DPF Series Systems

Forced Air Application Ready Data Processing Systems

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

Abaco's DPF series of COTS packaged computer systems can be deployed in the field as soon as your application is ready, or use the DPF COTS series as a starting point for multiple application-specific configurations.

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 all issues and a single part number — not a collection of parts.

The DPF series of packaged computer systems successfully integrate Abaco Systems boards, and modules, drawn from Abaco's wide selection of COTS boards, into open modular systems that are tested and qualified for rugged systems deployment.

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 that you can use to perform many common card functions, thus reducing 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
    - 5-9 6U CompactPCI slots
    - MIL-C-38999 connectors
    - Hermetically sealed/wash-down, EMI
- Intel-based single board computer
- Linux or Solaris operating systems
- BIT/EBIT support
- Multiple I/O capabilities including:
    - Ethernet
    - Video
    - Serial
    - Discrete
- Qualified on:
    - Airborne vehicles
    - Ground vehicles

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S Y S T E M S

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DPF Systems Series	AVC-CPCI-6015	AVC-CPCI-6022	AVC-CPCI-6028
Processor	4x Intel Core 2 Duo Low Voltage L7400 @ 1.5GHz, 2x Intel Core 2 Duo T7400 @ 2.167 GHz	Intel Core 2 Duo Low Voltage L2400 @ 1.666 GHz	Intel Core 2 Duo Low Voltage L2400 @ 1.666 GHz
SBC RAM	4x 2 GB	2 GB	4 GB
SBC Flash Memory	4x 1 GB	2 GB	N/A
Additional Memory (Flash, SSD, etc.)	N/A	N/A	2x 64 GB SSD
Ethernet Ports	10x 10/100/1000BaseT	1x 10/100/1000BaseT, Proc. 1 1x 10/100/1000BaseT, Proc. 2	5x 10/100/1000BaseT, Proc. 1 5x 10/100/1000BaseT, Proc. 2
Serial Ports	12x USB, (two per Proc.) 12x RS232 (two per Proc.) 12x RS422 Async. (two per Proc.)	2x USB (Proc. 1), 2x USB (Proc. 2) 2x RS232 (Proc. 1), 2x RS232 (Proc. 2)	2x USB (Proc. 1), 2x USB (Proc. 2) 1x RS232 (Proc. 1), 1x RS232 (Proc. 2) 1x RS422 (Proc. 1), 1x RS422 (Proc. 2)
Video Ports	N/A	6x VGA (one from each Proc.)	1x VGA, Proc. 1, 1x VGA, Proc. 2
MIL-STD-1553 Channels	N/A	N/A	4
ARINC 429 Channels	N/A	N/A	N/A
DAC	N/A	N/A	N/A
ADC	N/A	N/A	N/A
Discrete I/O	N/A	N/A	8x open ground outputs, 8x High Level discrete inputs, 4x TTL I/O, Proc. 1, 2x TTL I/O, Proc. 2
Other I/O	1x RS232 Ethernet Management Port, 1x CP6 Reset	Reset, Proc. 1, Reset, Proc. 2	1x Audio In, 1x Audio Out (Proc. 1) 1x Audio In, 1x Audio Out (Proc. 2)
Operating system	Linux	Linux	Solaris
Cooling Type	Conduction cooled, Forced Air	Conduction cooled, Forced Air	Conduction cooled, Forced Air
Form Factor	6U CompactPCI	6U CompactPCI	6U CompactPCI
Slots	9	5	5
Dimensions (H x W x D)	8.97" x 10.55" x 17.72" (excludes connectors)	5.25" x 7.76" x 16.78" (excludes connectors)	5.25" x 7.76" x 16.78" (excludes connectors)
Weight	~42.7 lbs	~20.5 lbs	~16.5 lbs
Input Power (MIL-STD)	28VDC (MIL-STD-704)	28VDC (MIL-STD-704)	28VDC (MIL-STD-704)
Power Dissipation	514W (est.)	123W (est.)	145W (est.)
Operating Temperature Range	-24° C to +45° C	-40° C to +55° C	-25° C to +40° C
Shock	40g's, 11ms, sawtooth *	40g's, 11ms, sawtooth *	40g's, 11ms, sawtooth *
Random Vibration	0.04g2/Hz *	0.04g2/Hz *	0.04g2/Hz *
Humidity	95% non-condensing *	95% non-condensing *	95% non-condensing *

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

WE INNOVATE. WE DELIVER. YOU SUCCEED.

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SYSTEMS