PU-3000
Certified Processing Unit

Using a powerful processing platform based on a Common Processor Module (CPM) and optional Graphic Processor Module (GPM), the PU-3000 is an open system very well suited for hosting today's demanding applications. This ARINC 653 based display platform uses Green Hills' Integrity 178 tuMP Real Time Operating System (RTOS).

The PU-3000 is a multi-capability Processing Unit that can be used as a Symbol Generator in both new and retrofit Electronic Flight Instrument Systems. The unit is designed to process high-criticality data, to generate various display formats, such as PFD, ND, or EID.

Modular by design, the PU-3000 can also be used as a common computing platform in a large variety of functions with or without graphics capability. It allows customers to simultaneously host combinations of software applications that can be customer proprietary, CMC proprietary, such as Primary Flight Display (PFD), Navigation Display (ND), Synthetic Vision System, etc., and from 3rd parties. Importantly, these hosted applications can be individually designed to varying Design Assurance Levels (DAL), up to and including DAL A, reducing development and integration costs.

MAIN FEATURES

- SW/HW modular system components using powerful processing and graphics modules with substantial growth capability
- Designed following Modular Open System Architecture (MOSA) principles and based on non-proprietary widely used open standards
- Based on ARINC-653using Green Hills Integrity-178 tuMP RTOS
- Open platform that can besupplied with a comprehensive Software Development Kit (SDK) with Integrated Development Environments (IDE) to initially develop and maintain the system throughout its life cycle
- Large array of Input and Output interfaces — reducing the need for external data concentration
- Continuous operations at up to 70ºC without external cooling
- Quiet by design — thanks to its closed and fan-less architecture

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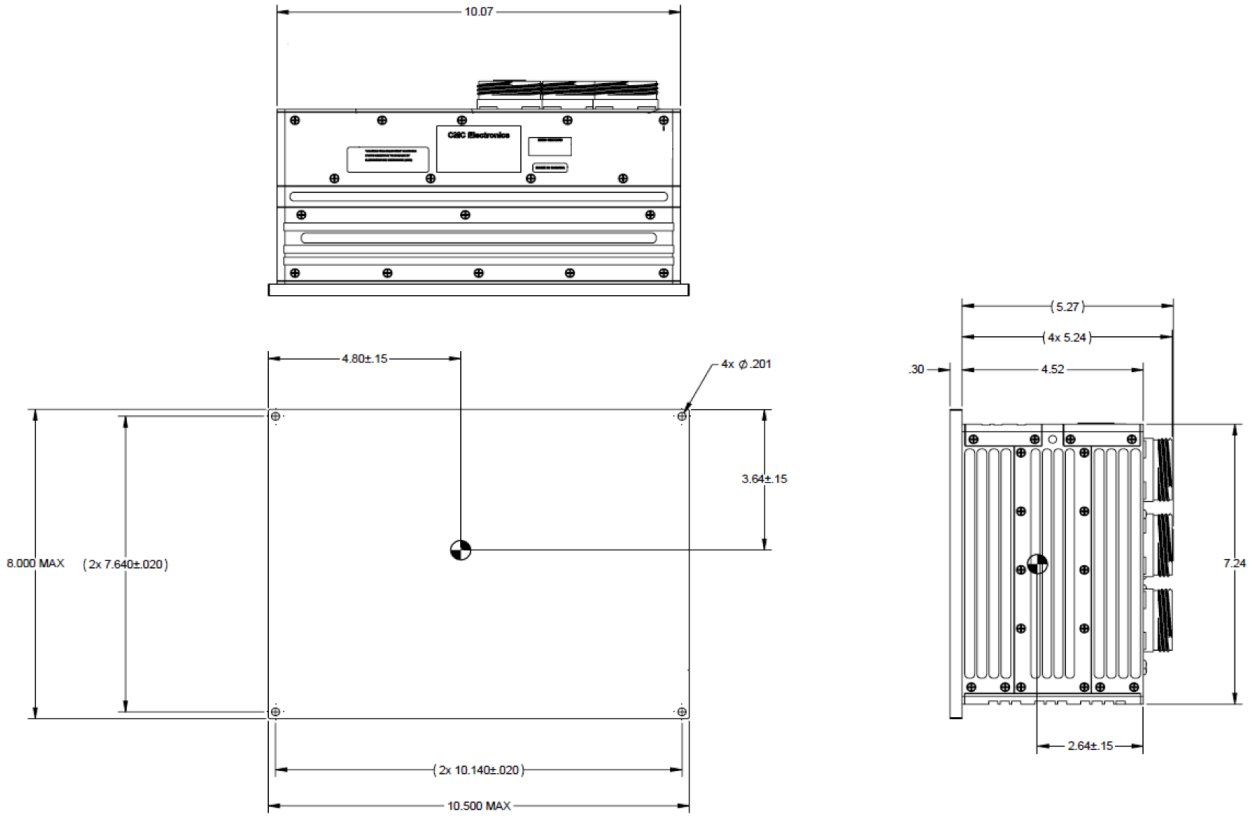
PU-3000 Certified Processing Unit — Specifications



Processing	
Common Processor Module (CPM)	Freescale QorIQ P3041
Optional Graphics Processor Module (GPM)	Up to 2 times M9 (Mobility Radeon 9000) performance Integrity of the graphics solution segregated from any knowledge of the hosted applications
RTOS	ARINC-653 Green Hills Integrity-178 tuMP RTOS
Interfaces	
Video inputs / Outputs[1]	Inputs: RGB, NTSC, A818, 3G-SDI Outputs: DVI-D, RGB, A818, 3G-SDI
Digital Interfaces[1]	Arinc 429, Arinc 708A, RS-422/485, IEEE-1394B, CAN Bus (Arinc 825), Ethernet, MIL-STD-1553 (optional)
Analog Interfaces[1]	Sensors, Transducers, Potentiometers, Thermocouples, Synchros, Discretes, etc. suitable for interface with turboprop engine.

General specifications	
Power supply	28VDC, MIL-STD-704A
Power consumption	<70W with optional GPM installed
Weight	6.8 kg / 15 lb with optional GPM installed
Cooling	Passive cooling (no requirement for forced external cooling) – fan-less design
Built-In Testing	PBIT / CBIT
Software	RTCA/DO-178C up to Design Assurance Level (DAL) A
Hardware	RTCA/DO-254 up to Design Assurance Level (DAL) A
Environmental conditions	
Compliance	DO-160G; MIL-STD-810G & MIL-STD-461E (optional)
High temperature	+70C operational / +70C short-time / +85C ground survival
Low temperature	-45C operational / -55C ground survival
Altitude	55,000 ft.
Water-proofness, salt fog, sand and dust	Withstands harsh environments - closed and fan-less unit design

For more information, visit www.cmcelectronics.ca or email us at cmc.sales@cmcelectronics.ca

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