



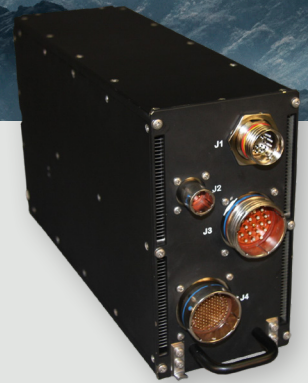
VIDEO PROCESSING MODULE

PROVEN PERFORMANCE

Providing reliability and efficiency

Fast and reliable video processing is essential in today's environment. Collins Aerospace video processing module is an ARM processor-based unit that provides video processing capabilities with 10 digital input channels and 5 digital video output channels. Our VPM-8600B design architecture is built upon the proven performance of our VPM-8600A.

Featuring dual redundant MIL-STD-1553B terminal and 10/100/1000 Base-T Ethernet Interfaces for data load and growth, our video processing module is built for performance. With a VPX backplane complementing the 3U form-factor type circuit cards, video processing module efficiently uses no more than 120 W of 24 VDC input power. An MTBF prediction of greater than 4,275 hours operating in natural convection cooling and mount-fan packaging demonstrates its reliability.



KEY FEATURES & BENEFITS

- Proven design and performance
- MTBF prediction >4,275 hours
- 10 digital input channels
- 5 digital video output channels



MORE FEATURES

- Zynq™ Ultrascale with embedded ARM processors
- Dual redundant MIL-STD-1553B terminal
- POSIX™-compliant RC Linux operating system
- VPX backplane
- 3U form-factor circuit cards
- Dual 10/100/1000 Base-T Ethernet interfaces (data load/growth)
- Dual RS-232 serial data bus interfaces (debug)
- Video interface type: component (RGB, YC, RGBHV/VGA and YPbPr) and composite video input and output interfaces
- SMPTE 292M (720p, 1080i, 1080p30) and SMPTE 424M (1080p60) on 10 inputs and 5 outputs (independently configurable)

ELECTRICAL INTERFACES

- Dual IEEE 802.3 Ethernet (10/100/1G Base-T) ports
- MIL-STD-1553B: dual redundant
- RS-232: 2 ports
- Discrete I/O: 6 input, 8 output (ground open)
- Input power: 24 VDC, 120 W (maximum)
- Digital video (SMPTE): 10x3G inputs, 5x3G outputs
- SMPTE growth: total of 12 inputs, 6 outputs
- Fiber optic: 2 input, 2 output
- Fiber optic growth: total of 6 inputs, 6 outputs
- Analog component video: 3 inputs

RELIABILITY

- Predicted MTBF of 4,275 hours
- 14-minute MTTR
- Built-in test (BIT)
 - 95% probability of fault detection
 - Power-on, continuous and commanded BIT

PHYSICAL DESCRIPTION

Model	VPM-8600B
Size	7.620 H x 4.30 W x 12.625 D in. (19.36 x 10.9 x 32 cm)
Size with connector	7.620 H x 4.30 W x 14.625 D in. (D 37.1 cm)
Weight	14.4 lbs (6.53 kg) maximum
Cooling	Natural convection cooling and mount with fan

ENVIRONMENTAL CAPABILITIES

Temperature	-40° C to 55° C (104° F to 131° F) operating, 71° C (159.8° F) intermittent operation
Vibration	MIL-STD-810G, Method 514.7 (Helicopter)
Shock	MIL-STD-810G, Method 516.7
Sand/dust	MIL-STD-810G, Method 510.6
Fungus	MIL-STD-810G, Method 508.7
Salt atmosphere	MIL-STD-810G, Method 509.6
Explosion proof	MIL-STD-810G, Method 511.6
Rain	MIL-STD-810G, Method 506.6
Humidity	MIL-STD-810G, Method 507.6
Temperature shock	MIL-STD-810G, Method 503.6
EMI	MIL-STD-461E / ADS-37A-PRF
Lightning	DO-160G

Specifications subject to change without notice.



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