

# Test Report

## Fail

### Test Configuration Details

Application	
Name	D9010ETHC Ethernet
Version	2.62.0.0
Device Description	
Tests10BT	No
Tests100BT	No
Tests1000BT	Yes
Tests10BT_EEE	No
Tests100BT_EEE	No
Tests1000BT_EEE	No
DisturberSource	Use Keysight 33250A
ReturnLossTest	Use Vector Network Analyzer
Test Session Details	
Infiniium SW Version	06.40.01001
Infiniium Model Number	DSOS204A
Infiniium Serial Number	MY55510174
Debug Mode Used	No
Compliance Limits	IEEE Std. 802.3 Specification (official)
Probe (Channel 2)	Model: User Defined Probe Serial: No Serial Num  Atten: Not Calibrated, Using Default Atten (1.0000E+00) Skew: Not Calibrated, Using Default Skew
Probe (Channel 3)	Model: User Defined Probe Serial: No Serial Num  Atten: Not Calibrated, Using Default Atten (1.0000E+00) Skew: Not Calibrated, Using Default Skew
Probe (Channel 4)	Model: User Defined Probe Serial: No Serial Num  Atten: Not Calibrated, Using Default Atten (1.0000E+00) Skew: Not Calibrated, Using Default Skew
Last Test Date	2024-08-29 16:39:08 UTC +09:00

### Summary of Results

Test Statistics		Margin Thresholds	
Failed	3	Warning	< 2 %
Passed	0	Critical	< 0 %
Total	3		

Pass	# Failed	# Trials	Test Name (click to jump)	Actual Value	Margin	Pass Limits
✘	4	4	<a href="#">1000 Base-T, Point F Template Test(w/ Disturbing Signal)</a>	37.000	-370E+01	No Mask Failures
✘	2	3	<a href="#">1000 Base-T, Point H Template Test(w/ Disturbing Signal)</a>	595.000	-595E+02	No Mask Failures
✘	3	4	<a href="#">1000 Base-T, Transmitter Distortion(w/ Disturbing Signal)</a>	13.31 mV	-33.1	VALUE <= 10.00 mV

### Report Detail

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✘	1000 Base-T, Point F Template Test(w/ Disturbing Signal)	IEEE Std. 802.3 (IEEE802.3-2018 Subclause 40.6.1.2.3)
	Fit The Template. The voltage waveforms around points F and H defined in Figure 40-19, (after normalization) shall lie within the time domain template 2 defined in Figure 40-26 and the piecewise linear interpolation between the points in Table 40-11. The waveform around point F is normalized by dividing by the peak value of the waveform at F. Actual Value Measurement Name: Total # Failures (1000 Base-T, Point F Template Test(w/ Disturbing Signal)) Pass Limits: No Mask Failures	

#### Statistics & Details for all 4 Trials

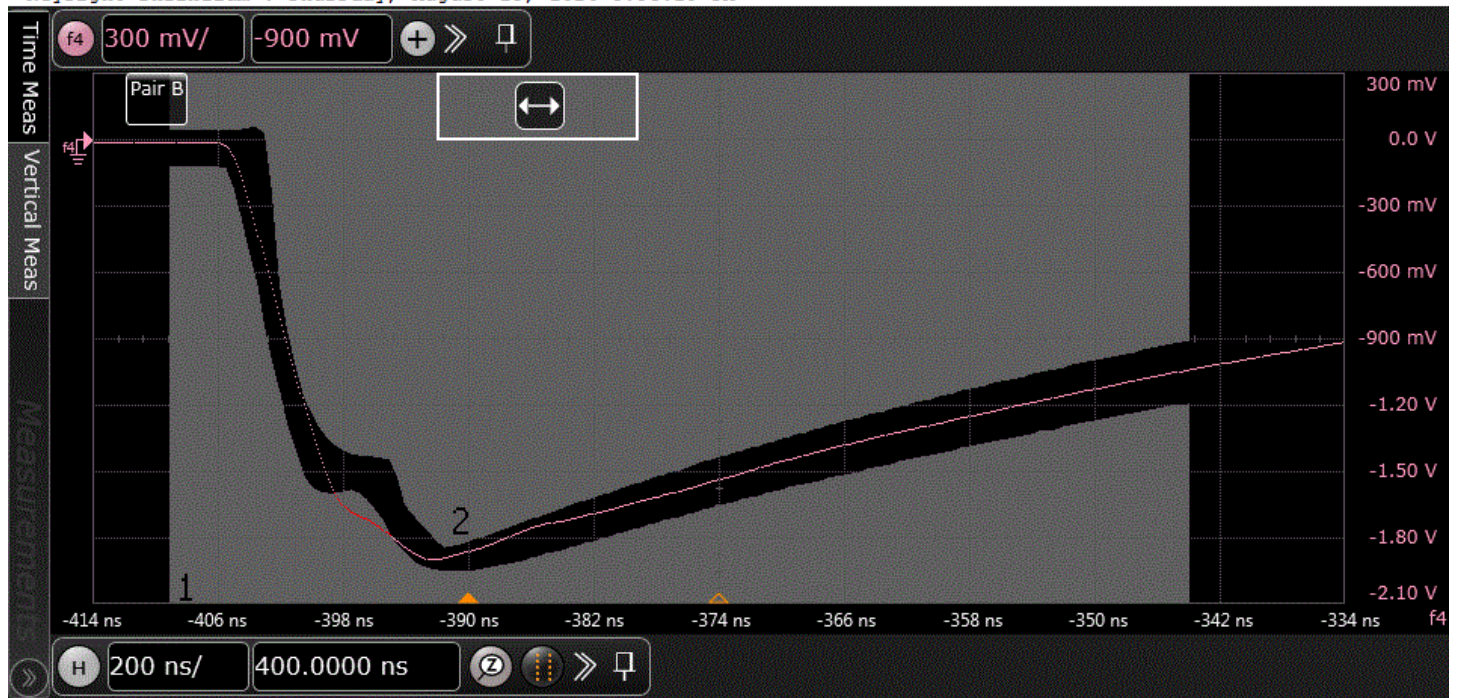
Trial #	Actual Value	Margin	Template Point F -- Failure Details	Template Point F
Avg	30.75	-3.075 k%		
StdDev	6.344	634.4 %		
Range	15.00	1.500 k%		
Min	22.00	-3.700 k%		
Max	37.00	-2.200 k%		
Sum	123.0	-12.30 k%		
✘ 2 (Worst)	37.000	-370E+01%	REGION #FAILURES 1 37 2 0	(no value)
✘ 4	33.000	-330E+01%	REGION #FAILURES 1 33 2 0	(no value)
✘ 3	31.000	-310E+01%	REGION #FAILURES 1 31 2 0	(no value)
✘ 1	22.000	-220E+01%	REGION #FAILURES 1 22 2 0	(no value)

Trial #	#Avs (1000 Base-T template tests)	# Waveforms (1000 Base-T Template Tests)	Test Pair
Avg			
StdDev			
Range			
Min			
Max			
Sum			
✘ 2 (Worst)	128.0	50.0	BI_DB
✘ 4	128.0	50.0	BI_DD
✘ 3	128.0	50.0	BI_DC
✘ 1	128.0	50.0	BI_DA

### Trial 2 Images

Template Point F--37 Failures

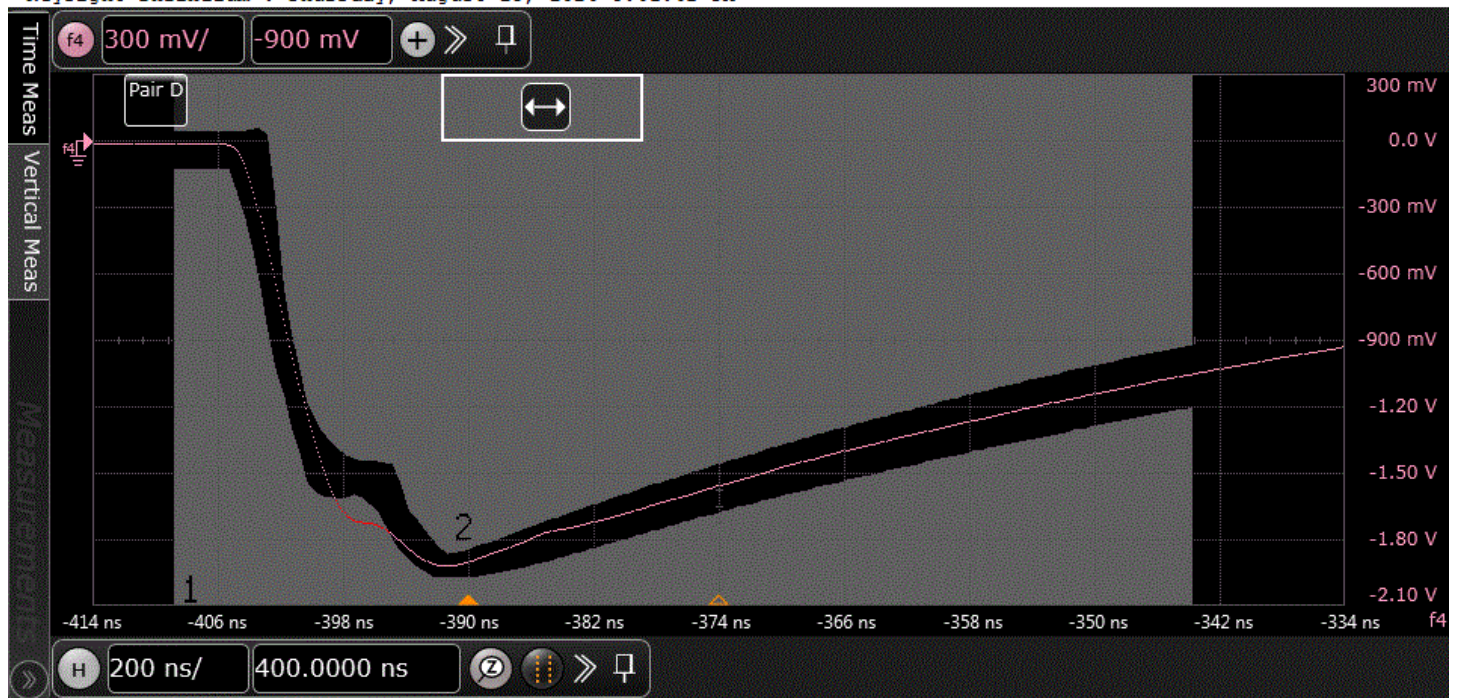
Keysight Infiniium : Thursday, August 29, 2024 3:38:10 PM



### Trial 4 Images

Template Point F-33 Failures

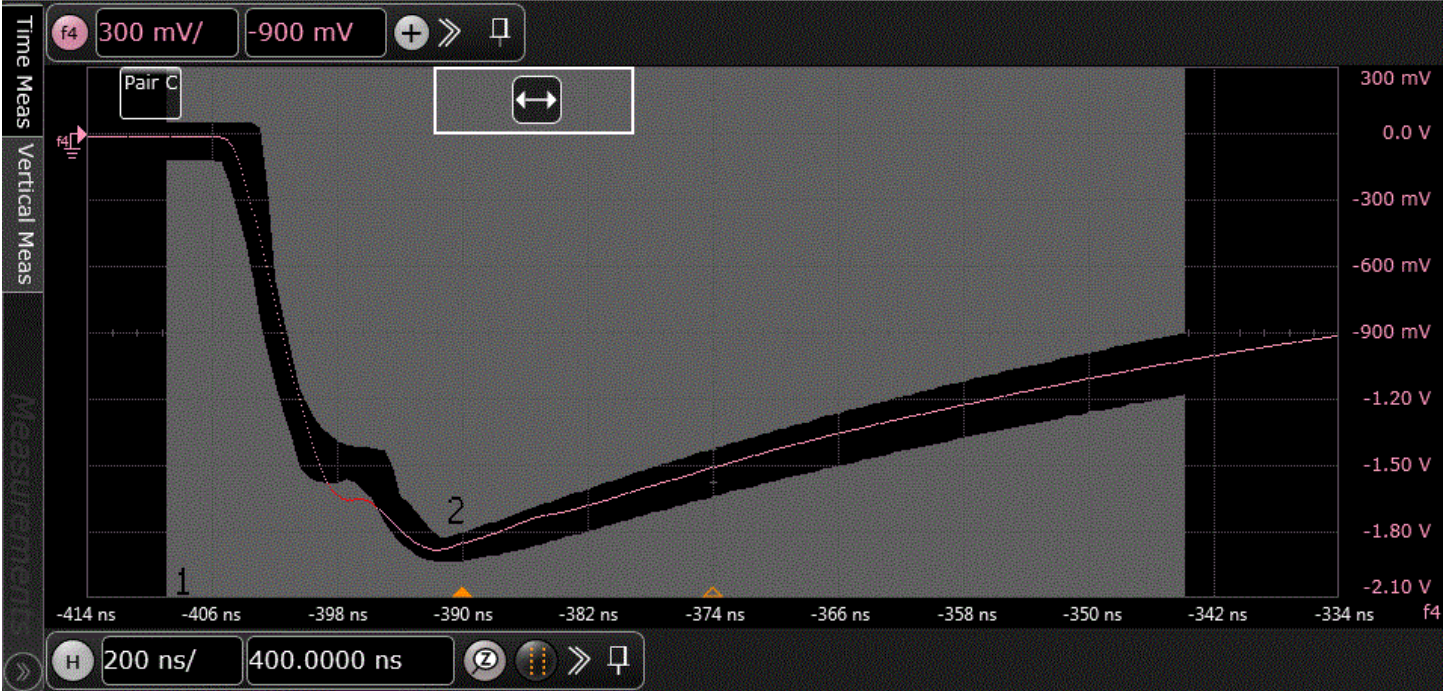
Keysight Infiniium : Thursday, August 29, 2024 3:41:41 PM



### Trial 3 Images

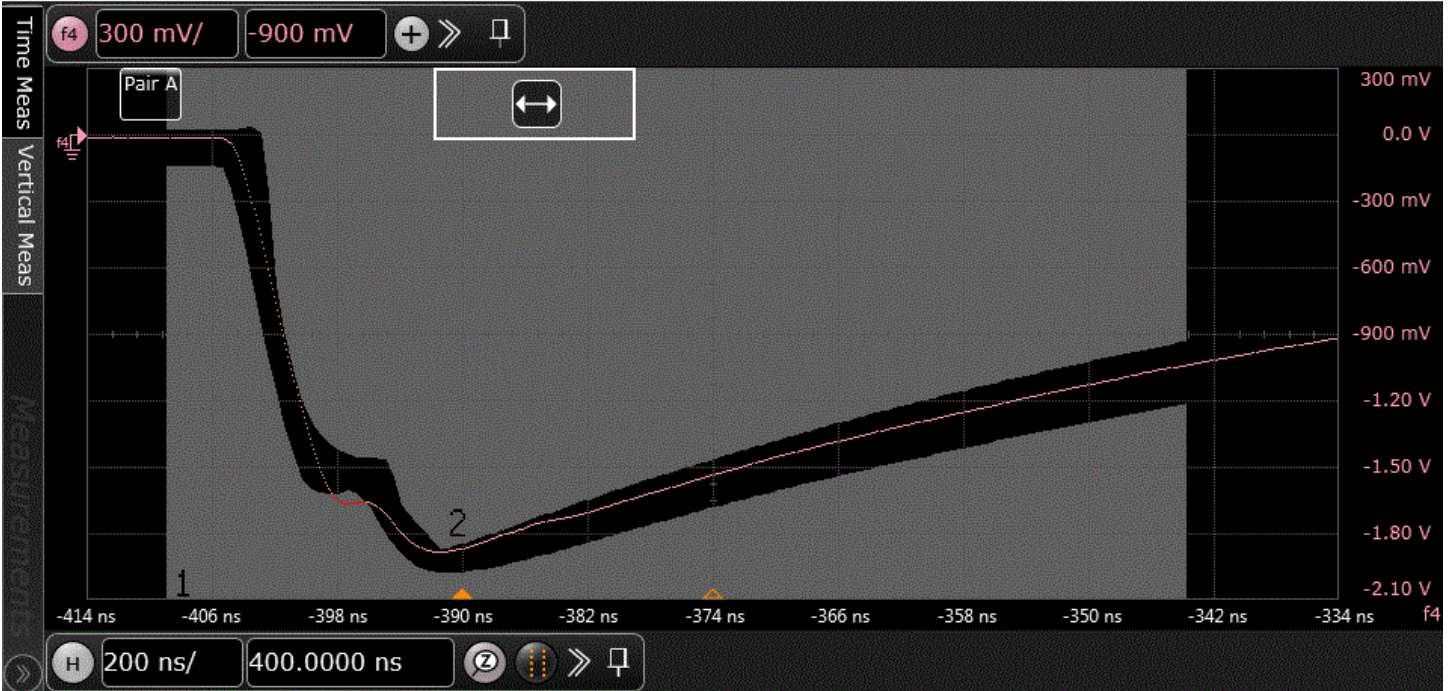
Template Point F--31 Failures





**Trial 1 Images**

Template Point F--22 Failures



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1000 Base-T, Point H Template Test(w/ Disturbing Signal)

IEEE Std. 802.3 (IEEE802.3-2018 Subclause 40.6.1.2.3)

Fit The Template. The voltage waveforms around points F and H defined in Figure 40-19, (after normalization) shall lie within the time domain template 2 defined in Figure 40-26 and the piecewise linear interpolation between the points in Table 40-11. The waveform around point H is normalized by dividing by the peak value of the waveform at H.

Actual Value Measurement Name: Total # Failures (1000 Base-T, Point H Template Test(w/ Disturbing Signal))

Pass Limits: No Mask Failures

**Statistics & Details for all 3 Trials**

Trial #	Actual Value	Margin	Template Point H -- Failure Details	Template Point H
Avg	312.5	-31.25 k%		
StdDev	399.5	39.95 k%		
Range	565.0	56.50 k%		
Min	30.00	-59.50 k%		
Max	595.0	-3.000 k%		
Sum	625.0	-62.50 k%		
2 (Worst)	595.000	-595E+02%	REGION #FAILURES 1 14 2 581	(no value)
1	30.000	-300E+01%	REGION #FAILURES 1 30 2 0	(no value)

Trial #	#Avgs (1000 Base-T template tests)	# Waveforms (1000 Base-T Template Tests)	Test Pair
Avg			
StdDev			
Range			
Min			
Max			
Sum			

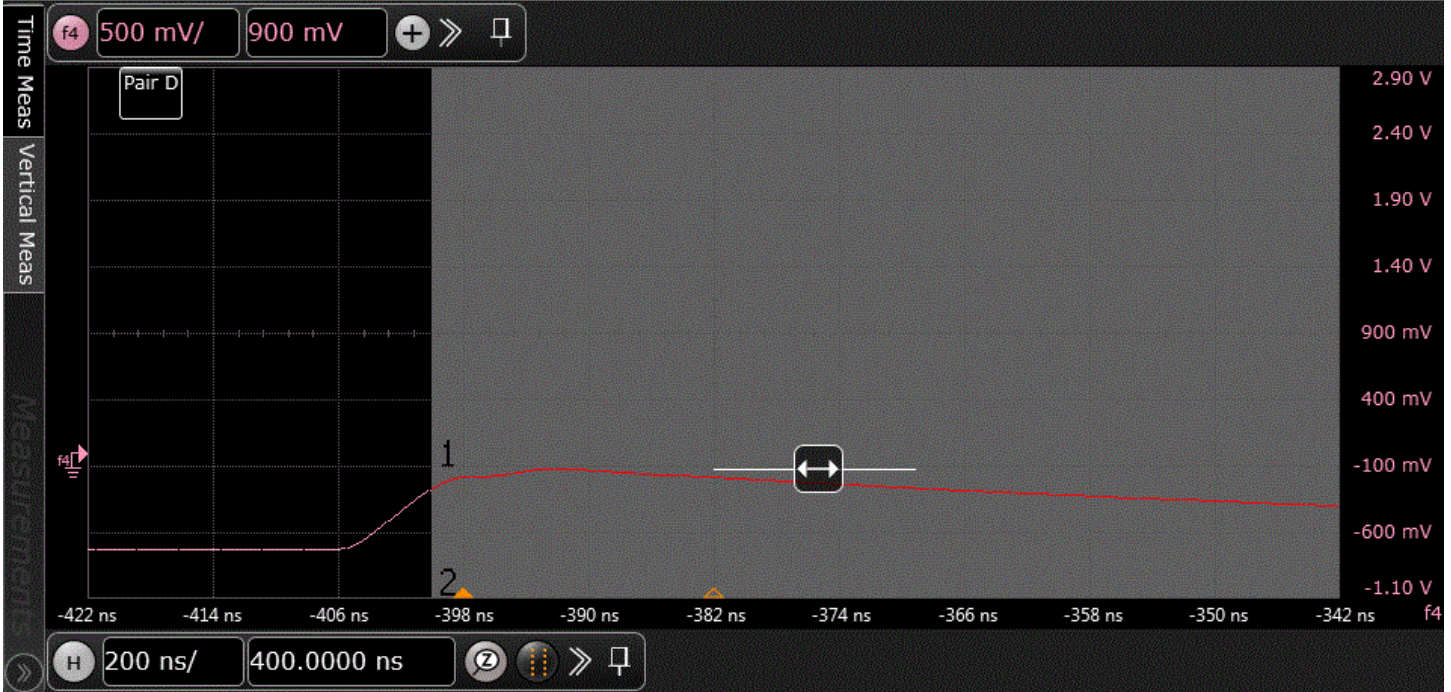


2 (Worst)	128.0	50.0	BI_DD
1	128.0	50.0	BI_DC

### Trial 2 Images

Template Point H--595 Failures

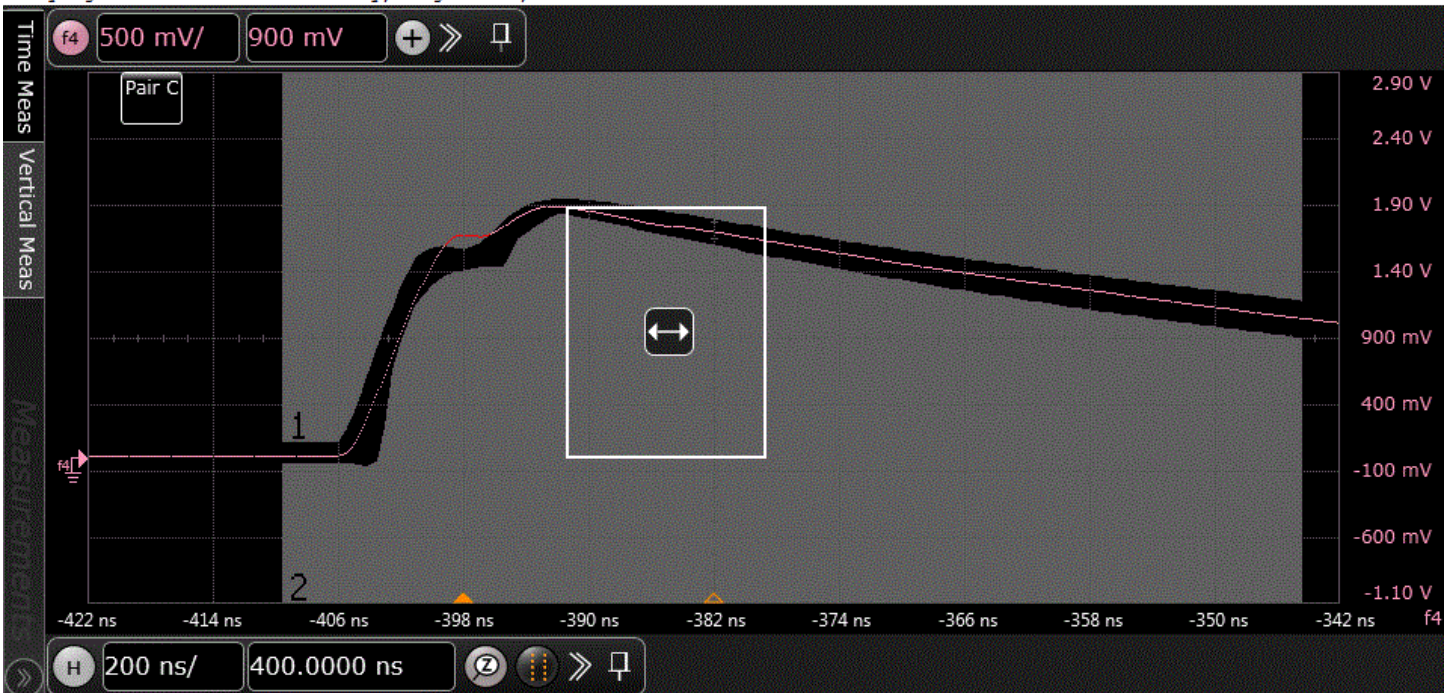
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### Trial 1 Images

Template Point H--30 Failures

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1000 Base-T, Transmitter Distortion(w/ Disturbing Signal)

IEEE Std. 802.3 (IEEE802.3-2018 Subclause 40.6.1.2.4)

The peak distortion must be less than 10mV.

Actual Value Measurement Name: Peak Distortion (w/ Disturbing Signal)

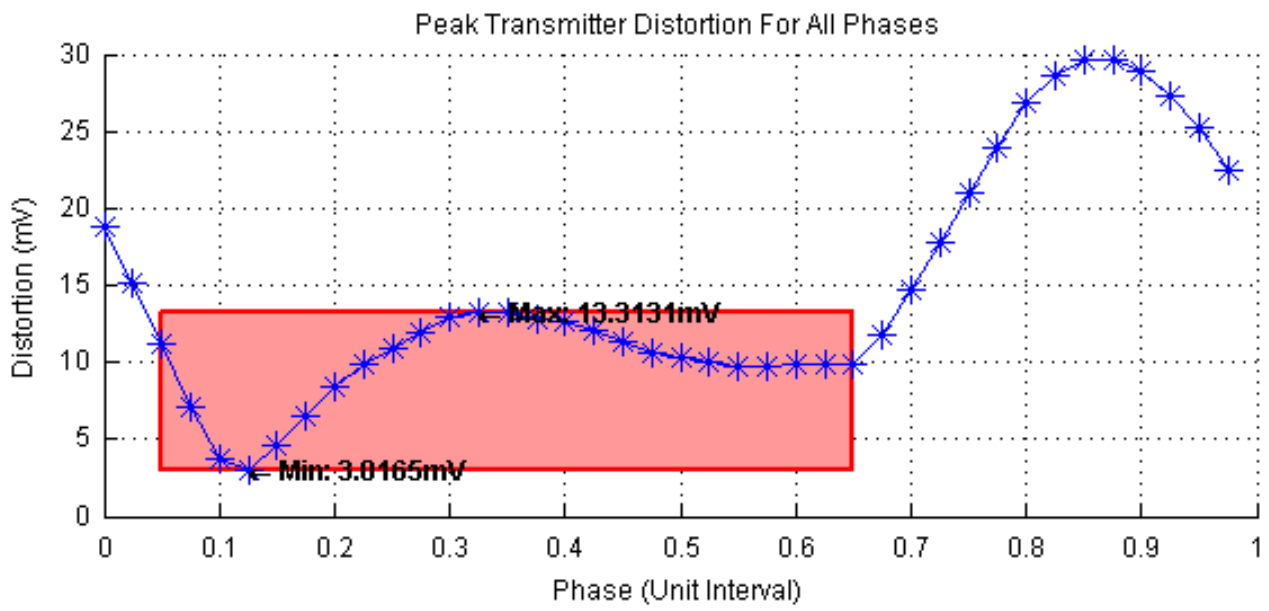
Pass Limits: VALUE <= 10.00 mV

### Statistics & Details for all 4 Trials

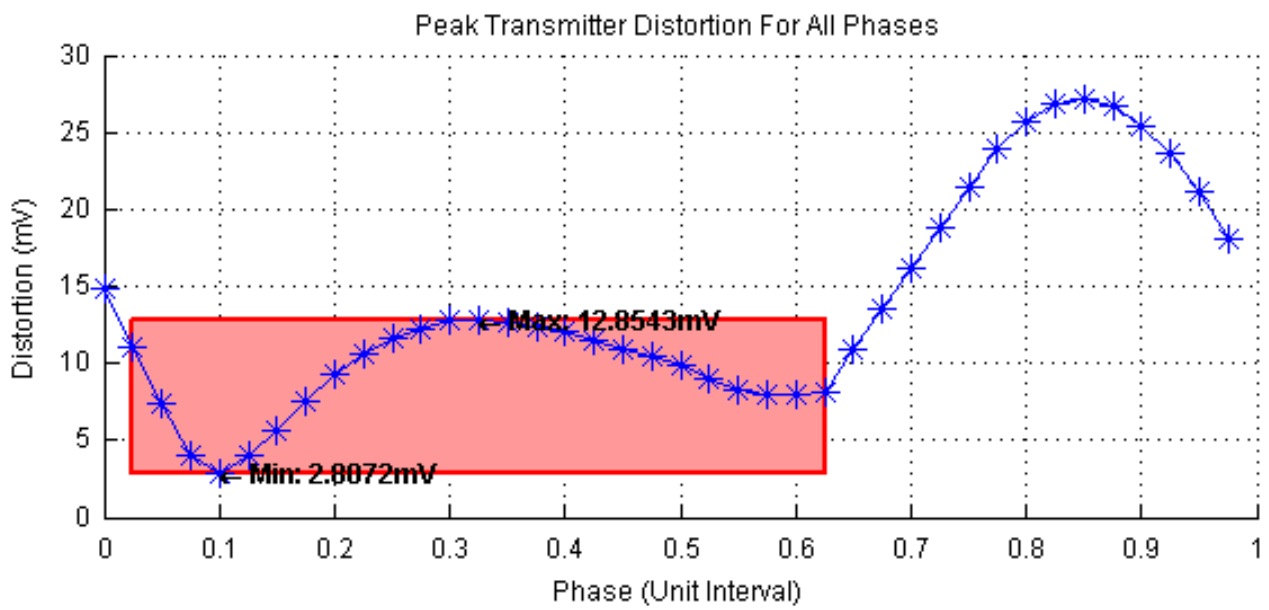
Trial #	Actual Value	Margin	1000Base-T TM4 Transmitter Distortion	SNR	Test Pair	#Avgs (TM4 Distortion test)
Avg	11.81 mV	-18.05 %				
StdDev	1.878 mV	18.78 %				
Range	4.189 mV	41.90 %				
Min	9.124 mV	-33.10 %				
Max	13.31 mV	8.800 %				
Sum	47.23 mV	-72.20 %				
2 (Worst)	13.31 mV	-33.1%	(See image)	N/A	BI_DB	100.0
4	12.85 mV	-28.5%	(See image)	N/A	BI_DD	100.0
3	11.94 mV	-19.4%	(See image)	N/A	BI_DC	100.0
1	9.12 mV	8.8%	(See image)	N/A	BI_DA	100.0

### Trial 2 Images

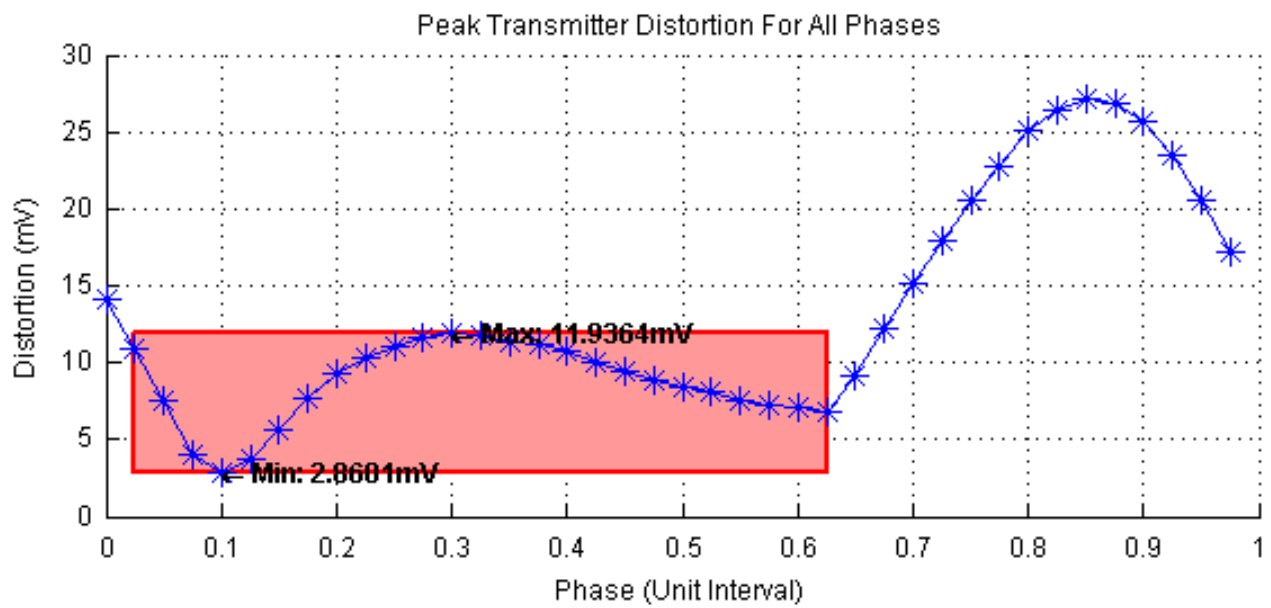
Peak Transmitter Distortion For All Phases



Peak Transmitter Distortion For All Phases



—\*— Peak Transmitter Distortion For All Phases



**Trial 1 Images**  
1000Base-T TM4 Transmitter Distortion

—\*— Peak Transmitter Distortion For All Phases

