Less than 2.0 Lbs (.90 Kg)



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