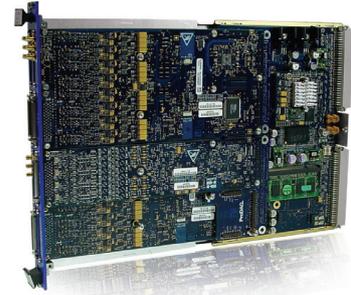


ProDAQ VXI Data Acquisition Systems

ProDAQ 3180 Ultra-Performance Motherboard Module



OVERVIEW

The ProDAQ 3180 ultra-performance motherboard is a register-based VXIbus device supporting single-word transfer and block transfer of 16-bit and 32-bit words. It can be configured for both the A16 and A32 address space.

VXIbus Interface

The improved VXIbus interface of the ProDAQ 3180 is compatible to the VXI-1 Rev 4.0 standard and supports the 2eVME and 2eSST protocols, which allow for backplane transfers at data rates of up to 320 MB/s (theoretically). Depending on the slot-0 controller used, the ProDAQ 3180 can sustain data transfers up to 240 MB/s.

DSP and Memory

The ProDAQ 3280 TigerSHARC digital signal processor (DSP) plug-in and the ProDAQ 3214 DDR2 SDRAM module can be installed as options on the motherboard. The TigerSHARC DSP runs at 400 MHz, providing unmatched 4800 MMACS of 16-bit performance and 3600 MFLOPS of floating-point performance. Paired with 512 MB or 1 GB DDR2 SDRAM with sustained data transfer rates of more than 500 MB/s, it offers real-time capabilities for local data processing, control loops, or event handling.

ProDAQ 3180 modules installed in the same VXIbus mainframe can communicate directly to each other using a high-speed serial link protocol on the VXIbus local bus.

Calibration Reference

The optional ProDAQ 3202 voltage reference can be added to the ProDAQ 3180 motherboard to provide additional self-test capabilities and allow the calibration of function cards on-the-fly.

Features & Benefits

- ▶ Up to **8 different function cards** in a **single VXIbus slot**
- ▶ Optional **onboard TigerSharc DSP**
- ▶ Optional **onboard DDR2 SDRAM memory** (up to 1 GB)
- ▶ Up to **240 MB/s (2eSST)** data transfer rate
- ▶ Supports **VXI-1 Rev. 4.0** standard **2eSST transfers**
- ▶ Optional **calibration reference source**
- ▶ Accepts **all ProDAQ function cards**

For more information,
visit www.bustec.com.

Learn more about the
ProDAQ 3180 on our website
by scanning the code below.





SPECIFICATIONS

PRODAQ CHARACTERISTICS

Max. number of function cards 8

DEVICE TYPE

Register-based VXIbus motherboard module

VXIBUS INTERFACE

Address Space	A16/A32 (64 Bytes / 256 MBytes)
Data Transfer	D08, D16, D16BLT, D32, D32BLT, D64MBLT, 2eVME, 2eSST
Max. Data Transfer Rate	Up to 240 MB/s using 2eVME and 2eSST protocols Note: The actual data transfer rate depends on the VXIbus controller used.
Interrupt Cap.	VXIbus IRQ 1-7, software selectable
Trigger Interface	VXIbus TTL Trigger 0-7, VXIbus ECL Trigger 0-1 (Minimum Pulse Width: 100ns)

POWER REQUIREMENTS

Current Consumption	Voltage (V)	Current (mA)
	+24	250
	+12	0
	+5	1450
	-2	0
	-5.2	300
	-12	0
	-24	0
Note: Motherboard only. Actual requirement depends on number and type of function card(s) and options fitted.		
Power Consumption	< 14.8 W	

PHYSICAL CHARACTERISTICS

Dimensions	VXIbus single slot C-size module
Weight	1450 g

ENVIRONMENTAL

Temperature	0°C to +50°C (operational) -40°C to +70°C (storage only)
Humidity	10% - 90% (non-condensing)

SOFTWARE SUPPORT

Driver support for Microsoft Windows, VxWorks, and Linux (Contact Bustec Ltd. for more information)

WARRANTY PERIOD

12 months (extended periods available at additional cost)

Ordering Information

- ▶ **3180-AA** Ultra-performance motherboard module

Related Products

- ▶ **3202-AA** Programmable voltage reference plug-in
- ▶ **3214-AA** 512 MB memory module
- ▶ **3214-AB** 1024 MB memory module
- ▶ **3280-AA** DSP plug-in module
- ▶ **ProDAQ 3400** Series analog-to-digital converter (ADC) function cards
- ▶ **ProDAQ 3500** Series digital-to-analog converter (DAC) function cards
- ▶ **ProDAQ 3600** Series digital I/O (DIO) function cards
- ▶ **ProDAQ 3800** Series counter/timer function cards
- ▶ **ProDAQ 3900** Series miscellaneous function cards

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