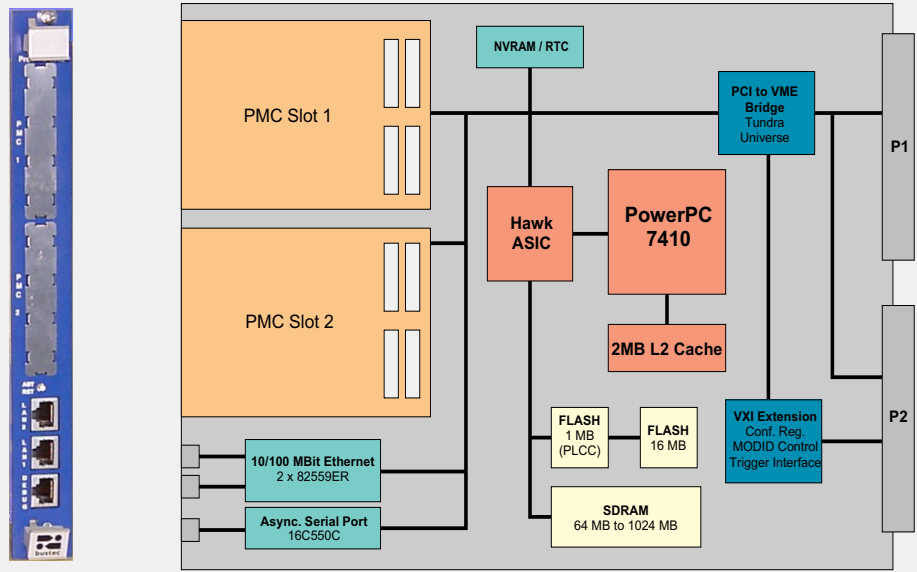


3042
EMBEDDED
SLOT-0
CONTROLLER



- Single Slot C-Size VXIbus Slot-0 Controller
- 500 MHz PowerPC7410 (G4) with 2MB L2 Cache
- 64 MB to 1 GB On-Board ECC SDRAM, 16+1 MB FLASH
- Two 10/100Mbit Ethernet Interfaces
- Configurable Slot-0/non-Slot-0 Operation
- Two PMC Expansion Slots with Front-Panel I/O

POWER

General

The ProDAO 3042 high-performance Slot-0 Controller provides a powerful, fully customizable platform for embedded applications. Using Motorola's newest PowerPC generation (G4 with AltiVecTM technology) and the new PowerPlus II architecture, it provides the computational power for algorithmic-intensive computations.

The MPC7410 is a high-performance, low-power implementation of the fourth generation (G4) of PowerPC microprocessors from Motorola. The MPC7410 implements the full PowerPC 32-bit architecture and is targeted at both portable and computing systems applications. Using Motorola's AltiVecTM technology, it integrates traditional scalar processing with a fully independent vector-processing engine.

The new PowerPlus II architecture provides memory performance of up to 582MB/s memory read bandwidth and 640MB/s burst write bandwidth as well as full PCI throughput of 264MB/s.

Configuration options enable the ProDAO 3042 to be used as a VXIbus Processor Module in non-Slot-0 applications.

PMC Expansion Slots

Two PMC Expansion slots provide the capability of customization to satisfy the application needs.



Trigger Interface

The ProDAO 3042 supports both the VXIbus TTL and ECL trigger lines. Trigger signals can be generated under software control. On detection of a trigger signal a local interrupt can be generated.

Software

Board Support Packages as well as a VISA library and resource manager according to the VXIplug&play standard are available for a number of operating systems. Please contact Bustec Production Ltd. for an up-to-date list.



Processor Type Clock Freq. On-chip Cache Secondary Cache	PowerPC7410 with AltiVec TM 500 MHz 32kB Instruction / 32kB Data 2MB SRAM																
Main Memory Type Size	ECC protected SDRAM 64, 128, 320 or 512 MByte																
Flash Memory Type Size	on-board programmable, extension sockets 16 MB on-board, up to 1MB in two PLCC sockets																
Ethernet Interface Type Controller Connector	10/100 BASE-T 2 x Intel 82559ER RJ-45 on front panel																
Async. Serial Port Controller Connector	16C550C RJ-45 on front panel																
Counters/Timers Device Timer/Counter Watchdog Timer	MK48T37V with 32kB NVRAM (4kB available for user) Four 16-bit Reset on time-out																
IEEE P1386.1 PMC Slot Address/Data PCI Bus Clock Signaling Env. Power Module Types IO Routing	A32/D32/D64 33 MHz 5V +3.3V, +5V, ±12V, 7.5W max. per slot One double-wide or two single-wide Front-panel																
VXibus Interface DTB Master DTB Slave Arbiter Interrupt Handler/Generator Trigger Interface Slot-0/System Controller	A16/A24/A32; D08-D32, BLT; D64 MBLT A24/A32; D08-D32, BLT RR/PRI IRQ 1-7 TTL0-7, ECL0-1 Auto slot-0 detection																
Current Consumption	<table border="1"> <thead> <tr> <th>Voltage (V)</th> <th>Current (mA)</th> </tr> </thead> <tbody> <tr><td>+24</td><td>80</td></tr> <tr><td>+12</td><td>15</td></tr> <tr><td>+5</td><td>4500</td></tr> <tr><td>-2</td><td>50</td></tr> <tr><td>-5.2</td><td>150</td></tr> <tr><td>-12</td><td>10</td></tr> <tr><td>-24</td><td>0</td></tr> </tbody> </table>	Voltage (V)	Current (mA)	+24	80	+12	15	+5	4500	-2	50	-5.2	150	-12	10	-24	0
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+24	80																
+12	15																
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-2	50																
-5.2	150																
-12	10																
-24	0																
Dimensions	VXibus Single-Slot C-Size Module																
Weight	1150 gr.																
Operating Temperature	0° C to 50° C																
Storage Temperature	-40° C to 70° C																
Shock and Vibration Functional Shock Random Vibration	<p>30g peak, half-sine, 11 ms puls (Test performed in accordance to IEC 60068-2-27 and MIL-T-28800E Class 3.)</p> <p>5 to 500 Hz, 0.3g_{RMS} operational 5 to 500 Hz, 2.4g_{RMS} non-operational (In accordance with IEC 60068-2-64 and MIL-T-28800E / MIL-STD-810E Meth. 514.)</p>																
Software Support	 <p>VxWorks Board Support Package and VXIplug&play compatible VISA library and resource manager.</p>  <p>VXIplug&play compatible VISA library and resource manager for Linux.</p> <p>Contact Bustec Production Ltd. for more information.</p>																
Warranty Period	12 month standard; extended periods available at additional cost.																

Ordering Information:

- 3042-AA Embedded Slot-0 Controller with 500 MHz PowerPC 7410, 64 MB DRAM, 16 MB FLASH, dual 10/100 MBit Ethernet
- 3042-AB Slot-0 Controller w. 128MB
- 3042-AC Slot-0 Controller w. 320MB
- 3042-AD Slot-0 Controller w. 512MB

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Bustec Production Ltd. World Aviation Park Shannon, Co. Clare Rep. of Ireland t +353 61 707 100 f +353 61 707 106 e sales@bustec.ie w www.bustec.ie	Bustec, Inc. 35486 Lorain Road North Ridgeville OH 44039, U.S.A. t +1 440 327 8930 f +1 440 327 8982 e sales@bustec.com w www.bustec.com
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