

ProDAQ VXI Data Acquisition Systems

ProDAQ 3020 USB 2.0 VXIbus Slot-0 Interface



OVERVIEW

The ProDAQ 3020 is a C-size, register-based VXIbus module. It provides a direct connection from a PC to a VXIbus mainframe using the high-speed USB 2.0 bus.

The USB 2.0 Interface is quickly becoming the standard peripheral connection of choice and will be built into all new chip sets coming to the market. This eliminates the need to use extension slots to interconnect the user's PC with the VXIbus system.

Applications

The ProDAQ 3020 is a cost-effective solution for VXIbus applications with high data throughput requirements (up to 38 MB/s). It plugs directly into the USB port of a PC and supports multiple mainframes interconnected via cables in a tree configuration.

USB 2.0

The Universal Serial Bus (USB) specification is a standardized peripheral connection developed by leading PC industry companies. USB makes plugging in new peripherals easy with plug and play, and supports multiple device connectivity. Because of these benefits, USB is enjoying broad market acceptance today.

High-speed USB extends the speed of the connection from 12 Mbps on original USB up to 480 Mbps on high-speed USB, providing an attachment point for next-generation peripherals which complement higher performance PCs and user applications. High-speed USB is both forward and backward compatible with original USB, resulting in a seamless transition process for the end user. In fact, high-speed USB uses the same cables and connectors as original USB.

Options

The optional GPIB port allows the user to control GPIB devices included in their test system via the USB connection to the PC. The multicrate trigger chaining provides a connection between the VXIbus trigger lines in a multicrate system.

Features & Benefits

- ▶ **Single slot** C-size VXIbus slot-0 to USB 2.0 interface
- ▶ **High-speed USB 2.0 interface** with hot plug-in capability
- ▶ Up to **38 MB/s throughput**
- ▶ Full **trigger and interrupt control**
- ▶ **Optional** GPIB port and multi-chassis trigger chaining
- ▶ Automatic **slot-0/non-slot-0** operation

For more information, visit www.bustec.com.

Learn more about the **ProDAQ 3020** on our website by scanning the code below.



SPECIFICATIONS

INTERFACE THROUGHPUT

High-speed USB 2.0 compliant

VXIbus	Up to 38 MB/s (Tundra Universe Slave/ D64MBLT Protocol) Up to 25 MB/s (ProDAQ 3150 Slave/ D64MBLT Protocol) Up to 22 MB/s (ProDAQ 3150 Slave/ D32BLT Protocol)
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DEVICE TYPE

Register-based VXIbus module

SLOT-0 CAPABILITIES

Automatic slot-0/non-slot-0 detection with full MODID/CLK 10 support if slot-0

VXIBUS INTERFACE

Address Ranges	A16, A24, and A32
Data Transfer	D08, D16, D16BLT, D32, D32BLT, D64MBLT
Interrupt Cap.	Interrupter/Handler, IRQ 1-7
Trigger Lines	VXIbus TTL Trigger 0-7, VXIbus ECL Trigger 0-1

FRONT PANEL I/O

Trigger Input	TTL level, active edge software selectable (Can be routed to VXIbus TTL and ECL trigger lines)
Trigger Output	TTL level, active level software selectable (Can be driven by VXIbus TTL and ECL trigger lines)
CLK10 I/O	TTL level

GPIB PORT (-AB/-BB ONLY)

Level	IEEE 488.2
Controller	Ines iGPIB 72010 (NEC7210C/TMS9914A compatible)

TRIGGER CHAINING (-BA/-BB ONLY)

LXI Rev. 1.3 Class A compatible	TTL
Level	8, routed to VXIbus TTL trigger lines 0-7
Lines	8, driven by VXIbus TTL trigger lines 0-7

POWER REQUIREMENTS

Current Consumption	Voltage (V)	Current (mA)
	+5	900 typ., 1400 maximum
	-5.2	300 maximum
	-2	300 maximum
Power Consumption	< 9.2 W	

PHYSICAL CHARACTERISTICS

Dimensions	VXIbus single slot C-size module
Weight	950 g

ENVIRONMENTAL

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

SOFTWARE SUPPORT

VXIplug&play compatible VISA library for Microsoft Windows (32-bit, 64-bit), VxWorks, and Linux (Contact Bustec Ltd. for more information)

WARRANTY PERIOD

12 months (extended periods available at additional cost)

Ordering Information

- ▶ **3020-AA** USB 2.0 VXIbus slot-0 interface
- ▶ **3020-AB** USB 2.0 VXIbus slot-0 interface with GPIB port
- ▶ **3020-BA** USB 2.0 VXIbus slot-0 interface with trigger chaining ports
- ▶ **3020-BB** USB 2.0 VXIbus slot-0 interface with trigger chaining and GPIB

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