Tested PC and PXI / AXIe Chassis Configurations

Keysight PXI/AXIe Chassis

M9010A PXIe Chassis	M9502A AXIe Chassis
M9019A PXIe Chassis	M9505A AXIe Chassis
M9046A PXIe Chassis	M9506A AXIe Chassis

KEYSIGHT

Overview

This personal computer and controller technical note provide the test system designer with a list of tested computers that are compatible with Keysight Technologies, Inc. PXI and AXIe chassis. The computers are compatible with both PXI and AXIe chassis, unless otherwise noted. The testing in this guide covers the PCIe® link and enumeration of the chassis. Compatibility can be impacted by many factors including computer BIOS and signal path within the computer and cable.

Keysight Technologies modular chassis tested

- M9005A PXIe Chassis
- M9010A PXIe Chassis
- M9018B PXIe Chassis
- M9019A PXIe Chassis
- M9046A PXIe Chassis
- M9502A AXIe Chassis
- M9505A AXIe Chassis
- M9506A AXIe Chassis
- M9514A AXIe Chassis

Personal computing devices tested

- Desktop PCs
- Rackmounted PCs
- Laptops and PCs with Thunderbolt (TBT) adapters for M9025A and M9506A
- PXI/AXIe embedded PC controllers

Tested Configurations

- Desktop/rackmounted PCs used an appropriate system module:
  - M9005A PXIe chassis was tested with the integrated system module.
  - M9010A, M9018B, M9019A, and M9046A PXIe chassis were tested utilizing a mixture of M9021A, M9022A, M9023A, and M9024A PXIe system modules. Only the M9018B testing utilized the M9021A PCIe cable interface. The M9019A and M9010A do not support the M9021A.
  - M9502A, M9505A, and M9506A AXIe chassis were tested with the embedded system module.
  - M9514A AXIe 14-slot chassis was tested with the M9521A AXIe system module.
- Testing used Keysight-recommended PCIe host cable card installed in the PC:
  - M9005A PXIe chassis was tested with option 002 PCIe Desktop Adapter.
  - All other chassis used a mixture of M9048A, M9048B, and M9049A PCIe host adapters and Y1202A PCIe cables to M9021A, M9022A, M9023A, and M9024A system modules.
- Desktop testing was performed with only a graphics card in its standard slot. This applies to desktop and rackmounted personal computers only. In some cases, the graphics card must also be removed (see Comments column of each spreadsheet).
- Both star and daisy-chain configurations were used for multi-chassis testing. Keysight does not recommend a mixed configuration utilizing both star and daisy-chain.
- Tested with 64-bit Microsoft Windows 7 or Windows 10 (computers were tested with Win 7/64 Professional unless otherwise documented in the Comments column of each spreadsheet).

Additional notes

- PC BIOS are always continually evolving. BIOS versions listed below may not be the latest version available out there. If you are using a later version than what is listed and things are not enumerating correctly, Keysight recommends you downgrade to the version that was tested from the list below.
- For multi-chassis configurations, it is recommended to use at least 32GB of RAM with additional memory DIMM size and socket placement to maximize memory bandwidth. Refer to memory utilization in Task Manager to determine if you need more DRAM and add more if needed.
- Keysight cannot guarantee system enumeration for computers that are not listed below.
- For the most current version of this document, please refer to http://www.keysight.com/find/PXIAXIeTestedPC

Windows and BIOS Settings

Many customers may be new to modular instrument systems and should check their systems configurations to be sure that:

- All sleep and hibernation modes are disabled. A PC unexpectedly going to sleep in the middle of an extended measurement is not normally desired.

- Windows fast startup is disabled. Having fast startup enabled will typically be problematic in reconfiguring larger multi-chassis systems but disabling is generally recommended also.

- Active State Power Management (ASPM) is disabled in both the BIOS and Windows.

- For best results, multi-chassis configurations may need to be "built up" by adding a single chassis at a time and rebooting – or even a chassis and just a subset of its cards at a time with some PCs. It is generally not recommended to add multiple chassis at one time to "build up" a configuration even though it may work for some PCs.

- With the Dolphin MXH932/MXP924 Gen4 cable system, an additional Windows restart or two may be required for Keysight Connection Expert (KCE) to display chassis correctly. Also, full chassis power cycle may be needed to get proper (solid green LED) cable links.

- KCE chassis view displays may be inaccurate due to complexity of hot plugging with Thunderbolt (TBT) connections usage (ie.M9025A and M9506A usage).

- Refer to http://www.keysight.com/find/PXIAXIePCBIOSandWindowsSettings for more detailed Windows and BIOS settings.

Additional Notes

- PC BIOS are always continually evolving. BIOS versions listed below may not be the latest version available out there. If you are using a later version than what is listed and things are not enumerating correctly, Keysight recommends you downgrade to the version that was tested from the list below.

- For multi-chassis configurations, it is recommended to use at least 32GB of RAM with additional memory DIMM size and socket placement to maximize memory bandwidth. Refer to memory utilization in Task Manager to determine if you need more DRAM and add more if needed.

- Keysight cannot guarantee system enumeration for computers that are not listed below.

- Review http://www.keysight.com/find/ResolvePXIAXIeComProblems if you experience enumeration issues with your system.

- For the most current version of this document, please refer to http://www.keysight.com/find/PXIAXIeTestedPC

Desktop Personal Computers

Manufacturer	Model	BIOS	PCIe slots [1]	Number of chassis [2]	Comments
Hewlett Packard	Z2 G9 Workstation Tower	U50 Ver. 02.01.05, 15/3/2023	• 3 PCIe x16 slot (x16 link) Gen 3.0 • 1 PCIe x16 slot (x8 link) Gen 3.0	4	Tested with Windows 11 Pro 10.0.22000 Build 22000
Hewlett Packard	Z4 G4 Workstation Tower 3	P61 Ver.02.79, 3/17/2022	• Two x16 Gen3 • One x8 Gen3	6 cascade or 6 star	• Tested with Win10 Enterprise 64-bit. • Support Dolphin MXH932/MXP924 Gen4 cable system. [4] • BIOS can handle 256 bus numbers.
Hewlett Packard	ProDesk 400 G7 Microtower	S03 Ver.02.10.10, 3/18/2022	One x16 Gen3	1	Tested with Win11 Pro 64-bit.
Hewlett Packard	EliteDesk 800 G6 Tower Desktop Edition	S01 Ver.02.10.10, 3/17/2022	One x16 Gen3	2 cascade or 2 star	• Tested with Win10 Pro 64-bit. • x16 (x4) slot is not supported.
Hewlett Packard	Z1 G8 Tower	T01 Ver.02.07.00, 1/12/2022	One x16 Gen3	4 cascade	Tested with Win11 Pro 64-bit.
Hewlett Packard	Z2 G8 Small Form Factor	T50 Ver. 01.03.02, 1/5/2022	One x16 Gen3 One TBT Port	4 cascade	Tested with Win11 Pro 64-bit.
Hewlett Packard	Z2 G9 Workstation Tower	HP U50 Ver.01.04.00, 10/31/2022	One x16 Gen3	4 cascade or 2 star	Tested with Win10 Pro 64-bit.
Dell	T5820 [3]	2.14.0 12/16/2022	• Two x16 Gen3 • One x16 (x8) Gen3	3 cascade or 3 star	• Tested with Win10 Pro 64-bit. • May need to move GPU. • PCIe bus allocation (default option using slots 1, 2 & 4). BIOS can handle 256 bus numbers.
Dell	T7920 [3]	2.18.0 3/17/2022	• Two x16 Gen3 • Four x16 Gen3 • One x8 Gen3	5 star or 3 cascade	• Tested with Win10 Pro 64-bit. • Tested with two CPUs. • Second CPU required for more than two x16 PCIe slots. • May need to move GPU. • PCIe bus allocation (default option using slots 1, 2, 4, 6 & 7).
Dell	Optiplex 5000 Tower	1.0.33, 3/17/2022	One x16 Gen3	4 cascade or 3 star	Tested with Win11 Pro 64-bit.
Dell	Optiplex 7000 Tower	1.0.47, 5/5/2022	One x16 Gen3	4 cascade	• Tested with Win11 Pro 64-bit. • M9514A/M9521A is not supported.
Dell	Optiplex 7010 Tower	1.4.1, 11/5/2023	• 3 PCIe x16 slot (x16 link) Gen 3.0 • 1 PCIe x16 slot (x8 link) Gen 3.0	4	Windows 11 Pro, OS Build 22621.2283, Windows Feature Experience Pack 1000.22662.1000.0
Dell	Precision 3660 Tower	1.2.48, 5/13/2022	One x16 Gen3	1	Tested with Win11 Pro 64-bit.
Fujitsu	Celsius W580 Workstation	American Megatrends Inc. V5.0.0.13 R1.29.0 for D3617-A1x	One x16 Gen3	4 cascade or 2 star	• Tested with Win10 Pro 64-bit. • M9514A/M9521A is not supported.

1. Tested PCIe slots in the PC. There may be additional slots in the PC which are not tested/supported. First number is connector size, number in parenthesis is the number of lanes. For example, x8 (x4) is a x8 slot wired with 4 lanes. PCIe slots without a second number have the same number of lanes as the connector size.
2. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see http://www.keysight.com/find/pxie-multichassis.
3. Refer to http://www.keysight.com/find/PXIAXIePCBIOSandWindowsSettings for more detailed Windows and BIOS settings.
4. With the Dolphin MXH932/MXP924 Gen4 cable system, an additional Windows restart or two may be required for Keysight Connection Expert (KCE) to display chassis correctly. Also, full chassis power cycle may be needed to get proper (solid green LED) cable links.

Discontinued desktop personal computers but supported (may still be available through distribution channels)

Manufacturer	Model	BIOS	PCIe slots [1]	Number of chassis [2]	Comments
Dell	T7910 [3]	A31	• Two x16 Gen3 • Four x16 Gen3	6 cascade or 6 star	• Tested with Win10 Pro 64-bit. • Tested with two CPUs. • May need to move GPU. • Second CPU required for more than two x16 PCIe slots.
Dell	XPS 8920 Tower (T)	1.0.20 6/20/2019	One x16 Gen3	4 cascade	Tested with Win10 Pro 64-bit.
Dell	Precision 3630 Tower	1.2.0 5/27/2019	One x16 Gen3	3 cascade	Tested with Win10 Pro for Workstations 64-bit.
Dell	Precision 3650 Tower	1.10.0, 04/12/2022	One x16 Gen4	2 cascade or 2 star	• Tested with Win11 Pro 64-bit. • x16 (x4) slot is not supported.
Dell	Optiplex 3050 Tower	1.7.9 1/30/2018	Two x16 Gen3	1	• Tested with Win10 Pro 64-bit. • Only supported in Gen2 system configuration.
Dell	Optiplex 3060 Tower	1.2.17 9/10/2018	One x16 Gen3	1	Tested with Win10 Pro 64-bit.
Dell	Optiplex 5050 Tower	1.7.9 1/30/2018	Two x16 Gen3	1	• Tested with Win10 Pro 64-bit. • Only supported in Gen2 system configuration. x16 (x4) slot is not supported.
Dell	Optiplex 5060 Mini-size Tower	1.4.2 6/11/2019	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Dell	Optiplex 5080 Tower	1.1.0 6/2/2020	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Dell	Optiplex 5090 Tower	1.5.0 2/11/2022	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Dell	Optiplex 7050 Full-size Tower	1.5.2 6/19/2017	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. • Only supported in Gen2 system configuration. x16 (x4) slot is not supported.
Dell	Optiplex 9020	A07	One x16 Gen2	1	x16 (x4) slot is not tested.
Hewlett Packard	Z1 G5 Entry Tower Desktop	R01 Ver. 02.12.10, 3/17/2022	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Hewlett Packard	Z2 G4 Workstation Tower	Q50 Ver. 01.01.08 10/3/2018	One x16 Gen3	3 cascade or 2 star	• Tested with Win10 Pro 64-bit. x16 (x4) and x4 (x1) slots are not supported.
Hewlett Packard	Z2 G5 Workstation Tower	S50 Ver. 01.01.09, 2/23/2021	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) and x4 (x1) slots are not supported.
Hewlett Packard	Z2 G8 Workstation Tower	T50 Ver. 01.03.00, 10/19/2021	One x16 Gen4	2 cascade or 2 star	• Tested with Win10 Pro 64-bit. x16 (x4) and x4 (x1) slots are not supported.
Hewlett Packard	Z2 G8 Workstation Tower	T50 Ver.01.03.00, 10/19/2021	One x16 Gen3	3 star	Tested with Win11 Pro 64-bit.
Hewlett Packard	Z2 G8 Small Form Factor	T50 Ver.01.03.02, 5/1/2022	• One x16 Gen3 One TBT Port	4 cascade	• Tested with Win11 Pro 64-bit. M9048B only (M9049A will not mechanically fit).

1. Tested PCIe slots in the PC. There may be additional slots in the PC which are not tested/supported. First number is connector size, number in parenthesis is the number of lanes. For example, x8 (x4) is a x8 slot wired with 4 lanes. PCIe slots without a second number have the same number of lanes as the connector size.
2. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.
3. Refer to BIOS and Windows Settings for Modular Systems for more detailed Windows and BIOS settings.

Manufacturer	Model	BIOS	PCIe slots [1]	Number of chassis [2]	Comments
Hewlett Packard	Z6 G4 Workstation Tower	P60 Ver. 02.78, 1/20/2022	• One x8 Gen3 • Two x16 Gen3	4 cascade or 3 star	• Tested with Win10 Pro 64-bit. • Support Dolphin MXH932/MXP924 Gen4 cable system. [4] • BIOS can handle 256 bus numbers.
Hewlett Packard	Z8 G4 Workstation Tower [3]	P60 Ver. 02.78, 3/17/2022	• Four x16 Gen3 • One x8 Gen3	6 cascade or 6 star	• Tested with Win10 Enterprise 64-bit. • Tested with two CPUs. • Second CPU required for 4th & 5th x16 and x8. • Support Dolphin MXH932/MXP924 Gen4 cable system. [4] • BIOS can handle 256 bus numbers.
Hewlett Packard	HP 280 G3 Microtower	American Megatrends Inc. 02.01, 4/20/2017	One x16 Gen3	4 cascade or 2 star	Tested with Win10 Pro 64-bit.
Hewlett Packard	ProDesk 400 G5	Small Form Factor Q08 Ver. 02.07.00, 4/11/2019	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. M9048B only (M9049A will not mechanically fit).
Hewlett Packard	ProDesk 400 G6 Microtower	02.05.01 Rev. A, 5/11/2020	One x16 Gen3	1	Tested with Win10 Pro 64-bit.
Hewlett Packard	ProDesk 600 G3 Microtower	P02 Ver. 02.06, 9/6/2017	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Hewlett Packard	ProDesk 600 G4 Microtower	Q02 Ver. 02.02.04, 6/8/2018	One x16 Gen3	1	Tested with Win10 Pro 64-bit.
Hewlett Packard	ProDesk 600 G5 Microtower	02.05.01 Rev. A, 5/11/2020	One x16 Gen3	1	Tested with Win10 Pro 64-bit.
Hewlett Packard	ProDesk 600 G6 Microtower	S02 Ver. 02.10.10, 3/18/2022	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Hewlett Packard	EliteDesk 800 G4 Tower Desktop Edition	Q01 Ver. 02.07.01, 4/23/2019	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Hewlett Packard	EliteDesk 800 G4 Workstation Edition	Q01 Ver. 02.07.01, 4/23/2019	One x16 Gen3	3 cascade or 2 star	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Hewlett Packard	EliteDesk 800 G5 Tower Desktop Edition	R01 Ver. 02.04.02, 12/27/2019	One x16 Gen3	1	• Tested with Win10 Pro 64-bit. x16 (x4) slot is not supported.
Fujitsu	Celsius W580 Workstation	American Megatrends Inc. V5.0.0.13 R1.29.0 for D3617-A1x 2/10/2022	One x16 Gen3	4 cascade or 2 star	Tested with Win10 Pro 64-bit.
Acer	Aspire TC-780	American Megatrends Inc. R02-B2, 5/28/2018	One x16 Gen3	1	Tested with Win10 Home Edition 64-bit.

1. Tested PCIe slots in the PC. There may be additional slots in the PC which are not tested/supported. First number is connector size, number in parenthesis is the number of lanes. For example, x8 (x4) is a x8 slot wired with 4 lanes. PCIe slots without a second number have the same number of lanes as the connector size.
2. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.
3. Refer to BIOS and Windows Settings for Modular Systems for more detailed Windows and BIOS settings.
4. With the Dolphin MXH932/MXP924 Gen4 cable system, an additional Windows restart or two may be required for Keysight Connection Expert (KCE) to display chassis correctly. Also, full chassis power cycle may be needed to get proper (solid green LED) cable links.

Rackmounted Computers

Manufacturer	Model	BIOS	PCIe slots [1]	Number of chassis [2]	Comments
Dell	R7920	1.5.6	Up to seven Gen3 slots	4 cascade or 3 star	• May need to move GPU. • Number of slots depends on CPU/riser option.
Dell	Precision 3930 Rack Workstation	2.17.0 2/9/2022	• One x16 Gen3 • One x8 Gen3	3 cascade or 2 star	• Tested with Win10 Pro 64-bit. • M9048B only (M9049A will not mechanically fit). • Riser Option: Riser 1A.
HP	ZCentral 4R 1U Rack Workstation	P63 v01.14	• One x16 Gen3 • Two x8 Gen3	6 cascade or 6 star	• Tested with Window 10 Pro 64-bit. • Only 2 leftmost stacked slots tested. Max total BW is Gen3 x16. • Support Dolphin MXH932/MXP924 Gen4 cable system. [3]
Hewlett Packard Enterprise	DL380 Gen10	U30 1.99 5318	• One x16 Gen3 • Two x16 Gen3 • Two x8 Gen3 • Six x8 Gen3	4 cascade or 3 star	• May need to move GPU. • Number of slots depends on CPU/riser options.
SuperLogics	SL-4U-WS-PD-C236SAE-HA	American Megatrends Inc. 02.2 12/13/2017	• One x8 Gen3 • One x16 Gen3	4 cascade or 4 star	• Tested with Win10 Pro 64-bit. • Multi-chassis only supported with slots 4 and 6.
Supermicro	AS-1124US-TNRP 1U	T20210408162558	Three x16 Gen4	5 cascade or 5 star	• Tested with Win Server 19. • Win10 Pro is not supported by Supermicro. • Support Dolphin MXH932/MXP924 Gen4 cable system. [3] • 1U size server.

1. Tested PCIe slots in the PC. There may be additional slots in the PC which are not tested/supported. First number is connector size, number in parenthesis is the number of lanes. For example, x8 (x4) is a x8 slot wired with 4 lanes. PCIe slots without a second number have the same number of lanes as the connector size.
2. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.
3. With the Dolphin MXH932/MXP924 Gen4 cable system, an additional Windows restart or two may be required for Keysight Connection Expert (KCE) to display chassis correctly. Also, full chassis power cycle may be needed to get proper (solid green LED) cable links.

Discontinued rackmounted computers but supported (may still be available through distribution channels)

Manufacturer	Model	BIOS	PCIe slots [1]	Number of chassis [2]	Comments
Dell	R230	2.4.3 9/30/2018	Two x16 Gen3 Two x8 Gen3	5 cascade or 5 star	PCIe slot width depends on riser option ordered (x16 recommended).
Dell	EMC PowerEdge R240	2.1.6 8/21/2018	One x16 (x8) Gen3	4 cascade	• Tested with Windows Server 2019 Standard 64-bit. • M9048B only (M9049A will not mechanically fit). • PCIe Riser needed.
Dell	EMC PowerEdge R440	2.10.2 2/26/2021	One x16 Gen3	1	• Tested with Windows Server 2019 Standard 64-bit. • M9048B only (M9049A will not mechanically fit). • Riser Option: Config 3 and Riser #2 only. • See R440 manual for detail. • M9024A System Module is NOT supported.
Hewlett Packard Enterprise	Edgeline EL1000	H07 1.72	Two x8 Gen3	6 cascade or 6 star	PCIe slot model tested.
Hewlett Packard Enterprise	Edgeline EL4000	H07 1.72	One x16 Gen3 Four x16 Gen3	6 cascade or 6 star	• Each slot is dedicated to a CPU for up to 4 slots and 4 CPUs. Tested configuration had one slot for a M9049A with 2 ports. The Star configuration consisted of 3 cascaded chassis to each port. • PCIe slot model tested.
Advantech	HPC-7442	American Megatrends Inc. 5.6.5, 5/6/2015	Four x16 Gen3 Two x16 (x8) Gen3	3 cascade or 2 star	Customized PC with ASMB-9231 EATX server motherboard.
Advantech	PN: C-AGI1-AIMB781-V1	Custom BIOS supplied with computer	One x16 Gen3	2 cascade or 2 star	4U Chassis, Win7 64-Bit 3.4 GHz i7 quad core, 16 GB, RAM, 256 GB SSD.

1. Tested PCIe slots in the PC. There may be additional slots in the PC which are not tested/supported. First number is connector size, number in parenthesis is the number of lanes. For example, x8 (x4) is a x8 slot wired with 4 lanes. PCIe slots without a second number have the same number of lanes as the connector size.
2. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.

Laptops and PCs with Thunderbolt (TBT) Adapters for M9025A and M9506A

KCE chassis view displays may be inaccurate due to complexity of hot plugging with Thunderbolt (TBT) connections usage. Refer to the "Chassis and Host Controller Power Up or Down Sequence" section in the product User Guide to prevent enumeration issues.

Manufacturer	Model	BIOS	TBT dock station / PCIe adapter	Number of chassis [1]	Comments
Hewlett Packard Enterprise	HP EliteBook 850 G8 Notebook PC	T76Ver. 01.08.20, 3/11/2021	N/A	1	BIOS can handle 256 bus numbers.
Hewlett Packard Enterprise	EliteBook 840 G10	V70 Ver. 01.01.08, 5/30/2023	• No PCIe Slots. • 2 Thunderbolt Gen3	1	Microsoft Windows 11 Pro, OS Build 22621.2428, Windows Feature Experience Pack 1000.22674.1000.0
Hewlett Packard Enterprise	Z4/Z6/Z8 Workstation Tower	P60 Ver. 02.21, 6/28/2019	• HP TBT3 PCIe • 2-port I/O Card (3UU05AA)	1	User MUST follow http://h10032.www1.hp.com/ctg/Manual/c06162348 to use this adapter.
Hewlett Packard Enterprise	HP Zbook Power 15.6 G8	T81 Ver.01.08.20, 03/23/2022	NA	1	BIOS can handle 256 bus numbers.
Hewlett Packard	HP Zbook 14 Firefly G9	HP U71 Ver.01.02.11, 6/28/2022	2 Thunderbolt	1	Microsoft Windows 10 Pro, OS Version 10.0.19045 Build 19045
Hewlett Packard	Z2 G8 Small Form Factor	T50 Ver.01.03.02, 5/1/2022	N/A	1	
Hewlett Packard	Z1 G8 Tower	T01 Ver.02.07.00, 1/12/2022	N/A	1	
Hewlett Packard	Z2 G8 Tower Workstation	T50 Ver.01.03.00, 10/19/2021	N/A	1	
Lenovo	ThinkPad P15s Gen2	N34ET49W (1.49), 2/25/2022	N/A	1	
ASUS	Mini PC PN62	ASUSTek COMPUTER INC. 1005, 11/16/2021	N/A	1	

1. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.

Manufacturer	Model	BIOS	TBT dock station / PCIe adapter	Number of chassis [1]	Comments
Dell	Precision 5530	1.12.0, 6/27/2019	Dell TB16 Dock	1	
Dell	Precision 3650 Tower	1.9.2, 2/24/2022	N/A	1	
Dell	Precision 3581	1.4.1	• No PCIe Slots. • 2 Thunderbolt Gen3		Tested with Windows 11 Professional version 1000.22644.10000.0 Build Version 22H2
Dell	Precision 3660 Tower	1.2.48, 5/13/2022	Dell TB16 PCIe adapter	1	
Dell	Mobile Precision Workstation 3560	1.15.2, 12/30/2021	N/A	1	
Dell	Mobile Precision Workstation 5570	Dell Inc, 1.5.0, 7/13/2022	N/A	1	
Dell	Latitude 5320	1.17.2, 04/13/2022	N/A	1	
Dell	Latitude 5530	Dell Inc, 1.5.0, 7/8/2022	N/A	1	
Dell	Latitude 5531	Dell Inc. 1.6.0, 7/7/2022	N/A	1	
Dell	Latitude 7530	Dell Inc. 1.6.0, 7/14/2022	N/A	1	
Dell	Optiplex 7090 UFF (Ultra)	1.8.0, 2/10/2022	N/A	1	• Tested with Dell 27 Monitor - P2722H • User MUST use with compatible OptiPlex Ultra Height Adjustable Stand and monitor model. • Refer to https://www.delltechnologies.com/asset/en-us/products/desktops-and-all-in-ones/technical-support/optiplex-7090-towers-spec-sheet.pdf for detail.
Asus	Mini PC PN62	ASUSTek COMPUTER INC. 1005, 11/16/2021	N/A	1	

1. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.

Discontinued Laptops and PCs with Thunderbolt (TBT) Adapters for M9025A and M9506A but supported (may still be available through distribution channels)

Manufacturer	Model	BIOS	TBT dock station / PCIe adapter	Number of chassis [1]	Comments
Hewlett Packard Enterprise	Zbook 15 G6	R92 Ver.01.12.21, 3/25/2022	HP TBT Dock G2	1	
Hewlett Packard Enterprise	Zbook Firefly 14 G7	S70 Ver.01.08.20, 3/12/2022	N/A	1	
Lenovo	ThinkPad P52	N2CET62W (1.45), 3/12/2021	N/A	1	BIOS can handle 256 bus numbers.

1. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.

Figure 1. M9506A AXIe chassis system with M9537A embedded controller.

PXIe and AXIe Embedded Controllers

Manufacturer	Model	BIOS	System slot PCIe links	Number of chassis [1]	Comments
Keysight	M9035A	KS08	Two-link (x8 and x16) and four-link (4x4) Gen3	1	• Tested with Win10 64-bit Embedded Standard. • Automatically configured based on chassis configuration.
Keysight	M9037A	AG12	Two-link (x8 and x16) and four-link (4x4) Gen3	7 cascade	• Tested with Win10 64-bit Embedded Standard. • Automatically configured based on chassis configuration.
Keysight	M9038A [2]	KS08.0	Two-link (x8 and x16) and four-link (4x4) Gen3	1	• Tested with Win10 IoT 64-bit. • Only support multi-chassis with TBT.
Keysight	M9537A	SL07	AXIe PCIe link up to x16 Gen3	2 cascade with AXIe or 4 cascade with AXIe and PXIe	• AXIe slot one only. • Tested with Win7 Embedded Standard (32/64-bit) and Win10 IoT Enterprise (64-bit).
National Instruments	PXIe-8821	2.0.2f0, 6/29/2017	4x1 or 2x1 Gen2	1	
National Instruments	PXIe-8880	1.1.1f0	x8, x16, Gen3	1	
National Instruments	RMC-8354	American Megatrends Inc. 1.0b, 9/2/2010	One x16 Gen2	4 cascade	M9048B only (M9049A will not mechanically fit).

Discontinued PXIe embedded personal computers but supported (may still be available through distribution channels)

Manufacturer	Model	BIOS	System slot PCIe links	Number of chassis [1]	Comments
Keysight	M9036A	AG25	4x4 Gen2 and 2x8 Gen2	2 cascade	Tested with Win7 Embedded Standard (32/64-bit) and Win10 IoT Enterprise (64-bit).
National Instruments	PXIe-8101	4.6.3	4x1 Gen1	1	
National Instruments	PXIe-8105	1.3.3	Four link: 1x1 and 3x4 Gen1	1	
National Instruments	PXIe-8108	4.6.3	4x1 Gen1	1	
National Instruments	PXIe-8133	4.6.3	4x4 Gen1	1	
National Instruments	PXIe-8135	1.0.0f4	4x4 or 2x8 Gen2	1	

1. Number of chassis which are supported when connected to the computer. Available slots may depend on graphics used. More than two chassis require a 64-bit OS. For more information see: http://www.keysight.com/find/pxie-multichassis.
2. If experiencing code 12 errors under Device Manager in the modules used, refer to service note M9038A-01 for resolution detail. At https://support.keysight.com/, go to Support > Safety and Service Notes > type in the service note number in the search to get there.

Figure 2. M9038A PXIe High Performance Embedded Controller

Figure 3. M9537A AXIe Embedded Controller

Other Known Working Configurations with 3rd Party Chassis

Manufacturer	Chassis model	Embedded controller (BIOS)	Enumerated modules	Comments
National Instruments	PXIe-1065	M9035A (KS08)	M9155C, M9185A, M9300A, M9301A, M9350A, M937X, M9156C, M9168C, M9216A, M9311A, M9242A, M9603A, NI PXIe-8384, NI PXI-6722, M9260A, M9165x, and NI PXIe-6341.	• Multichassis not supported. • Modules may not be tested with latest SW/FW version. • Modules are only tested for enumeration; specs are not guaranteed with this test.
National Instruments	PXIe-1075			
National Instruments	PXIe-1088			
National Instruments	PXIe-1062Q			
National Instruments	PXIe-1062Q	M9037A (AG12)	M5302A, M9111A, M9122A, M9135A, M9155C, M9156C, M9157C, M9168C, M9168E, M9170A, M9181A, M9182A, M9185A, M9186A, M9188A, M9214A, M9216A, M9241A, M9242A, M9260A, M9300A, M9301A, M9310A, M9311A, M9336A, M9350A, M9375A, M9379A, M9420A, M9421A, and M9601A.	• Modules may not be tested with latest SW/FW version. • Modules are only tested for enumeration; specs are not guaranteed with this test.
National Instruments	PXIe-1065			
National Instruments	PXIe-1075			
National Instruments	PXIe-1078			
National Instruments	PXIe-1083 [1]			
National Instruments	PXIe-1085 12 GB/s			
National Instruments	PXIe-1085 24 GB/s			
National Instruments	PXIe-1075	M9038A (KS08.0)	M9243A, M9242A, M9300A, M9301A, M9415A, M9111A, M9410A, M9168E, M9260A, M9601A, NI PXI-6220, NI PXI-2567, NI PXI-6722, M9157C, M9310A, M9182A and NI PXI-2567.	• Multichassis not supported. • Modules may not be tested with latest SW/FW version. • Modules are only tested for enumeration; specs are not guaranteed with this test.
National Instruments	PXIe-1062Q			
National Instruments	PXIe-1078			
National Instruments	PXIe-1065			
National Instruments	PXIe-1088			
National Instruments	PXIe-1085 12 GB/s			
National Instruments	PXIe-1085 24 GB/s			
National Instruments	PXIe-1095			
National Instruments	PXIe-1092			

1. PXIe-1083 was tested with TBT laptop, not M9037A.