



## Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

### *InstraView*<sup>SM</sup> REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at [www.instraview.com](http://www.instraview.com) ↗

### WE BUY USED EQUIPMENT

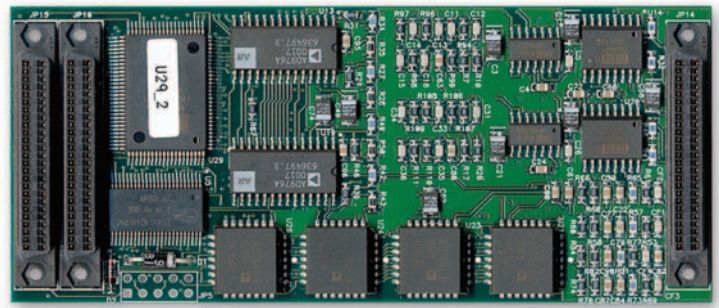
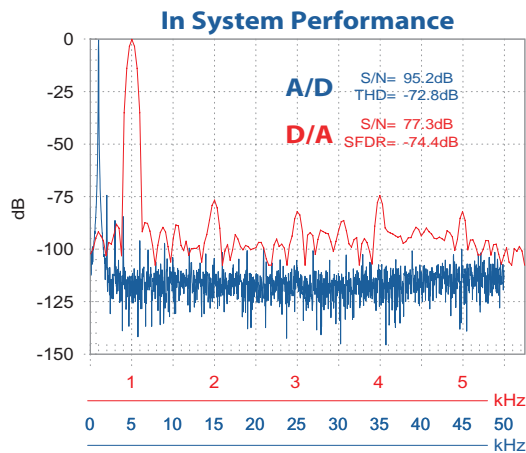
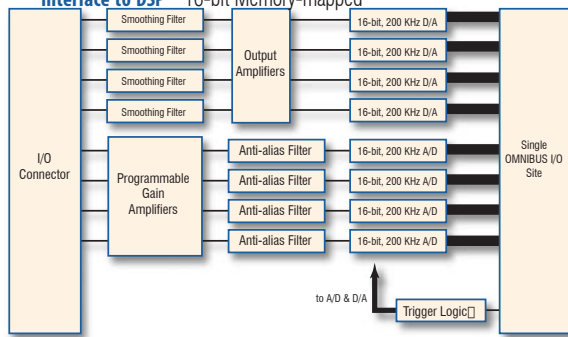
Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. [www.artisanng.com/WeBuyEquipment](http://www.artisanng.com/WeBuyEquipment) ↗

### LOOKING FOR MORE INFORMATION?

Visit us on the web at [www.artisanng.com](http://www.artisanng.com) ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)

- Interface** Compatible with all OMNIBUS host products  
Consumes one interrupt to host
- Power Requirements** 5V@130mA analog; 5V@160mA, +15V@100mA, -15V@100mA
- Physicals** OMNIBUS mezzanine card; 2.000" X 4.600"
- A/D Converters** 4 Analog Devices AD976AA, a successive approximation architecture for low data latency
- Resolution** 16-bit
- Update Rate** 0 to 200 kHz
- Settling Time** 5 us (no filtering) @ 10 V step to 0.0008%
- Analog Input Range** +/-10V, +/-5V, +/-2.5V, +/-1.25V, software programmable
- S/N Ratio** 85 - 90 dB
- THD** -70 dB (improved if filter defeated)
- Dynamic Range** 90 dB
- Gain Error** Trimmable on each channel – factory calibrated
- Differential Linearity Error** +/-3/2 LSB
- Offset Error** Trimmable on each channel – factory calibrated
- Aperature Delay** 40 ns
- Programmable Gain** 1,2,4,8 standard; 1,2,5,10 available special order
- Input Type** Differential
- Input Impedance** 1 MOhm || 5 pF; Each input leg is tied to ground with 1 MOhm resistor
- Filter characteristics** 6-pole filter -3 dB set at 100 kHz
- Conversion Trigger Sources** Software, host timers or external trigger
- Interface to DSP** Memory-mapped 32-bit result returned for each A/D pair
- D/A Converters** 4 analog devices AD7846
- Resolution** 16-bit
- Output Range** +/- 10 V custom ranges may be special ordered
- Settling Time** 7 us (unfiltered) to 0.003%
- Dynamic Range** 96 dB
- Offset Error** Trimmable on each channel – factory calibrated to +/- 4 LSB
- Gain Error** Trimmable on each channel – factory calibrated to +/- 4 LSB
- Differential**
- Nonlinearity Error D/A** +/- 1 LSB – Monotonic
- Glitch Energy** 400 nV-sec typical at MSB transition
- Interface to DSP** 16-bit Memory-mapped



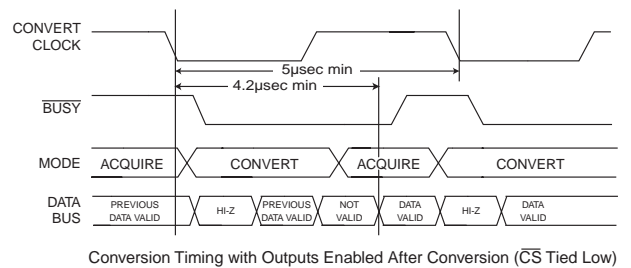
### A4D4 - Instrumentation Grade Analog I/O Module

The A4D4 module is ideal for high-accuracy analog measurement and control systems with data acquisition speeds up to 200 kHz. The A4D4 provides analog I/O that is tightly coupled with the host for control systems, process monitoring and data acquisition. Applications include vibration measurement and control, SONAR and semiconductor process equipment to name a few.

The four analog inputs on the A4D4 module are successive approximation type A/D converters, which allow low data latency critical in control applications. Each A/D channel has a six-pole analog anti-alias filter and differential inputs for noise rejection. Potentiometers allow each channel gain/offset error correction for accurate measurements.

Four channels of 16-bit instrumentation grade D/A converters are provided using Analog Devices AD7846. The D/A's provide analog signal output for control and signal generation. Each channel has potentiometers for gain/offset error correction and single pole filters set at 72kHz.

Software examples demonstrating module operation and communication are included in the Zuma/Armada Toolsets. A full calibration report ships with every module.



### Ordering Information

A4D4

80020-1



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