PXI and AXIe Modular Instrumentation

M9018A PXIe Chassis M9502A AXIe Chassis M9505A AXIe Chassis



Tested Computer List Technical Note



DISCOVER the Alternatives...

... Agilent **MODULAR** Products





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.



Figure 1. M9045B PCIe ExpressCard Adapter and Y1200B PCIe Cable

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 2. M9502A AXIe 2 slot chassis

TESTING CONFIGURATIONS

Testing configurations

Agilent M9018A PXIe chassis

- Tested using cabled PCI Express link with the M9021A PCIe cable interface and PXIe embedded controllers.
- Testing was performed with only a graphics card in its standard slot and Agilent-recommended PCle 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
- Various versions of Microsoft Windows® were used for all testing. Upgrading to Windows 7 is recommended

Agilent M9502A AXIe chassis

- · Tested using: cabled PCI Express link,
- Testing was performed with only a graphics card in its standard slot and Agilent-recommended PCle host cable card installed

Agilent M9505A AXIe chassis

- Laptop testing utilized the M9045B ExpressCard and Y1200B PCIe cable
- Desktop/rack-mounted PC testing utilized the M9047A ExpressCard and Y1202A PCIe cable
- Various versions of Microsoft Windows® were used for all testing. Upgrading to Windows 7 is recommended

¹ Applies to desktop and rackmount computers only

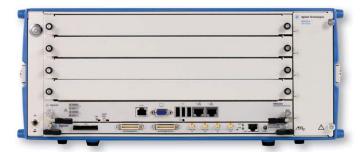


Figure 3. M9505A AXIe chassis with M9536A controller

Laptop personal computers ²						
Manufacturer	Model	BIOS	PCIe Link	Compatibility ³		Comments
				AXIe	PXIe	
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
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	Compatib	ility 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)
Note: The following models are supported, but have been discontinued by the manufacturer (they may still be available though 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	ML150G6 Server	021	x8 Gen 2	Yes	No	Gen2x16 slot only.
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 PCle 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	Compat	ibility ¹	Comments
				AXIe	PXIe	
Kontron	KISS IPC 760	08.00.15	x8 Gen 2	Yes	Yes	No restrictions

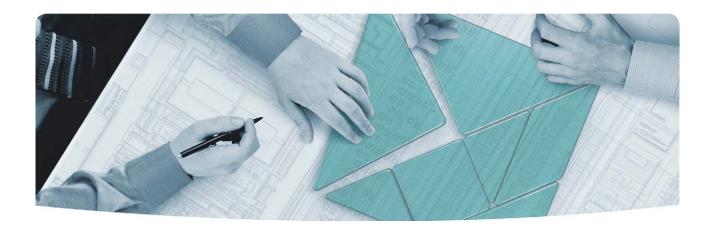
^{1.} Compatibility is based on: 1) the ability to fully enumerate a chassis and 2) meeting the PCIe specification at PC slot's rated speed. This is impacted by factors including computer bios and signal path within the computer and cable.

PXIe embedded	d personal com	outers		
Manufacturer	Model	BIOS	System Slot PCle 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 me	odels are supported, bu	it have been discontinued by t	he manufacturer (they may still be availab	le though distribution channels).
National Instruments	PXIe-8101	4.6.3 (6/5/2009)	4x1 Gen 1	No restrictions

AXIe embedde	d personal comp	outers		
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 elementsarchitecture, hardware, software—Agilent can help you create the system you need, from simple to complex.



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