

CAAS/COMMON AVIONICS ARCHITECTURE SYSTEM FOR U.S. MILITARY AND GOVERNMENT HELICOPTERS

Adaptable, reusable, upgradeable.



**Rockwell
Collins**

Building trust every day



Leading the way in open system architecture

Leadership



Rockwell Collins is recognized for leadership in the design, production and support of mission-critical aviation and communication solutions for government and commercial customers, worldwide.

Our track record in open systems architecture speaks for itself. Our investment and commitment to developing a common architecture based on open systems standards has allowed us to provide our military customers with innovative, flexible solutions that meet or exceed expectations for on-time, on-budget delivery. As a result, we have been awarded numerous military upgrade programs in support of U.S. Army and Army Special Operations helicopters.

Key Features

The benefits of our open systems architecture platform



Highlights/key features of Flight2, our open systems architecture, include:

- ▶ Isolation of rapidly changing capabilities and technologies that facilitate upgrades and lower life-cycle costs
- ▶ Increased productivity through modular design that allows users to add processors as needed
- ▶ Strict maintenance of data integrity
- ▶ Multiple applications hosting

Our Solutions

Providing flexible, enhanced capabilities for today's ever-changing battlespace environment



At Rockwell Collins, we recognize that meeting today's rapidly evolving battlespace requirements is crucial. With over 2,400 platforms scheduled to be fitted with a scalable Common Avionics Architecture System (CAAS), we're uniquely positioned to provide rotary wing pilots with optimized situational awareness while reducing their workload.

Army Applications



By incorporating a common avionics suite of displays, controls, mission computers and software, we've helped pilots to fly smarter, safer. Through a system that again and again demonstrates extraordinary flexibility and value.

Trusted Provider

Beyond the Army – additional government uses of CAAS



VH-60N

Common technical architecture provides the opportunity to share in future upgrades and technology advancements through government purpose software rights and third-party development tools.

MH-60T

The U.S. Coast Guard implementation of CAAS minimizes development costs through significant reuse of flight-proven hardware and software.

CH-53E/K

This scalable, modular architecture supports reuse of hardware and software components that provide a tailored approach to meeting mission requirements.

Rockwell Collins CDU-7000

Powerful processing in a rugged package

Key Features:

- Power PC system processor
- Power PC I/O processor
- ARINC I/O processor
- Dual MIL-STD-1553B processors
- POSIX-compliant operating system
- Compact PCI backplane
- 3U form-factor circuit cards
- ARINC 739 compatible
- Rockwell Collins' Flight2 open architecture



The latest in our proven performance CDU line, the CDU-7000 incorporates cutting-edge commercial technologies into a military-hardened package. The result is an unparalleled combination of performance and reliability.

Rockwell Collins CDU-7000

Specifications

Height	7.125 inches
Width	5.75 inches
Depth	822-1729-002 8.0 inches (8.74 inches including rear connectors) 822-1729-100 6.5 inches (7.24 inches including rear connector)
Weight	10.9 lbs max
Power	28 Vdc, 70W (maximum) with heater and fan
Operating Temperatures	-40°C to +55°C (intermittent to +71°C)
Cooling	Natural convection and internal fan

Rockwell Collins MFD-268C3

Superior functionality in a “smart,” compact package

Key Features:

- Compact, open systems design
- Based on 3U Compact PCI backplane
- 3U Compact PCI form factor
- Dual Power PC processor
- 3D Graphics generation capability
- Open GL Graphics interface
- Standard I/O interfaces including:
 - Dual redundant Ethernet
 - ARINC 429 data buses
 - Discretes
 - ARINC 708
 - 2 channels of RS-170 (525 line) video
 - 2 channels of SMPTE 292 digital video



Available as a “smart” display system with internal graphics generation and processing, the MFD-268C3 offers a full range of options. That way, it can be easily customized to meet most any application, including helicopters, fixed-wing craft, ground vehicles and ships as well as communication consoles.

Rockwell Collins MFD-268C3

Specifications

Display Active Area	6.0 X 8.0 inches
Display Type	Portrait orientation, Color AMLCD
Display Resolution	XGA (1024 by 768 color groups) 128 cgi
Gray Shades	64
Luminance Range	0.01 to 300 fl @ 55°C, 100 fl @ 71°C
Dimming Range	30000:1
NVIS Performance (Display)	Class B compliant and Class A compatible
Weight	21.5 lbs max
Power	115 Vac, 400 Hz 3 phase
Operating Temperatures	-40°C to +55°C (+71°C short term)
Cooling	Internal fan, 115 Vac, 400 Hz power

Rockwell Collins PSM-8600

Quality, connectivity, reliability in a tough, compact package

Key Features:

- › Rugged design suitable for harsh environments
- › Distributed mounting of system components
- › Internal graphics generation
- › Conditioned power distribution to IPC-8000 system modules
- › Provisions for system expansion
- › Mission processing

With a 23-port Ethernet switch, 110ms hold-up capability and the capacity to accommodate future growth, the PSM-8600 can meet your needs today and tomorrow. Along with the proven reliability and value that Rockwell Collins brings to customers, time and time again.



Rockwell Collins PSM-8600

Specifications

Height	7.62 inches
Width	4.3 inches
Depth	12.62 inches excluding fan protrusion
Weight	17.2 lbs max
Power	115 Vac, 400 Hz, 3 phase MIL-STD-704
Operating Temperatures	-40°C to +55°C operating +71°C intermittent operation -57°C to +85°C storage

Rockwell Collins VPM-8600

State-of-the-art video processing

Key Features:

- › Rugged design suitable for harsh conditions
- › Distributed mounting of system components
- › Internal graphics generation
- › Extensive video processing capabilities
- › Provisions for system expansion
- › Mission processing

A high-performance video processing system, a Power PC processor card with Ethernet node plus a graphic module makes this an exceptionally versatile system. Route video input to all six output channels simultaneously. Display up to two separate video sources – in either split screen or “picture-in-picture” format – per channel. That’s just the beginning of what this highly sophisticated module can do.



Rockwell Collins VPM-8600

Specifications

Height	7.62 inches
Width	4.3 inches
Depth	12.62 inches excluding fan protrusion
Weight	17.5 lbs max
Power	120 W max +24 Vdc supplied by PSM-8600
Operating Temperatures	-40°C to +55°C operating +71°C intermittent operation -57°C to +85°C storage

Building trust every day.

Rockwell Collins delivers smart communication and aviation electronics solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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