

Test Report for 10Base-Te

Time: 15:05:11

Device ID : K18X001T00

Device Description : Not Available

Port ID : Lan

Test	Spec. Range	Measured Value	Result
Link Pulse Timing	16±8 ms	16.0ms to 16.0ms	Pass
Link Pulse 100 ohm without TPM	Fit the template		Pass
Link Pulse Load 1 without TPM	Fit the template		Pass
Link Pulse Load 2 without TPM	Fit the template		Pass
Link Pulse 100 ohm with TPM	Fit the template		Pass
Link Pulse Load 1 with TPM	Fit the template		Pass
Link Pulse Load 2 with TPM	Fit the template		Pass
MAU Ext	Fit the template		Fail
MAU Ext Inverted	Fit the template		Fail
MAU Int	Fit the template		Fail
MAU Int Inverted	Fit the template		Fail
TP_IDL 100 ohm without TPM	Fit the template		Pass
TP_ID Load 1 without TPM	Fit the template		Pass
TP_ID Load 2 without TPM	Fit the template		Pass
TP_IDL 100 ohm with TPM	Fit the template		Pass
TP_ID Load 1 with TPM	Fit the template		Pass
TP_ID Load 2 with TPM	Fit the template		Pass
Differential Voltage	±1.54V to ±1.96V		Pass
Harmonic			Pass
Pk-Pk Normal Jitter with Cable	<11.0ns	2.12ns	Pass
Pk-Pk 8BT Jitter with Cable	<22.0ns	2.76ns	Pass
Pk-Pk 8.5BT Jitter with Cable	<22.0ns	3.24ns	Pass
Pk-Pk Normal Jitter without Cable	<16.0ns	920.0ps	Pass
Pk-Pk 8BT Jitter without Cable	<40.0ns	1.44ns	Pass
Pk-Pk 8.5BT Jitter without Cable	<40.0ns	1.36ns	Pass
Common-mode output voltage	<50mV	Not Available	Not Available
Transmitter Return Loss	<15dB		Not Available
Receiver Return Loss	<15dB		Not Available

Application Version : 3.2.10.35

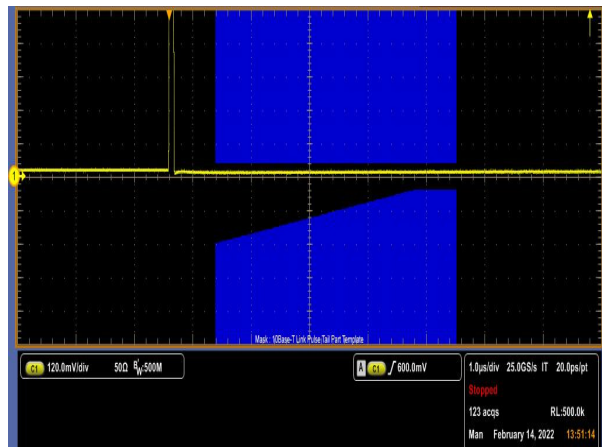
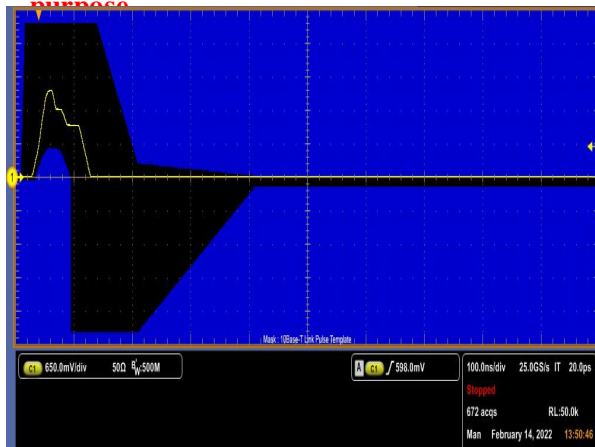
Link Pulse Timing



Link Pulse Timing Result : Pass
Spec Range: 16 ± 8 ms
Link Pulse Timing : 16.0ms to 16.0ms
Link Pulse Timing Remark :
Average of 50 Link Intervals = 16.0ms

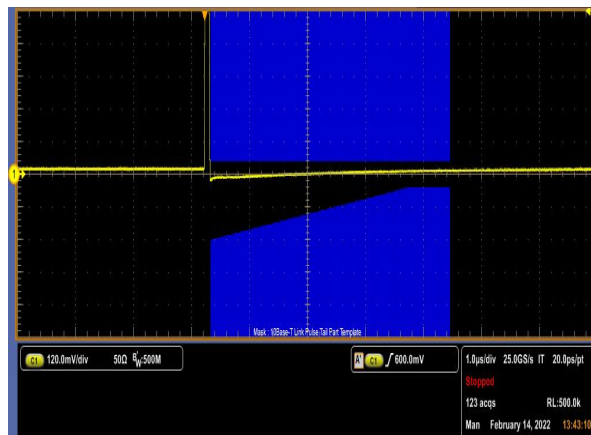
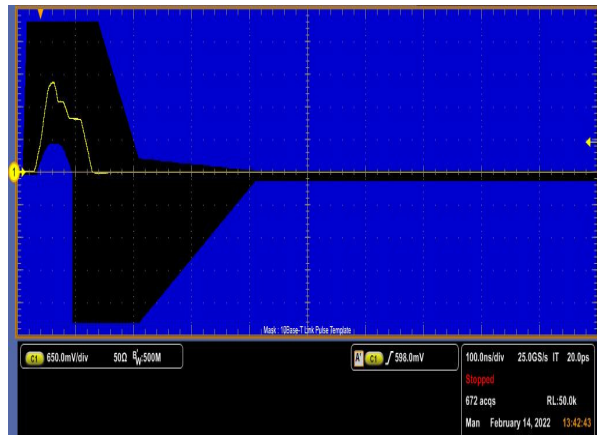
IEEE Std802.3 14.3.1.2.1 Link Pulse 100 ohm w/o TPM

Note: This is an optional test. This test is conducted only for informative purpose.



Link Pulse 100 ohm w/o TPM Test Result :
Pass
Hits per Segment
Seg1: 0 Seg2: 0
Link Pulse 100Ohm w/o TPM Timing :
Pass

IEEE Std802.3 14.3.1.2.1 Link Pulse Load 1 w/o TPM



Link Pulse Load 1 w/o TPM Test Result :

Pass

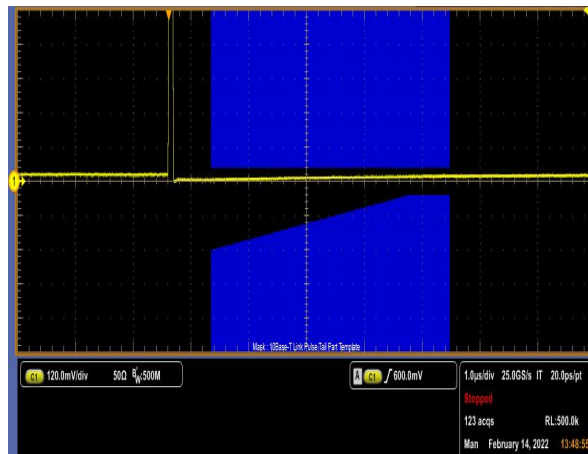
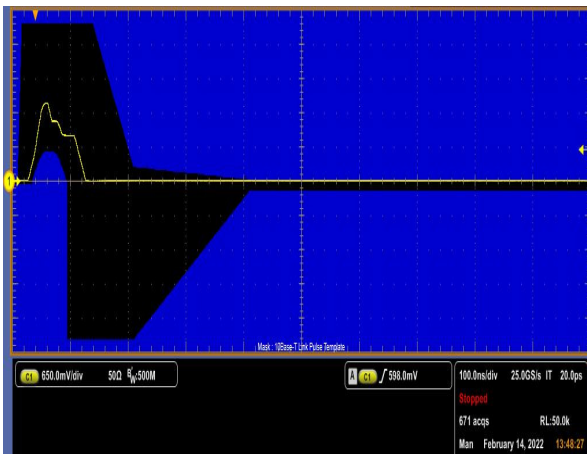
Hits per Segment

Seg1: 0 Seg2: 0

Link Pulse Load 1 w/o TPM Timing :

C:\ProgramData\Tektronix\TekApplications\TDSET3\ReportGener

IEEE Std802.3 14.3.1.2.1 Link Pulse Load 2 w/o TPM



Link Pulse Load 2 w/o TPM Test Result :

Pass

Hits per Segment

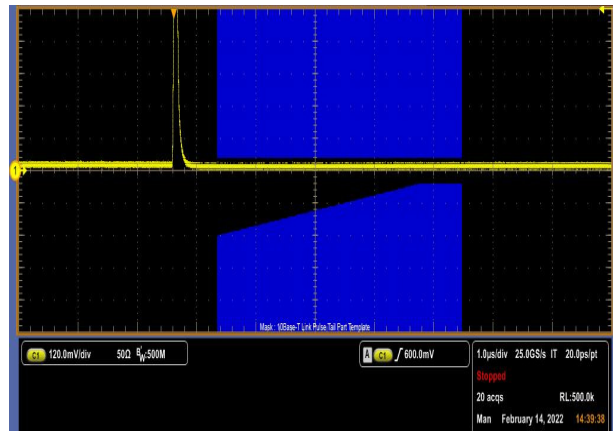
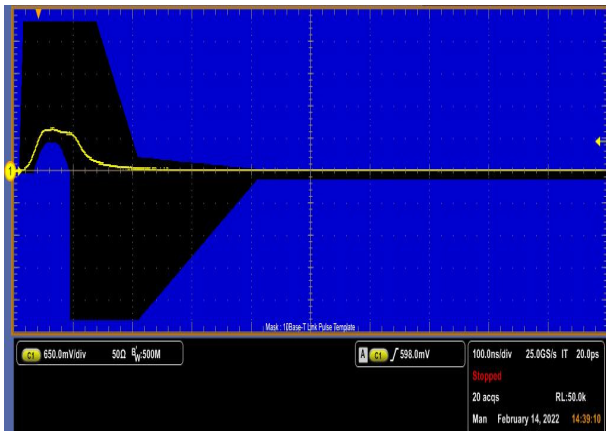
Seg1: 0 Seg2: 0

Link Pulse Load 2 w/o TPM Timing :

Average of 50 Link Intervals = 16.0ms

IEEE Std802.3 14.3.1.2.1 Link Pulse 100 ohm with TPM

Note: This is an optional test. This test is conducted only for informative purpose.



Link Pulse 100 ohm with TPM Test Result :

Pass

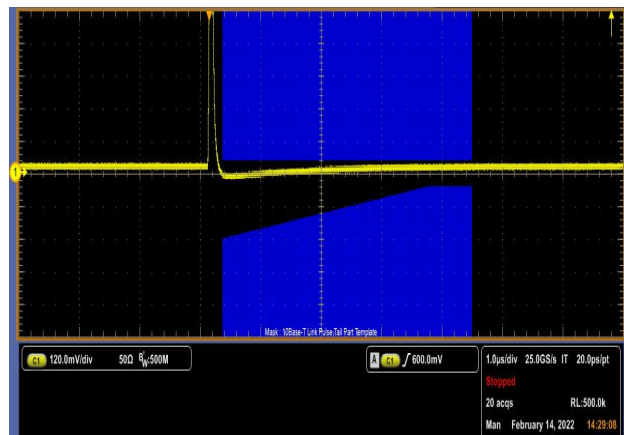
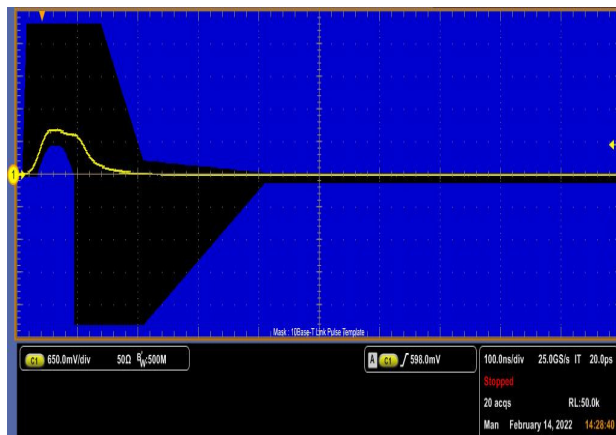
Hits per Segment

Seg1: 0 Seg2: 0

Link Pulse 100Ohm with TPM Timing :

Not Available

IEEE Std802.3 14.3.1.2.1 Link Pulse Load 1 with TPM



Link Pulse Load 1 with TPM Test Result :

Pass

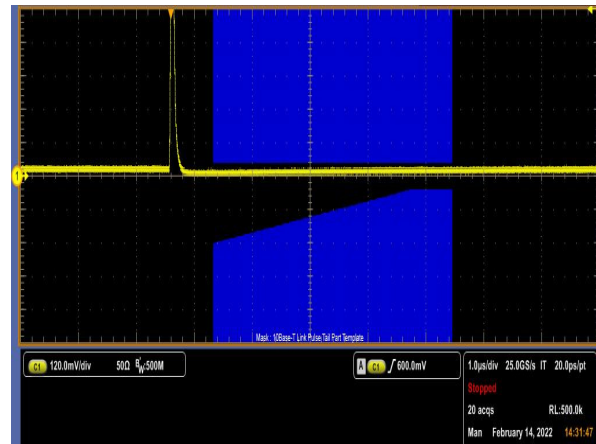
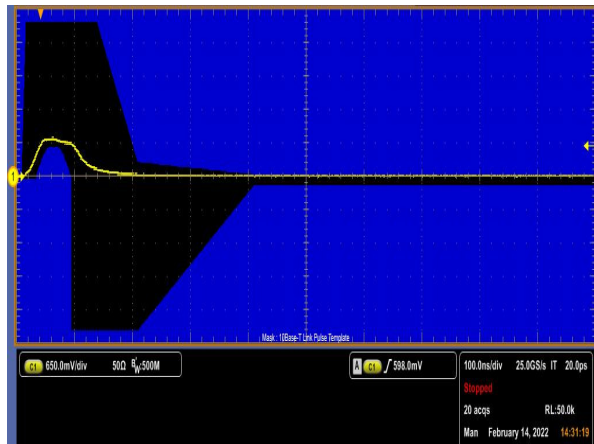
Hits per Segment

Seg1: 0 Seg2: 0

Link Pulse Load 1 with TPM Timing :

Not Available

IEEE Std802.3 14.3.1.2.1 Link Pulse Load 2 with TPM



Link Pulse Load 2 with TPM Test Result :

Pass

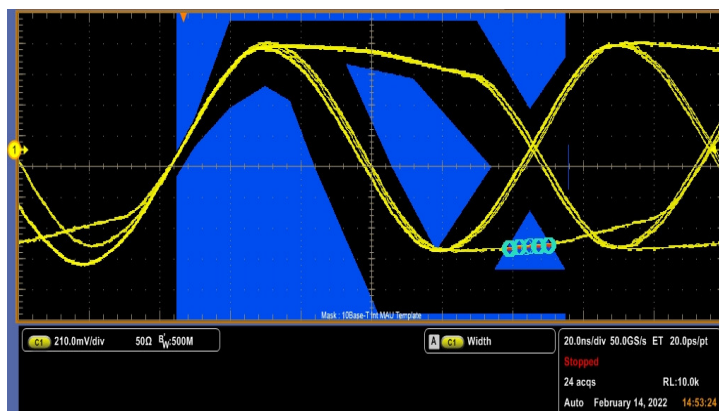
Hits per Segment

Seg1: 0 Seg2: 0

Link Pulse Load 2 with TPM Timing :

Not Available

IEEE Std802.3 14.3.1.2.1 MAU Int



MAU Int Mask Scale : NORMAL

MAU Internal Template Test Result :

Fail

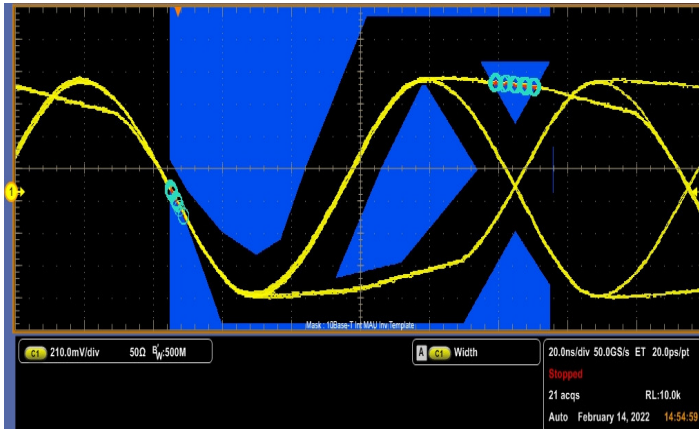
Hits per Segment

Seg1 0 Seg2 0

Seg3 931 Seg4 0

Seg5 0

IEEE Std802.3 14.3.1.2.1 MAU Int Inv



MAU Int Inv Mask Scale : NORMAL

MAU Internal Inverted Template Test Result :

Fail

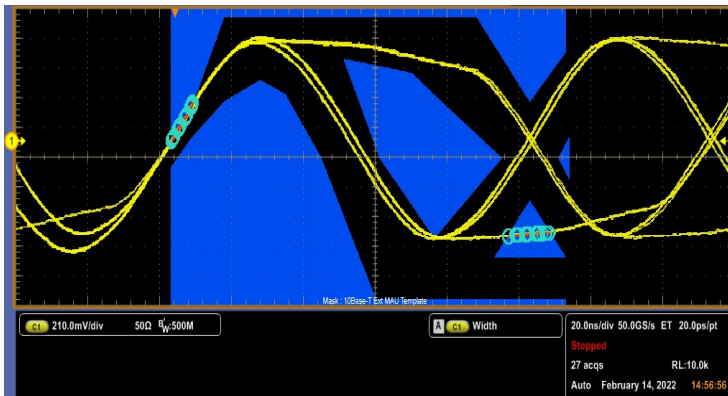
Hits per Segment

Seg1 1451 Seg2 0

Seg3 2179 Seg4 0

Seg5 0

IEEE Std802.3 14.3.1.2.1 MAU Ext



MAU Ext Mask Scale : NORMAL

MAU External Template Test Result :

Fail

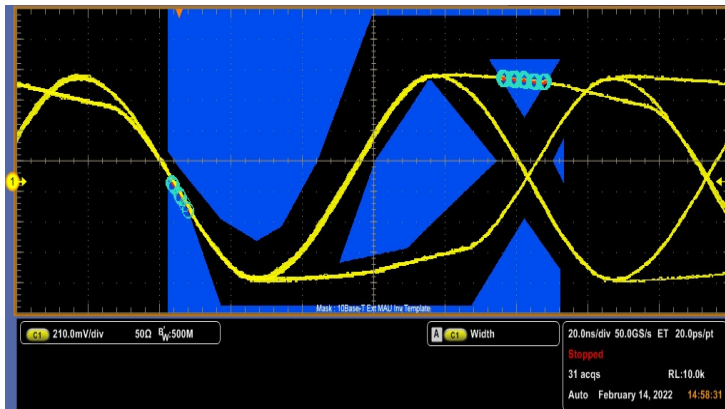
Hits per Segment

Seg1 3777 Seg2 0

Seg3 1836 Seg4 0

Seg5 0

IEEE Std802.3 14.3.1.2.1 MAU Ext Inv



MAU Ext Inv Mask Scale : NORMAL

MAU External Inverted Template Test Result :

Fail

Hits per Segment

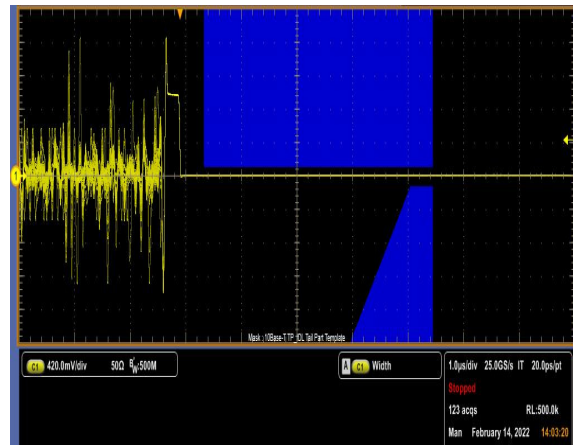
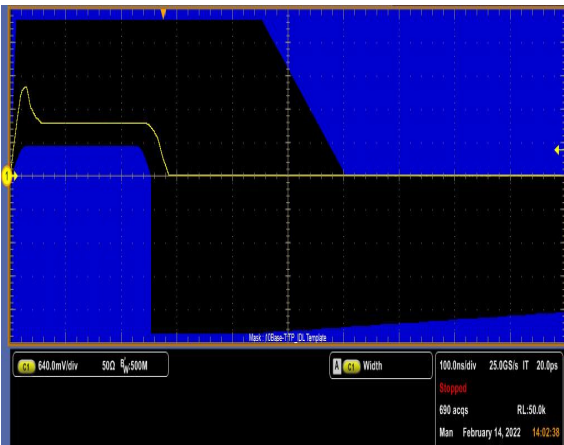
Seg1 777 Seg2 0

Seg3 2193 Seg4 0

Seg5 0

IEEE Std802.3 14.3.1.2.1 TP_IDL 100 ohm w/o TPM

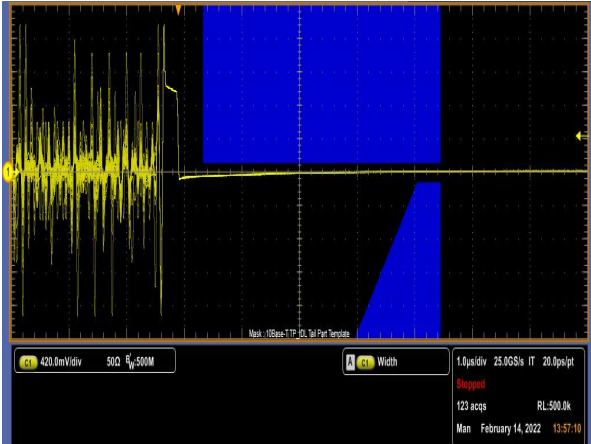
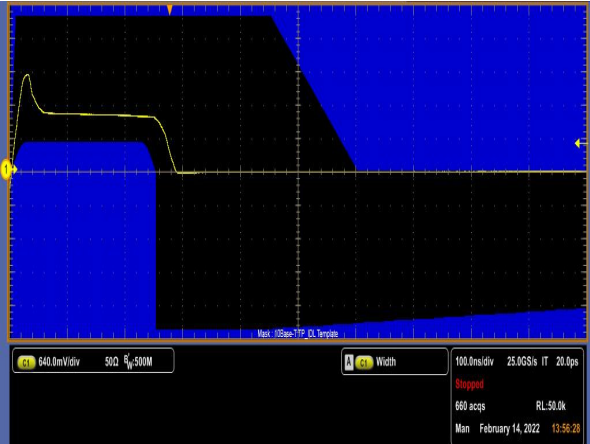
Note: This is an optional test. This test is conducted only for informative purpose.



TP_IDL 100 ohm w/o TPM Test Result :

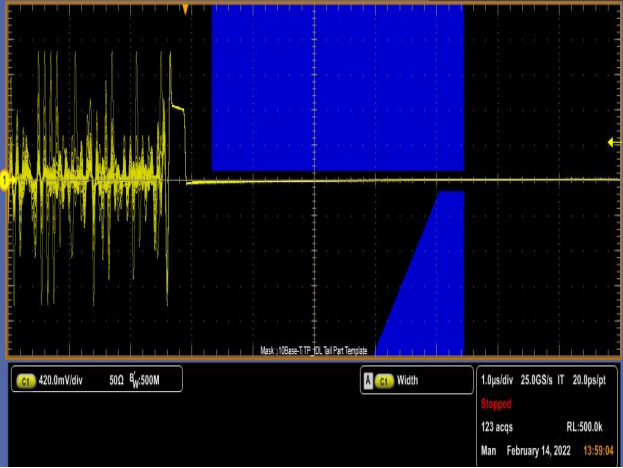
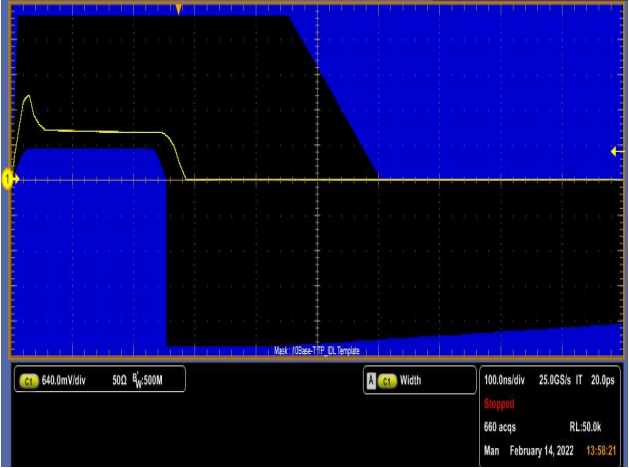
Pass

IEEE Std802.3 14.3.1.2.1 TP_IDL Load 1 w/o TPM



TP_IDL Load 1 w/o TPM Test Result :
Pass

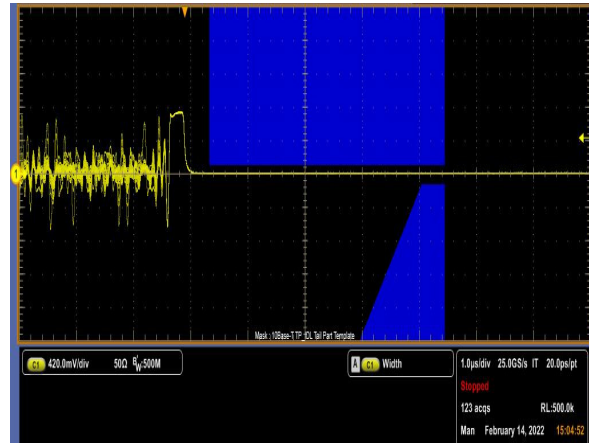
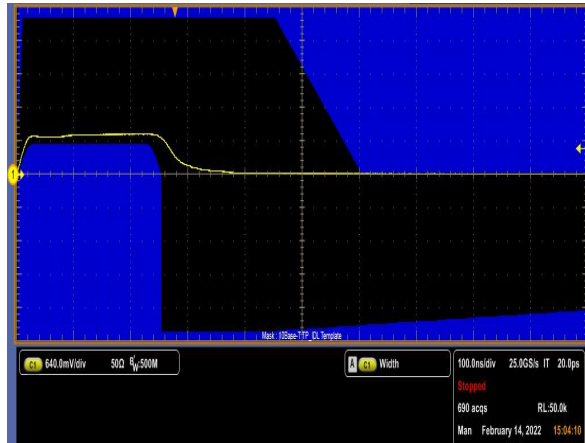
IEEE Std802.3 14.3.1.2.1 TP_IDL Load 2 w/o TPM



TP_IDL Load 2 w/o TPM Test Result :
Pass

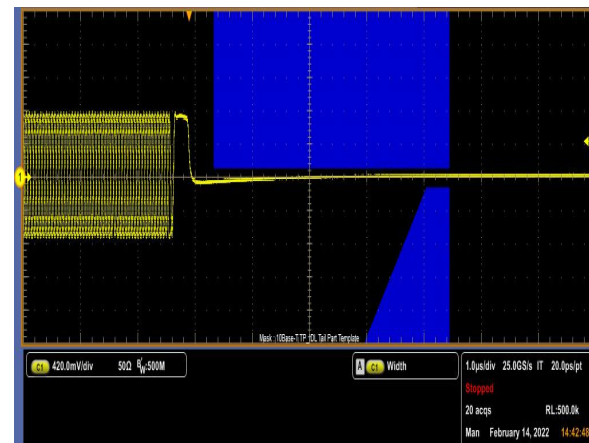
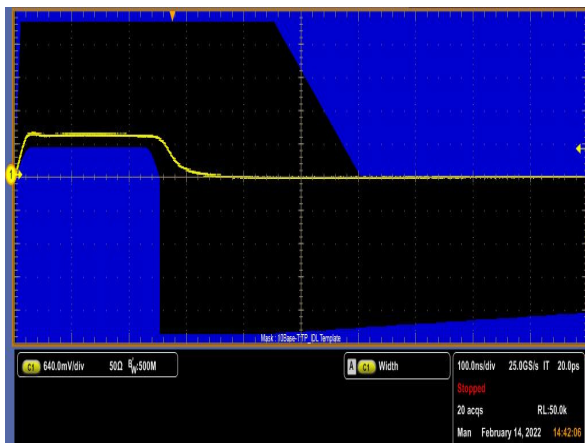
IEEE Std802.3 14.3.1.2.1TP_IDL 100 ohm with TPM

Note: This is an optional test. This test is conducted only for informative purpose.



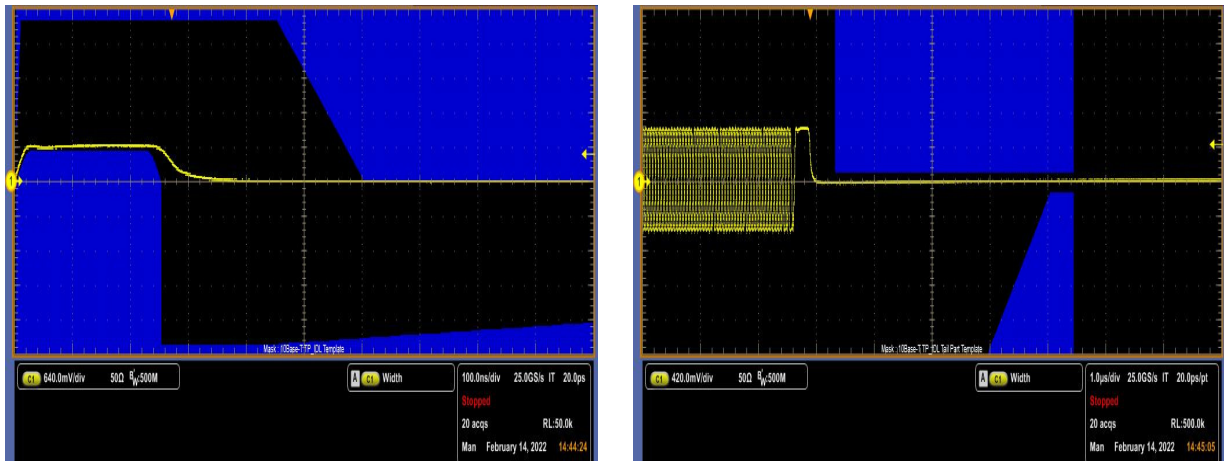
TP_IDL 100 ohm with TPM Test Result :
Pass

IEEE Std802.3 14.3.1.2.1TP_IDL Load 1 with TPM



TP_IDL Load 1 with TPM Test Result :
Pass

IEEE Std802.3 14.3.1.2.1TP_IDL Load 2 with TPM



TP_IDL Load 2 with TPM Test Result :
Pass

IEEE Std802.3 14.3.1.2.3 Output Timing Jitter with Cable



Spec. Range for Pk-Pk Jitter with Cable <11.0ns

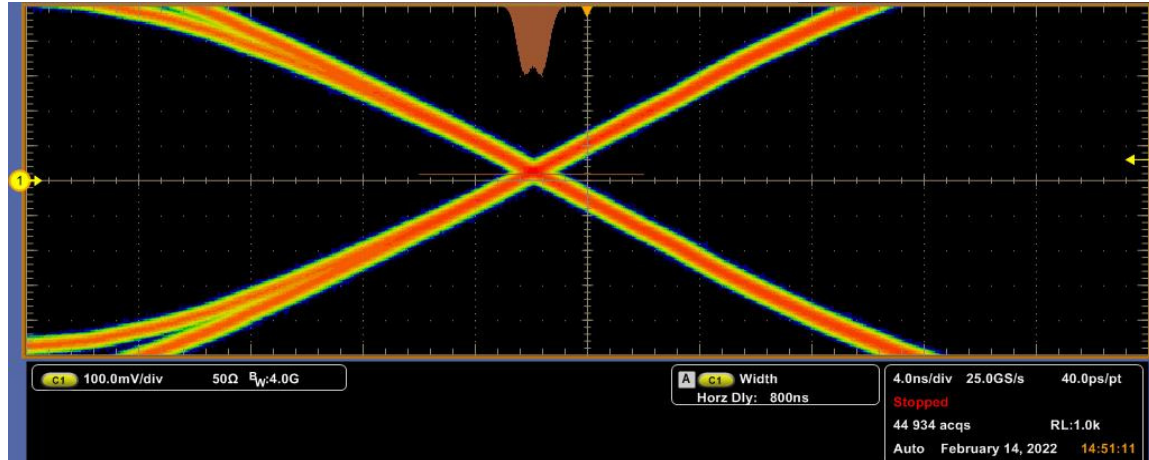
Pk-Pk Jitter with Cable : 2.12ns

MAU Type : Internal

Pk-Pk Jitter with Cable Test Result : Pass

Note:
As per B.4.3.3 Note for 14.3.1.2.3 of IEEE standard 802.3-2000
, failure of this test does not demonstrate noncompliance.

IEEE Std802.3 B.4.3.3 8.0 BT Output Timing Jitter with Cable



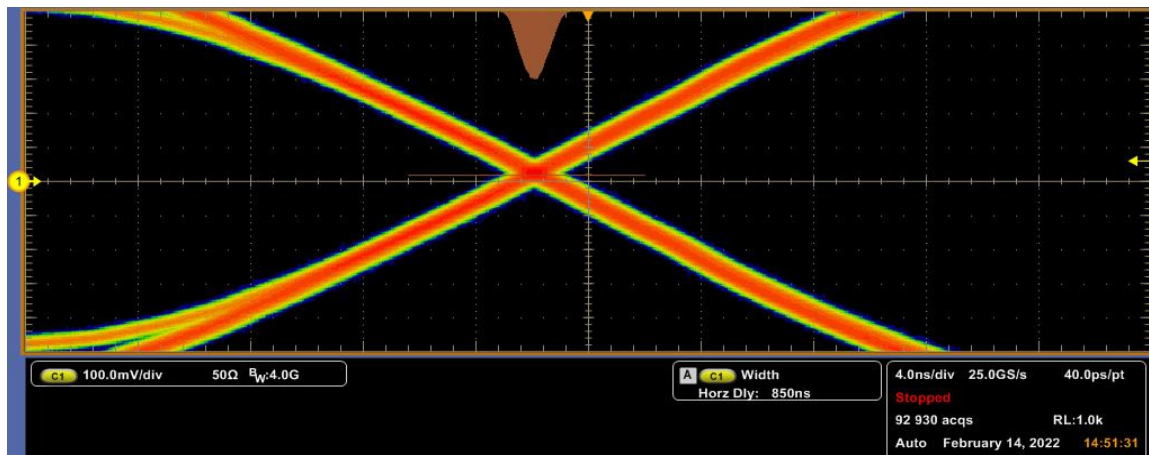
Spec. Range for Pk-Pk 8BT Jitter with Cable <22.0ns

Pk-Pk 8BT Jitter with Cable : 2.76ns

MAU Type : Internal

Pk-Pk 8BT Jitter with Cable Test Result : Pass

IEEE Std802.3 B.4.3.3 8.5 BT Output Timing Jitter with Cable



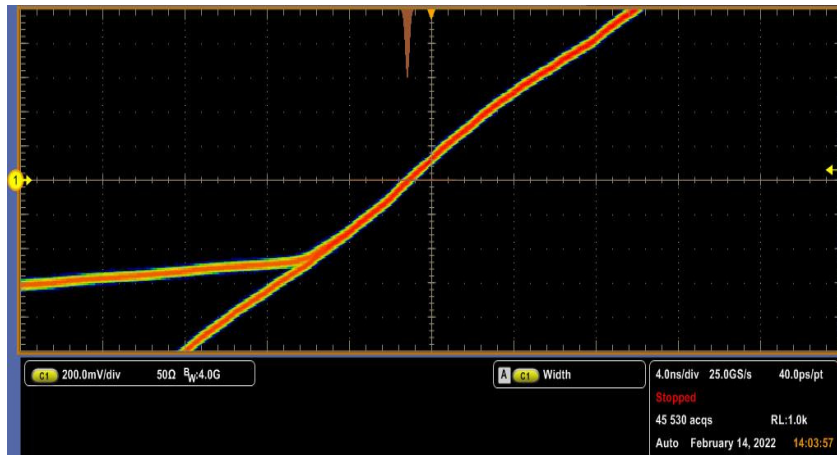
Spec. Range for Pk-Pk 8.5BT Jitter with Cable <22.0ns

Pk-Pk 8.5BT Jitter with Cable 3.24ns

MAU Type : Internal

Pk-Pk 8.5BT Jitter with Cable Test Result : Pass

IEEE Std802.3 14.3.1.2.3 Output Timing Jitter without Cable

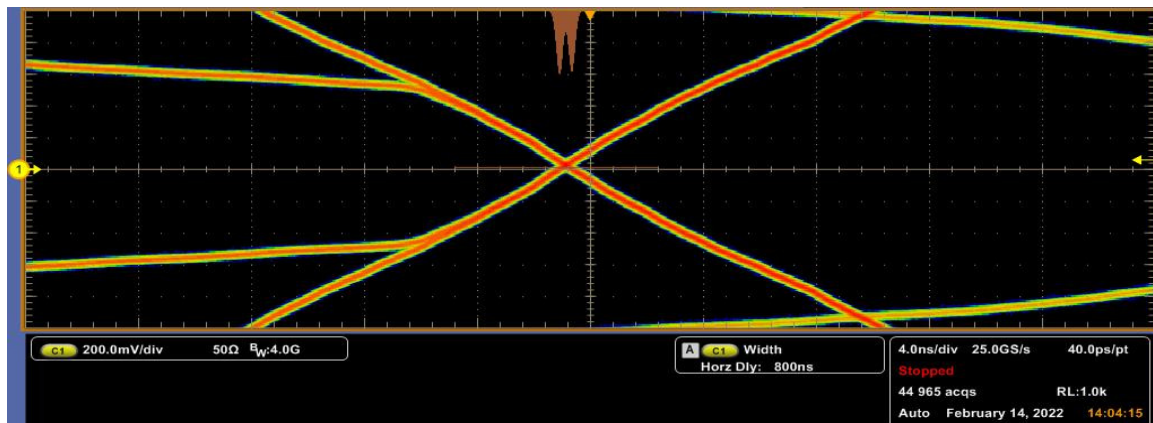


Pk-Pk Jitter without Cable : 920.0ps

MAU Type : Internal

Pk-Pk Jitter without Cable Test Result : Pass

IEEE Std802.3 B.4.3.3 8.0 BT Output Timing Jitter without Cable



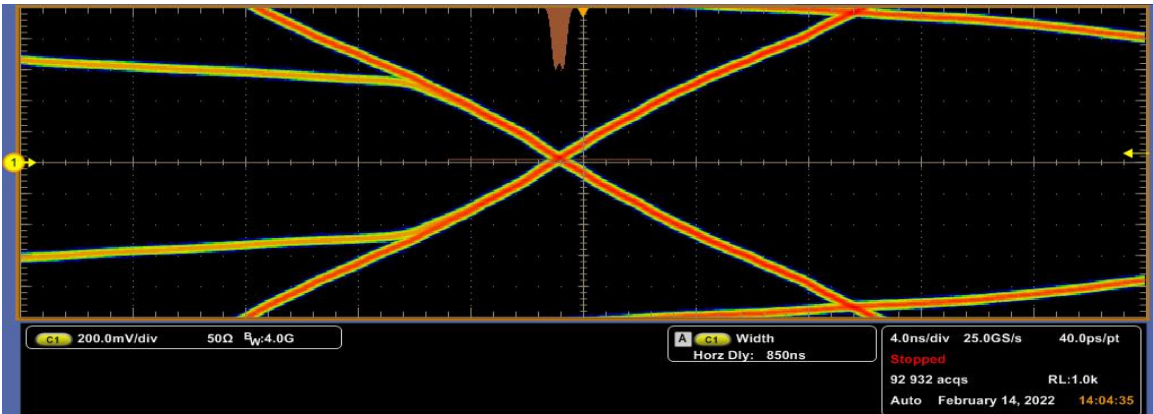
Spec. Range for Pk-Pk 8BT Jitter without Cable <40.0ns

Pk-Pk 8BT Jitter without Cable : 1.44ns

MAU Type : Internal

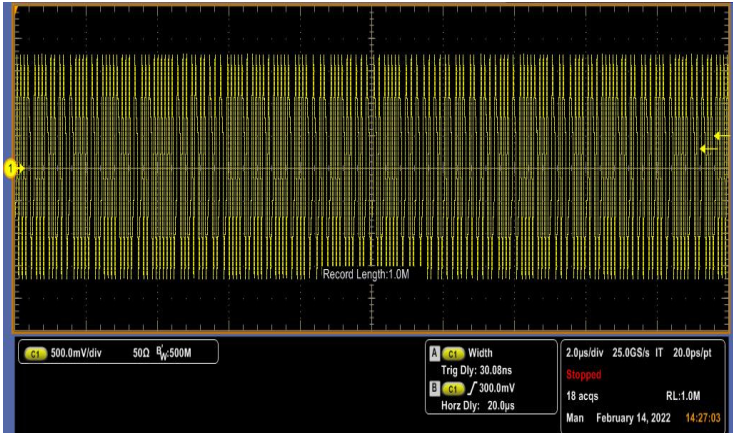
Pk-Pk 8BT Jitter without Cable Test Result : Pass

IEEE Std802.3 B.4.3.3 8.5 BT Output Timing Jitter without Cable



Spec. Range for Pk-Pk 8.5BT Jitter without Cable	<40.0ns
Pk-Pk 8.5BT Jitter without Cable	1.36ns
MAU Type :	Internal
Pk-Pk 8.5BT Jitter without Cable Test Result	Pass

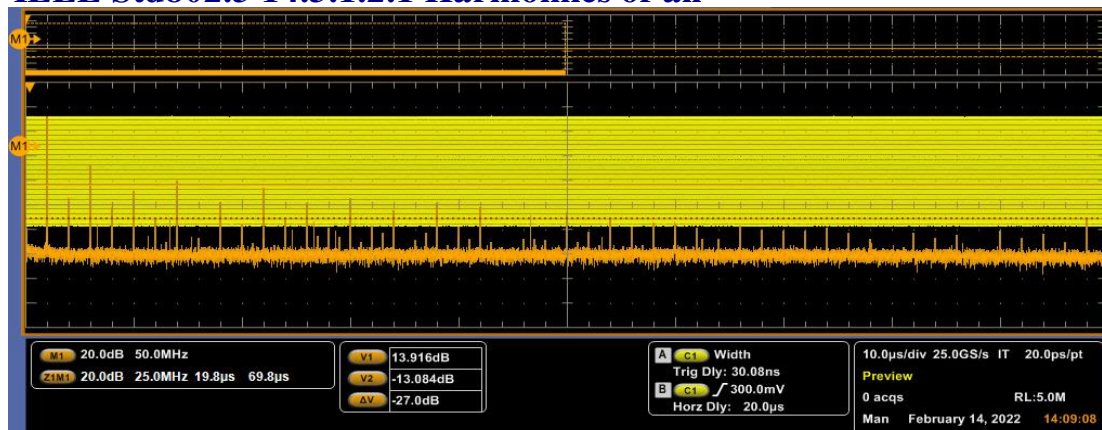
IEEE Std802.3 14.3.1.2.1 Differential Output Voltage



Max Pos Peak Diff Voltage :1.7394V	Max Neg Peak Diff Voltage :1.7606V
Min Pos Peak Diff Voltage :1.6994V	Min Neg Peak Diff Voltage :1.7206V

Peak Diff Voltage Test Result : Pass

IEEE Std802.3 14.3.1.2.1 Harmonics of all



Harmonic of All ones Result Pass

Harmonics Spec. Range < - 13.1dB

Fundamental :	10.0MHz	13.9dB
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Harmonic2	20.0MHz	- 36.8dB	Pass	Harmonic3	30.0MHz	- 16.1dB	Pass
Harmonic4	40.0MHz	- 41.9dB	Pass	Harmonic5	50.0MHz	- 32.0dB	Pass
Harmonic6	60.0MHz	- 48.3dB	Pass	Harmonic7	70.0MHz	- 25.4dB	Pass
Harmonic8	80.0MHz	- 61.1dB	Pass	Harmonic9	90.0MHz	- 38.6dB	Pass
Harmonic10	100MHz	- 52.4dB	Pass	Harmonic11	110MHz	- 30.6dB	Pass
Harmonic12	120MHz	- 49.8dB	Pass	Harmonic13	130MHz	- 39.5dB	Pass
Harmonic14	140MHz	- 55.1dB	Pass	Harmonic15	150MHz	- 37.0dB	Pass
Harmonic16	160MHz	- 53.6dB	Pass	Harmonic17	170MHz	- 44.5dB	Pass
Harmonic18	180MHz	- 62.5dB	Pass	Harmonic19	190MHz	- 39.8dB	Pass
Harmonic20	200MHz	- 54.5dB	Pass	Harmonic21	210MHz	- 42.2dB	Pass
Harmonic22	220MHz	- 68.1dB	Pass	Harmonic23	230MHz	- 61.8dB	Pass
Harmonic24	240MHz	- 62.2dB	Pass	Harmonic25	250MHz	- 45.3dB	Pass

IEEE Std802.3 14.3.1.2.2 Transmitter Return Loss

Not Available

Frequency	Spec. Value	Measured Value	Result
		Not Available	
5 MHz	-15dB	Not Available	
10 MHz	-15dB	Not Available	

Transmitter Return Loss Result Not Available

IEEE Std802.3 14.3.1.2.2 Receiver Return Loss

Not Available

Frequency	Spec. Value	Measured Value	Result
		Not Available	
5 MHz	15dB	Not Available	
10 MHz	15dB	Not Available	

Receiver Return Loss Result Not Available

IEEE Std802.3 14.3.1.2.5 Common-mode output voltage

Not Available

Spec. Range: <50mV Peak

Common-mode 10BaseTe output voltage Not Available

Common-mode for 10Te Result Not Available