

PU-3000

Certified Processing Unit



Main features:

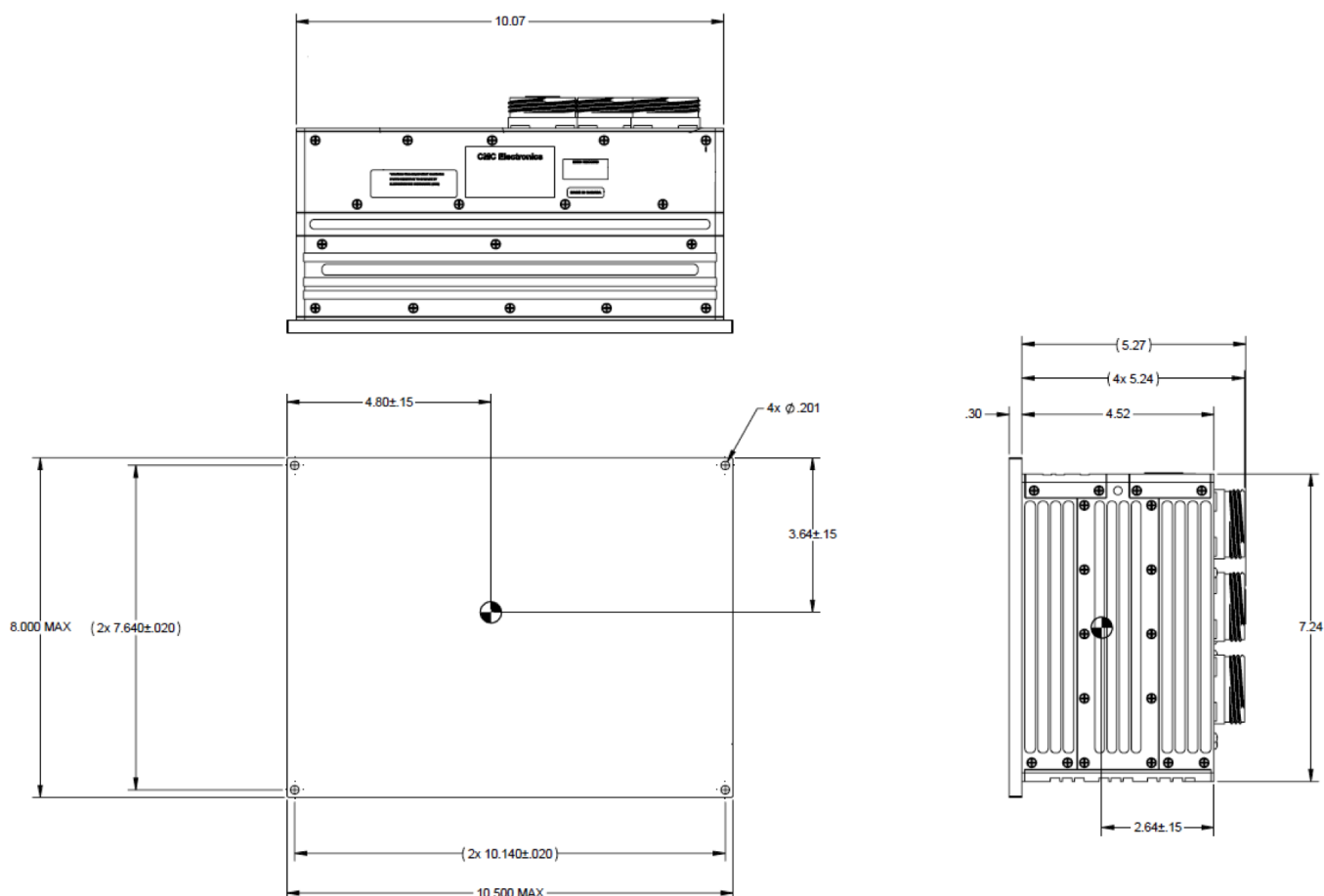
- Powerful processing and graphics module with substantial growth capability
- ARINC-653 RTOS
- ScioTeq's MOSArt™ middleware platform for hosting multiple software applications at different DAL levels (A to E)
- Large array of Input and Output interfaces – reduces the need for external data concentration
- Continuous operations at up to 70C without external cooling
- Quiet by design, thanks to its closed and fan-less architecture

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. These applications run on the ARINC 653 based display platform and ScioTeq's MOSArt™ (Modular Open System Architecture) middleware.

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, ScioTeq 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.

Technical specifications



PU-3000

Processing

Common Processor Module (CPM)	Freescall QorIQ P3041
Optional Graphic 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 Real Time Operating System
ScioTeq MOSArt™ open platform	Allows development and hosting of customer supplied, 3rd party or ScioTeq applications. Can host multiple applications at different DAL levels simultaneously.

Interfaces

Video inputs / Outputs ⁽¹⁾	Inputs: 1 x RGB, 1x NTSC Outputs: 2x DVI-D, 2xRGB
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, Discreets, 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 lbs 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

(1) Please contact ScioTeq for other possible options

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The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

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