

PXI and AXIe Modular Instrumentation

M9018A PXIe Chassis
M9502A AXIe Chassis
M9505A AXIe Chassis



Tested Computer List
Technical Note



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OVERVIEW

This personal computer and controller technical note has been prepared to provide the system designer with a list of tested computers that are compatible with Agilent Technologies PXI and AXIe chassis. The testing in this guide covers both the PCIe link and enumeration of the chassis.

Agilent Technologies modular chassis tested:

- Agilent M9018A PXIe Chassis
- Agilent M9502A AXIe Chassis
- Agilent M9505A AXIe Chassis

Personal computing devices tested:

- Laptop PC
- Desktop PC
- Tested rack mount PCs
- Tested PXIe embedded PCs



Figure 1. M9045B PCIe ExpressCard Adapter and Y1200B PCIe Cable



Figure 2. M9502A AXIe 2 slot chassis

TESTING CONFIGURATIONS

Testing configurations

| | |
|--------------------------------|--|
| Agilent M9018A PXle chassis | <ul style="list-style-type: none"> • Tested using cabled PCI Express link with the M9021A PCIe cable interface and PXle embedded controllers. • Testing was performed with only a graphics card in its standard slot and Agilent-recommended PCIe host cable card installed ¹ • Laptop testing utilized the M9045B ExpressCard and Y1200B PCIe cable • Desktop/rack-mounted PC testing utilized the M9047A ExpressCard and Y1202A PCIe cable • Tested with Microsoft Windows® 7 Pro (32/64 bits) |
| Agilent M9502A AXle chassis | <ul style="list-style-type: none"> • Tested using: cabled PCI Express link, • Testing was performed with only a graphics card in its standard slot and Agilent-recommended PCIe host cable card installed ¹ |
| Agilent M9505A AXle chassis | <ul style="list-style-type: none"> • Laptop testing utilized the M9045B ExpressCard and Y1200B PCIe cable • Desktop/rack-mounted PC testing utilized the M9047A ExpressCard and Y1202A PCIe cable • Tested with Microsoft Windows® 7 Pro (32/64 bits) |

¹ Applies to desktop and rackmount computers only

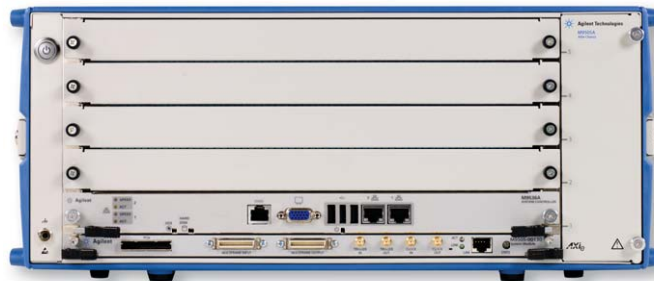


Figure 3. M9505A AXle chassis with M9536A controller

Laptop personal computers ²

| Manufacturer | Model | BIOS | PCIe Link | Compatibility ³ | | Comments |
|--|------------------|-------------------|-----------|----------------------------|------|---|
| | | | | AXle | PXle | |
| Hewlett Packard | Elite Book 8540P | 68CVD Ver F.0A | x1 Gen 1 | Yes | Yes | No restrictions |
| Hewlett Packard | Elite Book 8560P | 68SCF Ver F.08 | x1 Gen 1 | Yes | Yes | Select Gen 1 BIOS setting for ExpressCard |
| Dell | Precision M6600 | A02 | x1 Gen 1 | Yes | Yes | No restrictions |
| Lenovo | ThinkPad T420 | 83ET63WW (1.33) | x1 Gen 1 | Yes | Yes | Select Gen 1 BIOS setting for ExpressCard |
| Note: The following models are supported, but have been discontinued by the manufacturer (they may still be available though distribution channels). | | | | | | |
| Dell | Precision M4400 | A19 | x1 Gen 1 | Yes | Yes | No restrictions |
| Dell | Precision M4500 | A04 | x1 Gen 1 | Yes | Yes | No restrictions |
| Dell | Studio 15z | A04 | x1 Gen 1 | Yes | Yes | No restrictions |
| Hewlett Packard | Elitebook 8530p | F.11 | x1 Gen 1 | Yes | No | No restrictions |
| Hewlett Packard | Elitebook 8440p | 68CCU Ver. F.OB | x1 Gen 1 | Yes | Yes | No restrictions |
| Hewlett Packard | Elitebook 8540w | 68CVD Ver. F.OE | x1 Gen 1 | Yes | Yes | No restrictions |
| Hewlett Packard | 6930p | 68PCU Ver F.OB | x1 Gen 1 | Yes | Yes | No restrictions |
| Hewlett Packard | Pavilion dv8 | F.17 | x1 Gen 1 | Yes | Yes | No restrictions |
| MSI | A6200 | E1681IMR VER. 105 | x1 Gen 1 | Yes | Yes | No restrictions |

² Laptops require the use of ExpressCard® x1 interface cards and therefore will exhibit lower performance than desktop links; however, the advantage is a thinner cable and added portability.

³ Compatibility is based on: 1) the ability to fully enumerate a chassis, 2) meeting the PCIe specification at PC slot's rated speed. This is impacted by many factors including computer bios and signal path within the computer and cable.

| Desktop personal computers | | | | | | |
|---|------------------|-------------------------|-----------|----------------------------|------|---|
| Manufacturer | Model | BIOS | PCIe Link | Compatibility ¹ | | Comments |
| | | | | AXIe | PXIe | |
| Dell | T3500 | From ftp. agilent.com | x8 Gen 2 | Yes | Yes | It is not recommended to use PCIe slot 1 since it requires a BIOS update that is currently unavailable. Dell is currently working on a software update. Check ftp://ftp.agilent.com/pub/mpusup/BIOS for latest information including supported BIOS versions and slot and cable card/link width restrictions. |
| Dell | T5500 | From ftp. agilent.com | x8 Gen 2 | Yes | Yes | It is not recommended to use PCIe slot 1 since it requires a BIOS update that is currently unavailable. Dell is currently working on a software update. Check ftp://ftp.agilent.com/pub/mpusup/BIOS for latest information including supported BIOS versions and slot and cable card/link width restrictions. |
| Dell | T7500 | From ftp. agilent.com | x8 Gen 2 | Yes | Yes | It is not recommended to use PCIe slot 1 since it requires a BIOS update that is currently unavailable. Dell is currently working on a software update. Check ftp://ftp.agilent.com/pub/mpusup/BIOS for latest information including supported BIOS versions and slot and cable card/link width restrictions. |
| Hewlett Packard | Z400 | 3.07 Rev A | x4 Gen 1 | Yes | No | Only Gen1x4 slot is supported (slot 3) |
| Hewlett Packard | ML150G6 Server | 021 | x8 Gen 2 | Yes | No | Gen2x16 slot only. |
| Lenovo | ThinkStation D20 | 61KT48AUS | x8 Gen 2 | Yes | Yes | PCIe x16 slot only |
| Lenovo | ThinkStation S20 | 60KT44US | x8 Gen 2 | Yes | Yes | PCIe x16 slot only |
| Note: The following models are supported, but have been discontinued by the manufacturer (they may still be available through distribution channels). | | | | | | |
| Hewlett Packard | Elite 8000 | 1.07 Rev. A 10 Sep 2010 | x4 Gen 1 | Yes | No | Only Gen1x4 slot is supported (slot 2) |
| Hewlett Packard | xw4600 | 01.22 rev A | x4 Gen 1 | Yes | No | Only Gen1x4 slot is supported. Note: Some xw4600 computers contain a CFC and you must slide the clock isolation switch on the U4002A chassis to the non-default [left] position – see endnote. |

1. Compatibility is based on: 1) the ability to fully enumerate a chassis, 2) meeting the PCIe specification at PC slot's rated speed. This is impacted by many factors including computer bios and signal path within the computer and cable.

Rackmount personal computers

| Manufacturer | Model | BIOS | PCIe Link | Compatibility ¹ | | Comments |
|--------------|--------------|----------|-----------|----------------------------|------|-----------------|
| | | | | AXIe | PXIe | |
| Kontron | KISS IPC 760 | 08.00.15 | x8 Gen 2 | Yes | Yes | No restrictions |

1. Compatibility is based on: 1) the ability to fully enumerate a chassis and 2) meeting the PCIe specification at PC slot's rated speed. This is impacted by factors including computer bios and signal path within the computer and cable.

PXIe embedded personal computers

| Manufacturer | Model | BIOS | System Slot PCIe Links | Comments |
|----------------------|-----------|-----------------------|---------------------------------|-----------------|
| Agilent | M9036A | AG15 | 4x4 Gen 2 and 2x8 Gen 2 | No restrictions |
| National Instruments | PXIe-8105 | 1.3.3 (1/1/1992) | Four link: 1x1 and 3x4 Gen 1 | No restrictions |
| National Instruments | PXIe-8108 | 4.6.3 (10/28/2009) | 4x1 Gen 1 | No restrictions |
| National Instruments | PXIe-8133 | 4.6.3 (4/14/2010) | 4x4 Gen 1 | No restrictions |

Note: The following models are supported, but have been discontinued by the manufacturer (they may still be available through distribution channels).

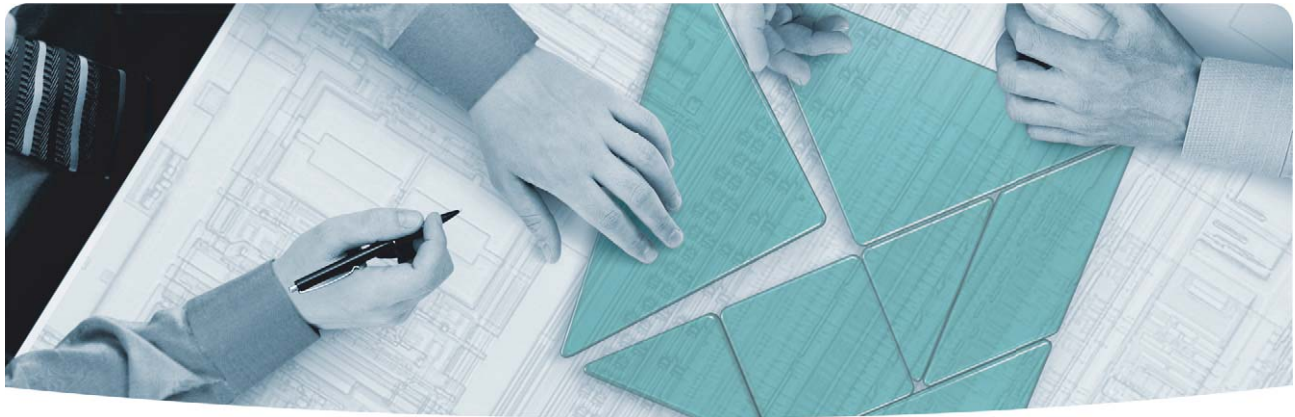
| | | | | |
|----------------------|-----------|---------------------|-----------|-----------------|
| National Instruments | PXIe-8101 | 4.6.3 (6/5/2009) | 4x1 Gen 1 | No restrictions |
|----------------------|-----------|---------------------|-----------|-----------------|

AXIe embedded personal computers

| Manufacturer | Model | BIOS | System Slot PCIe Links | Comments |
|--------------|--------|------|----------------------------|--------------------|
| Agilent | M9536A | AG10 | AXIe PCIe Link x4 Gen 2 | AXIe slot one only |



Figure 4. M9018A 18-slot PXIe Chassis



The Modular Tangram

The four-sided geometric symbol that appears throughout this document is called a tangram. This seven-piece puzzle originated in China a few centuries ago. The goal is to create shapes—from simple to complex—that form an identifiable silhouette. As with a tangram, the possibilities may seem infinite as you begin to create a new test system. With a set of clearly defined elements—architecture, hardware, software—Agilent can help you create the system you need, from simple to complex.



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