

Source Tests Report

Configuration

Setup Configuration

Oscilloscope Info DPO71604C - 7.6.0 Build 7
 TDSHT3 Version 5.3.1 Build 0

Device Configuration

Device Details HDMI Device
 Clock Frequency(Mhz) 296.704
 Resolution 4K2K_30Hz
 Refresh Rate 30Hz

Compliance Summary

Total Tests Supported 9
 Tests Completed 21
 Pass 21
 Fail 0

Test Summary

Index	Test Name	Lanes	Spec Range	Meas Value	Result
1	7-9 : Source Clock Jitter	CK	Clock Jitter < 0.25*Tbit;	0.129*Tbit	Pass
2	7-10 : Source Eye Diagram	CK - D0	Data Jitter < 0.3*Tbit;	0.15*Tbit	Pass
3	7-10 : Source Eye Diagram	CK - D1	Data Jitter < 0.3*Tbit;	0.17*Tbit	Pass
4	7-10 : Source Eye Diagram	CK - D2	Data Jitter < 0.3*Tbit;	0.15*Tbit	Pass
5	7-6 : Source Inter-Pair Skew	D0 - D1	Skew < 0.2*TPixel;	0.002*TPixel	Pass
6	7-6 : Source Inter-Pair Skew	D1 - D2	Skew < 0.2*TPixel;	0.004*TPixel	Pass
7	7-6 : Source Inter-Pair Skew	D2 - D0	Skew < 0.2*TPixel;	0.006*TPixel	Pass
8	7-4 : Source Rise Time	CK	75.00ps < TRISE;	181.32ps	Pass
9	7-4 : Source Rise Time	D0	75.00ps < TRISE;	160.63ps	Pass
10	7-4 : Source Rise Time	D1	75.00ps < TRISE;	157.45ps	Pass
11	7-4 : Source Rise Time	D2	75.00ps < TRISE;	156.28ps	Pass
12	7-4 : Source Fall Time	CK	75.00ps < TFALL;	179.13ps	Pass
13	7-4 : Source Fall Time	D0	75.00ps < TFALL;	155.88ps	Pass
14	7-4 : Source Fall Time	D1	75.00ps < TFALL;	158.86ps	Pass
15	7-4 : Source Fall Time	D2	75.00ps < TFALL;	151.16ps	Pass
16	7-8 : Max Duty Cycle	CK	Max Duty Cycle < 60.0%;	51.03%	Pass
17	7-8 : Min Duty Cycle	CK	40.0% < Min Duty Cycle;	49.85%	Pass
18	7-7 : Source Intra-Pair Skew	CK	Skew < 0.15*Tbit;	0.012*Tbit	Pass
19	7-7 : Source Intra-Pair Skew	D0	Skew < 0.15*Tbit;	0.012*Tbit	Pass
20	7-7 : Source Intra-Pair Skew	D1	Skew < 0.15*Tbit;	0.0*Tbit	Pass
21	7-7 : Source Intra-Pair Skew	D2	Skew < 0.15*Tbit;	0.027*Tbit	Pass

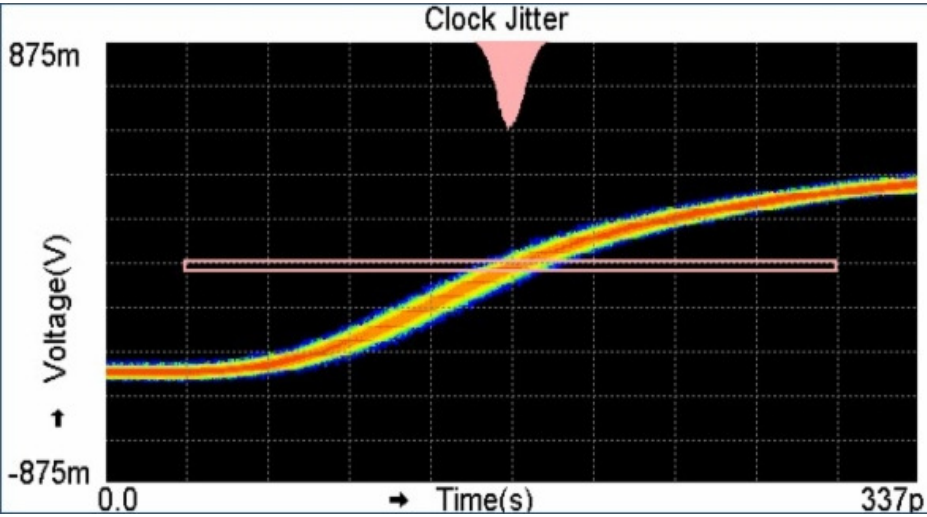
Detailed Results

7-9 : Source Clock Jitter : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Result
Clock Jitter < 0.25*Tbit;	0.129*Tbit	337.04ps	800.88mV	0.12*Tbit	50.000M	Pass

Waveform/Plot



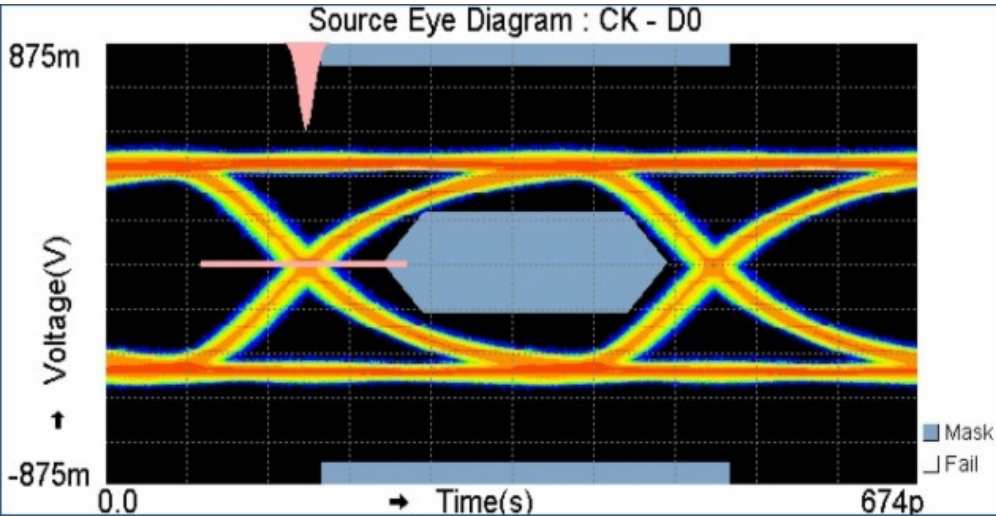
Results	
Result	PASS
Pk-Pk	43.5ps
Vswing	800.88mV
Tbit	337.04ps

7-10 : Source Eye Diagram : CK - D0

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Mask Hits	Result
Data Jitter < 0.3*Tbit;	0.15*Tbit	337.04ps	823.44mV	147.1m*Tbit	50.000M	0	Pass

Waveform/Plot



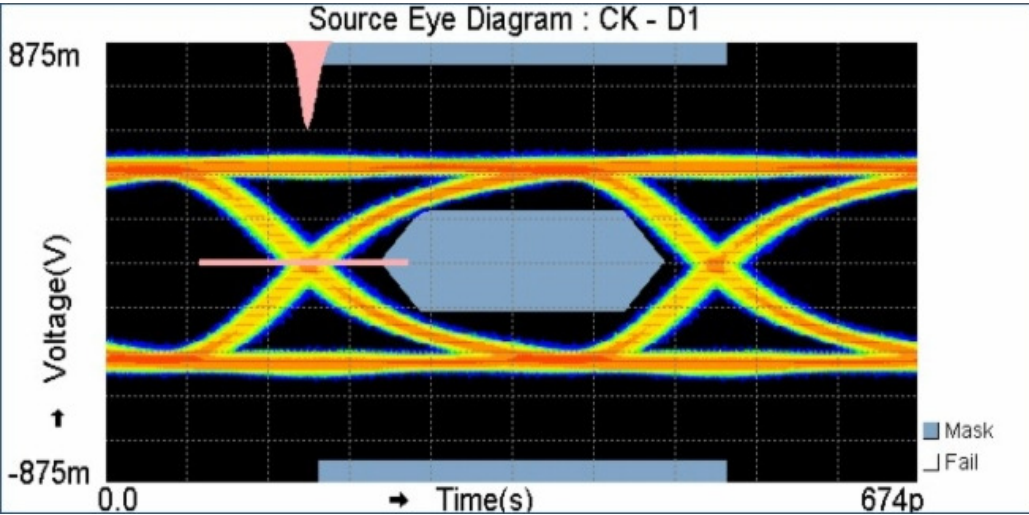
Results	
Mask Test	PASS
Mask Hits	0
Vswing	823.44mV
Tbit	337.04ps
Data Jitter	51.5ps

7-10 : Source Eye Diagram : CK - D1

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Mask Hits	Result
Data Jitter < 0.3*Tbit;	0.17*Tbit	337.04ps	766.08mV	133.7m*Tbit	50.000M	0	Pass

Waveform/Plot



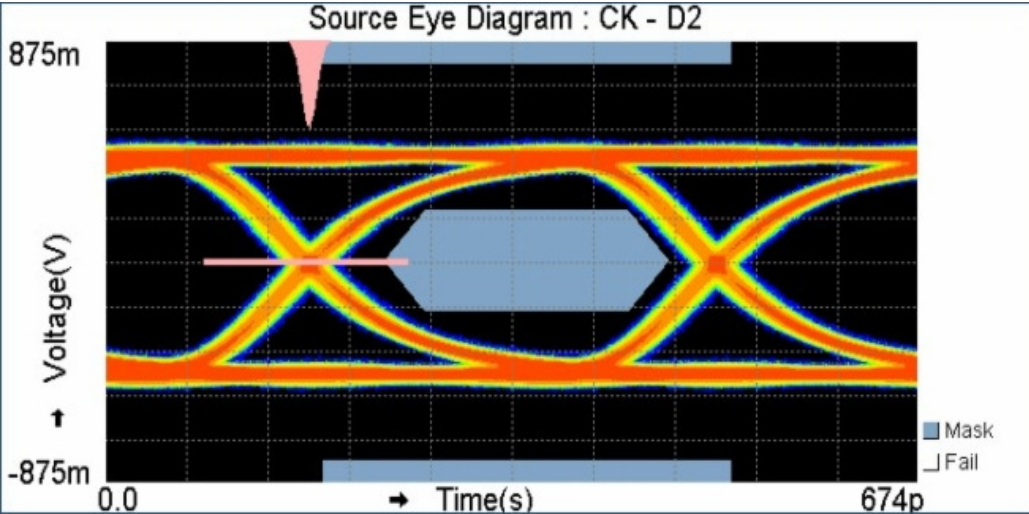
Results	
Mask Test	PASS
Mask Hits	0
Vswing	766.08mV
Tbit	337.04ps
Data Jitter	56.0ps

▶ 7-10 : Source Eye Diagram : CK - D2

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Mask Hits	Result
Data Jitter < 0.3*Tbit;	0.15*Tbit	337.04ps	853.20mV	148.0m*Tbit	50.000M	0	Pass

▶ Waveform/Plot



Results	
Mask Test	PASS
Mask Hits	0
Vswing	853.20mV
Tbit	337.04ps
Data Jitter	51.2ps

▶ 7-6 : Source Inter-Pair Skew : D0 - D1

▶ Results

Spec Range	Meas Value	Tbit	Vs(D0 - D1)	Min	Max	Avg	Result
Skew < 0.2*TPixel;	0.002*TPixel	337.04ps	= 817.80mV, Vs = 750.12mV	3.7500p	10.667p	6.6596p	Pass

▶ 7-6 : Source Inter-Pair Skew : D1 - D2

▶ Results

Spec Range	Meas Value	Tbit	Vs(D1 - D2)	Min	Max	Avg	Result
Skew < 0.2*TPixel;	0.004*TPixel	337.04ps	= 750.12mV, Vs = 867.36mV	10.000p	15.368p	12.779p	Pass

▶ 7-6 : Source Inter-Pair Skew : D2 - D0

▶ Results

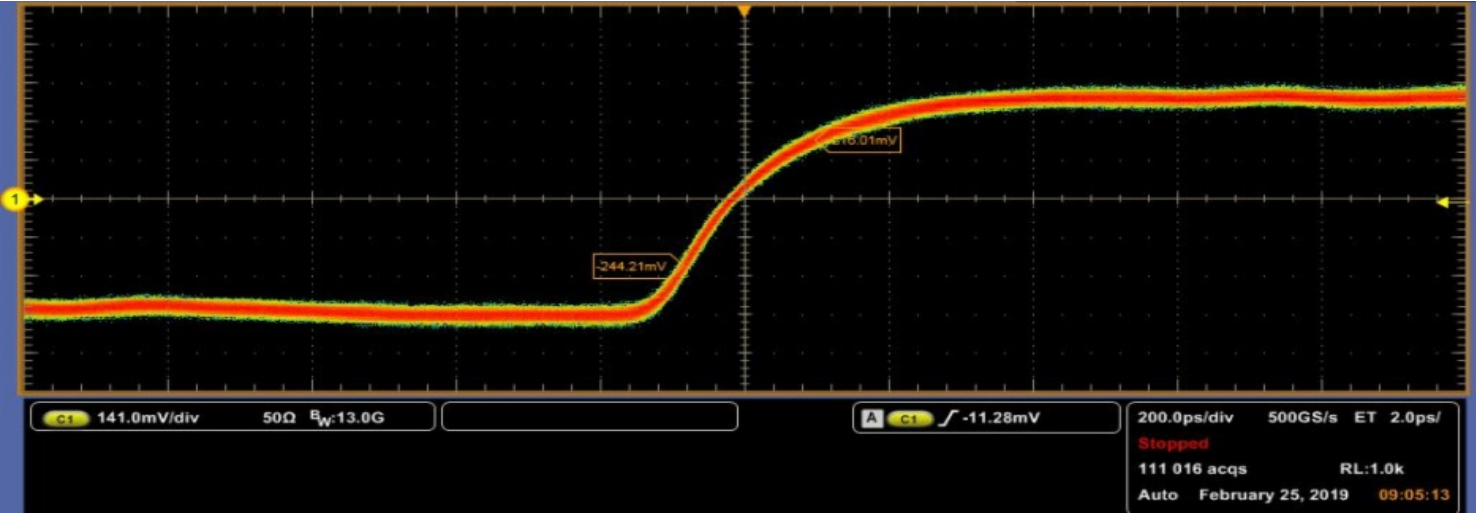
Spec Range	Meas Value	Tbit	Vs(D2 - D0)	Min	Max	Avg	Result
Skew < 0.2*TPixel;	0.006*TPixel	337.04ps	= 867.36mV, Vs = 817.80mV	13.750p	22.574p	18.903p	Pass

▶ 7-4 : Source Rise Time : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	181.32ps	337.04ps	767.04mV	106.3ps	Pass

Waveform/Plot



7-4 : Source Rise Time : D0

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	160.63ps	337.04ps	767.04mV	85.63ps	Pass

Waveform/Plot



7-4 : Source Rise Time : D1

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	157.45ps	337.04ps	723.52mV	82.45ps	Pass

Waveform/Plot



7-4 : Source Rise Time : D2

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	156.28ps	337.04ps	817.44mV	81.28ps	Pass

Waveform/Plot

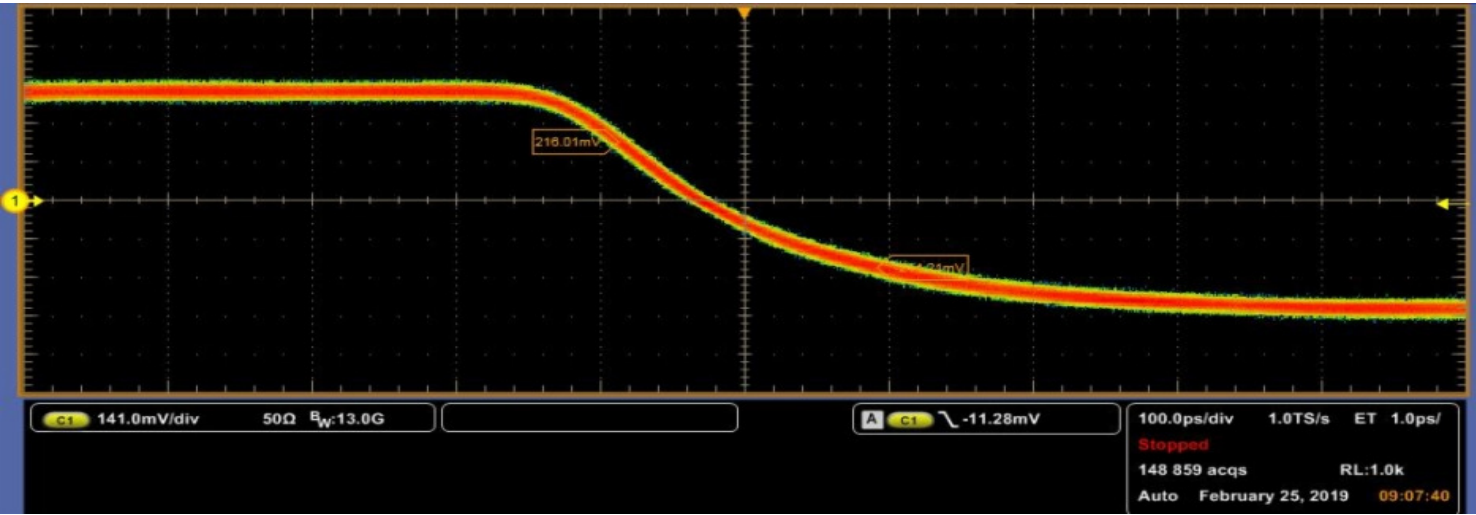


7-4 : Source Fall Time : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	179.13ps	337.04ps	767.04mV	104.1ps	Pass

Waveform/Plot

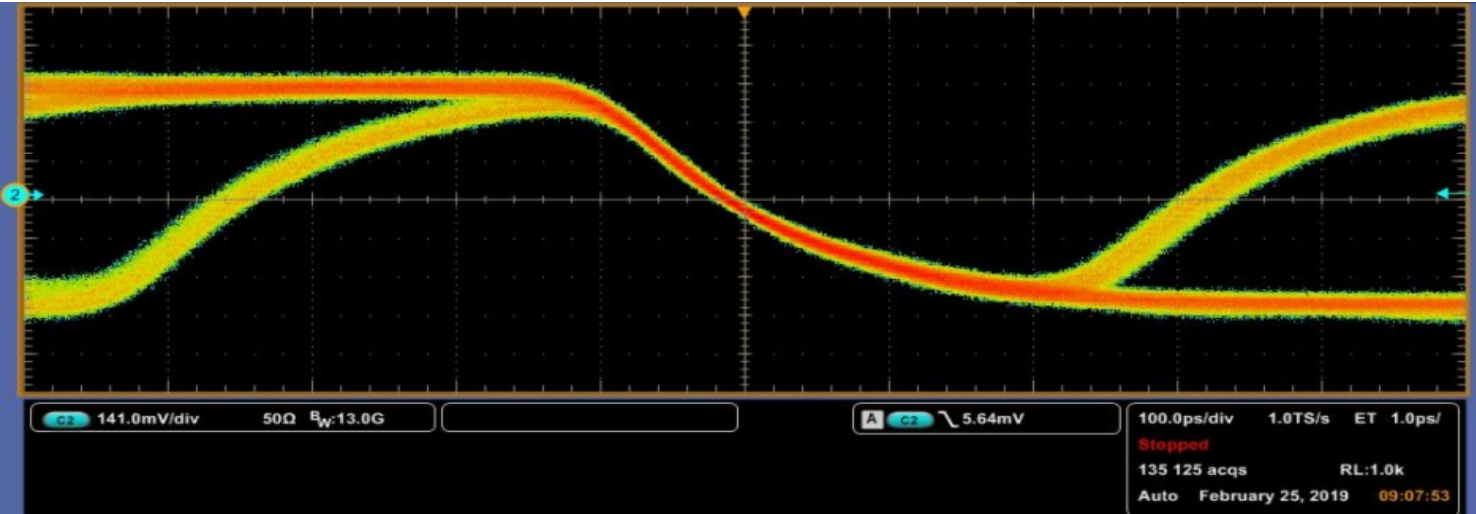


▶ 7-4 : Source Fall Time : D0

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	155.88ps	337.04ps	767.04mV	80.88ps	Pass

▶ Waveform/Plot

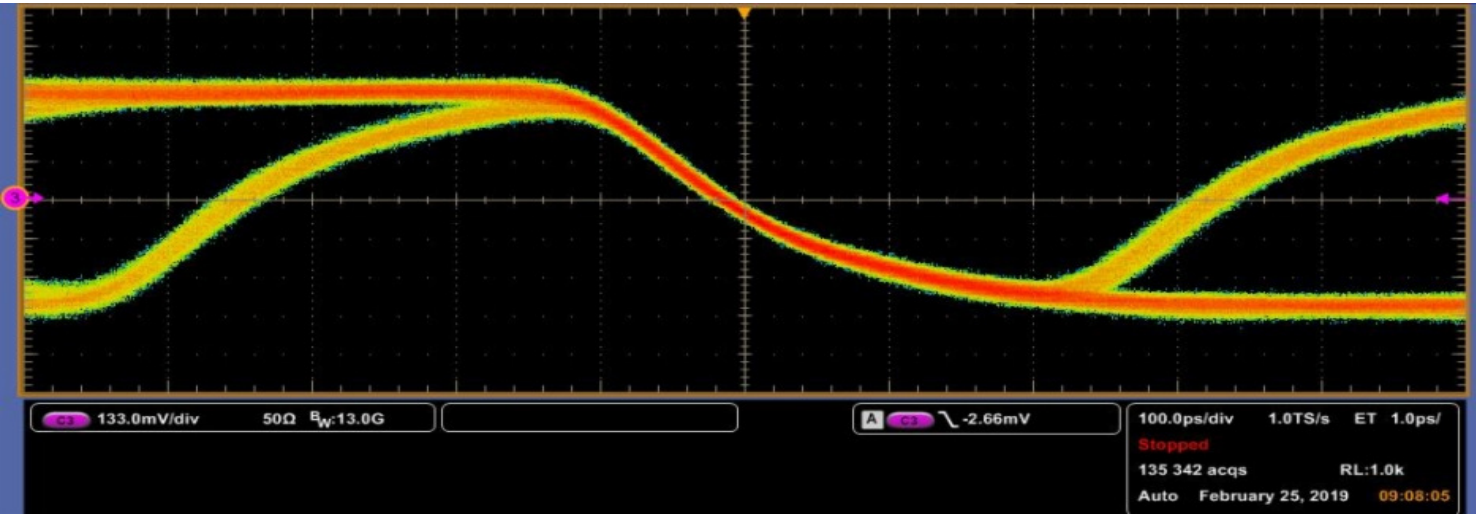


▶ 7-4 : Source Fall Time : D1

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	158.86ps	337.04ps	723.52mV	83.86ps	Pass

▶ Waveform/Plot

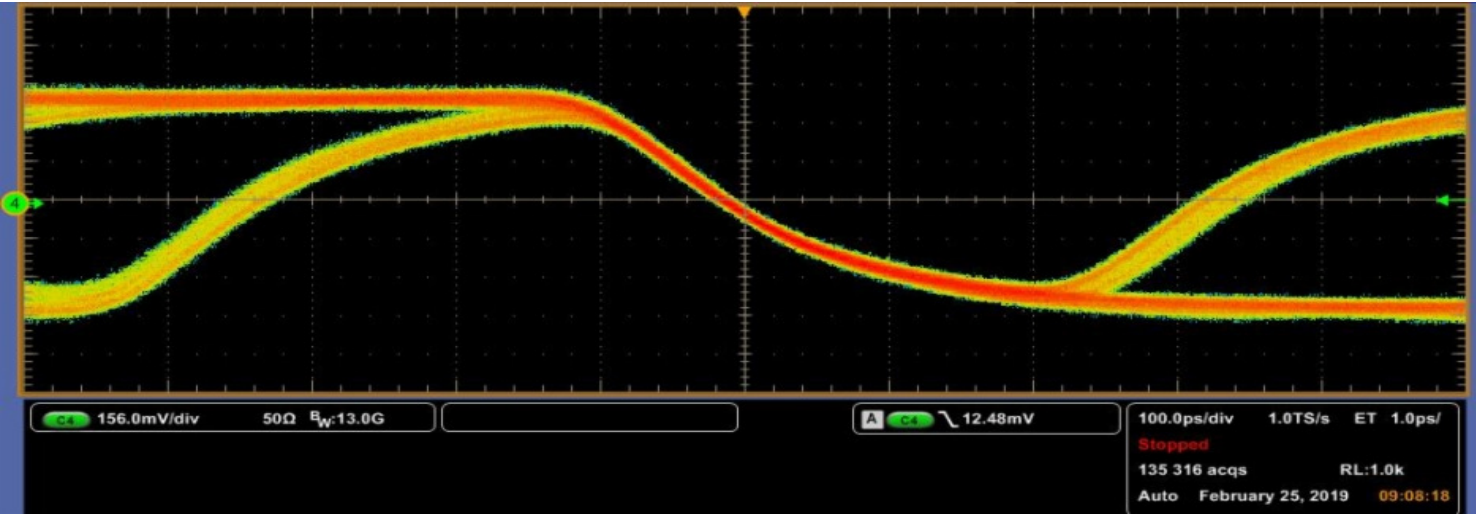


7-4 : Source Fall Time : D2

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	151.16ps	337.04ps	817.44mV	76.16ps	Pass

Waveform/Plot

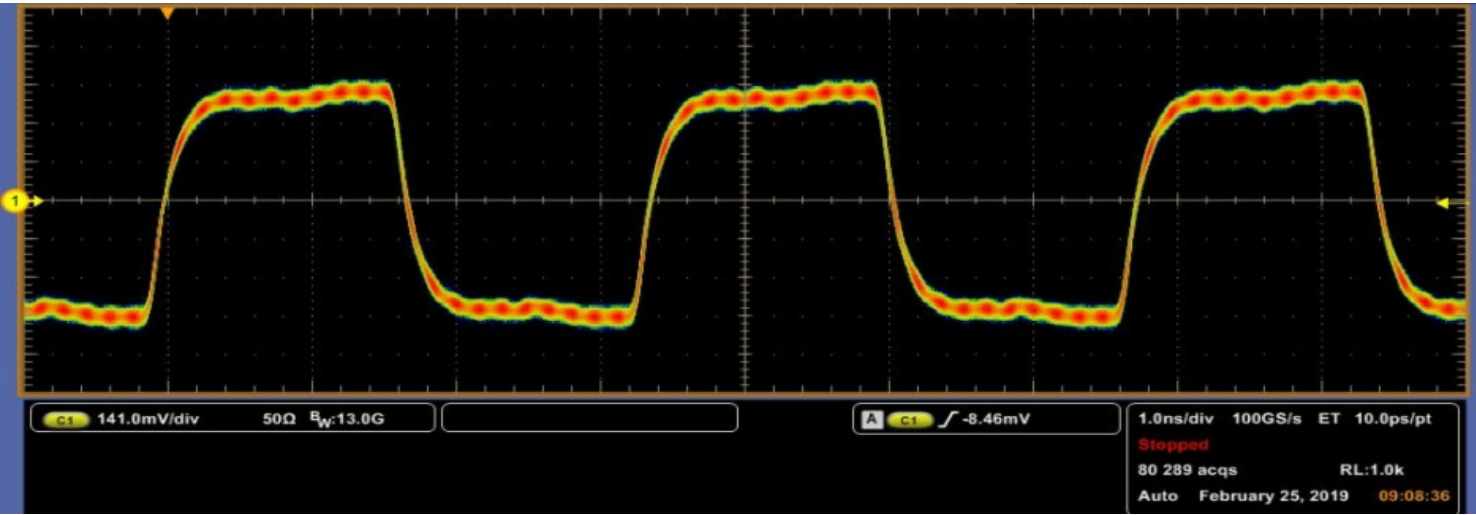


7-8 : Max Duty Cycle : CK

Results

Spec Range	Meas Value	Tbit	Margin	Result
Max Duty Cycle < 60.0%;	51.03%	337.04ps	8.97%	Pass

Waveform/Plot

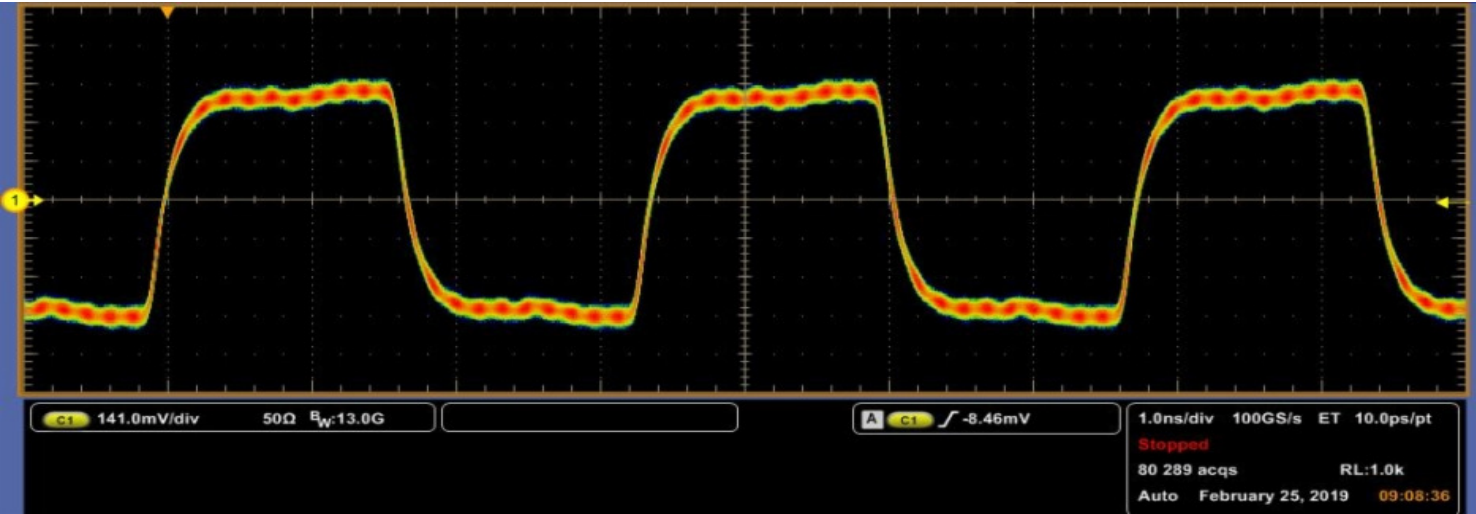


7-8 : Min Duty Cycle : CK

Results

Spec Range	Meas Value	Tbit	Margin	Result
40.0% < Min Duty Cycle;	49.85%	337.04ps	9.85%	Pass

Waveform/Plot

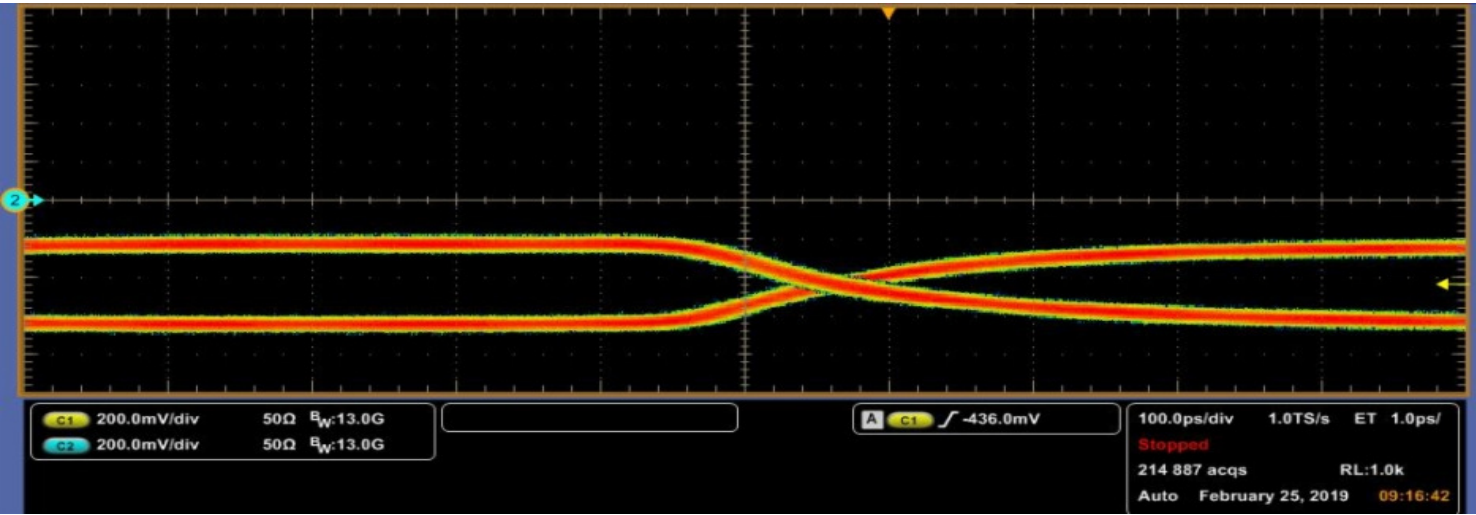


7-7 : Source Intra-Pair Skew : CK

Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.012*Tbit	337.04ps	0.14*Tbit	Pass

Waveform/Plot

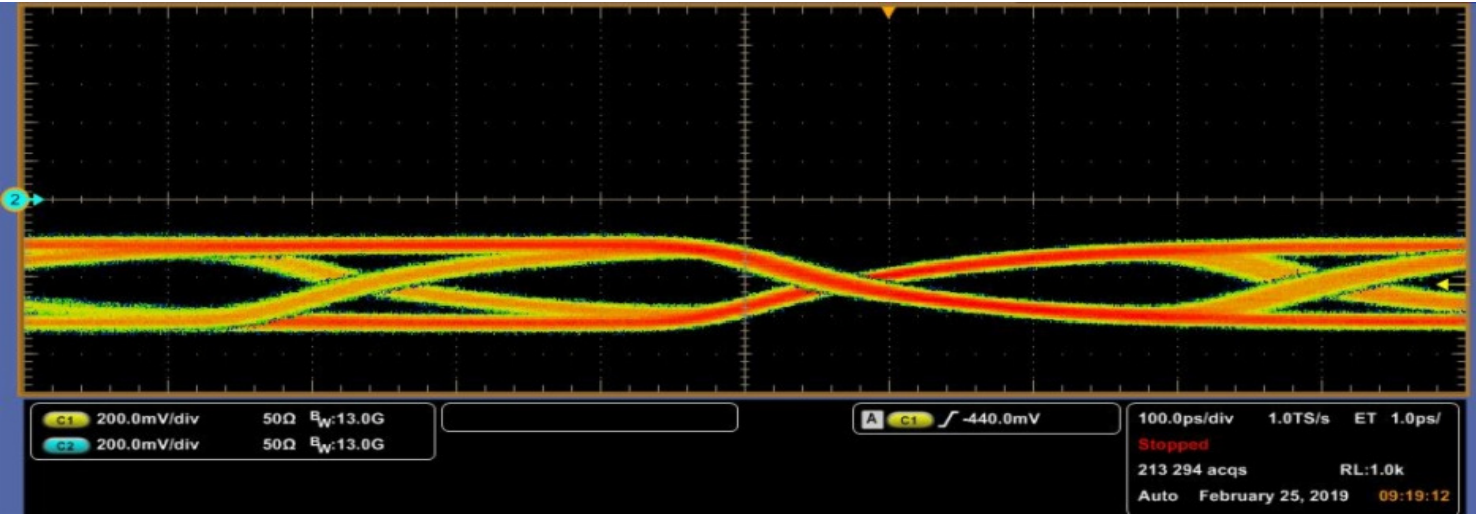


7-7 : Source Intra-Pair Skew : D0

Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.012*Tbit	337.04ps	0.14*Tbit	Pass

Waveform/Plot

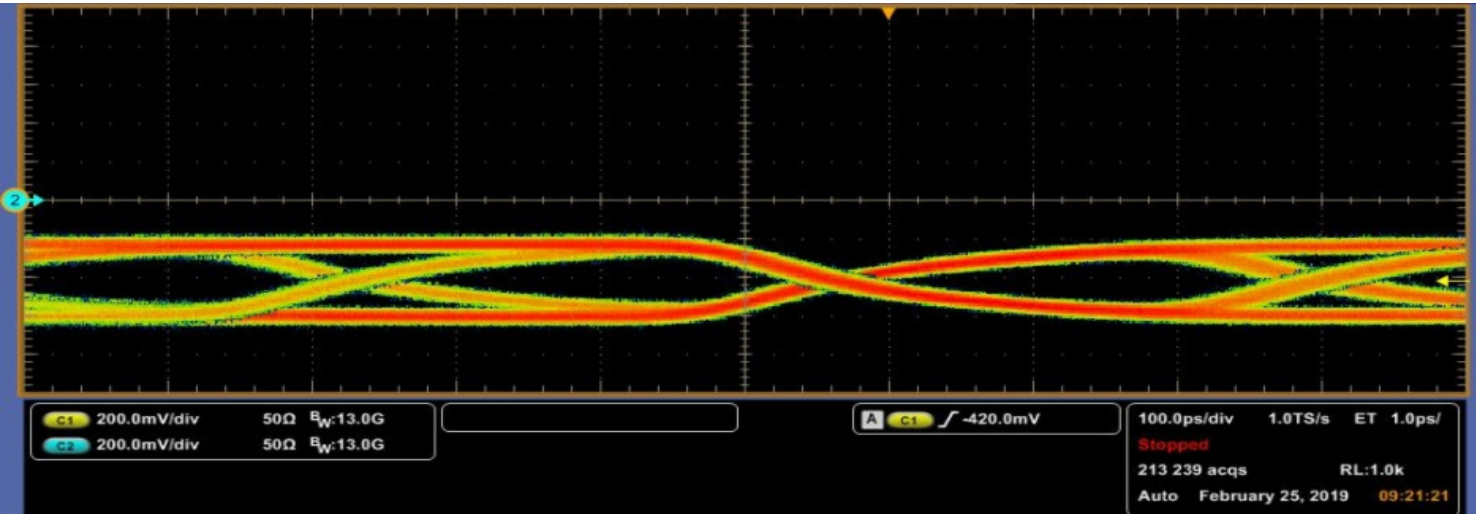


7-7 : Source Intra-Pair Skew : D1

Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.0*Tbit	337.04ps	0.15*Tbit	Pass

Waveform/Plot

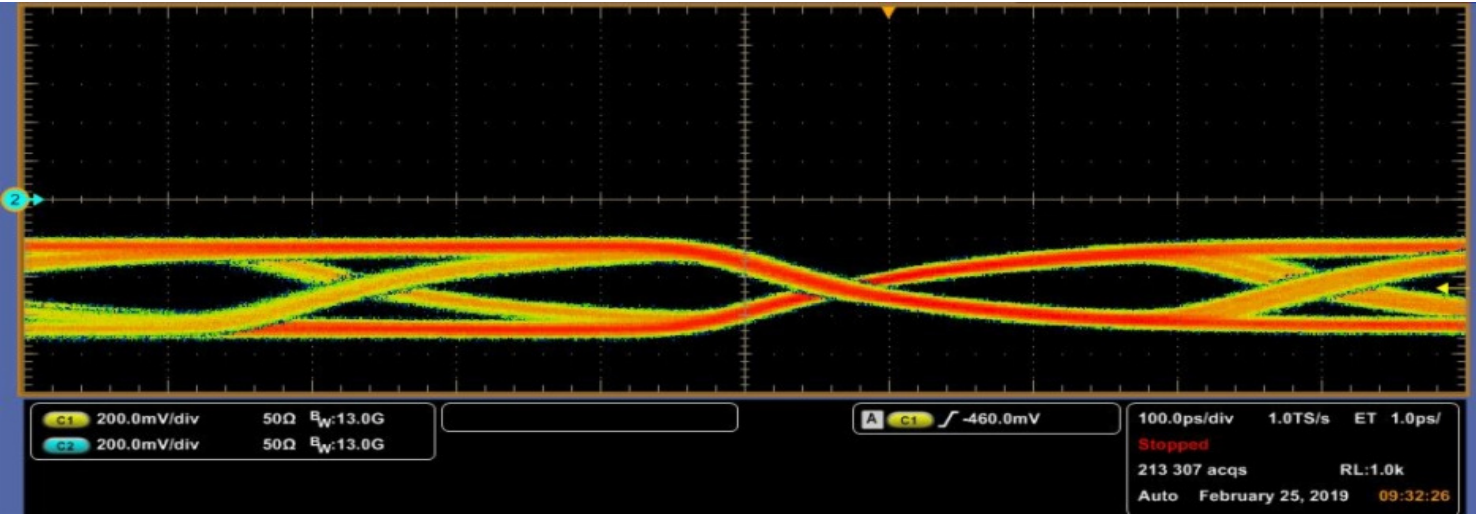


▶ 7-7 : Source Intra-Pair Skew : D2

▶ Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.027*Tbit	337.04ps	0.12*Tbit	Pass

▶ Waveform/Plot



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