

A Guide to the New DisplayPort Logo Program – Self Test

DisplayPort Plugtest, November 2011

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New Logo Program Key Changes

Changes to Logo Usage



Not Used after
May, 2012

After May, 2012 denotes
certification

All devices eligible for self-test

**VESA Membership required to have
certified devices**

What do you need to do to get your device certified?

First Step to Certification

Read “VESA Logo Test Requirements Specification”

Describes all the tests needed for a given device type

Explains how to report test results

A pointer to CTSES and other docs you’ ll need

DisplayPort Logo Test Requirements Specification - Example

Table 3-1: Summary of Test Requirements

Device Type (Reference Section this document)	Applicable Reference Document and Section				
	PHY CTS	Link CTS	EDID CTS	Interop CTS	Other
3.3 - Source	3, 8	4	3	3	
3.4 - Sink	4, 8	5	4	3	
3.5 - Repeater	3, 4, 8	6		3	
3.6 - Legacy-to-DisplayPort Converter	3, 8	6		3	
3.7 - DisplayPort-to-Legacy Converter	4, 8	6		3	
3.8 - Replicator	3, 4, 8	6		3	
3.9 - Output Switch	3, 4, 8	6		3	
3.10 - Input Switch	3, 4, 8	6		3	
3.11 - Composite Sink	3, 4, 8	6		3	
3.12 – Passive Cable	5				
3.13 – Active Cable	9				
3.14 – Dual-mode Cable Adaptor					Dual-mode Cable Adaptor CTS
3.15 – Hybrid Device	6	5		3	

DisplayPort Logo Test Requirements Specification - Example

3.4 Sink Device

3.4.1 PHY

Sink devices shall meet all requirements applicable to their feature set in Section 4 and Section 8 of the PHY CTS. Sink devices with tethered cables shall be tested according to Section 7. Test results shall be recorded in the DisplayPort Sink Compliance Test Report (Sink Report).

3.4.2 Link

Sink devices shall meet all requirements applicable to their feature set in Section 5 of the Link CTS. Test results shall be recorded in the Sink Report.

3.4.3 EDID

Sink devices shall meet all requirements applicable to their feature set in Section 4 of the EDID CTS. Test results shall be recorded in the Sink Report.

3.4.4 Interoperability

Source devices shall meet all requirements applicable to their feature set in Section 3 of the Interop test. Test results shall be recorded in the Interop Report.

Reporting Requirements

On completion of test, submit:

- Test Report: individual report for...

Source

Sink

Cable (including passive, active and resizing adaptor)

Branch + Hybrid

Video Adaptor

- Test report or log from Test equipment

Send to Compliance Program Manager,

dpcpm@vtm-inc.com for approval

Test Reports - Example

Device Capability

1.	PHY Capabilities (Check all that apply)	
	Data Rate: RBR	<input type="checkbox"/>
	Data Rate: HBR	<input type="checkbox"/>
	Data Rate: HBR2	<input type="checkbox"/>

PHY Test Equipment			
Device	Make, Model, Serial	SW Rev.	Cal Date/Next
Test Equipment			
Probe			
Fixture			
PHY Control Method			

PHY Layer Test Results for Primary Port (copy table for additional ports)



Test: Mark Pass, Fail or Skip in Results column	Res.	Notes
Overall Result		
3.1 Eye Diagram (Main Link)		
3.2 Non Pre-Emphasis Level Verification		
3.3 Pre-Emphasis & Post-Cursor 2 Level Verification		

Test Reports - Example

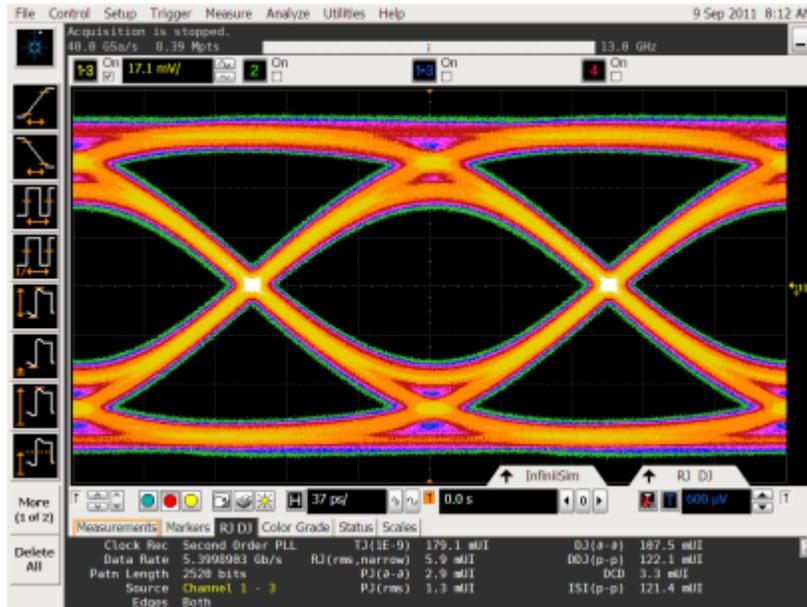
Interop Test Results

Overall Test Results	Pass	Fail
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Source or Sink Test Results

Test DUT with each Standard Device i.e. Sink DUT with Src1, Src2... Mark Pass, Fail, Warn, Skip or Info					
Test	<u>Std 1</u>	<u>Std 2</u>	<u>Std 3</u>	<u>Std 4</u>	Notes
3.1.1 Display in POST (Video)					
3.1.2 O/S Splash Screen (Video)					
3.1.3 Desktop (Video/Audio)					
3.1.4 User accessible resolutions (list below)					
1.					
2.					
3.					
3.1.5 System Reset					
3.2.1 Resume from Monitor Sleep					
Suspend					
Resume					
Video/Audio					
3.2.2 Resume from System Sleep					
Suspend					
Resume					

Test Equipment Log - Example



DisplayPort EDID Compliance Report

Nov 09 2011 [13:27:50]

Generator Information

Model = 882E
 Unit Revision = A
 Unit SN =
 Date = 02242009
 Firmware = 20.1887603

DisplayPort Sink Compliance Test Report

CONTENTS

- Test Summary
 - General Information
 - View all test details
- View details by test
- 1 - (5.2.1.1) Read One Byte
 - 2 - (5.2.1.2) DPCD Receiver Capability
 - 3 - (5.2.1.3) Write One Byte
 - 4 - (5.2.1.4) Write Nine Bytes
 - 5 - (5.2.1.5) Write EDID Offset
 - 6 - (5.2.1.6) Read One EDID
 - 7 - (5.2.1.7) EDID Read (1 Byte)
 - 8 - (5.2.1.8) Illegal Aux Request
 - 9 - (5.2.1.9) Glitch Rejection
- Printer Friendly

TEST SUMMARY

TEST	PASSED
1 - (5.2.1.1) Read One Byte from Valid DPCD Address	1
2 - (5.2.1.2) DPCD Receiver Capability Read (Read Twelve Bytes from Valid DPCD Address)	1
3 - (5.2.1.3) Write One Byte to Valid DPCD Address	1
4 - (5.2.1.4) Write Nine Bytes to Valid DPCD Addresses	1
5 - (5.2.1.5) Write EDID Offset (One Byte I2C-Over-Aux Write)	1
6 - (5.2.1.6) Read One EDID Byte (One Byte I2C-Over-Aux Read)	1

	4	5	6	7	8	9	A	B	C	D	E	F
		FF	FF	00	38	A3	0E	68	00	00	00	00
	26	1E	78	E2	B7	F5	A0	58	56	9F	28	
	80	71	4F	81	40	81	80	01	01	01	01	
	01	30	2A	00	98	51	00	2A	40	30	70	
	00	00	1E	00	00	00	FD	00	32	4C	1F	
	20	20	20	20	20	00	00	00	FC	00	45	
	0A	20	20	20	20	20	20	00	00	00	FF	

The Process

Read the documents

Test your product

Fill out the test report

Send the report and logs to Compliance Program Manager dpcpm@vtm-inc.com, approval by email

Contact VESA to:

- Complete license agreement if you have not already

- Provide the information needed to get your product listed on displayport.org

Timeline

- DP 1.2 PHY CTS and DP 1.2 (Link Layer) Core CTS are published
- Logo Test Requirements Spec, Interop CTS, Dual-mode CTS ready for release
- Task Group will decide to begin certification to 1.2 after Plugtest results
- Transition period for 1.1a devices 30 days from start of 1.2

Self-test on or before May 1, 2012

Some New Test Requirements

- Interop Test
 - Check for correct operation
 - Suspend/Resume
 - Standard, long passive and active cables
 - “Standard devices for Interoperability Testing” lists devices to test with
- Dual-mode Cable (or Video) Adaptor
 - Drops some tests but adds EYE Pattern
 - Use Standard device as signal source
- Dual-mode Source tests
 - TMDS EYE Pattern at DP connector
 - Interop tests using standard Dual-mode Adaptors
- Sinks must provide DP_PWR

FAQs

Q: My product has the icon today and will still be shipping after May, 2012. It has not been certified. What should I do?

A: You can self-test to get certification.

How long will the product be in the market? VESA may extend your existing License agreement.

You can apply for a waiver. Waivers are reviewed case-by-case.



FAQs

Q: What test equipment can I use?

A: “DisplayPort Approved Test Equipment” lists all approved TEs and fixtures, test by test

Q: My silicon supplier tested my product or I am using their reference design, do I need to re-test?

A: See “Re-test Criteria” to know if you can use what has already been done. In general, if nothing has been changed, you do not need to re-test

Q: I am a reseller, can I use my supplier’s Certification?

A: Yes, if you submit a “Reseller Test Report”

Q: Can I still get my product tested at an ATC?

A: Yes, you can have an ATC do some or all of your testing.

FAQs

Q: My product has a Thunderbolt port. Can it be certified?

A: If the Thunderbolt port supports native DisplayPort and/or dual-mode, you can certify those features and use the DP Logo. VESA does not offer certification for native Thunderbolt features.

Q: I have a product that supports DP 1.2 new features. How do I get a 1.2 Logo?

A: All claimed features must pass certification testing.

The Logo denotes the DP connector and certification but does not differentiate feature sets.

Consult the product marketing guidelines for feature labeling.

FAQs

Q: Many products are using the icon today. When it becomes the certified logo, how can I show that my product is certified?

A: The Marketing Group will provide text to go with the logo to provide a consistent way to show the product is certified.

Thank you for your attention



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