

Agilent M9018A 18-Slot PXIe Chassis

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Industries and Applications

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Product Description

The M9018A chassis delivers the ultimate flexibility, compatibility, and performance. With 16 PXIe hybrid slots, it allows the system designer to mix and match the number and location of PXIe and hybrid PXIe-compatible modules. The advanced PCIe[®] switch fabric can operate up to Gen 2 speeds and can be configured for optimal performance with any PXIe controller. The innovative cooling design allows the chassis to fit in 4U of rack space. When combined with the latest 1U rack-mounted computer, you can build a powerful system using only 5U of rack space.

Models

M9018A PXIe chassis

Main Features and Benefits

| Your benefit |
|---|
| Eases system integration with flexibility and compatibility |
| Large data rate supports high-performance applications |
| Provides configuration flexibility |
| Saves rack space and lowers maintenance cost |
| Provides power to spare for application requirements |
| |

Connector compatibility: PXI-1 and cPCI (J1 only), PXIe, PXI-H



... Agilent Modular Products

Specifications and Characteristics

| Hardware | |
|--------------------------------|--------------------------------|
| Size | 4U |
| Number of slots | 18 total, 16 hybrid-compatible |
| Power supply output | |
| 220-240VAC input | 867.5 W ¹ |
| 100-120VAC input | 667.5 W ¹ |
| Power dissipation | |
| System slot | 140 W max |
| User slot | 42 W max ² |
| System slot link configuration | (selectable) |
| 2-link config for M9021A | 1x8 (link 2 inactive) |
| 2-link configuration | 2x8 |
| 4-link configuration | 4x4 |
| Data bandwidth (max) | |
| Slot-to-slot | 4 GB/s |
| System slot-to-user slots | 8 GB/s |
| | |

1. Depending on the modules used, the M9018A may not meet the power requirements in the PXI hardware specifications and would be considered a low-power chassis. It is recommended that power budgeting be employed, especially at low line. 2. Maximum per slot power dissipation at 55° C with 15° C temperature rise; requires: a) that the chassis bottom is not blocked (1U rack space below or sitting on bench with feet extended) or b) two air inlet modules in slots 9, 10, or 11, and a slot blocker in empty controller slots. Module cooling can be impacted by each module's resistance to air flow.



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Software Information

The M9018A chassis comes with a soft front panel (SFP) graphical interface. This simple software application can be used to monitor and control the PXIe chassis. It has the following functions:

- Trigger configuration
- Chassis fan speed, temperatures, and rail voltage monitoring
- · Alarms for fan speed, temperature, and rail voltage
- Chassis information

| Operating systems | Microsoft Windows® XP Microsoft Windows® Vista (32/64-bit) Microsoft Windows® 7 (32/64-bit) |
|--|---|
| Standard compliant drivers | IVI-COM, IVI-C, LabVIEW, MATLAB |
| Supported application development environments (ADE) | VisualStudio [®] (C/C++,C#, VB.NET), LabVIEW, LabWindows/CVI, MATLAB, VEE |
| Agilent IO Libraries | Includes: VISA Libraries, Agilent Connection Expert, IO Monitor |

| M9018A Configure Utili | ty Tools Help | | |
|---------------------------|-----------------|-----------------------|--------------------|
| Monitor Cor | nfigure Alarms | Configure Trigger Bus | |
| - Fan Speed displ | | | |
| | Speed [RPM] | - | Alarm Clear |
| Fan 1: | 0 | | Occurred Alarm |
| Fan 2: | 0 | | |
| Fan 3: | 0 | | Clear |
| Temperature dis | play | | |
| | Temperature (°C | 2 | |
| Temperature 1: | 0 | Temperature 5: 0 | |
| Temperature 2: | 0 | Temperature 6: 0 | |
| Temperature 3: | 0 | Temperature 7: 0 | |
| Temperature 4: | 0 | Temperature 8: 0 | Clear |
| -Voltage display | | | |
| | Voltage [V] | | 15 5 |
| +3.3V: | 0 | | O Clear |
| +5.0V: | 0 |] | Clear |
| +12.0V: | 0 | | O Clear O Clear |
| -12.0V: | 0 | | O Clear |
| Reference clock | display | | |
| Clock Sourc | e: Internal CI | ock | O Clear |
| PCI Link | | | |
| Switching Fa | abric Topology: | 1x8 | |
| Simulation Mode | | | No Err |

Figure 1. M9018A soft front panel

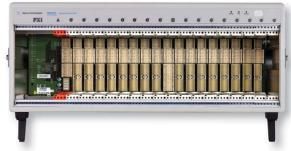


Figure 2. M9018A's all-hybrid backplane

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Typical Product Configuration

| Model | Description |
|--------|-------------------------|
| M9018A | 18-slot PXIe chassis |
| M9021A | PCIe cable interface |
| M9047A | PCIe desktop PC adapter |
| Y1202A | 2m PCIe cable |

Ordering Information

| Model | Description |
|----------------|---|
| M9018A | PXIe chassis: 18-slot, 3U, 8GB/s |
| Opt 900-932 | Power cord options |
| Related produc | ts |
| M9021A | PCIe cable interface: Gen 2, x8 |
| M9036A | Embedded PXIe PC controller |
| M9045B | PCIe ExpressCard adaptor: Gen 1 |
| Y1200B | PCIe cable: x1 to x8, 2.0m (used with M9045B) |
| M9047A | PCIe desktop PC adapter: Gen 2, x8 |
| Y1202A | PCIe cable: x8, 2.0m (used with M9047A) |
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| Accessories | |
| Y1213A | PXI EMC filler panel kit |
| Y1214A | Air inlet module kit |
| Y1215A | Chassis rack mount kit for M9018A |
| | |

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