

# ProDAQ VXI Data Acquisition Systems

## ProDAQ 3081 Gigabit Ethernet VXIbus Slot-0 Interface



### OVERVIEW

The ProDAQ 3081 VXIbus Gigabit Ethernet slot-0 interface provides access to VXIbus instruments through a standard Gigabit Ethernet interface using the VXI-11 protocol. It is designed to function as a bridge between the established, time-tested, proven base of VXIbus instruments and the Ethernet, allowing users to build any size of test and measurement system simply by connecting the instruments via standard LAN to a computer.

#### VXIbus Interface

The ProDAQ 3081 VXIbus slot-0 interface is compliant with VXIbus specification rev. 4.0 as well as backwards compatible with VXIbus rev. 1.3 through 3.0. It supports the full range of accesses to the VXIbus A16, A24 and A32 address spaces defined in the standard, from single accesses to high-speed block transfers up to 2eVME and the new 2eSST transfers of rev. 4.0. The ProDAQ 3081 allow low-level adjustment of some VXIbus timing and arbitration parameters, like Bus Timeout via the embedded web interface and is applied automatically at power-on.

#### Trigger Interface

The optional LXI-compatible trigger interface support allows devices to connect using a physical daisy chain or star configuration. Based on an eight-channel multipoint LVDS signaling system, it allows devices to be sources and/or receivers of trigger and clock signals. Using a wired-OR configuration allows multiple devices to respond to a trigger signal or share a common clock. The trigger lines can be mapped to or from TTL VXIbus trigger lines, allowing synchronization over multiple VXIbus chassis.

#### Software Interface

The ProDAQ 3081 is fully compliant to the VXIplug&play standard. Access to the ProDAQ 3081 and the VXIbus instruments are provided through a standard VISA library. The Bustec VISA (both 32 and 64 bit) can operate side-by-side with third party VISA in the same operating system. All this allows for backward compatibility with existing VXIplug&play drivers and application software, allows simple replacement of third-party slot-0 controller with ProDAQ 3081, as well as mixing of subsystems (VXI, PXI, LXI & GPIB) of multiple vendors.

The embedded web interface allows users to configure, test and control the ProDAQ 3081 and provides basic access to the VXIbus instruments (registers and trigger control) via a standard web browser.

### Features & Benefits

- ▶ Gigabit Ethernet VXIbus interface using standard VXI-11 protocol
- ▶ Up to 60 MB/s block transfer rates (2eVME)
- ▶ Support for 2eVME block transfers introduced in VXI Standard Rev. 3.0
- ▶ Support for 2eSST block transfers introduced in VXI Standard Rev. 4.0
- ▶ Access and configuration via the embedded Web interface

For more information, visit [www.bustec.com](http://www.bustec.com)

Learn more about the **ProDAQ 3081** on our website by scanning the QR code:





## SPECIFICATIONS

### ETHERNET INTERFACE

Type	10/100/1000 BASE-TX
Connector	RJ-45
Protocols	TCP/IP, HTTP, VXI-11, mDNS
Auto-MDIX	Yes

### DEVICE TYPE

Register-based VXIbus slot-0 controller

### SLOT-0 CAPABILITIES

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

### VXIBUS INTERFACE

Address Ranges	A16, A24, and A32
Data Transfer	D08, D16, D16BLT, D32, D32BLT, D64MBLT, 2eVME, 2eSST
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

### TRIGGER CHAINING (-AB ONLY)

LXI	Rev. 1.3 Class A compatible
Level	M-LVDS
Lines	8
Connector	Dual 25-Pin Molex 83619-9011

### POWER REQUIREMENTS

Current Consumption	Voltage (V)	Current (mA)
	+24	0
	+12	0
	+5	3200
	-2	0
	-5.2	130
	-12	0
	-24	0
Power Consumption	< 20 W	

### SHOCK AND VIBRATION

Functional Shock	30g peak, half-sine, 11 ms pulse (Test performed in accordance to IEC 60068-2-27 and MIL-T-28800E Class 3)
Random Vibration	5 to 500 Hz, 0.3g <sub>RMS</sub> operational 5 to 500 Hz, 2.4g <sub>RMS</sub> non-operational (In accordance with IEC 60068-2-64 and MIL-T-28800E / MIL-STD-810E Meth. 514)

### PHYSICAL CHARACTERISTICS

Dimensions	VXIbus single slot C-size module
Weight	1300 g

### ENVIRONMENTAL

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

## Ordering Information

- ▶ **3081-AA** Gigabit Ethernet VXIbus interface
- ▶ **3081-AB** Gigabit Ethernet VXIbus interface, with LXI trigger interface

### Related Products

- ▶ **ProDAQ 1630** 13-Slot Smart VXIbus Chassis
- ▶ **ProDAQ 3030** PCI Express VXIbus Slot-0 Interface
- ▶ **ProDAQ 3058** Intel™ Pentium™-based VXIbus Slot-0 Controller

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