High performance and flexibility for your mission's success.

Complex flight missions and tighter budgetary restrictions demand airborne mission computers that are faster and more scalable than ever. They must deliver higher processing and data throughput capabilities that work within your existing avionics architecture while reducing size, weight, power consumption and cost (SWaP-C).

We've based our FMC-4500 flight mission computer family on the latest technologies from our tactical mission computer product line.

In its basic configuration, the FMC-4500 includes a wide range of technical features. It also provides flexibility that enables you to modify or customize configurations to meet your requirements with lower time, risk and cost.

FMC-4500 computers are suited for military and civil airborne platform applications on fighter, transporter, rotary-wing manned aircraft and unmanned aerial vehicles.

The units come in a rugged, ARINC-600 chassis to meet customer installation and environmental requirements.

Input/output (I/O) module configuration provides a versatile range of interfaces, so you can choose your interface software and determine how the interfaces are used. In addition, you have the option of adding our FMC-4500 software development kit, which supports easy integration and customization of your mission software.

FMC-4500 computers provide a combination of high-integrity, general purpose, multi-core processing resources, scalable and efficient I/O capabilities and high-integrity 2-D and 3-D graphics generation. They also provide powerful, real-time video processing functionality based on a multi-processing hardware digital signal processing module.

The computer's standard operating system is Wind River® VxWorks® 653. Other operating systems can be installed as guests via hyper visor, including Green Hills® INTEGRITY®, SYSGO PikeOS® and Linux®.

KEY FEATURES/BENEFITS

> Advanced computing performance due to real multi-core processing (Freescale QorIQ T2080)
> Versatile I/O configuration
> Real-time video processing
> High-integrity 2-D and 3-D graphics generation
> High reliability, designed for rough environments
> Low size, weight and power consumption
> ITAR-free product design
> Designed to meet up to DAL-A level requirements in accordance with DO-178C and DO-254

rockwellcollins.com

Rockwell Collins
Building trust every day

TECHNICAL FEATURES

The predefined, basic configuration of FMC-4500 includes the following:

> Up to two Freescale QorIQ T2080-based, safety-critical processing boards (real multi-core 4x 1,2 GHz)
> 4 GB ECC protected DDR3(L) SD RAM
> 1 GB NOR flash mass memory
> 3-D graphic module
> Rockwell Collins Graphics Engine 5 (GE5)-based, safety-critical 2-D graphics
> 2x 480 GB solid state drive (SSD) capacity (higher capacities optional)
> 4x MIL-STD-1553b RT/BC/BM (dual redundant)
> 1x MIL-STD-1553b RTA (5x RT-Address, 1x Parity, 1x RT-GND)
> 2x 1 Gbps Ethernet (from processor)
> 1x 1 Gbps Ethernet for video over IP
> 1x 10 Gbps Ethernet (loading in maintenance modus)
> 4x ARINC-429 TX/RX and 5x ARINC-429 TX/RX
> 4x STANAG-3350 Class B In and 1x STANAG-3350 Class B Out
> 2x SMPTE-292M (or ARINC-818) RX and 4x SMPTE-292M (or ARINC-818) TX
> 8x Discrete Input and 8x Discrete Output
> Additional interfaces for debug and maintenance
> 3U Open-VPX modular components
> 5x 3U VPX module slots plus 1 power supply slot
> Mean time between failures: >3,100 hours (AUF, at 50° C ambient)
> 115 VAC (one phase)
> Power consumption: <160 watts (depending on configuration)
> Forced-air cooling for indirect cooling (cold wall)
> Power interruption transparency time: 50 ms
> One-half ATR short enclosure
> ARINC 600 type 3 connector
> Size: ~123.8 x 318 x 193 mm; ~4.9 x 12.5 x 7.6 in. (W x L x H)
> Weight: ~8.0 kg; ~17 lb (depending on configuration)
> Standard operating system is Wind River VxWorks 653 (guest operating system can be installed via hyper visor)
> Designed to meet DAL-A level requirements in accordance with DO-178C and DO-254

Specifications subject to change without notice.

Building trust every day.

Rockwell Collins delivers innovative aviation and high-integrity solutions that transform commercial and government customers' futures worldwide. Backed by a global network of service and support, we are deeply committed to putting our solutions to work for you, whenever and wherever you need us. In this way, working together, we build trust. Every day.

For more information, contact:

Rockwell Collins Deutschland GmbH
Grenzhöfer Weg 36
69123 Heidelberg, Germany
+49 6221.512.699
fax: +49 6221.512.480
rcd-sales@rockwellcollins.com
rockwellcollins.com

Rockwell Collins

Building trust every day