

AdvintRIO™ Piranha™

Data Acquisition and Control System Specifications



System Specifications:

| | | | | |
|---------------------|---------------------------------|--------|-----------------------|-------------|
| Real Time Processor | System Memory | DRAM | FPGA | Power Input |
| 400MHz PowerPC | 512 MB nonvolatile (expandable) | 256 MB | Xilinx Spartan-6 LX45 | 9-30V DC |

Additional information available at ni.com/singleboard

Optional additional slice adds a Windows™ based processor

| | | |
|--------------------------|---------------|------|
| Processor | System Memory | DRAM |
| Call for current details | | |

Sample I/O availability:

| | | | |
|---|-------------------------|--------------------|-------------------------------|
| Analog Input +/- 30V Dynamic | 24-Bit IEPE | Industrial DIO | CAN, CANopen, LIN |
| Analog Input +/- 10V Dynamic | 24-Bit Bridge | 5V DIO | RS232 & RS485 Serial |
| Analog Input 400V RMS L-N, 800V RMS L-L | Thermocouple | Multiplexing | DeviceNET, PROFIBUS, PROFINET |
| Analog Current Input & Output 4-20ma | RTD | Charge Amplifier | Vision (Framegrabber) |
| Analog Output: Voltage & Current | Constant Current Strain | Solid State Relays | Motion Control |

Additional I/O and custom I/O available

Physical Specifications: Single slice configuration

| | | |
|--------|----------|-------|
| Height | Length | Depth |
| 2" | 9 13/16" | 8" |

Enclosure material: Machined Aluminum
Weight: 5 lbs typical

Software Requirements:

LabVIEW 2011 SP1 or later
LabVIEW Real-Time Module 2011 SP1 or later
LabVIEW FPGA Module 2011 SP1 or later
NI-RIO 4.1 or later

Environmental Test Parameters:

Storage Temperature
IEC 60068-2-1 and 60068-2-2 -40 to 85 C

Operating Temperature
IEC 60068-2-1 and 60068-2-2 -40 to 70 C

Ingress Protection IP67

Shock and Vibration Test Parameters:

Operating Mechanical Vibration Random
IEC 60068-2-64 5G_{RMS}, 10-500 Hz, 3 Axes

Operating Mechanical Vibration Sinusoidal
IEC 60068-2-6

Frequency 10-500 Hz
Amplitude/Acceleration 0.35/1G
Sweep rate 1 octave/minute
10 sweeps in each of 3 orthogonal axes

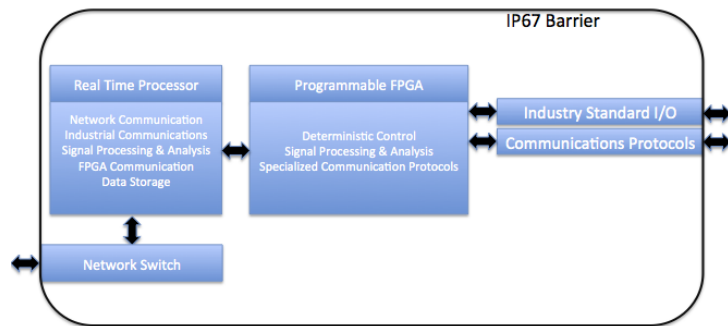
Operating Shock
IEC 60068-2-27

30G, 4ms, half sine
50G, 4ms, half sine
18 shocks at 6 orientations

Additional Certifications & Specifications: Inquire for details.

Hardware Architecture

Single slice system architecture



Double slice system architecture

