



# IW and Plugfest Event Meeting September 29th, 2008

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# Welcome

11th Plugfest / 6th IW put on by SATA-IO

- ◆ 101 attendees
- ◆ 49 companies (37 total PF test teams, 15 IW products)
  - 23 roaming test teams
  - 14 stationary test suites

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Our sponsors:

*Finisar*

**Thank you!**

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# Agenda

- Event Timeline
- Differences between the IW and Plugfest
- Product vs a Building Block
- Things to do BEFORE attending the IW
- During the IW / Product Rules
- Test labs vs IW and IW Test Results
- After the IW
- Q & A



# Agenda for the week

Monday, September 29<sup>th</sup>, 2008

**8:00 a.m. – 9:00 a.m. -- Name badges and schedules available at the Grand Ballroom**

**9:00 a.m. - 10:00 a.m. – Kickoff Meeting, Q &A**

10:00 a.m. - 12:00 p.m. -- Test Sessions

12:00 p.m. - 1:00 p.m. – Hosted Lunch

1:00 p.m. - 5:00 p.m. -- Test Sessions

Tuesday, September 30

8:00 a.m. - 12:00 p.m. -- Test Sessions

12:00 p.m. - 1:00 p.m. – Hosted Lunch

1:00 p.m. - 5:00 p.m. -- Test Sessions

Wednesday, October 1

8:00 a.m. - 12:00 p.m. -- Test Sessions

12:00 p.m. - 1:00 p.m. – Lunch (not hosted)

1:00 p.m. - 5:00 p.m. -- Test Sessions

5:00 p.m. – Pack-up & shipping (**Plugfest only**)

Thursday, October 2

8:00 a.m. - 12:00 p.m. -- Test Sessions (**IW only**)

12:00 p.m. - 1:00 p.m. – Lunch (not hosted)

1:00 p.m. - 5:00 p.m. -- Test Sessions (**IW only**)

5:00 p.m. – Pack-up & shipping (**IW only**)

Friday, October 3

8:00 a.m. - 12:00 p.m. -- Test Sessions (**IW only**)

Plugfest :

- Testing Mon-Wed
- 60-min timeslots

Interop Workshop :

- Testing M-F
- 2 hr timeslots



# IW / Logo Definitions

Interop - Interoperability Program

Logo Workgroup (WG)

- ◆ SATA-IO group that develops the Interoperability Program and Tests
- ◆ Organizes / staffs the IW test suites

IW – Interoperability Workshop

IL – Integrators List

- ◆ A list of end products that have passed testing at either a IW or Certified Test Lab



## IW / Logo Definitions – Continued

### UTD – Unified Test Description

- ◆ Describes all the tests executed as part of the Interoperability Program, including references to SATA specification requirements as appropriate

### MOI – Method of Implementation

- ◆ Vendor unique (by tool model(s) or tool revision) test procedures for each test

### Test Types

Normative – Tests which are required for IL listing

Informative – Tests that are in development,

- ◆ Required to be run, a pass NOT required to be placed on the IL

Optional – Relevant for optional features (e.g. NCQ),

- ◆ Pass NOT required to be placed on the IL, but necessary for product identification of that specific feature.

VTM – Management company contracted by SATA-IO



# IW Overview

- ◆ What is an Interoperability Workshop (IW) ?
  - A structured testing event where all testing conforms to approved or proposed test requirements in the UTD and by MOI procedures
  - Results are collected and analyzed to verify results consistency
  - Test suite staff & schedule are driven by SATA-IO
  - All testing is done by Test ID (TID)



# Plugfest Overview

- ◆ What is a Plugfest ?
  - Participant defined testing
  - SATA-IO collects no results
  - Test suites staffed by individual manufacturers,
  - Allowed exclusions and preferences
  - Testing as 1-on-1 vendor interactions under NDA
  
- ◆ How / Why are they different ?
  - Early product tested at Plugfest
  - Final product tested at IW or Test Lab





# Overview of Plugfest Testing

- Your company signed a Non-Disclosure Agreement
  - "...You may be exposed to pre-release product information of Participants. You agree to treat the test activities, the test results, and the pre-release product information as confidential information ("Confidential Information") and to refrain from disseminating or disclosing the same to others, except to your employees having a need to know..."
- Stationary vs Roaming
  - Roaming teams : devices, cables, add-in hosts
  - Stationary teams: host controllers/motherboards, systems, test tools
  - Stationary schedules posted on windows
  - Be courteous – cancel if not interested
    - Make contact with the company
  - 55 min test slots - Stop testing at 5 minutes of the hour



## IW #6: Performing UTD Rev. 1.3 Testing

- Same Testing as IW #4
- eSATA Testing is Still Informative
  - ◆ Reason: Not enough product has been tested to enable System Interop
- Port Multiplier Testing is Still Informative
  - ◆ Reasons: Not enough product has been tested, Need non-DOS System Interop developed / validated
- 1.8" uSATA Testing is Still Informative
  - ◆ Reason: UTD Missing critical measurement



# Products vs Building Blocks

Building Blocks are reference designs (not complete end products)

- ◆ Unable to complete full Interoperability testing without additional matching components (SATA or non-SATA)
- ◆ Tested at certified test labs, lower priority at IW
- ◆ Leverages existing UTD tests and MOI procedures, but allows test areas to be optional
- ◆ Listed on the SATA-IO members only website (separate from existing IL)
- ◆ Typical: silicon vendor reference boards, IP cores, bridges

Products: Tested at IW and Test Labs



## Before the IW

Things to do BEFORE attending the IW:

- ◆ TEST your product – Interop program is an AUDIT
- ◆ TEST all areas: Phy electrical, digital, mechanical, system interoperability
- ◆ Review the UTD and know the tests that are going to get run
- ◆ TEST your product



## Bring to the IW....

Bring the following to the IW:

- ◆ 3 Identical products for testing
- ◆ Knowledge on all the SATA features of the product:
  - ◆ BIST-T-A-S (HFTP, LFTP, MFTP, LBP-18), BIST-L, disconnect
  - ◆ OOB calibration
  - ◆ Interface Power Management (IPM) support (IPMh and/or IPMd)
  - ◆ HOSTs: BIOS configuration to boot DOS USB key, HDD and ODD
- ◆ S/W Tools – Hosts
  - Go into BIST-T-A-S (HFTP, LFTP, MFTP, LBP-18), and BIST-L
  - Enable and invoke IPM events, both IPMd and IPMh



## During the IW

- Pretest: Screening of product capabilities for test compatibility
  - ◆ (BIST patterns, tool capabilities, etc)
- You need to obtain detailed results from vendors
  - ◆ SATA-IO only provides summary results from one vendor
- Network with appropriate tool and test lab vendors for future interactions.



# Product handling rules

- IW Product handling rules
  - ◆ 2 product samples + 1 backup – Identical except s/n
    - Exact same hardware
    - Exact same firmware and features
    - Exact same capacity
    - Marked with TID labels – DO NOT REMOVE
    - Allows parallel test execution during the IW
  - ◆ Once PreTest starts:
    - NO hardware updates allowed
    - NO firmware updates allowed
    - NO configuration changes allowed (via software, f/w or jumpers)



# Testing at IW vs Test Labs

## Same tests, equipment and procedures

- IW:
  - ◆ Tested by 2 – 4 different equipment vendors (multiple results)
  - ◆ Earliest view of new tests
  - ◆ Lower cost / SATA-IO Membership benefit
- Test Labs:
  - ◆ Available all year (only 2 IW / year)
  - ◆ Quicker turn around time
  - ◆ Multiple testing passes (IW is one shot)
  - ◆ More products (IW limited to 1 product / vendor)
  - ◆ Design debug and consultation possible





# Test Result Timeline

Why is the test result timeline longer for a IW than a Test Lab ?

- ◆ IW Test Results – MORE than one purpose
- ◆ Correlation between multiple sources
- ◆ Correlation and verification of additional test labs
- ◆ Correlation and verification of additional test tool
- ◆ Initial release of new Revision
- ◆ Interoperability documentation must be approved by the Logo WG and the SATA-IO BoD before results are published
- After review is complete, passing / failing results will be sent to the product vendor
  - ◆ If passing, the vendor will be added to the IL if they choose



# General Reminders

- Registration information
  - ◆ Badges / Schedules
  - ◆ Feedback forms
  - ◆ IW : Product Info Sheets
- Morning and afternoon snacks in Sponsor Suite Room 537
- Hospitality suite for questions/issues : Room 502
- Plugfest on 5<sup>th</sup> floor, testing completed COB Wednesday
- IW on 4<sup>th</sup> floor, testing completed noon Friday



## Before you leave the event...

Drop off necessary items to Hospitality Suite:

- ◆ Return monitors or borrowed equipment
- ◆ Turn in your feedback forms for the event
- ◆ (Interop only) Drop off a single sample of your product



Q & A

# Questions and Answers...