

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) 296.703
 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;	0.12*Tbit	Pass
2	7-10 : Source Eye Diagram	CK - D0	Data Jitter < 0.3*Tbit;	0.16*Tbit	Pass
3	7-10 : Source Eye Diagram	CK - D1	Data Jitter < 0.3*Tbit;	0.15*Tbit	Pass
4	7-10 : Source Eye Diagram	CK - D2	Data Jitter < 0.3*Tbit;	0.18*Tbit	Pass
5	7-6 : Source Inter-Pair Skew	D0 - D1	Skew < 0.2*TPixel;	0.003*TPixel	Pass
6	7-6 : Source Inter-Pair Skew	D1 - D2	Skew < 0.2*TPixel;	0.005*TPixel	Pass
7	7-6 : Source Inter-Pair Skew	D2 - D0	Skew < 0.2*TPixel;	0.008*TPixel	Pass
8	7-4 : Source Rise Time	CK	75.00ps < TRISE;	170.53ps	Pass
9	7-4 : Source Rise Time	D0	75.00ps < TRISE;	162.43ps	Pass
10	7-4 : Source Rise Time	D1	75.00ps < TRISE;	157.39ps	Pass
11	7-4 : Source Rise Time	D2	75.00ps < TRISE;	136.73ps	Pass
12	7-4 : Source Fall Time	CK	75.00ps < TFALL;	169.85ps	Pass
13	7-4 : Source Fall Time	D0	75.00ps < TFALL;	161.23ps	Pass
14	7-4 : Source Fall Time	D1	75.00ps < TFALL;	160.14ps	Pass
15	7-4 : Source Fall Time	D2	75.00ps < TFALL;	163.22ps	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;	0.018*Tbit	Pass
19	7-7 : Source Intra-Pair Skew	D0	Skew < 0.15*Tbit;	0.042*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;	0.006*Tbit	Pass

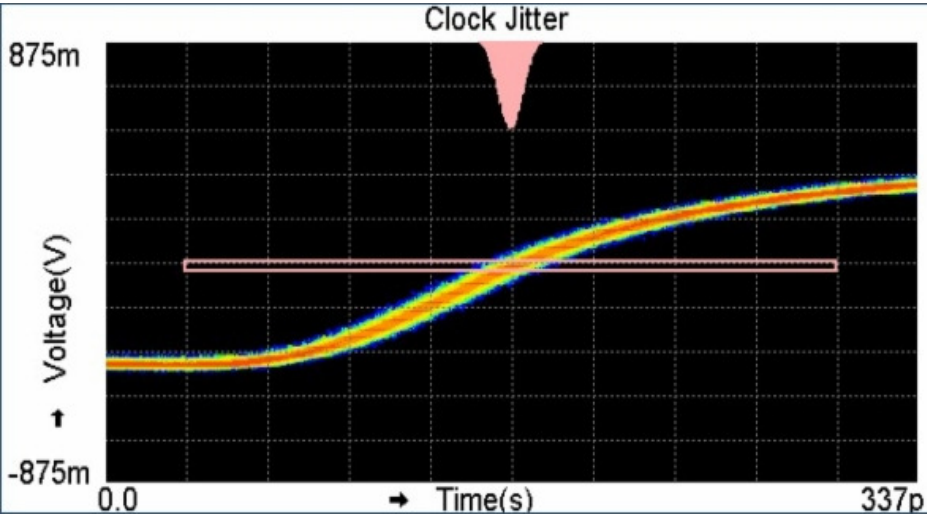
Detailed Results

7-9 : Source Clock Jitter : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Result
Clock Jitter < 0.25*Tbit;	0.12*Tbit	337.04ps	739.48mV	0.13*Tbit	50.000M	Pass

Waveform/Plot



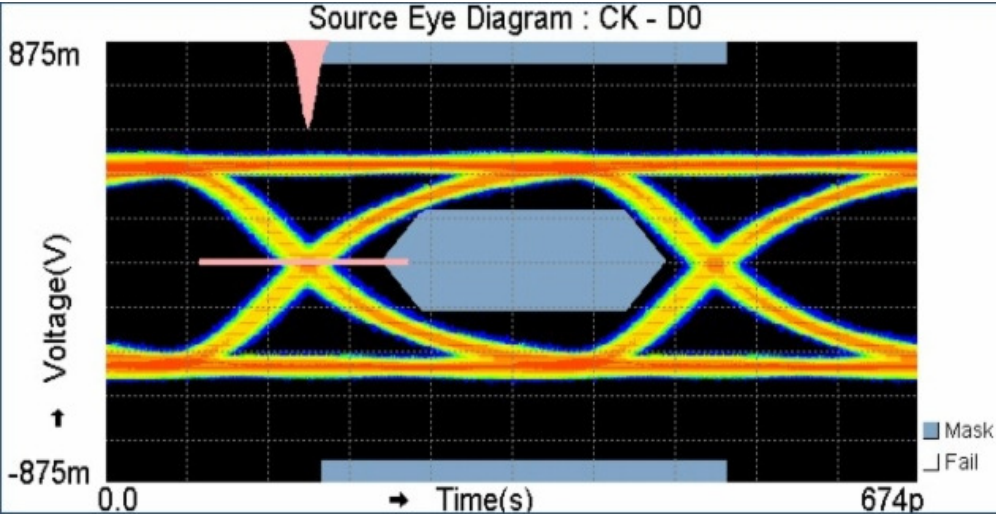
Results	
Result	PASS
Pk-Pk	40.4ps
Vswing	739.48mV
Tbit	337.04ps

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;	0.16*Tbit	337.04ps	794.60mV	143.2m*Tbit	50.000M	0	Pass

Waveform/Plot



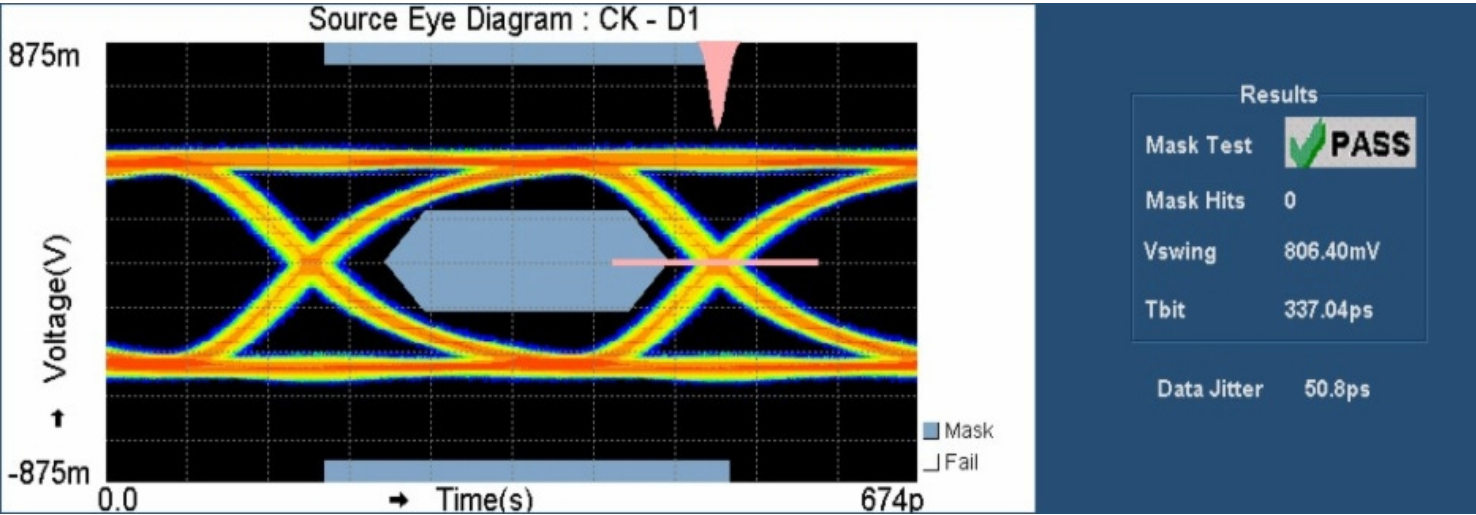
Results	
Mask Test	PASS
Mask Hits	0
Vswing	794.60mV
Tbit	337.04ps
Data Jitter	52.8ps

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;	0.15*Tbit	337.04ps	806.40mV	149.3m*Tbit	50.000M	0	Pass

Waveform/Plot

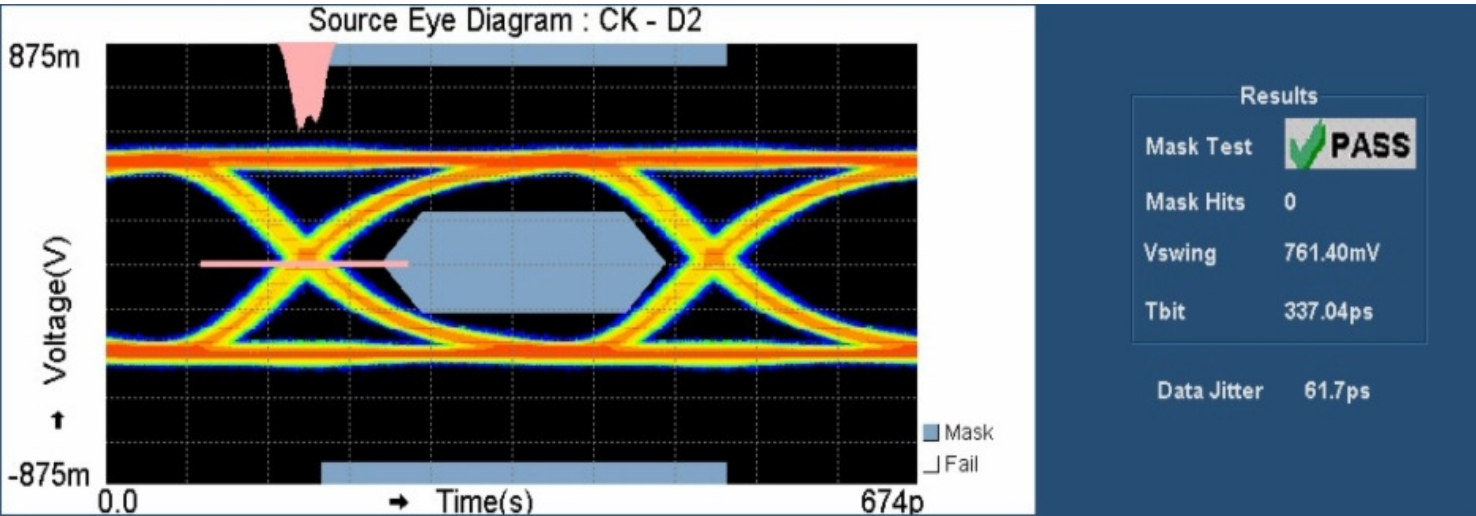


7-10 : Source Eye Diagram : CK - D2

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Record Length	Mask Hits	Result
Data Jitter < 0.3*Tbit;	0.18*Tbit	337.04ps	761.40mV	116.9m*Tbit	50.000M	0	Pass

Waveform/Plot



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;	0.003*TPixel	337.04ps	= 806.52mV, Vs = 817.80mV	7.2368p	14.444p	10.917p	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;	0.005*TPixel	337.04ps	= 817.80mV, Vs = 745.28mV	12.778p	19.444p	17.731p	Pass

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

Results

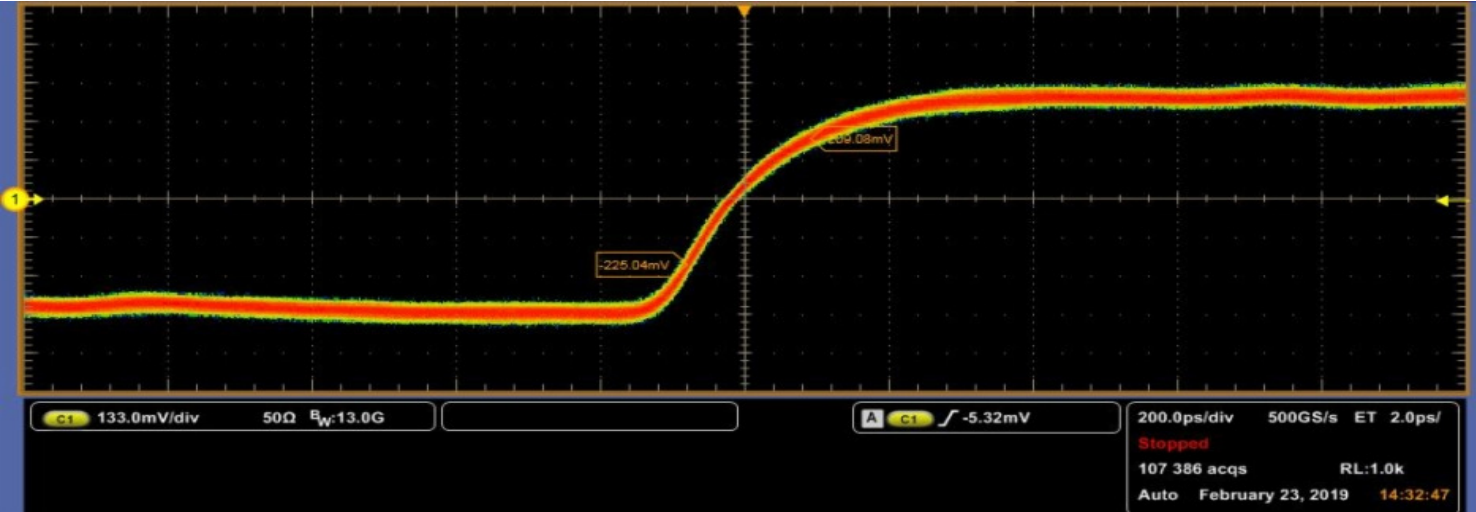
Spec Range	Meas Value	Tbit	Vs(D2 - D0)	Min	Max	Avg	Result
Skew < 0.2*TPixel;	0.008*TPixel	337.04ps	= 745.28mV, Vs = 806.52mV	24.333p	33.298p	28.347p	Pass

7-4 : Source Rise Time : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	170.53ps	337.04ps	723.52mV	95.53ps	Pass

Waveform/Plot

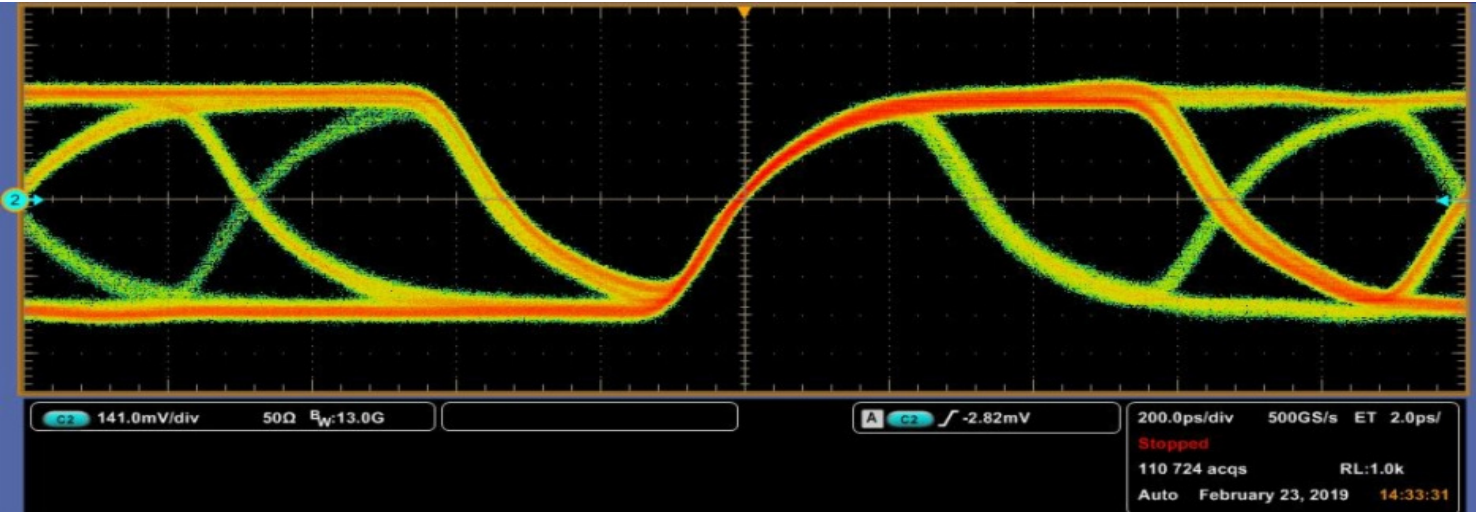


7-4 : Source Rise Time : D0

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	162.43ps	337.04ps	767.04mV	87.43ps	Pass

Waveform/Plot



7-4 : Source Rise Time : D1

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	157.39ps	337.04ps	772.68mV	82.39ps	Pass

Waveform/Plot

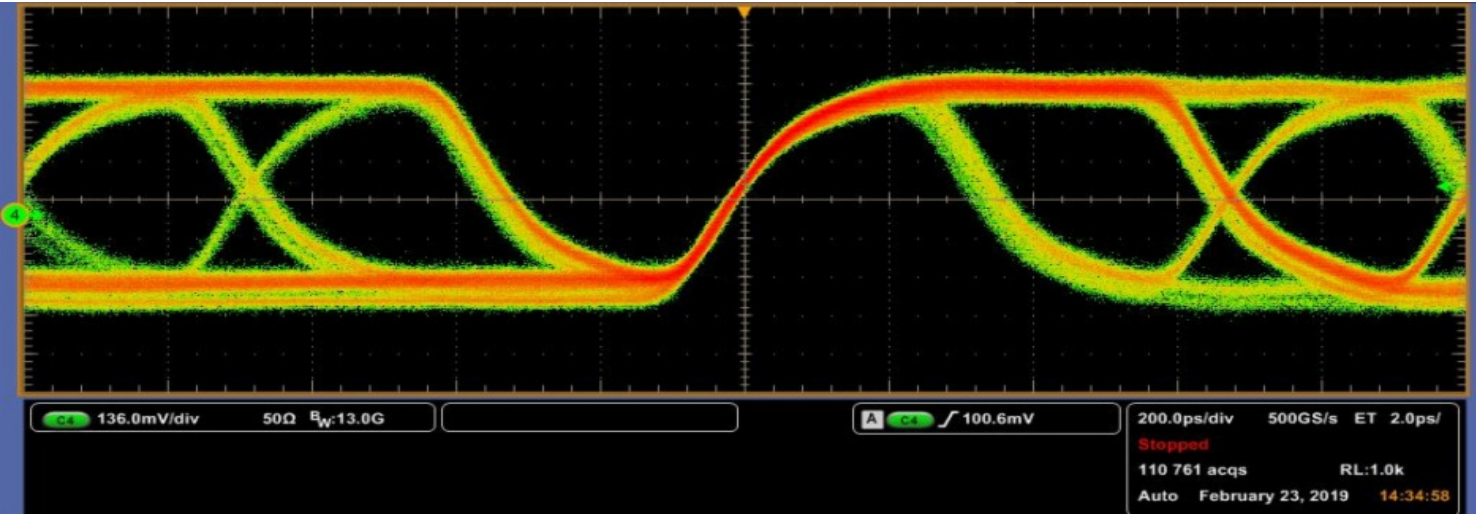


7-4 : Source Rise Time : D2

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TRISE;	136.73ps	337.04ps	728.96mV	61.73ps	Pass

Waveform/Plot

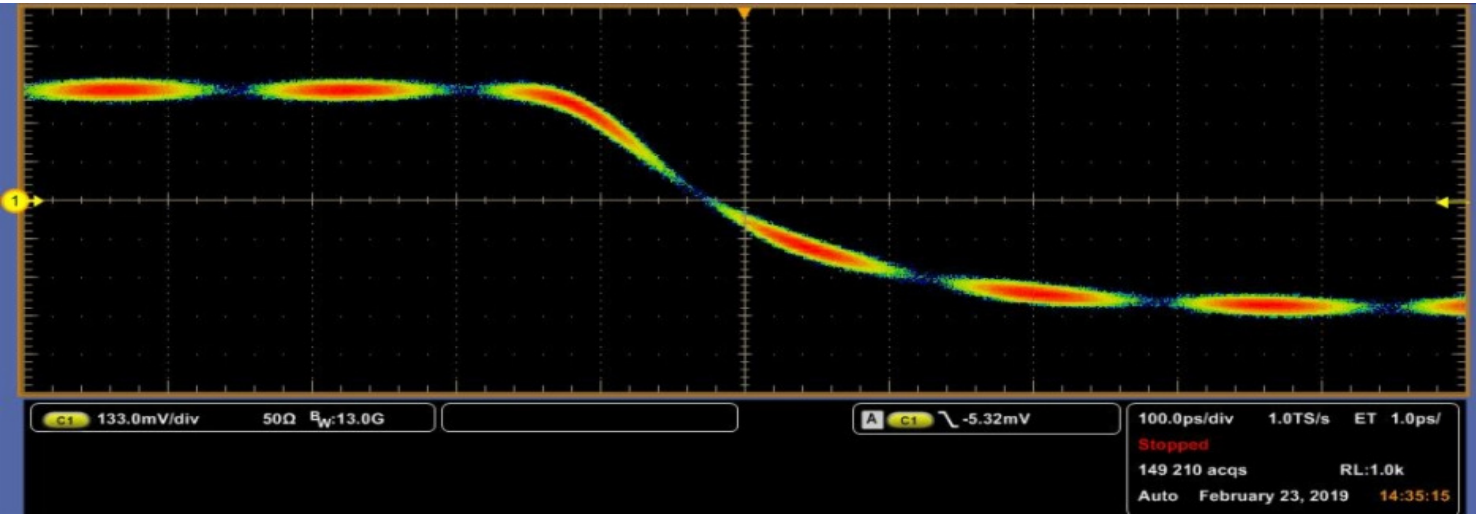


7-4 : Source Fall Time : CK

Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	169.85ps	337.04ps	723.52mV	94.85ps	Pass

Waveform/Plot

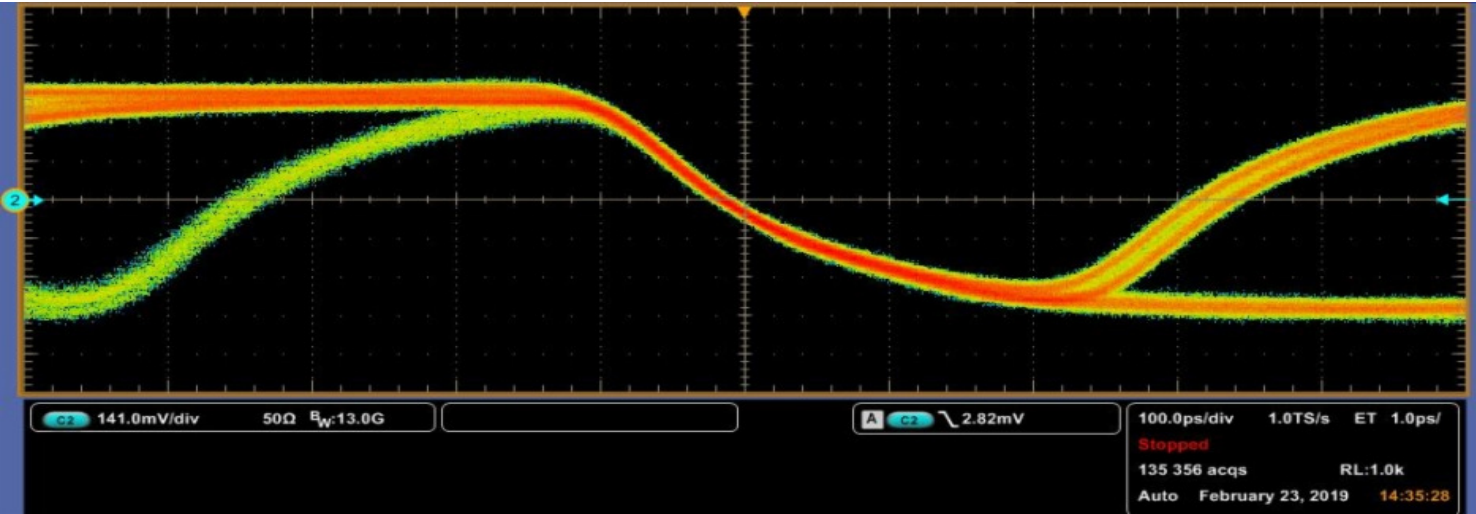


▶ 7-4 : Source Fall Time : D0

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	161.23ps	337.04ps	767.04mV	86.23ps	Pass

▶ Waveform/Plot

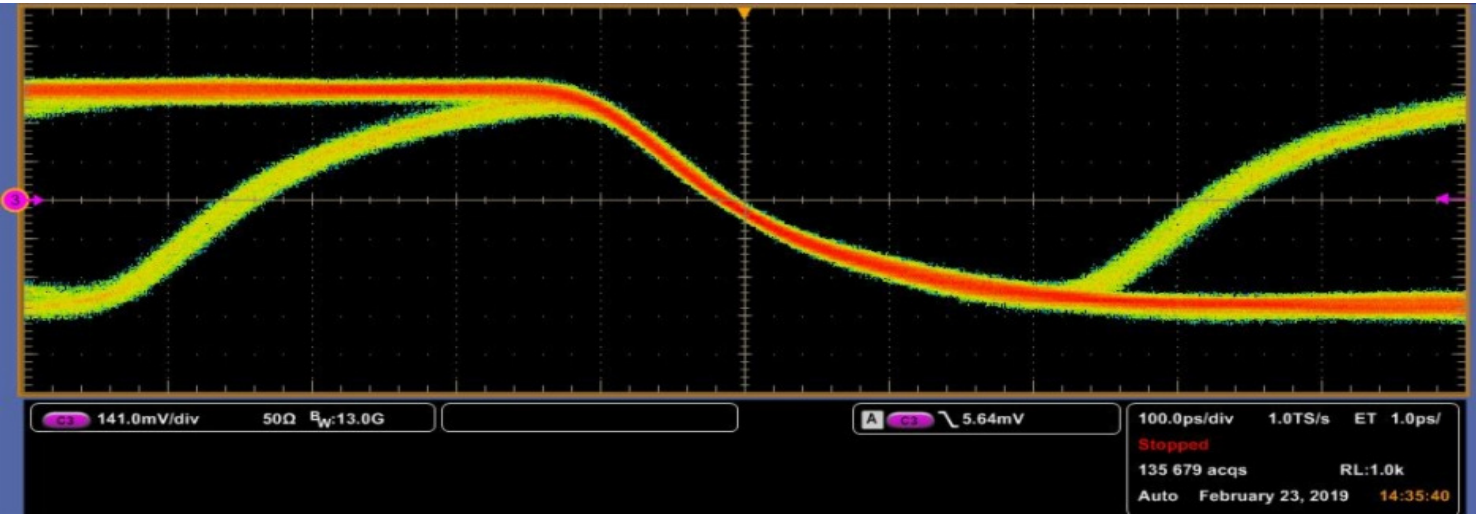


▶ 7-4 : Source Fall Time : D1

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	160.14ps	337.04ps	772.68mV	85.14ps	Pass

▶ Waveform/Plot

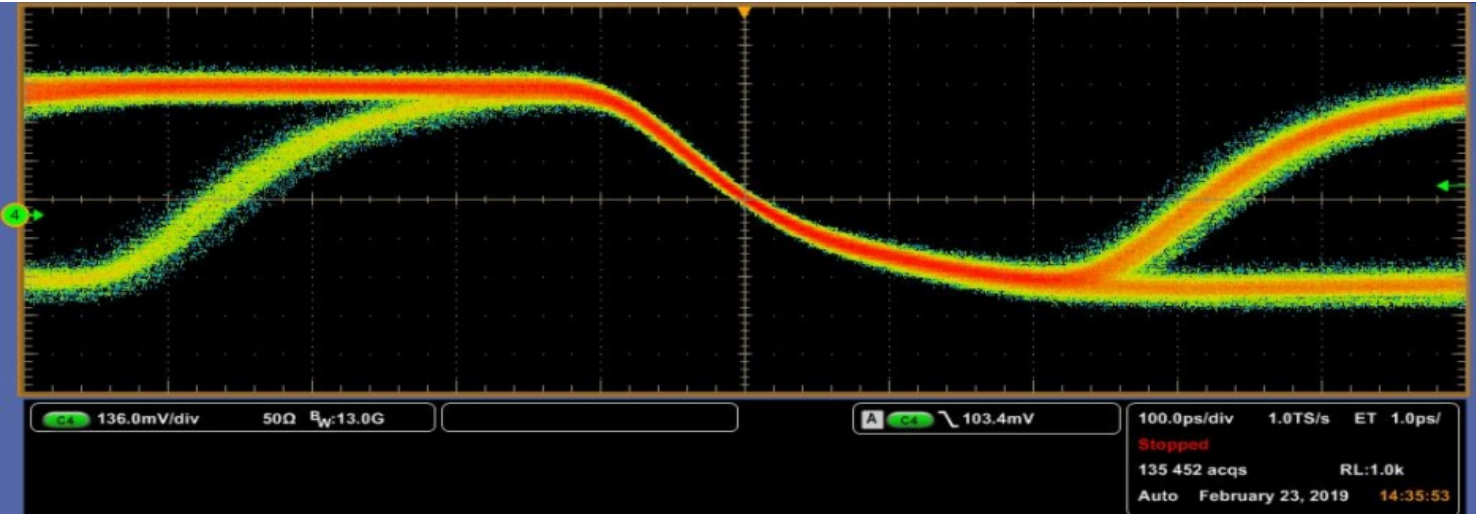


▶ 7-4 : Source Fall Time : D2

▶ Results

Spec Range	Meas Value	Tbit	Vs	Margin	Result
75.00ps < TFALL;	163.22ps	337.04ps	728.96mV	88.22ps	Pass

▶ Waveform/Plot

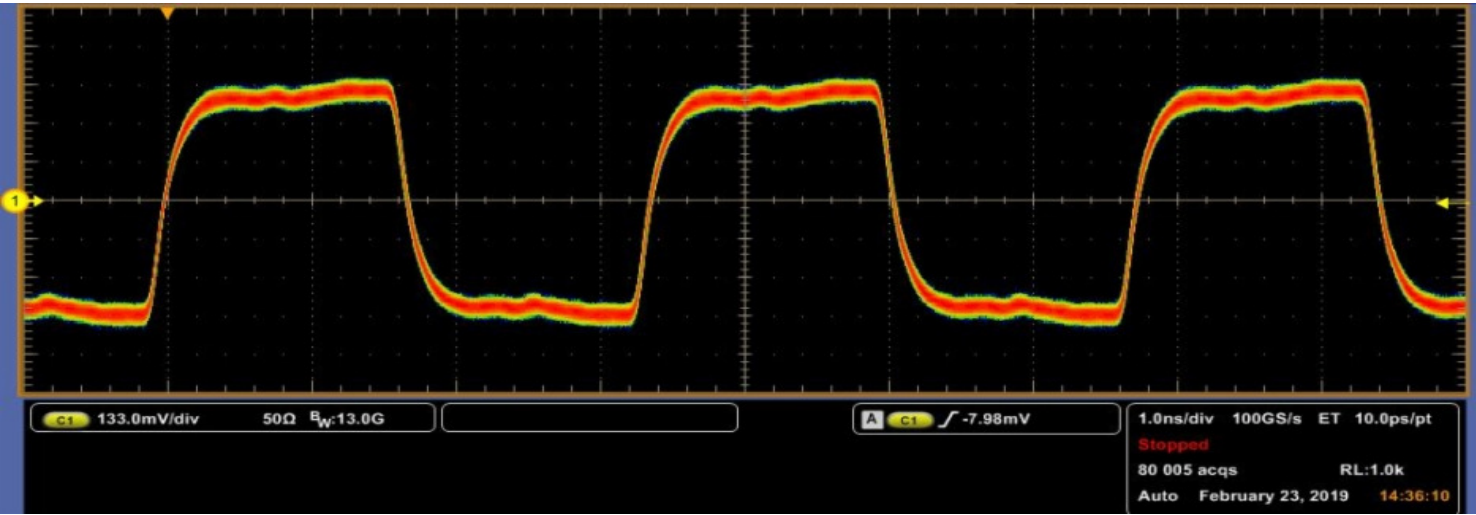


▶ 7-8 : Max Duty Cycle : CK

▶ Results

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

▶ Waveform/Plot

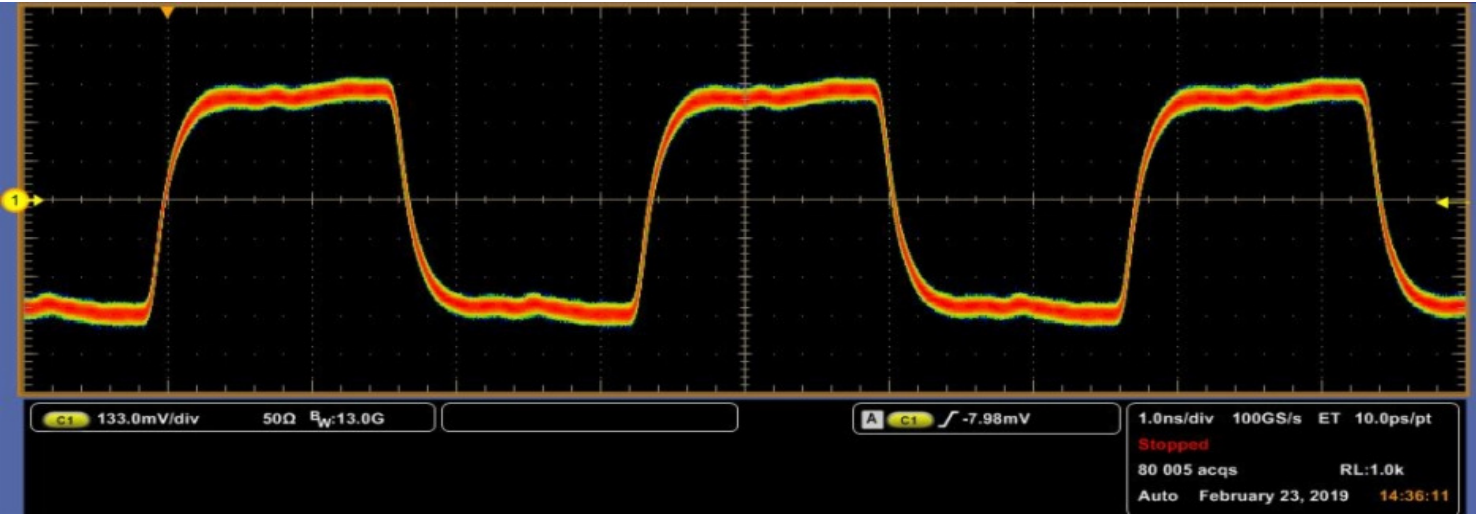


▶ 7-8 : Min Duty Cycle : CK

▶ Results

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

▶ Waveform/Plot

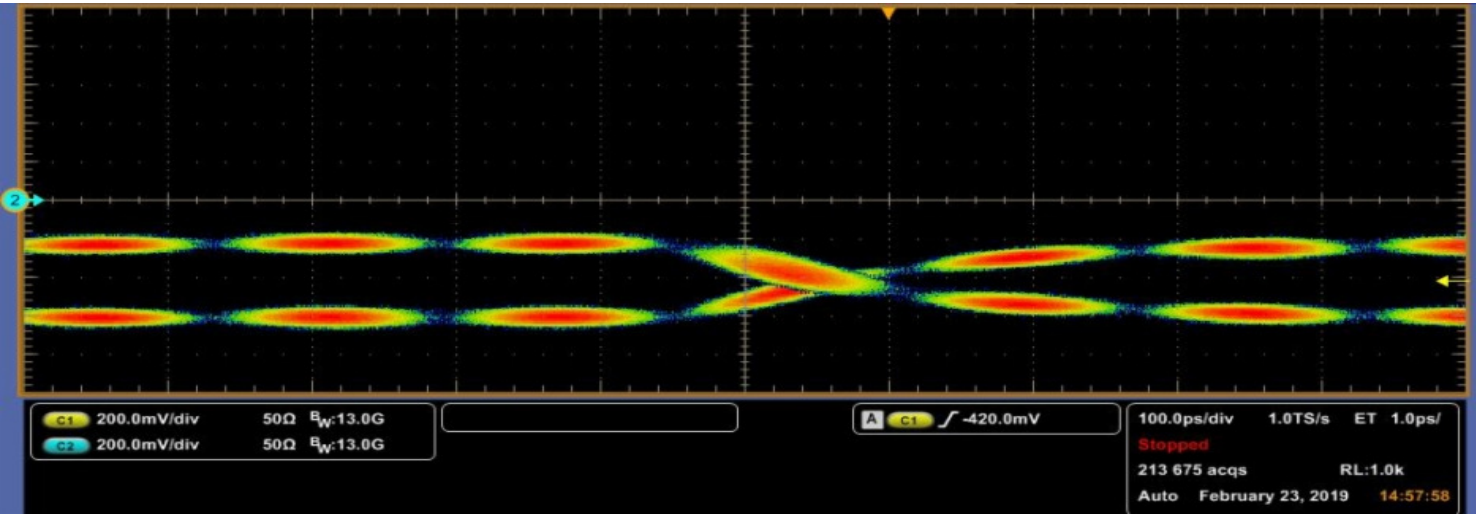


▶ 7-7 : Source Intra-Pair Skew : CK

▶ Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.018*Tbit	337.04ps	0.13*Tbit	Pass

▶ Waveform/Plot

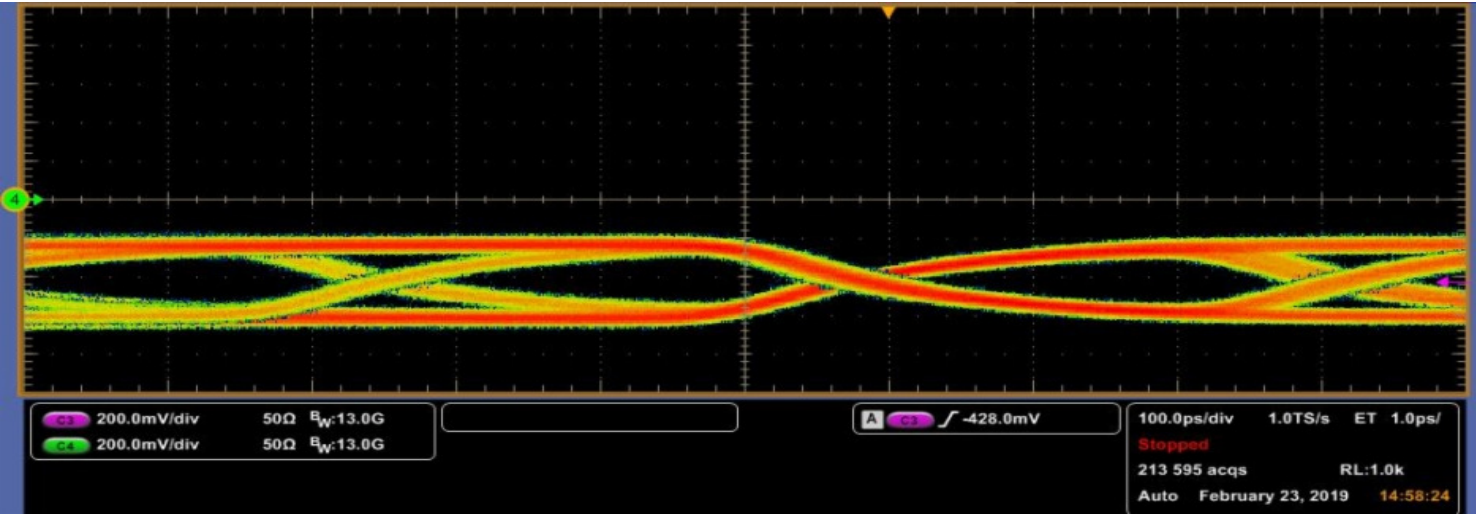


▶ 7-7 : Source Intra-Pair Skew : D0

▶ Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.042*Tbit	337.04ps	0.11*Tbit	Pass

▶ Waveform/Plot

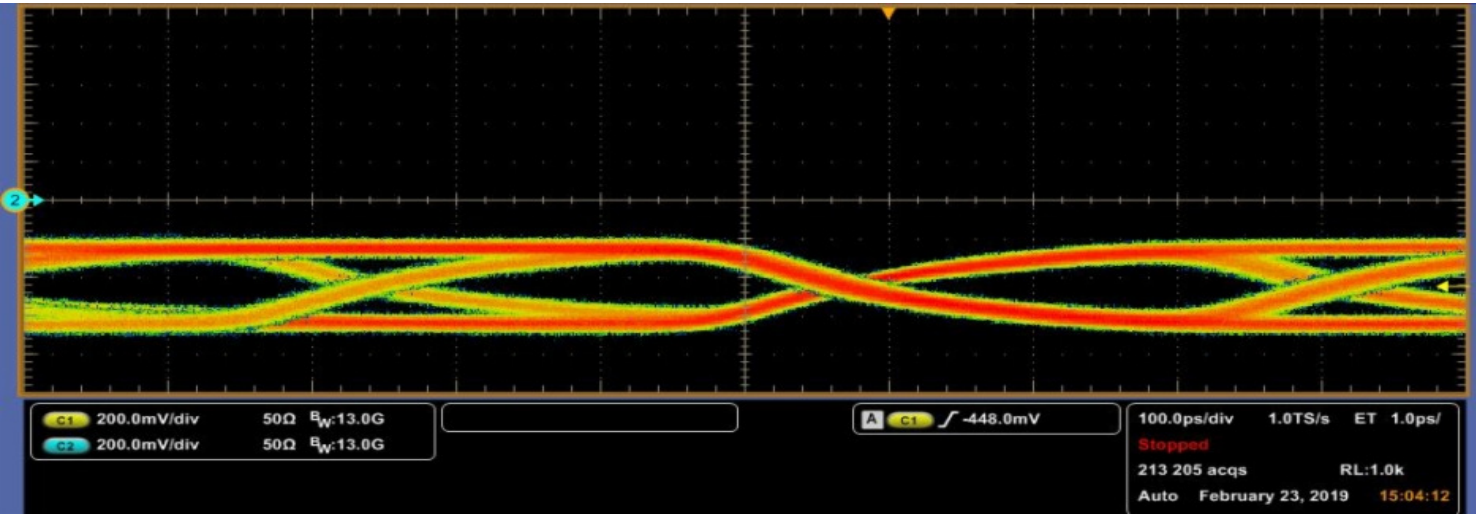


▶ 7-7 : Source Intra-Pair Skew : D1

▶ Results

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

▶ Waveform/Plot

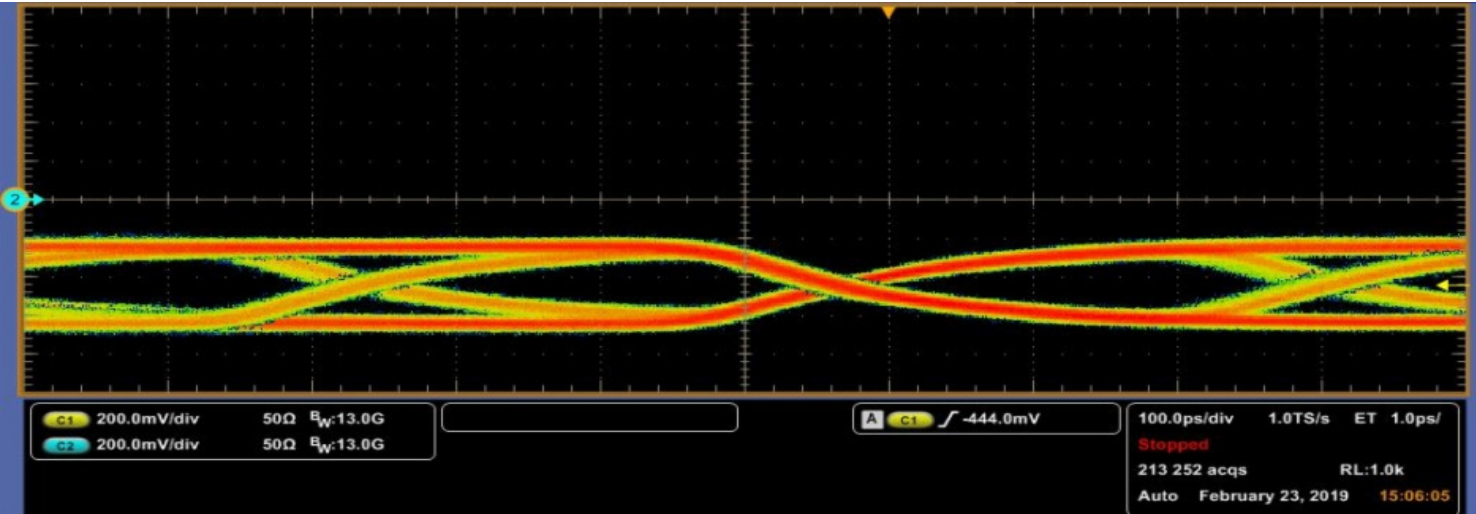


▶ 7-7 : Source Intra-Pair Skew : D2

▶ Results

Spec Range	Meas Value	Tbit	Margin	Result
Skew < 0.15*Tbit;	0.006*Tbit	337.04ps	0.14*Tbit	Pass

▶ Waveform/Plot



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