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.

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
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
<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+24</td>
<td>250</td>
</tr>
<tr>
<td>+12</td>
<td>0</td>
</tr>
<tr>
<td>+5</td>
<td>1450</td>
</tr>
<tr>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td>-5.2</td>
<td>300</td>
</tr>
<tr>
<td>-12</td>
<td>0</td>
</tr>
<tr>
<td>-24</td>
<td>0</td>
</tr>
</tbody>
</table>

Power Consumption  < 14.8 W

PHYSICAL CHARACTERISTICS
Dimensions  VXIbus single slot C-size module
Weight  1450 g

ENVIRONMETAL
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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