



QualiPHY Test Report

Overall result: Pass

DUT: SN65LVPE502
Comment:
Time of session start: 07/20/2010 16:01:50
Operator:
Temperature: 25° C
Standard in use:







Run1:
Time of run: 2010/07/20 16:02:16
Configuration in use: SN65LVPE502 Scope Only (TX Tests) (Copy)
Limits in use: ComplianceLimits
Oscilloscope Name: VISTAMASTERZi Model: SDA813ZI
Oscilloscope Serial #: VISTAMASTERZI
Computer: VISTAMASTERZI
Oscilloscope firmware version: 6.1.0.7 (Build 135672)
QualiPHY core version: 6.1.0.5 (Build 136410)
QualiPHY script version: 1.1.3.0

Stylesheet version: 1.2.0.5

Summary Table

[\[Hide Table\]](#)

Pass	Run #	Test	Measurement	Current Value	Test Criteria
✓	1	1.3.1	Tj CP1	18.52 ps	x <= 132.00 ps
✓	1	1.3.1	Rj (rms) CP1	1.115 ps	x <= 3.270 ps
✓	1	1.3.1	Tj CP0	65.25 ps	x <= 132.00 ps
✓	1	1.3.1	Rj (rms) CP0	982 fs	x <= 3.270 ps
✓	1	1.3.1	Dj CP0	51.46 ps	x <= 86.00 ps
i	1	1.3.1	Min Pulse Time	189.138 ps	Informational Only
i	1	1.3.1	Avg UI	199.984 ps	Informational Only
✓	1	1.3.2	Phase Jitter Slew Rate Max	399 µs/s	x = 0 µs/s +/- 10.000 ms/s
✓	1	1.3.2	Phase Jitter Slew Rate Min	-409 µs/s	x = 0 µs/s +/- 10.000 ms/s
✓	1	1.3.3	Tj CP1 SigTest	16.62 ps	x <= 132.00 ps
✓	1	1.3.3	Rj (rms) CP1 SigTest	1.150 ps	x <= 3.270 ps
✓	1	1.3.3	Tj CP0 SigTest	72.01 ps	x <= 132.00 ps
✓	1	1.3.3	Rj (rms) CP0 SigTest	1.150 ps	x <= 3.270 ps
✓	1	1.3.3	Dj DD CP0 SigTest	55.83 ps	x <= 86.00 ps
i	1	1.3.3	Min Time Between Crossovers (after channel) SigTest	189.301 ps	Informational Only
i	1	1.3.3	Avg UI SigTest	199.984 ps	Informational Only
i	1	1.3.3	Max PP Jitter SigTest	73.425 ps	Informational Only
✓	1	1.3.4	Eye Diagram Mask Hits	0 hits	x = 0 hits
✓	1	1.3.4	Eye Height	301 mV	100 mV <= x <= 1.200 V
✓	1	1.3.5	Non Trans Violations SigTest	0 hits	x = 0 hits
✓	1	1.3.5	Trans Violations SigTest	0 hits	x = 0 hits
i	1	1.3.5	Max Non Trans Voltage SigTest	325.5 mV	Informational Only
i	1	1.3.5	Min Non Trans Voltage SigTest	-327.5 mV	Informational Only
i	1	1.3.5	Max Trans Voltage SigTest	395.8 mV	Informational Only
i	1	1.3.5	Min Trans Voltage SigTest	-395.0 mV	Informational Only
i	1	1.3.5	Min Non Trans Upper Margin SigTest	104.0 mV	Informational Only
i	1	1.3.5	Min Non Trans Lower Margin SigTest	-104.1 mV	Informational Only
i	1	1.3.5	Min Trans Upper Margin SigTest	208.1 mV	Informational Only
i	1	1.3.5	Min Trans Lower Margin SigTest	-210.3 mV	Informational Only
i	1	1.4.1	Vtx-ac-cm-pp active	40.149 mV	Informational Only
	1	1.4.2	Vtx-dc-cm	0 mV	Informational Only


					
	1	1.5	Differential Voltage Deemphsized Level	657.0 mV	Informational Only
	1	1.5	Differential Voltage Min	-327.0 mV	Informational Only
	1	1.5	Differential Voltage Max	329.5 mV	Informational Only
	1	1.5	Differential Voltage Full Swing Level	656.5 mV	Informational Only
	1	1.5	De-emphasis Ratio	7 mdB	Informational Only

Details


Test 1.3 - Jitter and Eye Diagram Test

Test 1.3.1 - Jitter Test CP1

[\[Up\]](#)


 Pass	Measurement:	<i>Tj CP1</i>
	Limit Name:	Tj
	Current Value:	18.52 ps
	Test Criteria:	x <= 132.00 ps
	Timestamp:	07/20/2010 16:05:25
	Run Number	1

[\[Up\]](#)


 Pass	Measurement:	<i>Rj (rms) CP1</i>
	Limit Name:	Rj
	Current Value:	1.115 ps
	Test Criteria:	x <= 3.270 ps
	Timestamp:	07/20/2010 16:05:26
	Run Number	1

Test 1.3.1 - Jitter Test CP0


[\[Up\]](#)

 Pass	Measurement:	<i>Tj CP0</i>
	Limit Name:	Tj
	Current Value:	65.25 ps
	Test Criteria:	x <= 132.00 ps
	Timestamp:	07/20/2010 16:08:43
	Run Number	1


[\[Up\]](#)

 Pass	Measurement:	<i>Rj (rms) CP0</i>
	Limit Name:	Rj
	Current Value:	982 fs
	Test Criteria:	x <= 3.270 ps
	Timestamp:	07/20/2010 16:08:44
	Run Number	1


[\[Up\]](#)

 Pass	Measurement:	<i>Dj CP0</i>
	Limit Name:	Dj
	Current Value:	51.46 ps
	Test Criteria:	x <= 86.00 ps
	Timestamp:	07/20/2010 16:08:45
	Run Number	1

[\[Up\]](#)

	Measurement:	Min Pulse Time
	Limit Name:	MinPulse
	Current Value:	189.138 ps
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:08:45
	Run Number	1


[\[Up\]](#)

	Measurement:	Avg UI
	Limit Name:	UI
	Current Value:	199.984 ps
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:08:45
	Run Number	1


**Jitter CPO**

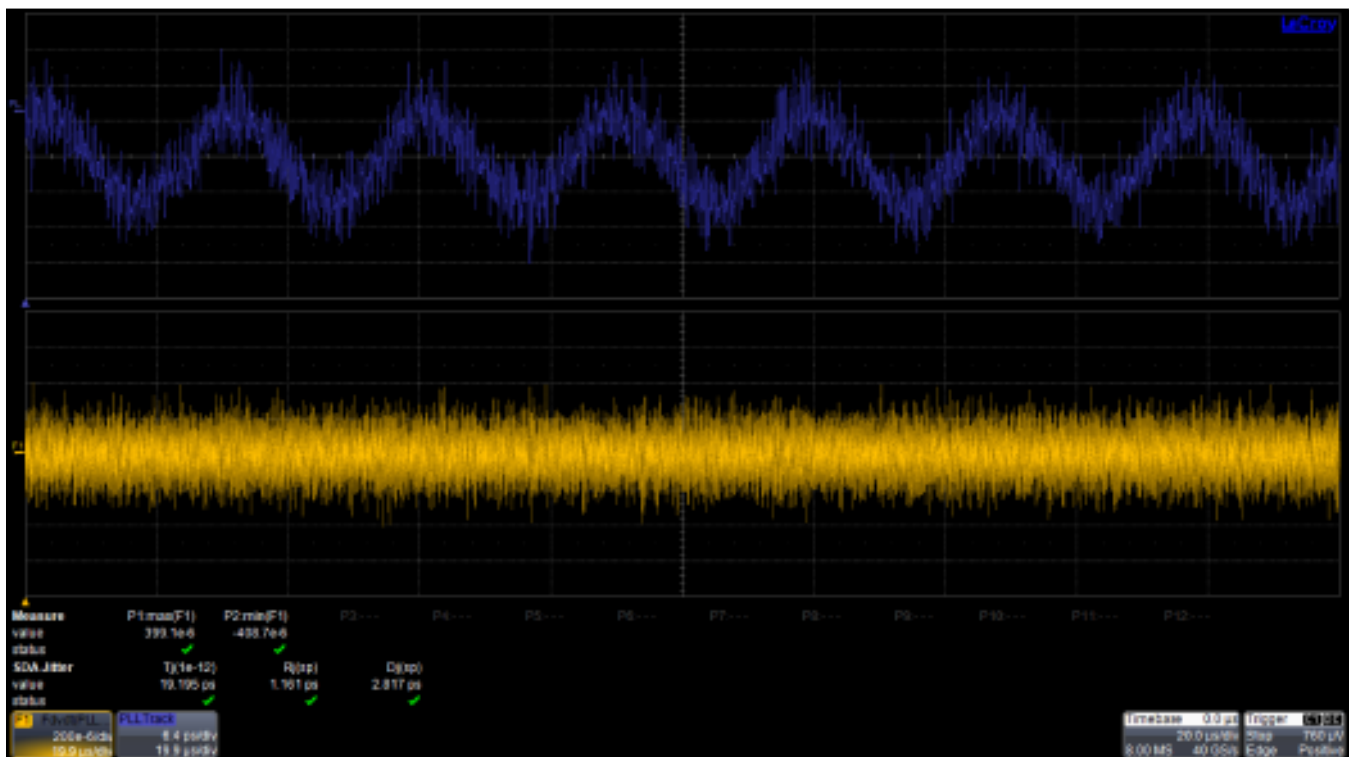
Timestamp: 07/20/2010 16:08:45

[\[Up \]](#)

 Pass	Measurement:	Phase Jitter Slew Rate Max
	Limit Name:	TcdrSlew
	Current Value:	399 μ s/s
	Test Criteria:	$x = 0 \mu\text{s/s} \pm 10.000 \text{ ms/s}$
	Timestamp:	07/20/2010 16:05:58
	Run Number	1


[\[Up \]](#)

 Pass	Measurement:	Phase Jitter Slew Rate Min
	Limit Name:	TcdrSlew
	Current Value:	-409 μ s/s
	Test Criteria:	$x = 0 \mu\text{s/s} \pm 10.000 \text{ ms/s}$
	Timestamp:	07/20/2010 16:06:00
	Run Number	1




Phase Jitter Slew Rate
 Timestamp: 07/20/2010 16:06:00


[\[Up \]](#)

 Pass	Measurement:	<i>Tj CP1 SigTest</i>
	Limit Name:	Tj
	Current Value:	16.62 ps
	Test Criteria:	x <= 132.00 ps
	Timestamp:	07/20/2010 16:06:14
	Run Number	1


[\[Up \]](#)

 Pass	Measurement:	<i>Rj (rms) CP1 SigTest</i>
	Limit Name:	Rj
	Current Value:	1.150 ps
	Test Criteria:	x <= 3.270 ps
	Timestamp:	07/20/2010 16:06:15
	Run Number	1


Test 1.3.3 - SigTest Jitter Test CP0[\[Up \]](#)

 Pass	Measurement:	<i>Tj CP0 SigTest</i>
	Limit Name:	Tj
	Current Value:	72.01 ps
	Test Criteria:	x <= 132.00 ps
	Timestamp:	07/20/2010 16:09:15
	Run Number	1


[\[Up \]](#)

 Pass	Measurement:	<i>Rj (rms) CP0 SigTest</i>
	Limit Name:	Rj
	Current Value:	1.150 ps
	Test Criteria:	x <= 3.270 ps
	Timestamp:	07/20/2010 16:09:16
	Run Number	1


[\[Up \]](#)

 Pass	Measurement:	<i>Dj DD CP0 SigTest</i>
	Limit Name:	Dj
	Current Value:	55.83 ps
	Test Criteria:	x <= 86.00 ps
	Timestamp:	07/20/2010 16:09:17
	Run Number	1


[\[Up \]](#)

	Measurement:	<i>Min Time Between Crossovers (after channel) SigTest</i>
	Limit Name:	InfoOnlyS
	Current Value:	189.301 ps
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:19
	Run Number	1


[\[Up \]](#)

	Measurement:	Avg UI SigTest
	Limit Name:	UI
	Current Value:	199.984 ps
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:20
	Run Number	1


[\[Up \]](#)

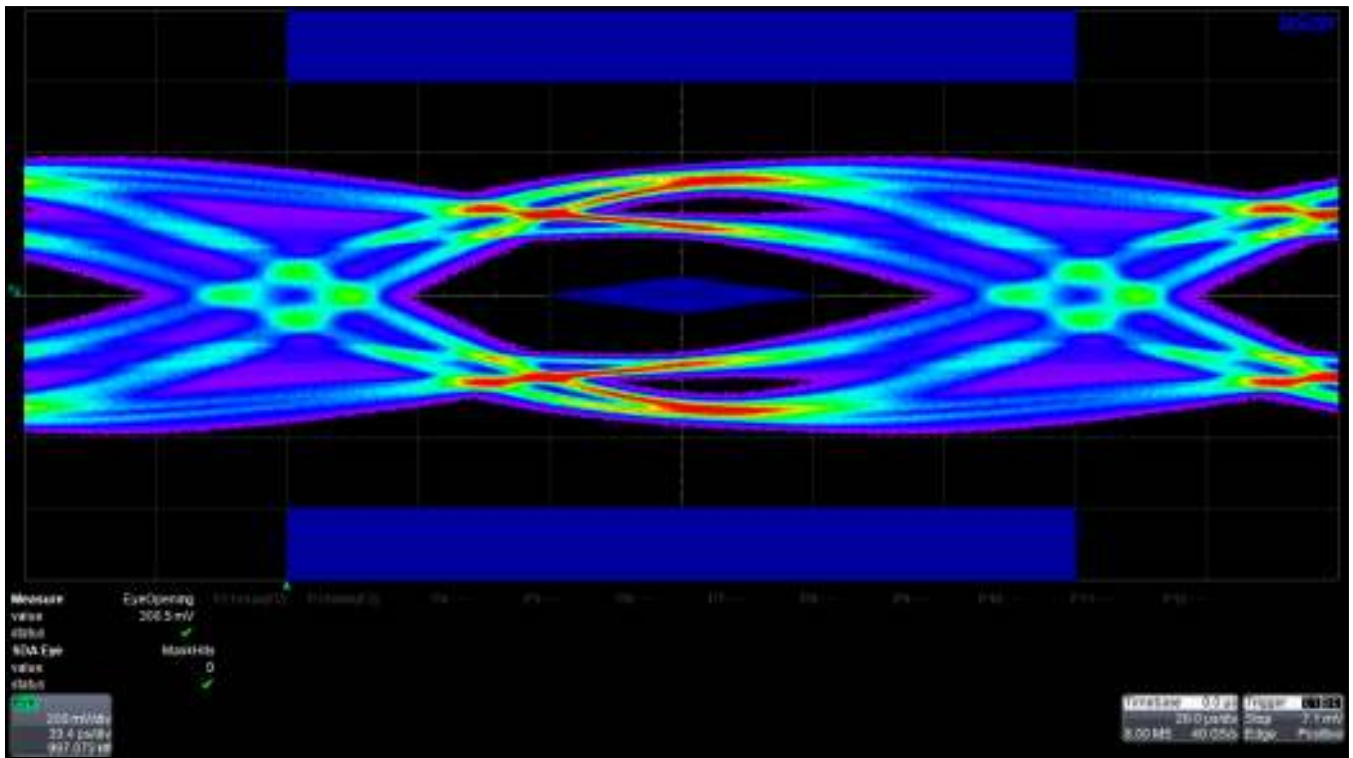
	Measurement:	Max PP Jitter SigTest
	Limit Name:	InfoOnlyS
	Current Value:	73.425 ps
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:21
	Run Number	1

Test 1.3.4 - Eye Diagram Test[\[Up \]](#)

 Pass	Measurement:	Eye Diagram Mask Hits
	Limit Name:	MaskHits
	Current Value:	0 hits
	Test Criteria:	x = 0 hits
	Timestamp:	07/20/2010 16:08:55
	Run Number	1

[\[Up \]](#)


 Pass	Measurement:	Eye Height
	Limit Name:	EyeHeight
	Current Value:	301 mV
	Test Criteria:	100 mV <= x <= 1.200 V
	Timestamp:	07/20/2010 16:08:55
	Run Number	1




Eye Diagram

Timestamp: 07/20/2010 16:08:56


Test 1.3.5 - SigTest Eye Diagram Test[\[Up \]](#)

 Pass	Measurement:	Non Trans Violations SigTest
	Limit Name:	MaskHits
	Current Value:	0 hits
	Test Criteria:	x = 0 hits
	Timestamp:	07/20/2010 16:09:38
	Run Number	1


[\[Up \]](#)

 Pass	Measurement:	Trans Violations SigTest
	Limit Name:	MaskHits
	Current Value:	0 hits
	Test Criteria:	x = 0 hits
	Timestamp:	07/20/2010 16:09:39
	Run Number	1


[\[Up \]](#)

	Measurement:	Max Non Trans Voltage SigTest
	Limit Name:	InfoOnlyV
	Current Value:	325.5 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:41
	Run Number	1


[\[Up \]](#)

	Measurement:	Min Non Trans Voltage SigTest
	Limit Name:	InfoOnlyV
	Current Value:	-327.5 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:42
	Run Number	1


[\[Up \]](#)

	Measurement:	Max Trans Voltage SigTest
	Limit Name:	InfoOnlyV
	Current Value:	395.8 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:43
	Run Number	1


[\[Up \]](#)

	Measurement:	Min Trans Voltage SigTest
	Limit Name:	InfoOnlyV
	Current Value:	-395.0 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:44
	Run Number	1


[\[Up \]](#)

	Measurement:	Min Non Trans Upper Margin SigTest
	Limit Name:	InfoOnlyV
	Current Value:	104.0 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:46
	Run Number	1


[\[Up \]](#)

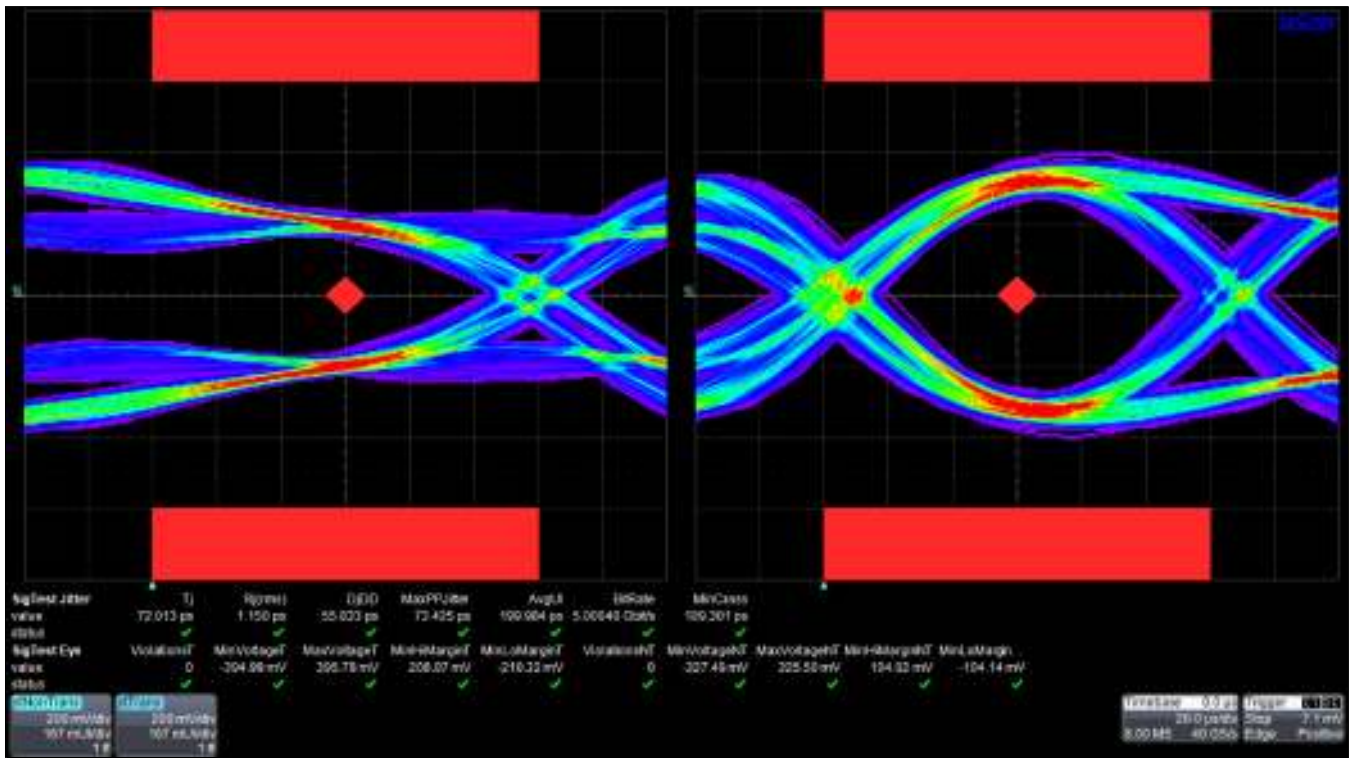
	Measurement:	Min Non Trans Lower Margin SigTest
	Limit Name:	InfoOnlyV
	Current Value:	-104.1 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:47
	Run Number	1

[\[Up \]](#)

	Measurement:	Min Trans Upper Margin SigTest
	Limit Name:	InfoOnlyV
	Current Value:	208.1 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:48
	Run Number	1


[\[Up \]](#)

	Measurement:	Min Trans Lower Margin SigTest
	Limit Name:	InfoOnlyV
	Current Value:	-210.3 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:09:49
	Run Number	1




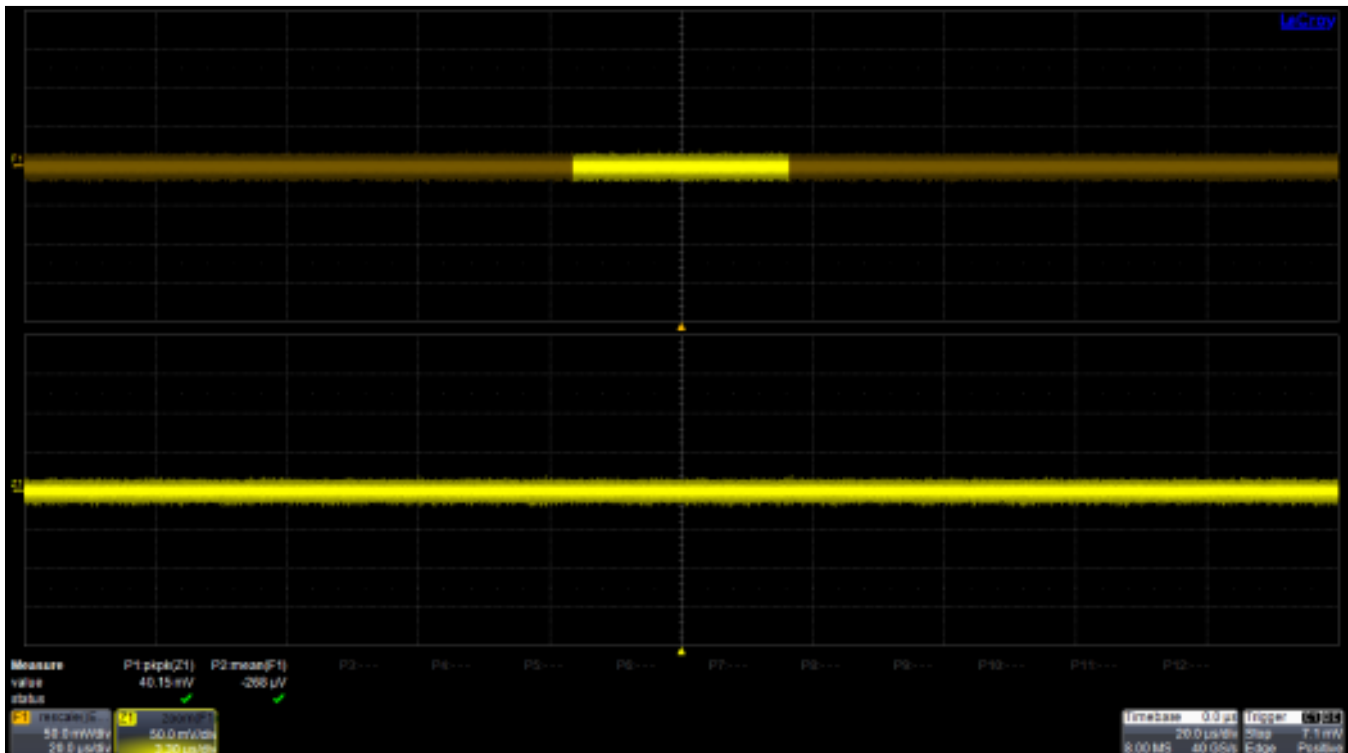
SigTest Eye Diagram
 Timestamp: 07/20/2010 16:09:50

Test 1.4 - Common Mode Voltage Tests**Test 1.4.1 - AC Common Mode Voltage Test**[\[Up \]](#)

	Measurement:	Vtx-ac-cm-pp active
	Limit Name:	Vtx-ac-cm-pp
	Current Value:	40.149 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:10:11
	Run Number	1


Test 1.4.2 - DC Common Mode Voltage Test[\[Up \]](#)

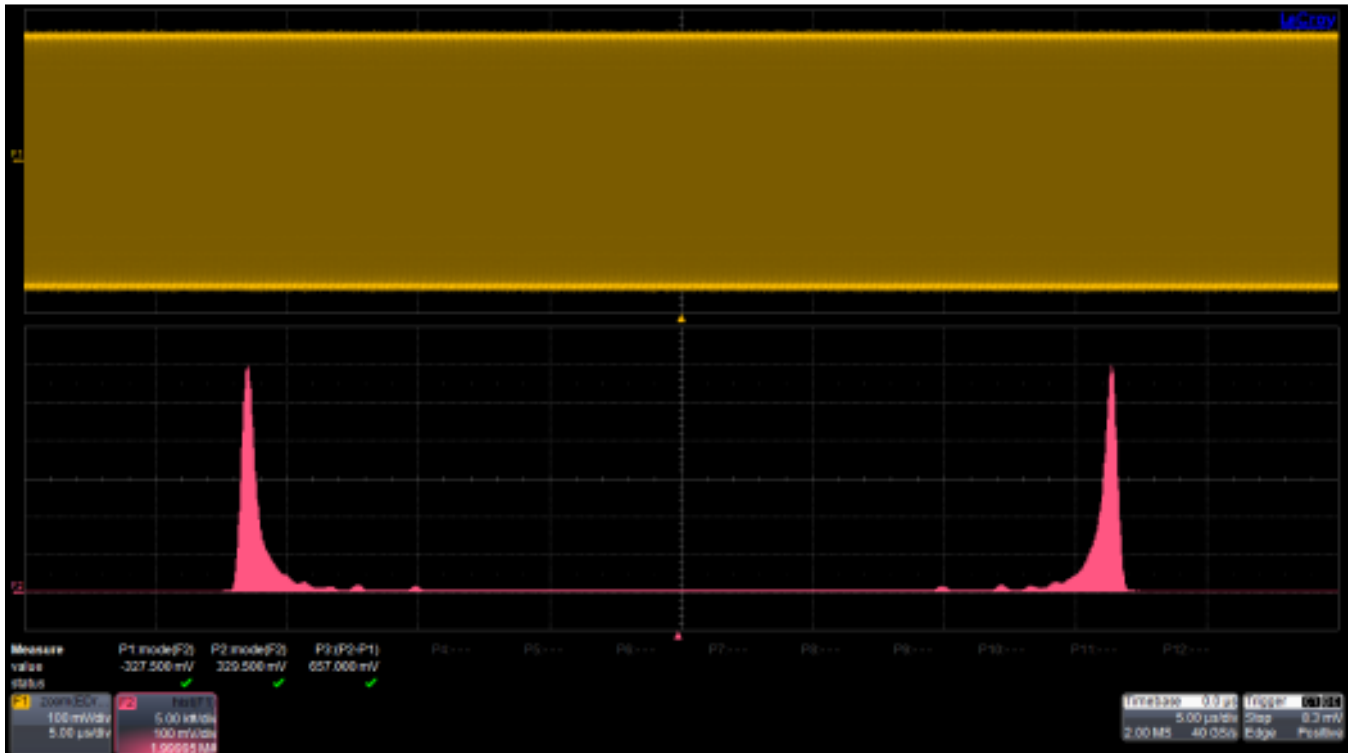
	Measurement:	Vtx-dc-cm
	Limit Name:	Vtx-dc-cm
	Current Value:	0 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:10:13
	Run Number	1



Common Mode Voltage
Timestamp: 07/20/2010 16:10:13


Test 1.5 - Differential Voltage Swing and De-emphasis Test[\[Up\]](#)

	Measurement:	Differential Voltage Deemphized Level
	Limit Name:	InfoOnlyV
	Current Value:	657.0 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:11:35
	Run Number	1


**Differential Voltage De-emphasized Level**

Timestamp: 07/20/2010 16:11:36


[\[Up \]](#)

	Measurement:	Differential Voltage Min
	Limit Name:	InfoOnlyV
	Current Value:	-327.0 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:12:14
	Run Number	1


[\[Up \]](#)

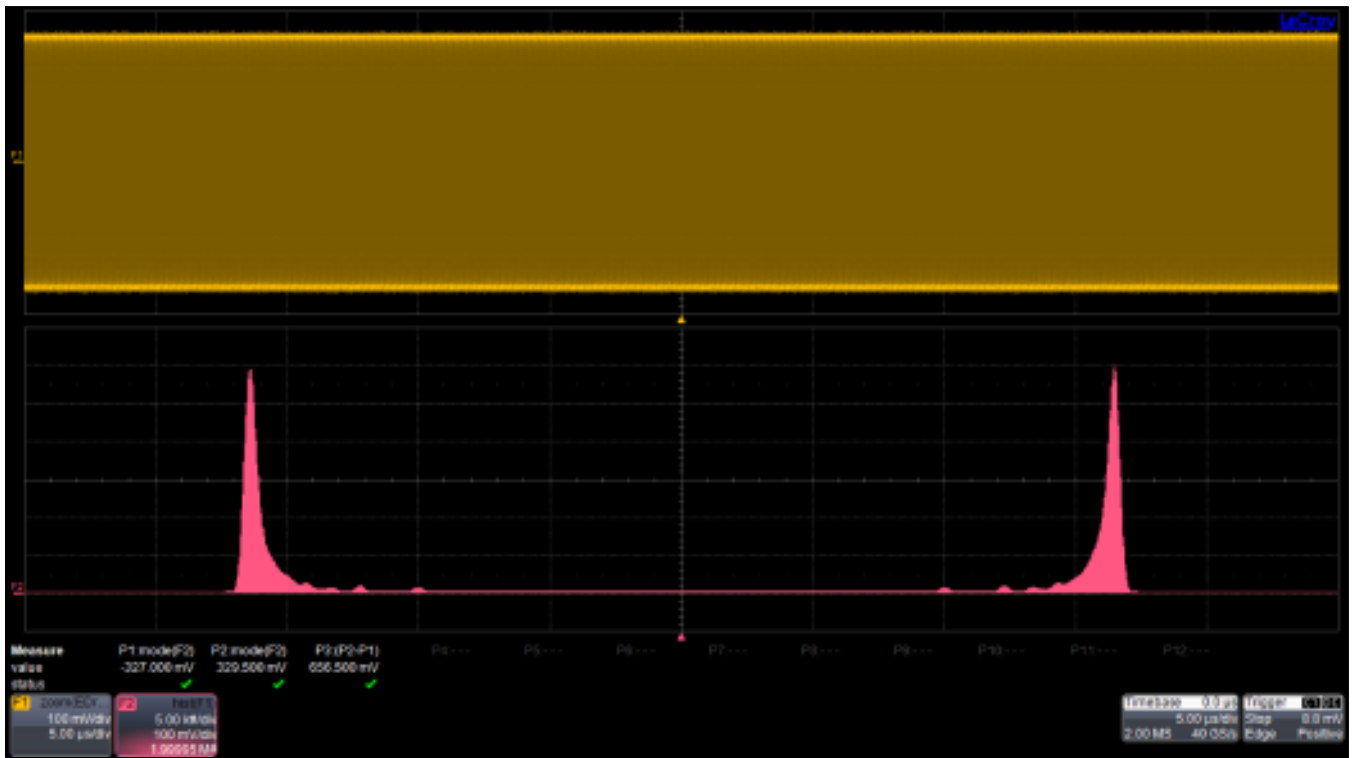
	Measurement:	Differential Voltage Max
	Limit Name:	InfoOnlyV
	Current Value:	329.5 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:12:14
	Run Number	1

[\[Up \]](#)

	Measurement:	Differential Voltage Full Swing Level
	Limit Name:	Vtx-diff-pp
	Current Value:	656.5 mV
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:12:14
	Run Number	1

[\[Up \]](#)

	Measurement:	De-emphasis Ratio
	Limit Name:	Vtx-de-ratio
	Current Value:	7 mdB
	Test Criteria:	Informational Only
	Timestamp:	07/20/2010 16:12:14
	Run Number	1



Differential Voltage Full Swing Level

Timestamp: 07/20/2010 16:12:14

--- End of report ---

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