



CTC Systems

Conduction Cooled Application Ready Control Systems

Abaco Systems' CTC series of application-ready packaged pre-validated Control computer systems provide a rugged and highly flexible COTS computin platform suited for mission applications requiring rock-solid reliability such as UAVs, ground vehicles, and manned aircraft.

Abaco's CTC series of COTS packaged computer systems can be deployed in the field as soon as your application is ready, or use the CTC COTS series as a starting point that Abaco can modify for your application.

The arduous task of integrating off the shelf boards has already been done for you – shortening your time to project completion. You have one point of contact for purchase and a single part number, not a collection of parts, to help reduce your program risk.

The CTC series successfully integrates Abaco Systems wide selection of COTS products and third-party products into modular systems that are tested and qualified for rugged systems deployment in harsh environments such as extreme temperatures, high humidity, salt fog, sand and dust.

Abaco Systems' Military and Aerospace group is fully compliant with AS9100 processes and brings years of experience designing rugged systems to your project. Our world class program management competencies are tailored to help mitigate your risk.

Abaco Systems conducts all design, analysis, manufacturing and testing in strict accordance with any system appropriate MIL and industry standards such as MIL-STD-810, 704, 461, and 1472.

For every system, we supply full documentation, including electrical and mechanical drawings, wiring diagrams, user manuals for both chassis and member components, board support packages, and appropriate driver and test software. For systems containing MIL-STD-1553 or ARINC interfaces, we also include the Integrated Avionics Library, a full suite of C functions, to help reduce your software development cycle time.

To help jump start your project, Abaco offers Laboratory Development Units, or starter kits, preconfigured for development purposes. Based on the required system controller architecture (Intel® or PowerPC®) and bus system (CPCI or VMEbus), Abaco Systems can provide the appropriate development system for your specific needs.

Abaco Systems offers a Product Lifecycle Management (PLM) program of innovative Long-Term Support services to reduce the overall cost of ownership and provide industry-leading safeguards against component obsolescence. We are committed to supporting customer programs throughout their lifecycle.

FEATURES:

- COTS AVC rugged conduction cooled chassis
 - 5 or 6 3U CompactPCI slots
 - MIL-C-38999 connectors
 - T6061 Aluminum
- Lightweight
- Intel or PowerPC-based single board computer
- VxWorks Real-time operating system
- BIT support
- Broad operating temperature range
- Optimized for rugged shock and vibration conditions
- Designed for use in rugged environments:
 - UAVs
 - Manned and unmanned ground vehicles
 - Launch vehicles

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Specifications

CTC Systems Series	AVC-CPCI-3027	AVC-CPCI-3053
Processor	PowerPC 7410 @ 500MHz	Intel Core Duo L2400 @ 1.66GHz, 667MHz FSB
SBC RAM	256 MB	1 GB
SBC Flash Memory	64 MB Flash, 8 MB Boot Flash	4 GB
Additional Memory (Flash, SSD, etc.)	4 GB Flash Module	N/A
Ethernet Ports	1x 10/100BaseT (CM4), 2x 10/100/1000BaseT (Ethernet PMC)	7x 10/100/1000BaseT (Ethernet Switch), 1x 10/100/1000BaseT (SBC)
Serial Ports	2x USB 2.0, 1x RS232, 2x RS422/485	2x USB 2.0, 1x RS422 Synch, 1x RS232, 8x RS232/422
Video Ports	N/A	VGA
MIL-STD-1553 Channels	2	N/A
ARINC 429 Channels	N/A	N/A
DAC	N/A	4x 0 to 10V
ADC	N/A	8x 0 to 10V
Discrete I/O	8x TTL Out, 8x TTL In, 5x TTL I/O (configurable), 4x Open 28V Optically Isolated Discrete I/O	10x TTL Out, 5x TTL In, 5x TTL I/O (configurable)
Other I/O	2x IEEE1394, 8x NO switches, 8x NC switches	1x Audio in, 1x Audio out
Operating system	VxWorks	VxWorks or Linux
Cooling Type	Conduction cooled via natural convection	Conduction cooled via natural convection
Form Factor	3U CompactPCI	3U CompactPCI
Slots	5	6
Dimensions (inches) (H xW xD)	7.50 x 6.08 x 9.29 (excludes connectors/hardware)	8.72 x 5.48 x 8.80 (excludes connectors)
Weight in pounds (kg)	~9.5	~11.5
Input Power (MIL-STD)	28V DC (MIL-STD-704)	28V DC (MIL-STD-704)
Power Dissipation (W)	33.57	84.15 (est. max.)
Operating Temp. Range (°C)	-40° to +71°	-20° to +50°
Shock	40g's, 11ms, sawtooth *	40g's, 11ms, sawtooth *
Random Vibration	0.04g2/Hz *	0.04g2/Hz *
Humidity	95% non-condensing *	95% non-condensing *

* System may have been qualified to higher levels. Consult factory for more information.

Ordering information

AVC-CPCI-3027	5 slots	900-100599-001
AVC-CPCI-3053	6 slots	900-100720-001

WE INNOVATE. WE DELIVER. YOU SUCCEED.

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