PSM-8600B PROCESSOR SWITCH MODULE

RUGGED AND POWERFUL

Modernized to meet future application hosting needs

As technology advances, so do demands for processing power. Collins Aerospace is completing development of an enhanced version of our PSM-8600A processor switch module series. Collins processor switch modules have been proven effective in the U.S. Military and Coast Guard helicopters, such as Common Avionics Architecture System (CAAS), Chinook and Blackhawks, and rotary-wing aircraft worldwide.

Our processor switch module contains three major functions: video graphics, Ethernet switch and power converter.

- **Video graphics function:** A video graphics assembly with a double buffered SMPTE-292 digital video output

- **Ethernet switch function:** A high integrity Ethernet switch card designed to support a 10/100Base-T 23 port switch, 12 connections to commercial switches and two connections to the Assured Multicore processor

- **Power converter function:** A functional block which rectifies the 115 VAC input power to a regulated 24 VDC, 150 watt power output

Combining a powerful mission computing station with a modern network switch and power source, our PSM-8600B offers a single ruggedized box for hosting applications. Collins PSM-8600B is operational today, providing an opportunity to solve potential obsolescence concerns.
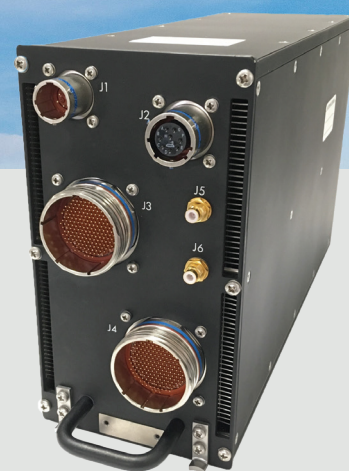
KEY FEATURES & BENEFITS

- Modern Assured Multicore family of products

- Enables processing for mission applications such as moving map, Ethernet switching and power control

- Selected for U.S. military and international platforms

- CAAS cockpits
  - U.S. Army and international CH-47F Chinook
  - Special Operations Aviation Regiment (SOAR) MH-60 and MH-47G
  - U.S. Coast Guard MH-60T

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Collins Aerospace
An **RTX** Business

PRODUCT HIGHLIGHTS

- Power PC Assured Multicore system processor (T2080)
- POSIX™-compliant operating system
- MIL-STD-1472 Human Factor Compliant
- Dual SMPTE 292M: Supports 1080i (59.94Hz)
- High integrity Ethernet switching
- Regulated 24 VDC, 150 W power output

PSM-8600A AND PSM-8600B CAPABILITIES

PSM-8600A

- Ethernet switch to the CAAS system
- Power to the VPM-8600A
- Hosts the moving map (Harris Digital Map)

PSM-8600B

- Performs all capabilities of PSM-8600A
- Assured Multicore capability for additional processing functionality
- Additional high-integrity switch ports
- Additional commercial switch ports including, 1-Gig port (high data rate)

PSM-8600B SPECIFICATIONS FOR 822-3337-001

Electrical Interfaces

- Two Ethernet connections to the T2080 processor: One 10/100 port and one 10/100/1000 port
- Twenty three 10/100 high integrity Ethernet switch (HIES) ports
- Twelve Ethernet connections to the commercial switch: Eleven 10/100 ports and one
- 10/100/1000 port
- SMPTE 292: Two outputs
- Power supply output: 24 VDC, 150 W
- RS-232: 2 output (debug)
- Discrete I/O: 18 input, 0 output (strapping – not general purpose)
- Input power: 115 VAC, 400Hz 3-phase, 350 W (maximum)
- Operation through 100 msec power transient

Reliability

- Predicted MTBF of 5,000 hours
- 20-minute MTTR
- Built-in test (BIT)
  - 95% probability of fault detection
  - Power-on, continuous and initiated BIT

Physical description

Size	7.80 H x 4.280 W x 12.620 D in. (19 H x 11 W x 32 D cm)
Size with connector	7.80 H x 4.280 W x 14.620 D in. (D 37.1 cm)
Weight	22.0 lbs (9.97 Kg) maximum
Cooling	Forced air cooling MT8600B

Environmental capabilities

Temperature	-40°C to 55° C (-104° F to 131° F operating, 71° C (160° F) intermittent operation
Vibration	MIL-STD-810G, Method 514.7 (helicopter)
Shock	MIL-STD-810G, Method 516.7, 20 g/11 ms
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
Acceleration	MIL-STD-810G, Method 513.7
EMI	MIL-STD-461F
Lightning	DO-160G

Specifications subject to change without notice.

COLLINS AEROSPACE

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