PCI-SIG® Compliance Workshop #102
August 1-4, 2017
Embassy Suites Milpitas
Milpitas, California

Please read carefully for registration information and the details.
Please come prepared.

When

The PCI-SIG Compliance Workshop #102 will be held August 1-4, 2017. The registration deadline is **12noon on July 7, 2017**. **The Hotel Reservation deadline is Monday, July 17, 2017.**

Objective

PCI: Compliance Workshops are held to promote PCI Express® specification compliance in the industry with the goals of eliminating interoperability issues and ensuring proper implementation of PCI specifications.

Member: Participation provides an opportunity to find and fix problems before release. This saves your company time and resources while offering valuable networking and training opportunities with your fellow engineers.

Products may be added to the PCI-SIG Integrators List by passing the testing requirements at a compliance workshop **and** submitting a PCI-SIG Integrators List [Product Listing Request Form](#).

How

PCI-SIG schedules compliance test sessions, plus private test sessions between Add-in Card and System/Systemboard/BIOS vendors for testing. PCI-SIG also provides technical consultants to assist in testing and fault analysis. **Engineers must accompany all equipment tested.**

What Technologies Will Be Tested

PCI Express 4.0 (Preliminary FYI Only)
PCI Express 3.0
PCI Express 2.0 – *only two workshops left!*

PCI Express 4.0 Preliminary Testing: The PCI-SIG will be offering preliminary testing for PCIe 4.0 at 16 GT/s for both add-in cards and systems. Preliminary testing does not qualify a device for placement on the Integrators List. The preliminary 4.0 testing is planned to include CEM electrical testing and Link/Transaction testing at 16 GT/s. The preliminary PCIe 4.0 testing is only for devices that support 16 GT/s and you must have a device with 16 GT/s functionality to register for and attend this testing. The preliminary PCIe 4.0 testing will have a separate test schedule and separate test suites, you must provide a separate device and attendee to conduct the preliminary PCIe 4.0 testing for each product you register for the PCIe 4.0 preliminary testing.

SFF-8639 FYI Testing: Please note that PCI-SIG will be offering SFF-8639/U.2 FYI testing for both Add-in Cards and Systems. FYI Testing does *NOT* qualify a device for placement on the Integrators List. In order to perform both FYI testing and official testing for the Integrators List, please ensure that you register *TWO* instances of your device – one for the SFF-8639/U.2 FYI testing, and one for the normal CEM form factor (bringing your own adapter for CEM).

SFF-8639/U.2 Cards must be registered separately from CEM based Cards. Please note that one person cannot escort both SFF-8639/U.2 Cards and CEM based cards, you will need to register an additional attendee to manage the additional testing schedule. Please see the registration restrictions in the "How to Register" section.

PCI Express 2.0 Official Integrators List Testing: Following this year's October 2017 Taiwan Compliance Workshop, PCI-SIG plans to discontinue PCIe 2.0 Integrators List testing. As of the December 2017 Compliance Workshop, product registration options will include PCIe 3.0 Official Testing at 2.5, 5, or 8 GT/s maximum link speed. Note that most devices designed to the PCIe 2.x specification would be able to successfully test via PCIe 3.0 Official Testing at a 5 GT/s or 2.5 GT/s maximum speed.

Cost

Attendance at this **Members Only** event is free. Please note that your credit card information will be collected for product registration(s); however, you will *not* be charged unless you do not bring your product to the event or your product registration is not cancelled by **12noon on July 7, 2017**.

This event is non-hosted. Participants pay for their own travel, food, and hotel expenses. Lunch is provided for attendees Tuesday through Thursday.

Where
Embassy Suites Milpitas – Silicon Valley
901 East Calaveras Blvd.
Milpitas, CA 95035

Important Notes
- Please review the Terms of Participation prior to attendance. These Terms of Participation will govern Your activities during the Test Event, including Your obligations to keep certain information confidential.
- **CONFIGURATION TESTING**: PCIECV version 1.5.2.4 is now the official version of configuration test software used in performing testing in the Configuration test suites. Note also that the following new Test Platform has been approved for PCIECV testing in the Configuration test suites:
  Processor: Intel Xeon E5-2609 v3 Haswell 1.9GHz LGA 2011-3 85W Server Processor BX80644E52609V3
  Motherboard: SUPERMICRO MDB-X10SRI-F LGA 2011 R3 Intel C612 Chipset Server Motherboard
  BIOS: version 1.0a. O/S: Windows 7 Pro 32 bit ONLY
- **REGISTER EARLY:** In case registration exceeds our testing capacities, we have established a reasonable cap for each product type and revision. If these caps are reached during online registration, we will put any additional products on a waiting list. Products will be moved from the waiting list to full registration if possible, based on the order of their attempted pre-registration and will be notified the week after registration closes.
  - **Onsite product registration is not available** so you MUST register your product prior to the registration cut-off date. Your testing schedule will be created based off of the information you provide for your registered product, so please be sure that any changes to your product's information are completed prior to **12noon on Friday, July 7, 2017**. **No product detail changes may be made after registration has closed as we will be distributing anonymized testing schedules in advance of the event.**
- **Name badges and non-anonymized test schedules will be distributed on Tuesday from 8:00am-8:45am outside the PCI-SIG Hospitality Suite (Room 502).**
- **Bring quality equipment.** Poor quality monitors, mice, keyboards, etc. may make it difficult to get the test sessions done on time.
- **You must be testing** a product or assisting in tests to attend the workshop.
- **All tests** associated with a product being added to the Integrators List must be performed at a single workshop.

Testing Schedules and Retesting
- Attendees are only assured testing opportunities during their scheduled time-slots. Re-testing during any open time-slots may be offered at the discretion of the test suite operators if time and resources permit.
- A test suite operator may agree to provide for a re-test following the last test session of a particular day, however test suite operators are not obligated to do so.
- It is important that everyone assist in maintaining the integrity of the testing schedules by showing up on time for each assigned test slots. Note that if you are more than 10 minutes late for a test session, your test time-slot may be reassigned to someone else.

Shipping Instructions
Please ensure your shipment does not arrive at the hotel prior to Friday, July 28, 2017.

Ship to: Embassy Suites Milpitas – Silicon Valley, 901 East Calaveras Blvd., Milpitas, CA 95035 USA
Tel: 408-942-0400, Fax: 408-262-8979
Attn: Hold for (Your name / Your company name / Tel.) / August 1-4, 2017 PCI-SIG / M. Nelson

Hotel Reservations – Reserve your room early!
*Reservations cut-off date is **July 17, 2017**.To ensure the group rate is applied and the hotel has rooms available please make your reservations as soon as possible. Single Room $229.00 + state and local taxes - (This is a special PCI-SIG Compliance Workshop rate. This rate includes breakfast provided by the hotel from 6:00am – 9:00am and Evening Reception from 5:30pm – 7:30pm daily) **Note: A one-time $50 fee will be charged for any early guestroom departures.**

When making a hotel reservation, please use our group specific page at:
http://embassysuites.hilton.com/en/es/groups/personalized/M/MILCAES-A02-20170728/index.jhtml.

How to Register
The five categories for registration are:

1. **Attendee Only** – Attendee Only registrants assist colleagues from the same company who are registered to test equipment. Instructions are found on page 3 to register as an "ATTENDEE ONLY."

2. **Add-in Card Vendor** – Add-in Card Vendors are scheduled to visit each compatible System/Systemboard/BIOS room. Please see instructions on page 4 to register as an "ADD-IN CARD VENDOR." **Each Add-in Card attendee can register no more than two products.**
    1. **SFF-8639/U.2 Products:**
        a. Please note that an Add-in Card attendee can register 1-2 CEM based Add-in Cards OR 1-2 SFF-8639/U.2 Add-in Cards for testing. However, one person cannot register both types of cards. If you plan to register both types of cards, more than one staff person will be required to escort each card type on two separate schedules.
        b. If you wish to perform both SFF-8639/U.2 FYI testing and official testing to be listed on the Integrators List please register *TWO* instances of your card. One for FYI testing and one for official testing as a CEM form factor card (requiring your own SFF-8639/U.2 to CEM adapter).
        c. If your SFF-8639/U.2 card supports **Dual Link**, you may only register one dual link card per person.
3. **System/Systemboard/BIOS Vendor** – Referred to as System Vendors, these products remain stationary in a hotel room while Add-in Card Vendors visit at their scheduled time. Please note that in order to test with the PCI-SIG Gold Suites, **you'll need to be mobile and travel to these suites**. Please see instructions on page 4 to register as a "SYSTEM/SYSTEMBOARD/BIOS VENDOR." **Each System attendee can register no more than one system per system test suite.**
    a. **Test equipment vendors** who register as system vendors are REQUIRED to bring a PCI Express system which can be utilized for interoperability testing in addition to testing you may do with your test equipment.
        1. **SFF-8639/U.2 Products:**
            a. If your system has a SFF-8639/U.2 slot but you wish to test your CEM slots for the Integrators List, please register as a CEM based product.
                i. If you wish to also perform FYI testing on the SFF-8639/U.2 slot, please register two instances of your system (one as CEM and one as SFF-8639/U.2). These two systems will need to be in two separate hotel room suites.
                ii. If you wish to only test the SFF-8639/U.2 slot, please register your system as a SFF-8639/U.2 product.
4. **Bridge/Switch Vendor** – BRIDGE OR SWITCH EVALUATION BOARDS MUST REGISTER AS AN ADD-IN CARD AND AS A SYSTEM (requires two people, and two copies of the bridge or switch). The upstream port of a bridge or switch must be registered and tested as an Add-in Card (see item 2 above). A downstream port of a bridge or switch must be registered and tested as a System slot (see item 3 above). The testing as an Add-in Card and as a System slot must be performed at the same workshop (not two different workshops).
5. **Repeater Vendor** – A REPEATER TYPE PRODUCT MUST REGISTER AS AN ADD-IN CARD AND MUST INCLUDE AN ACTUAL ADD-IN CARD CONNECTED TO THE REPEATER, WHICH WILL THEN BE TESTED AS A TWO CARD COMBINATION. The testing will be performed at the Repeater Card PCIe connector tab. In order to perform testing the card combination must be able to plug into the systems and compliance test platforms at the workshop. If the two-card combination (Repeater + Add-in Card) passes all of the testing requirements, then the repeater can be added to the Integrators List as an Add-in Card. Note that the Add-in Card to be used in combination with the repeater card must be provided by the Repeater vendor (the PCIe Add-in Card and repeater must be of the same PCIe revision level that you will be testing to).

ATTENDEE ONLY

I. **EVENT REGISTRATION**
  ▫ All Attendees MUST accompany a co-worker who is registered to test equipment.
  ▫ On-Line Registration –http://www.pcisig.com/events/compliance_workshop.
  ▫ Online registration ends at **12:00pm Pacific Time on Friday, July 7, 2017.**

II. **SLEEPING ROOM RESERVATIONS**
  ▫ Instructions are found on page 2

ADD-IN CARD VENDOR

Each Add-in Card attendee is allowed to register up to two Add-in Cards.
I. **EVENT REGISTRATION**
  ▫ On-Line Registration –http://www.pcisig.com/events/compliance_workshop.
  ▫ Online registration ends at **12:00pm Pacific Time on Friday, July 7, 2017.**

II. SLEEPING ROOM RESERVATION
  □ Instructions are found on page 2

III. ON-SITE CHECK-IN
  □ Name badges and test schedules will be distributed on Tuesday morning from 8:00-8:45am outside the PCI-SIG Hospitality Suite (Room 502).

What to Bring
Each product owner in a session is **required to bring** the equipment listed below:
  ■ Add-in Card vendors may bring a "Thumb Drive" to the workshop to obtain a PDF soft copy of their test results, as PCI-SIG has switched to a secure private wireless method for test results submittal. Additionally, a URL will be provided along with login information where testers may view their test results and download a PDF soft copy after the event. Results from each workshop will be available online **ONLY** until the next scheduled workshop.
  ■ 2 each of the cards to be tested with a USB flash drive of appropriate drivers: Windows 7, Windows 10, Windows Server 2008, Linux, and Solaris. Note that Windows 7 and Windows 10 is the most common OS in use at a workshop, therefore including a Win 7 or Win 10 driver will maximize interop opportunities. If you happen to only support a Linux driver, then you should also bring a bootable copy of the version of Linux that is compatible with your Linux driver.
  ■ Hardware required for card operation. Examples: Portable server for LAN card or a device on the secondary side of a bridge. A hardfile power supply.
  ■ A software application or utility (if needed) to demonstrate device functional operation during the one-on-one interoperability testing sessions. It is necessary to demonstrate functional operation of the product, via the ability to move data between the product and system memory.
  ■ Switch vendors must bring their own endpoints for PCIECV and Link/Transaction testing. The endpoint needs to support 5GT/s or 8GT/s, and it needs to support the maximum link width supported by the switch device. Switch vendors must also bring their own system to plug into when testing the downstream ports of the switch as a system.
  ■ Repeater vendors must bring their own endpoints for PCIECV and Link/Transaction testing. The endpoint needs to support 5GT/s or 8GT/s, and it needs to support the maximum link width supported by the repeater device.

SYSTEM/SYSTEMBOARD/BIOS VENDOR

Testing rooms are to be reserved by the System vendor company.

I. EVENT REGISTRATION
  □ All Attendees MUST accompany a co-worker who is registered to test equipment.
  □ <u>On-Line Registration</u> –http://www.pcisig.com/events/compliance_workshop.
  □ Online registration ends at **12:00pm Pacific Time on Friday, July 7, 2017.**

II. SLEEPING / TESTING ROOM RESERVATION
  □ Instructions on Page 2

III. ON-SITE CHECK-IN
  □ Name badges and test schedules will be distributed on Tuesday morning from 8:00-8:45am outside the PCI-SIG Hospitality Suite (Room 502).

What to Bring
Each product owner in the sessions **is required to bring** the equipment listed below:
  ■ System vendors are required to bring a laptop to the workshops for use in their Interoperability test suites with a compatible browser (Chrome or FireFox) for wirelessly submitting Interoperability test results, as the PCI-SIG has switched to a secure private wireless method for test results submittal. The wireless application will provide a means for saving the test results to a soft copy PDF file.
  ■ System with monitor, keyboard, mouse, an available USB port and at least one (prefer 2-3) of the following OS's loaded:
    ▪ Windows 7, Windows 10, Windows Server 2008, Linux, or Solaris. Note that Windows 7 and Windows 10 are the most common driver in use at a workshop, therefore including a Win 7 or Win 10 OS will maximize interop opportunities.
  ■ System vendors are required to reserve their own testing suite(s). See page 2 for hotel reservation information.

- **Test equipment vendors** who register as System Vendors are <u>REQUIRED</u> to bring a PCI Express System which can be utilized for interoperability testing in addition to testing you may do with your test equipment.

BIOS Vendors
Same as System/Systemboard Vendors Plus:
- All software needed to fix bugs and regenerate BIOS

Schedule

Monday, July 31, You <u>DO NOT</u> need to check-in on Monday, July 31, as name badges and test schedules will be distributed on Tuesday from 8:00am-8:45am outside the PCI-SIG Hospitality Suite (Room 502).

Tuesday, August 1, will consist of 45-minute testing sessions that will be scheduled by PCI-SIG.

Tues. Aug. 1	8:00 AM – 8:45 AM	Schedule Distribution and Name Badge pick-up outside Hospitality Suite 502
	8:45 AM - 9:30 AM	Testing Session
	9:30 AM - 10:15 AM	Testing Session
	10:15 AM - 11:00 AM	Testing Session
	11:00 AM - 11:45 AM	Testing Session
	11:45 AM - 12:30 PM	Testing Session
	12:30 PM - 1:15 PM	Lunch
	1:15 PM - 2:00 PM	Testing Session
	2:00 PM - 2:45 PM	Testing Session
	2:45 PM - 3:30 PM	Testing Session
	3:30 PM - 4:15 PM	Testing Session
	4:15 PM - 5:00 PM	Testing Session
	5:00 PM - 5:45 PM	Testing Session
	5:45 PM - 6:30 PM	Testing Session

Wednesday, August 2 - Thursday, August 3 will consist of 45-minute testing sessions that will be scheduled by PCI-SIG.

Wed.-Thur. Aug. 2-3	8:00 AM - 8:45 AM	Testing Session
	8:45 AM - 9:30 AM	Testing Session
	9:30 AM - 10:15 AM	Testing Session
	10:15 AM - 11:00 AM	Testing Session
	11:00 AM - 11:45 AM	Testing Session
	11:45 AM - 12:30 PM	Testing Session
	12:30 PM - 1:15 PM	Lunch
	1:15 PM - 2:00 PM	Testing Session
	2:00 PM - 2:45 PM	Testing Session
	2:45 PM - 3:30 PM	Testing Session
	3:30 PM - 4:15 PM	Testing Session
	4:15 PM - 5:00 PM	Testing Session
	5:00 PM - 5:45 PM	Testing Session
	5:45 PM - 6:30 PM	Testing Session

Friday, August 4 will consist of 45-minute testing sessions that will be scheduled by PCI-SIG.

Fri. Aug. 4	8:00 AM - 8:45 AM	Testing Session
	8:45 AM - 9:30 AM	Testing Session
	9:30 AM - 10:15 AM	Testing Session
	10:15 AM - 11:00 AM	Testing Session
	11:00 AM - 11:45 AM	Testing Session
	11:45 AM - 12:30 PM	Testing Session
	12:30 PM - 1:15 PM	Lunch

IMPORTANT NOTE: Testing schedule is **<u>subject to change based on workshop size.</u>**

PCI-SIG Compliance Workshop Test Syllabus

One-on-One Test Sessions

PCI-SIG Compliance Workshops include one-on-one private 45 minute test sessions between an Add-in Card vendor and a System vendor. System vendors and Add-in Card vendors will test their products in as many combinations as time and capabilities permit. The results of these test sessions are recorded and will be used as one of the elements in determining PCI-SIG compliance.

The one-on-one test sessions are held in hotel suites as reserved by the System/Systemboard/BIOS vendors (Add-in Card vendors travel to the system vendor suites). The privacy of these sessions promotes willingness to test products that may not be fully "market ready." Additionally, vendors are able to establish contacts which enable a strong PCI Engineering community and encourage future cooperation for debugging and development.

Test Details:
1. Install Add-in Card to be tested and attach peripheral (as appropriate).
2. Boot OS.
3. Run Application(s) to demonstrate detection & functional operation, file transfers for disk and LAN adapters, and graphics application for graphics adapters (note that demonstrating only detection and configuration is not adequate, as demonstrating functional operation is also required).

Add-In Card Test Sessions

PCI-SIG hosts staffed compliance test suites to test PCI Add-in Cards using test software and hardware to provide extensive testing for compliance against specific aspects of the appropriate PCI-SIG specification. Add-in Card vendors will be scheduled to visit each applicable compliance test suite during the compliance one-on-one test sessions. Results will be recorded and used as one of the elements in determining PCI-SIG compliance.

Test Details:
1. Remove (if necessary) system Add-in Card containing the same function that the Add-in Card being tested represents.
2. Insert vendor Add-in Card to be tested and attach the appropriate peripheral.
3. Load drivers (if needed) and the run tests.

System/Systemboard/BIOS Test Sessions

PCI-SIG hosts staffed compliance test suites for testing System/Systemboard/BIOS products. Commercially available PCI-SIG test cards and test software serve as the test platform for extensive testing for specific aspects of the system environment. System vendors will need to roam to the PCI-SIG Gold Suite system compliance test sessions.

Results

Products that pass 80% of one-on-one interoperability test sessions, pass all appropriate PCI-SIG compliance tests, **and** submit the Product Listing Request Form, may be listed on a PCI-SIG Integrators List. The Integrators List is used by a number of PCI-SIG companies to make product purchase decisions.

Questions?

If you have any questions, please contact PCI-SIG at Tel. (503) 619-0569 or Fax (503) 644-6708 or e-mail PCI-SIG Administration at compliance@pcisig.com.

Thank you,

Reen Presnell
Executive Director
PCI-SIG