

Xena2544 Test Report

Test Summary

Test company: Xena Networks
 Customer: Xena Networks
 Test Date and Time: 2016-04-15, 03:07
 Test Duration: 00:20:02 (h:m:s)
 Generated By: Xena2544 v2.33 on Windows

Test Setup

Test Configuration

Main Test Options

Topology: Blocks
 Direction: Bidirectional
 Frame Size Type: IEEE Default
 Frame Sizes Used: 64,128,256,512,1024,1280,1518
 Toggle Port Sync: Yes
 Sync Off Duration: 1 seconds
 Sync On Delay: 1 seconds
 Flow Creation Type: Stream-based
 Enable Multi-Stream: No

Test Type Selection

Throughput Test: Enabled
 Latency and Jitter Test: Enabled
 Frame Loss Rate Test: Enabled
 Back-to-Back Test: Enabled

Port Configuration

Used Chassis Summary

Chassis ID	Chassis Name	Address and Port
C-0	New chassis	172.16.255.200:22606

Used Ports Summary

Port ID	Interface Type	Port Group	Port Peer	Port Speed	Port Rate
P-0-4-4	SFP-O LR 1310 nm	West	N/A	AUTO	488 M
P-0-4-5	SFP-O LR 1310 nm	East	N/A	AUTO	500 M

Port Traffic Setup

Port ID	IP Address & Gateway	Protocol Segment Profile
P-0-4-4	No address specified	1: Ethernet
P-0-4-5	No address specified	1: Ethernet

Throughput Test Results

Test Setup

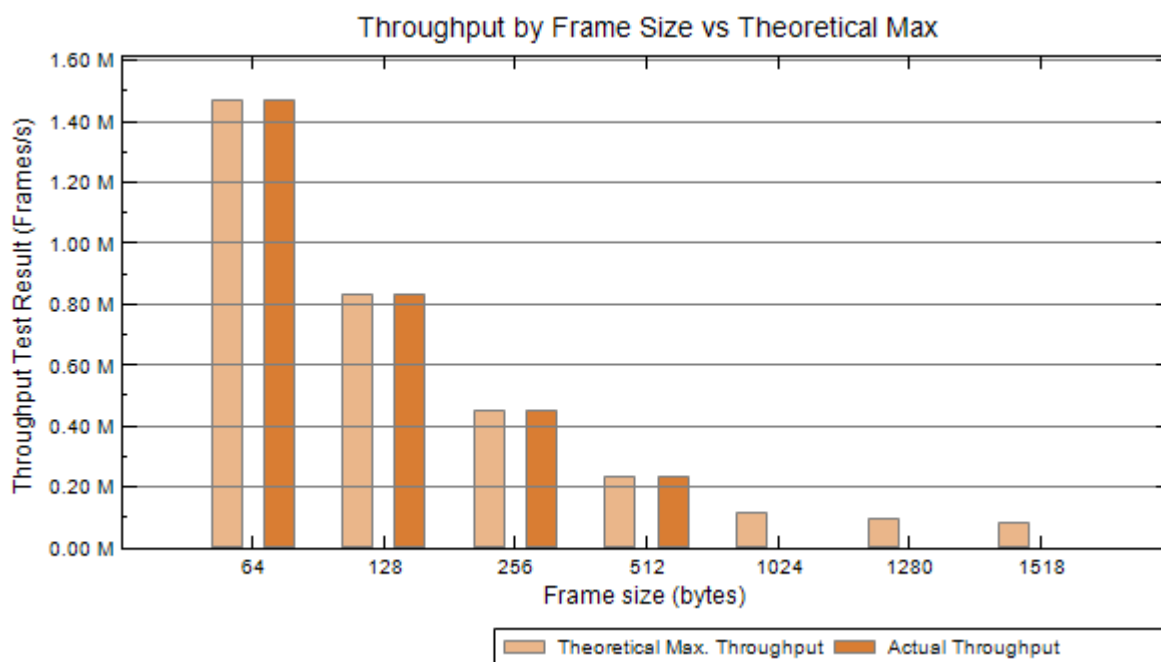
Duration: 1 seconds
 Iteration: 1
 Initial Rate: 100.000 %
 Maximum Rate: 100.000 %
 Minimum Rate: 0.100 %
 Resolution: 0.500 %
 Use Pass Threshold: No
 Pass Threshold: 0.000 %
 Acceptable Loss: 0.000 %
 Rate Result Scope: Common Result
 Use Fast Binary Search: No

Test Results

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx Rate (Percent)	100 %	100 %	100 %	100 %	2.441 %	1.661 %
Tx (Frames)	1,470,237	834,459	447,463	232,142	2,887	1,577
Tx Rate (L1) (Bit/s)	988 M	988 M	988 M	988 M	24.11 M	16.4 M
Tx Rate (L2) (Bit/s)	752.76 M	854.49 M	916.4 M	950.85 M	23.65 M	16.15 M
Tx Rate (Fps)	1,470,237	834,459	447,463	232,142	2,887	1,577
Rx (Frames)	1,470,237	834,459	447,463	232,142	2,887	1,577
Loss (Frames)	0	0	0	0	0	0
Loss Rate (Percent)	0 %	0 %	0 %	0 %	0 %	0 %
P-0-4-4						
- Tx (Frames)	726,190	412,162	221,014	114,661	1,426	779
- Tx Rate (L1) (Bit/s)	488 M	488 M	488 M	488 M	11.91 M	8.1 M
- Tx Rate (L2) (Bit/s)	371.81 M	422.05 M	452.64 M	469.65 M	11.68 M	7.98 M
- Tx Rate (Fps)	726,190	412,162	221,014	114,661	1,426	779
- Rx (Frames)	744,047	422,297	226,449	117,481	1,461	798
- Rx Rate (L1) (Bit/s)	500 M	500 M	500 M	500 M	12.2 M	8.3 M
- Rx Rate (L2) (Bit/s)	380.95 M	432.43 M	463.77 M	481.2 M	11.97 M	8.17 M
- Rx Rate (Fps)	744,047	422,297	226,449	117,481	1,461	798
P-0-4-5						
- Tx (Frames)	744,047	422,297	226,449	117,481	1,461	798
- Tx Rate (L1) (Bit/s)	500 M	500 M	500 M	500 M	12.2 M	8.3 M
- Tx Rate (L2) (Bit/s)	380.95 M	432.43 M	463.77 M	481.2 M	11.97 M	8.17 M
- Tx Rate (Fps)	744,047	422,297	226,449	117,481	1,461	798
- Rx (Frames)	726,190	412,162	221,014	114,661	1,426	779
- Rx Rate (L1) (Bit/s)	488 M	488 M	488 M	488 M	11.91 M	8.1 M
- Rx Rate (L2) (Bit/s)	371.81 M	422.05 M	452.64 M	469.65 M	11.68 M	7.98 M
- Rx Rate (Fps)	726,190	412,162	221,014	114,661	1,426	779

Frame Size	1518
Result State	PASS
Tx Rate (Percent)	1.661 %
Tx (Frames)	1,332
Tx Rate (L1) (Bit/s)	16.39 M
Tx Rate (L2) (Bit/s)	16.18 M
Tx Rate (Fps)	1,332
Rx (Frames)	1,332
Loss (Frames)	0
Loss Rate (Percent)	0 %
P-0-4-4	
- Tx (Frames)	658
- Tx Rate (L1) (Bit/s)	8.1 M
- Tx Rate (L2) (Bit/s)	7.99 M
- Tx Rate (Fps)	658
- Rx (Frames)	674
- Rx Rate (L1) (Bit/s)	8.29 M
- Rx Rate (L2) (Bit/s)	8.19 M

- Rx Rate (Fps)	674
P-0-4-5	
- Tx (Frames)	674
- Tx Rate (L1) (Bit/s)	8.29 M
- Tx Rate (L2) (Bit/s)	8.19 M
- Tx Rate (Fps)	674
- Rx (Frames)	658
- Rx Rate (L1) (Bit/s)	8.1 M
- Rx Rate (L2) (Bit/s)	7.99 M
- Rx Rate (Fps)	658



Latency and Jitter Test Results

Test Setup

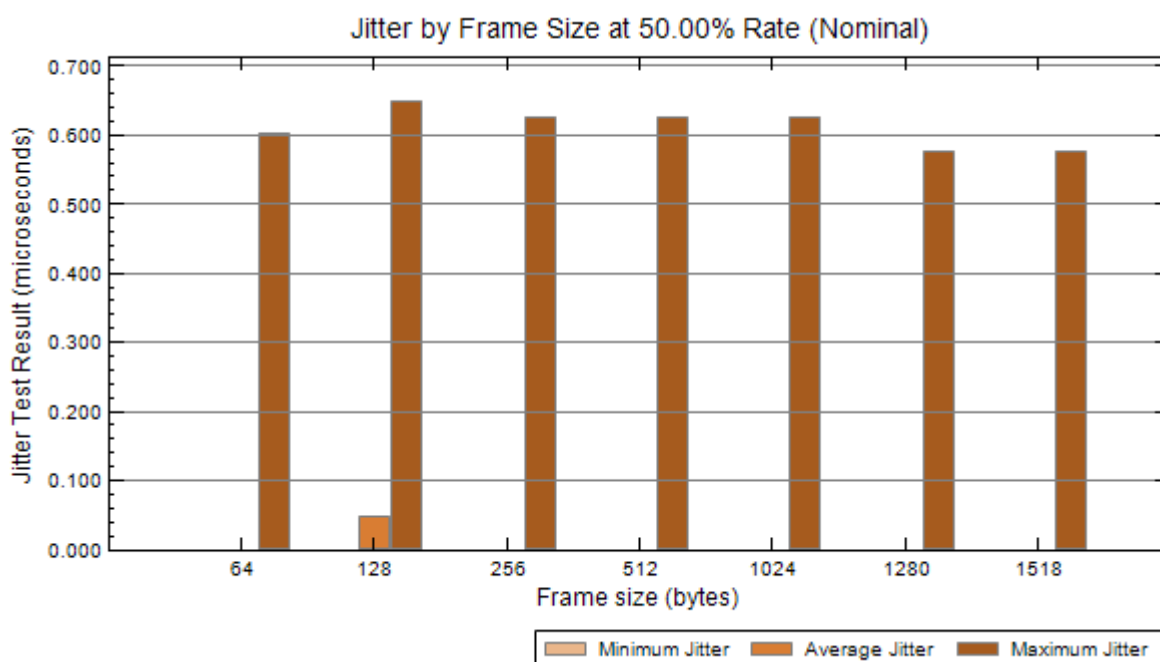
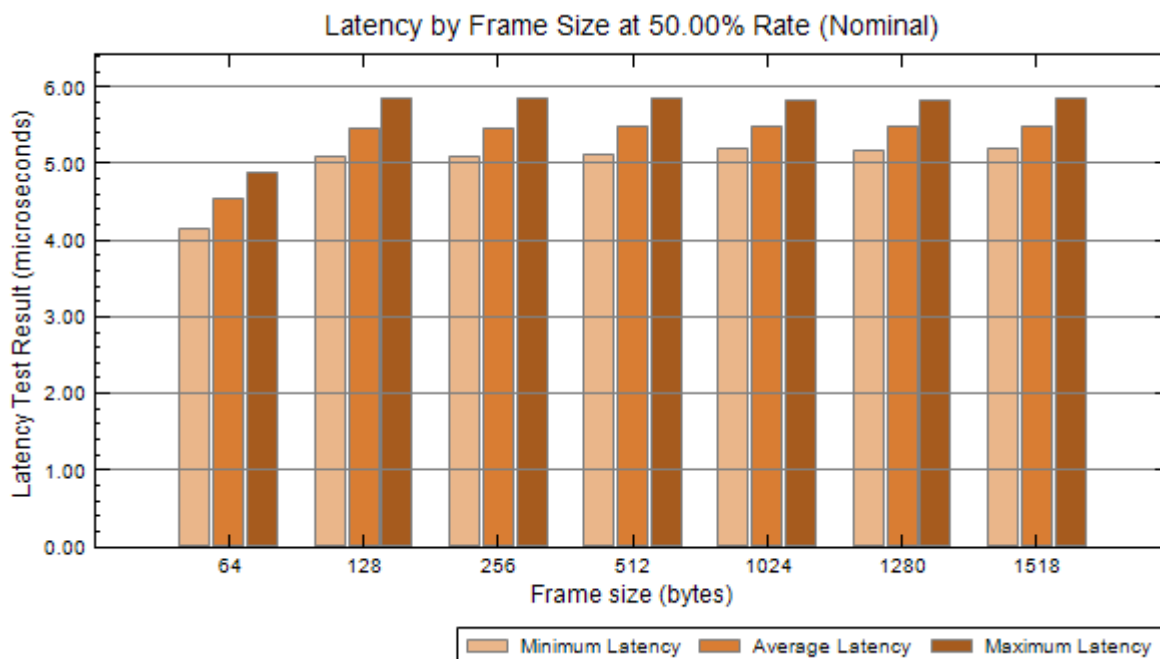
Duration: 1 seconds
 Iteration: 1
 Latency Mode: Last-To-Last
 Relative to Throughput: Yes

Test Results

Results for 50.00% Rate (Nominal)

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx Rate (Percent)	50 %	50 %	50 %	50 %	1.221 %	0.83 %
Tx Rate (L1) (Bit/s)	494 M	494 M	494 M	493.99 M	12.05 M	8.2 M
Tx Rate (Fps)	735,118	417,229	223,731	116,070	1,443	788
Tx (Frames)	735,118	417,229	223,731	116,070	1,443	788
Rx (Frames)	735,118	417,229	223,731	116,070	1,443	788
P-0-4-4						
- Tx (Frames)	363,095	206,081	110,507	57,330	713	389
- Rx (Frames)	372,023	211,148	113,224	58,740	730	399
- Avg Latency (micsec)	4.539	5.467	5.470	5.485	5.503	5.505
- Min Latency (micsec)	4.138	5.085	5.125	5.133	5.197	5.205
- Max Latency (micsec)	4.884	5.854	5.846	5.854	5.822	5.830
- Avg Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Min Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Max Jitter (micsec)	0.601	0.649	0.625	0.625	0.625	0.577
P-0-4-5						
- Tx (Frames)	372,023	211,148	113,224	58,740	730	399
- Rx (Frames)	363,095	206,081	110,507	57,330	713	389
- Avg Latency (micsec)	4.519	5.444	5.442	5.460	5.477	5.477
- Min Latency (micsec)	4.138	5.085	5.101	5.109	5.197	5.181
- Max Latency (micsec)	4.860	5.806	5.798	5.806	5.774	5.806
- Avg Jitter (micsec)	0.000	0.098	0.000	0.000	0.000	0.000
- Min Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Max Jitter (micsec)	0.577	0.649	0.601	0.553	0.457	0.505

Frame Size	1518
Result State	PASS
Tx Rate (Percent)	0.83 %
Tx Rate (L1) (Bit/s)	8.19 M
Tx Rate (Fps)	666
Tx (Frames)	666
Rx (Frames)	666
P-0-4-4	
- Tx (Frames)	329
- Rx (Frames)	337
- Avg Latency (micsec)	5.497
- Min Latency (micsec)	5.213
- Max Latency (micsec)	5.838
- Avg Jitter (micsec)	0.000
- Min Jitter (micsec)	0.000
- Max Jitter (micsec)	0.577
P-0-4-5	
- Tx (Frames)	337
- Rx (Frames)	329
- Avg Latency (micsec)	5.488
- Min Latency (micsec)	5.189
- Max Latency (micsec)	5.766
- Avg Jitter (micsec)	0.000
- Min Jitter (micsec)	0.000
- Max Jitter (micsec)	0.481



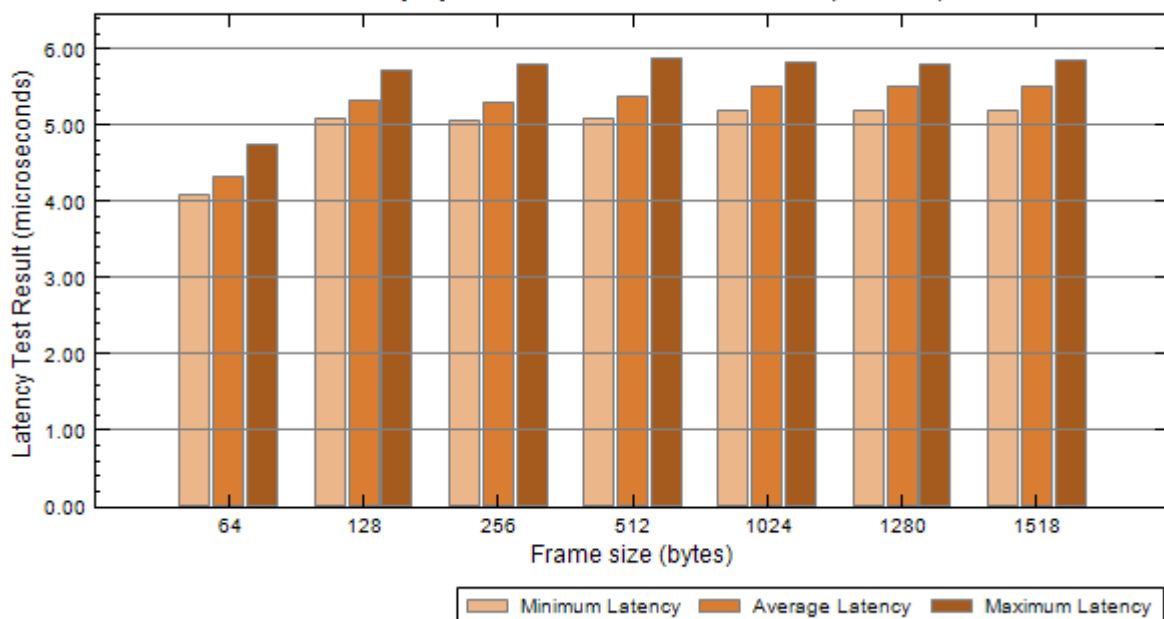
Results for 100.00% Rate (Nominal)

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx Rate (Percent)	100 %	100 %	100 %	100 %	2.441 %	1.661 %
Tx Rate (L1) (Bit/s)	988 M	988 M	988 M	988 M	24.11 M	16.4 M
Tx Rate (Fps)	1,470,237	834,459	447,463	232,142	2,887	1,577
Tx (Frames)	1,470,237	834,459	447,463	232,142	2,887	1,577
Rx (Frames)	1,470,237	834,459	447,463	232,142	2,886	1,577
P-0-4-4						
- Tx (Frames)	726,190	412,162	221,014	114,661	1,426	779
- Rx (Frames)	744,047	422,297	226,449	117,481	1,460	798

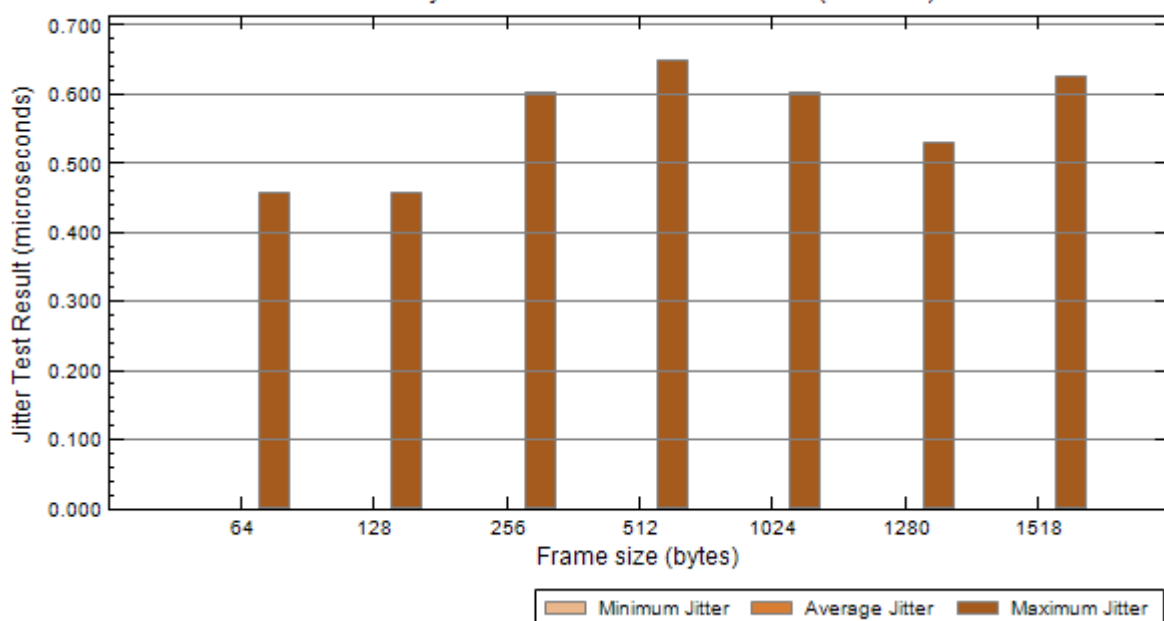
- Avg Latency (micsec)	4.347	5.321	5.318	5.377	5.504	5.509
- Min Latency (micsec)	4.138	5.085	5.077	5.085	5.197	5.181
- Max Latency (micsec)	4.740	5.710	5.798	5.878	5.822	5.806
- Avg Jitter (micsec)	0.001	0.000	0.000	0.000	0.000	0.000
- Min Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Max Jitter (micsec)	0.457	0.384	0.601	0.649	0.601	0.481
P-0-4-5						
- Tx (Frames)	744,047	422,297	226,449	117,481	1,461	798
- Rx (Frames)	726,190	412,162	221,014	114,661	1,426	779
- Avg Latency (micsec)	4.317	5.299	5.292	5.395	5.484	5.482
- Min Latency (micsec)	4.090	5.085	5.053	5.085	5.197	5.181
- Max Latency (micsec)	4.716	5.710	5.798	5.830	5.774	5.758
- Avg Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Min Jitter (micsec)	0.000	0.000	0.000	0.000	0.000	0.000
- Max Jitter (micsec)	0.457	0.457	0.577	0.625	0.457	0.529

Frame Size	1518
Result State	PASS
Tx Rate (Percent)	1.661 %
Tx Rate (L1) (Bit/s)	16.39 M
Tx Rate (Fps)	1,332
Tx (Frames)	1,332
Rx (Frames)	1,330
P-0-4-4	
- Tx (Frames)	658
- Rx (Frames)	672
- Avg Latency (micsec)	5.526
- Min Latency (micsec)	5.189
- Max Latency (micsec)	5.838
- Avg Jitter (micsec)	0.000
- Min Jitter (micsec)	0.000
- Max Jitter (micsec)	0.625
P-0-4-5	
- Tx (Frames)	674
- Rx (Frames)	658
- Avg Latency (micsec)	5.490
- Min Latency (micsec)	5.213
- Max Latency (micsec)	5.766
- Avg Jitter (micsec)	0.000
- Min Jitter (micsec)	0.000
- Max Jitter (micsec)	0.505

Latency by Frame Size at 100.00% Rate (Nominal)



Jitter by Frame Size at 100.00% Rate (Nominal)



Frame Loss Rate Test Results

Test Setup

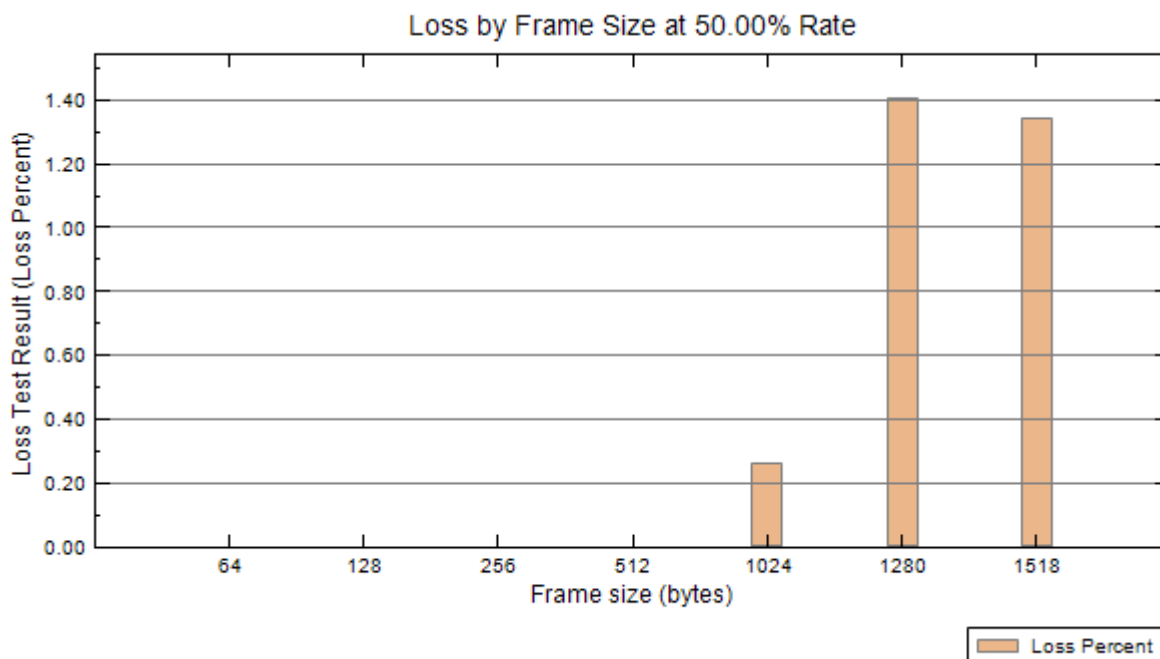
Duration: 1 seconds
Iteration: 1

Test Results

Results for 50.00% Rate

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx (Frames)	735,118	417,229	223,731	116,070	59,146	47,499
Tx Rate (Fps)	735,118	417,229	223,731	116,070	59,146	47,499
Tx Rate (L1) (Bit/s)	494 M	494 M	494 M	493.99 M	493.99 M	493.99 M
Rx (Frames)	735,118	417,229	223,731	116,070	58,993	46,831
Rx Rate (Fps)	735.12 K	417.23 K	223.73 K	116.07 K	58.99 K	46.83 K
Rx Rate (L1) (Bit/s)	494 M	494 M	494 M	493.99 M	492.71 M	487.04 M
Loss (Frames)	0	0	0	0	153	668
Loss Rate (Percent)	0 %	0 %	0 %	0 %	0.26 %	1.41 %
P-0-4-4						
- Tx (Frames)	363,095	206,081	110,507	57,330	29,214	23,461
- Tx Rate (L1) (Bit/s)	244 M	244 M	244 M	244 M	244 M	243.99 M
- Tx Rate (Fps)	363,095	206,081	110,507	57,330	29,214	23,461
- Rx (Frames)	372,023	211,148	113,224	58,740	29,779	23,370
- Rx Rate (L1) (Bit/s)	250 M	250 M	250 M	250 M	248.71 M	243.05 M
- Rx Rate (Fps)	372,023	211,148	113,224	58,740	29,779	23,370
P-0-4-5						
- Tx (Frames)	372,023	211,148	113,224	58,740	29,932	24,038
- Tx Rate (L1) (Bit/s)	250 M	250 M	250 M	250 M	249.99 M	250 M
- Tx Rate (Fps)	372,023	211,148	113,224	58,740	29,932	24,038
- Rx (Frames)	363,095	206,081	110,507	57,330	29,214	23,461
- Rx Rate (L1) (Bit/s)	244 M	244 M	244 M	244 M	244 M	243.99 M
- Rx Rate (Fps)	363,095	206,081	110,507	57,330	29,214	23,461

Frame Size	1518
Result State	PASS
Tx (Frames)	40,148
Tx Rate (Fps)	40,148
Tx Rate (L1) (Bit/s)	493.98 M
Rx (Frames)	39,609
Rx Rate (Fps)	39.61 K
Rx Rate (L1) (Bit/s)	487.35 M
Loss (Frames)	539
Loss Rate (Percent)	1.34 %
P-0-4-4	
- Tx (Frames)	19,830
- Tx Rate (L1) (Bit/s)	243.99 M
- Tx Rate (Fps)	19,830
- Rx (Frames)	19,779
- Rx Rate (L1) (Bit/s)	243.36 M
- Rx Rate (Fps)	19,779
P-0-4-5	
- Tx (Frames)	20,318
- Tx Rate (L1) (Bit/s)	249.99 M
- Tx Rate (Fps)	20,318
- Rx (Frames)	19,830
- Rx Rate (L1) (Bit/s)	243.99 M
- Rx Rate (Fps)	19,830

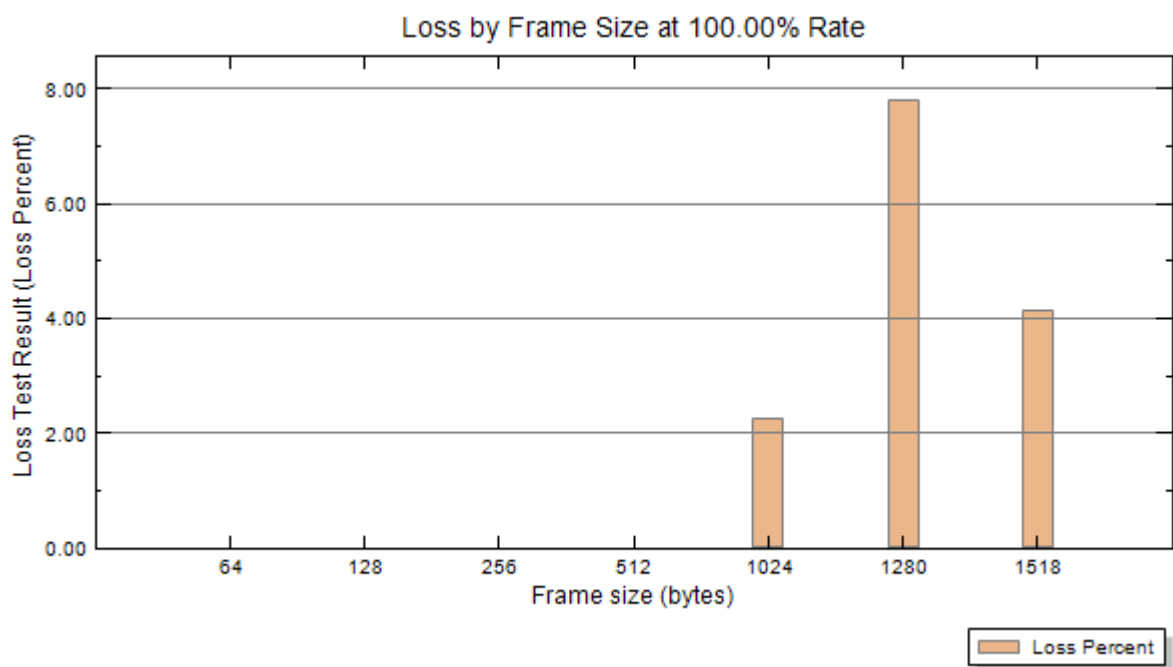


Results for 100.00% Rate

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx (Frames)	1,470,237	834,459	447,463	232,142	118,294	94,999
Tx Rate (Fps)	1,470,237	834,459	447,463	232,142	118,294	94,999
Tx Rate (L1) (Bit/s)	988 M	988 M	988 M	988 M	987.99 M	987.99 M
Rx (Frames)	1,470,237	834,459	447,463	232,142	115,641	87,580
Rx Rate (Fps)	1.47 M	834.46 K	447.46 K	232.14 K	115.64 K	87.58 K
Rx Rate (L1) (Bit/s)	988 M	988 M	988 M	988 M	965.83 M	910.83 M
Loss (Frames)	0	0	0	0	2,653	7,419
Loss Rate (Percent)	0 %	0 %	0 %	0 %	2.24 %	7.81 %
P-0-4-4						
- Tx (Frames)	726,190	412,162	221,014	114,661	58,429	46,923
- Tx Rate (L1) (Bit/s)	488 M	488 M	488 M	488 M	488 M	488 M
- Tx Rate (Fps)	726,190	412,162	221,014	114,661	58,429	46,923
- Rx (Frames)	744,047	422,297	226,449	117,481	57,212	40,657
- Rx Rate (L1) (Bit/s)	500 M	500 M	500 M	500 M	477.83 M	422.83 M
- Rx Rate (Fps)	744,047	422,297	226,449	117,481	57,212	40,657
P-0-4-5						
- Tx (Frames)	744,047	422,297	226,449	117,481	59,865	48,076
- Tx Rate (L1) (Bit/s)	500 M	500 M	500 M	500 M	499.99 M	499.99 M
- Tx Rate (Fps)	744,047	422,297	226,449	117,481	59,865	48,076
- Rx (Frames)	726,190	412,162	221,014	114,661	58,429	46,923
- Rx Rate (L1) (Bit/s)	488 M	488 M	488 M	488 M	488 M	488 M
- Rx Rate (Fps)	726,190	412,162	221,014	114,661	58,429	46,923

Frame Size	1518
Result State	PASS
Tx (Frames)	80,298
Tx Rate (Fps)	80,298
Tx Rate (L1) (Bit/s)	987.99 M
Rx (Frames)	76,963
Rx Rate (Fps)	76.96 K
Rx Rate (L1) (Bit/s)	946.95 M
Loss (Frames)	3,335
Loss Rate (Percent)	4.15 %
P-0-4-4	
- Tx (Frames)	39,661
- Tx Rate (L1) (Bit/s)	487.99 M
- Tx Rate (Fps)	39,661

- Rx (Frames)	37,302
- Rx Rate (L1) (Bit/s)	458.96 M
- Rx Rate (Fps)	37,302
P-0-4-5	
- Tx (Frames)	40,637
- Tx Rate (L1) (Bit/s)	500 M
- Tx Rate (Fps)	40,637
- Rx (Frames)	39,661
- Rx Rate (L1) (Bit/s)	487.99 M
- Rx Rate (Fps)	39,661



Back-to-Back Test Results

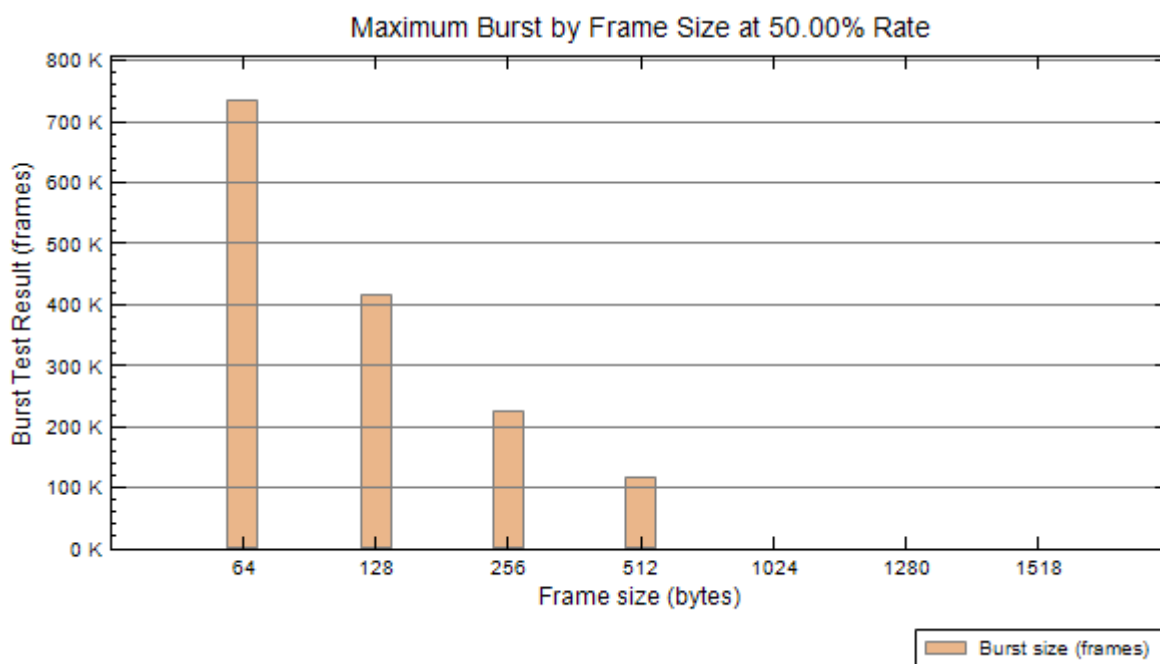
Test Setup

Duration: 1 seconds
 Iteration: 1
 Rate Result Scope: Common Result

Test Results

Results for 50.00% Rate

Frame Size	64	128	256	512	1024	1280
Result State	PASS	PASS	PASS	PASS	PASS	PASS
Tx Burst (Frames)	735,118	417,229	223,731	116,070	924	184
Tx Burst (Bytes)	47,047,552	53,405,312	57,275,136	59,427,840	946,176	235,520
Max Offered Rate (Fps)	735,118	417,229	223,731	116,070	59,146	47,499
Max Offered Rate (Bit/s)	500 M	500 M	500 M	500 M	500 M	500 M
P-0-4-4						
- Tx Burst (Frames)	363,095	206,081	110,507	57,330	456	91
- Tx Burst (Bytes)	23,238,080	26,378,368	28,289,792	29,352,960	466,944	116,480
P-0-4-5						
- Tx Burst (Frames)	372,023	211,148	113,224	58,740	468	93
- Tx Burst (Bytes)	23,809,472	27,026,944	28,985,344	30,074,880	479,232	119,040



Results for 100.00% Rate

Frame Size	64	128	256	512	1024
Result State	PASS	PASS	PASS	PASS	PASS
Tx Burst (Frames)	1,470,237	834,459	447,463	232,142	577
Tx Burst (Bytes)	94,095,168	106,810,752	114,550,528	118,856,704	590,848
Max Offered Rate (Fps)	1,470,237	834,459	447,463	232,142	118,294
Max Offered Rate (Bit/s)	988 M	988 M	988 M	988 M	987.99 M
P-0-4-4					
- Tx Burst (Frames)	726,190	412,162	221,014	114,661	285
- Tx Burst (Bytes)	46,476,160	52,756,736	56,579,584	58,706,432	291,840
P-0-4-5					

- Tx Burst (Frames)	744,047	422,297	226,449	117,481	292
- Tx Burst (Bytes)	47,619,008	54,054,016	57,970,944	60,150,272	299,008

