



IxNetwork Report

Test: RFC2544 - Throughput/Latency

Test Date: 11/07/2023 17:47:00

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Table of Contents

1.	Cover	1
2.	Info	3
3.	Port Map	4
4.	Aggregate Graphs	5
5.	IterationCharts	13
6.	Aggregated Results	16
7.	Aggregated Results Per Iteration	17
8.	Per Flow Results	18
9.	Iteration Data	20
10.	Theoretical Max Rates	22

RFC2544 - Throughput/Latency - Info**Test Information****Product Information**

Product Label :	Your switch/router name here
Product Version :	Your firmware version here
Serial Number :	Your switch/router serial number here
Comments :	

Test Settings

Date Executed :	07/23/2011
Time Executed :	17:47:00
User Name :	
Number of Trials Executed :	1
Stream Duration (sec) :	20
Calculate Lantency :	True
Lantency Type :	Store and Forward

Output Parameters

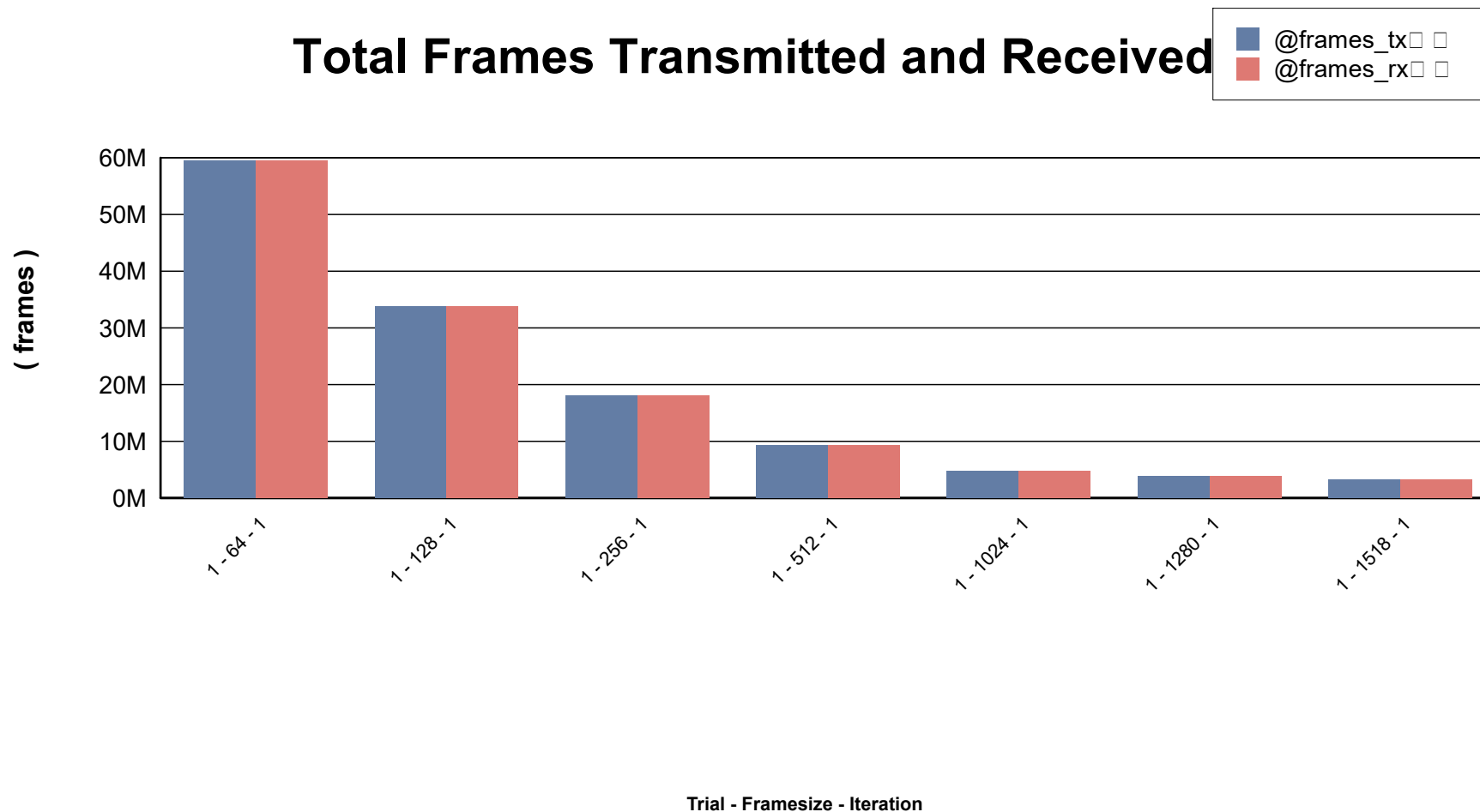
Number of Trials Passed :	N/A
Test Duration (sec) :	00:04:34

RFC2544 - Throughput/Latency - Port Map Information

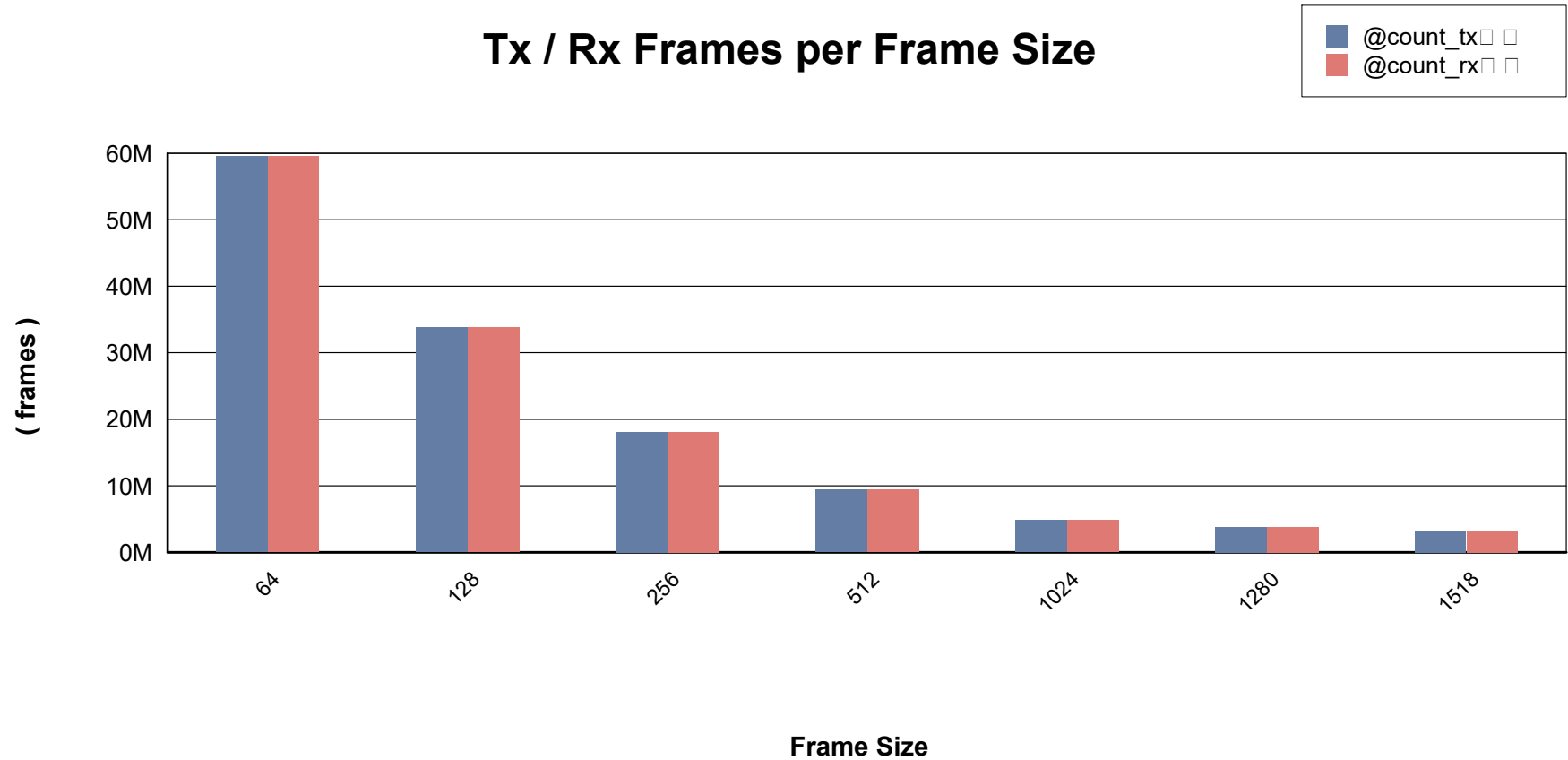
Port Map :	Tx Port	Tx Speed (Mbps)	Rx Port	Rx Speed (Mbps)
	10.36.220.200;03;01	1000	10.36.220.200;03;02	1000
	10.36.220.200;03;02	1000	10.36.220.200;03;01	1000

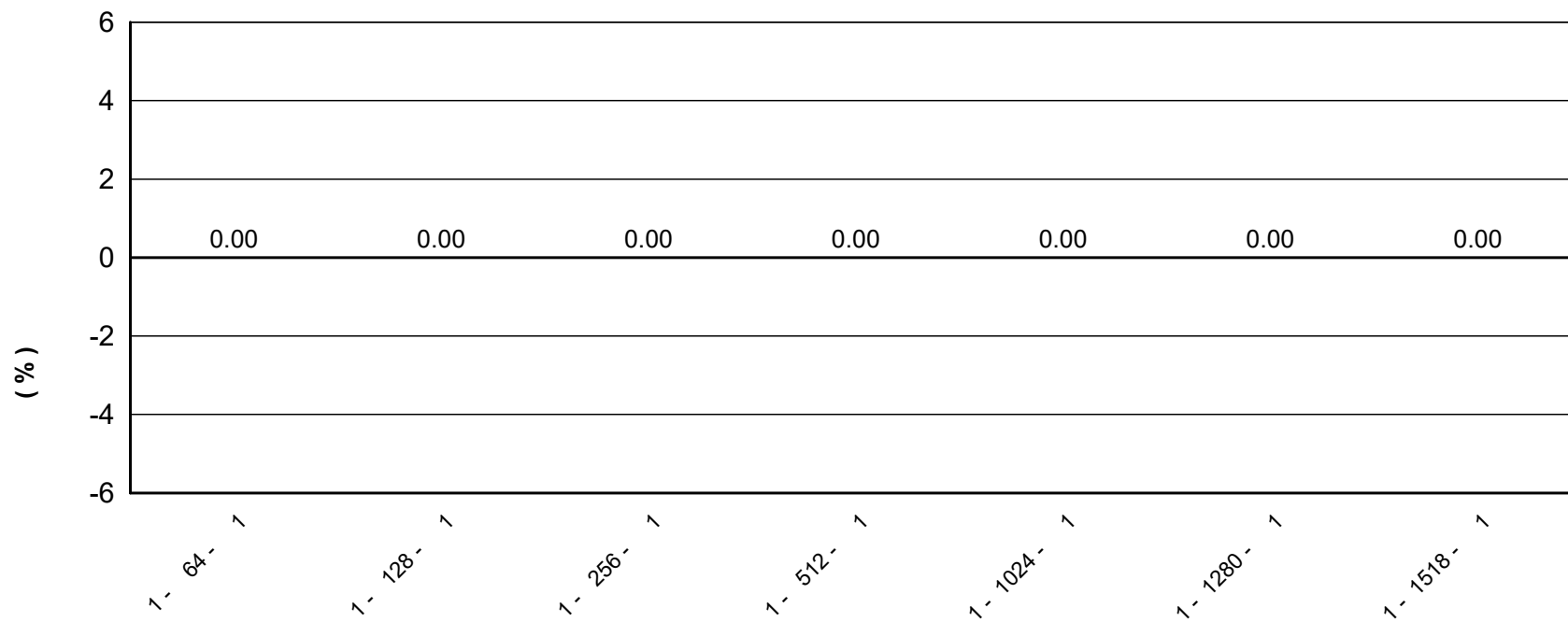
RFC2544 - Throughput/Latency - Aggregated Graph

Total Frames Transmitted and Received



RFC2544 - Throughput/Latency - Aggregated Graph

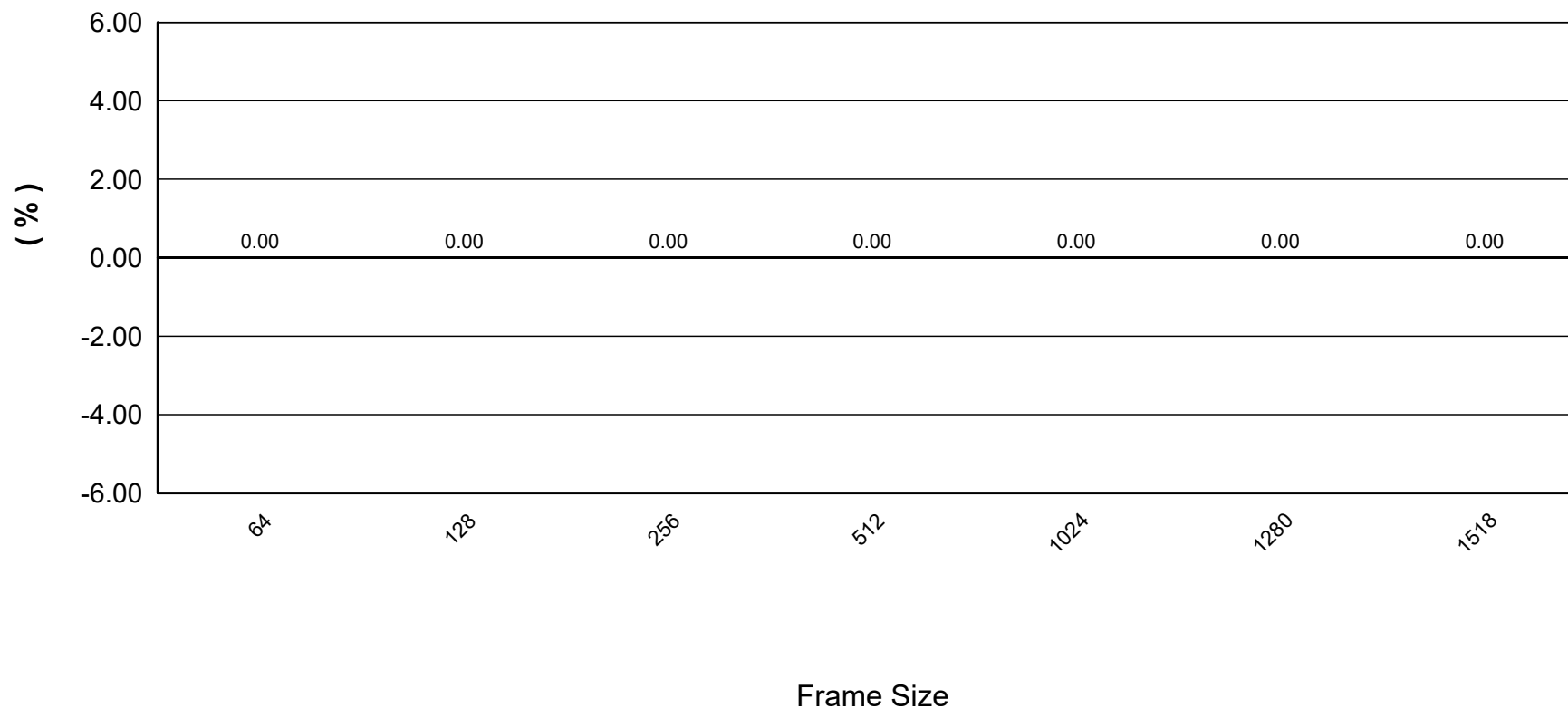


RFC2544 - Throughput/Latency - Aggregated Graph**Aggregated Frame Loss**

Trial - Framesize - Iteration

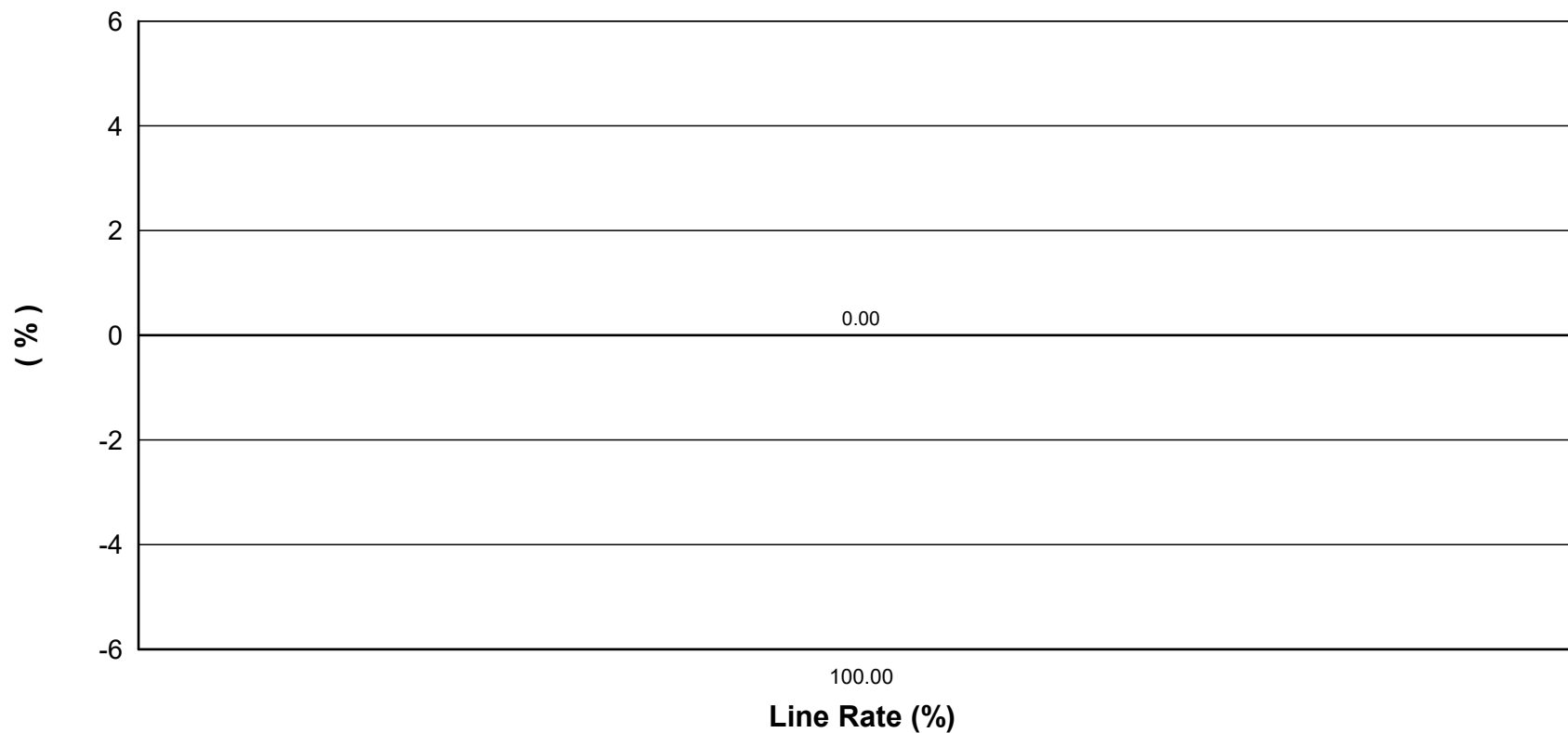
RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Frame Size

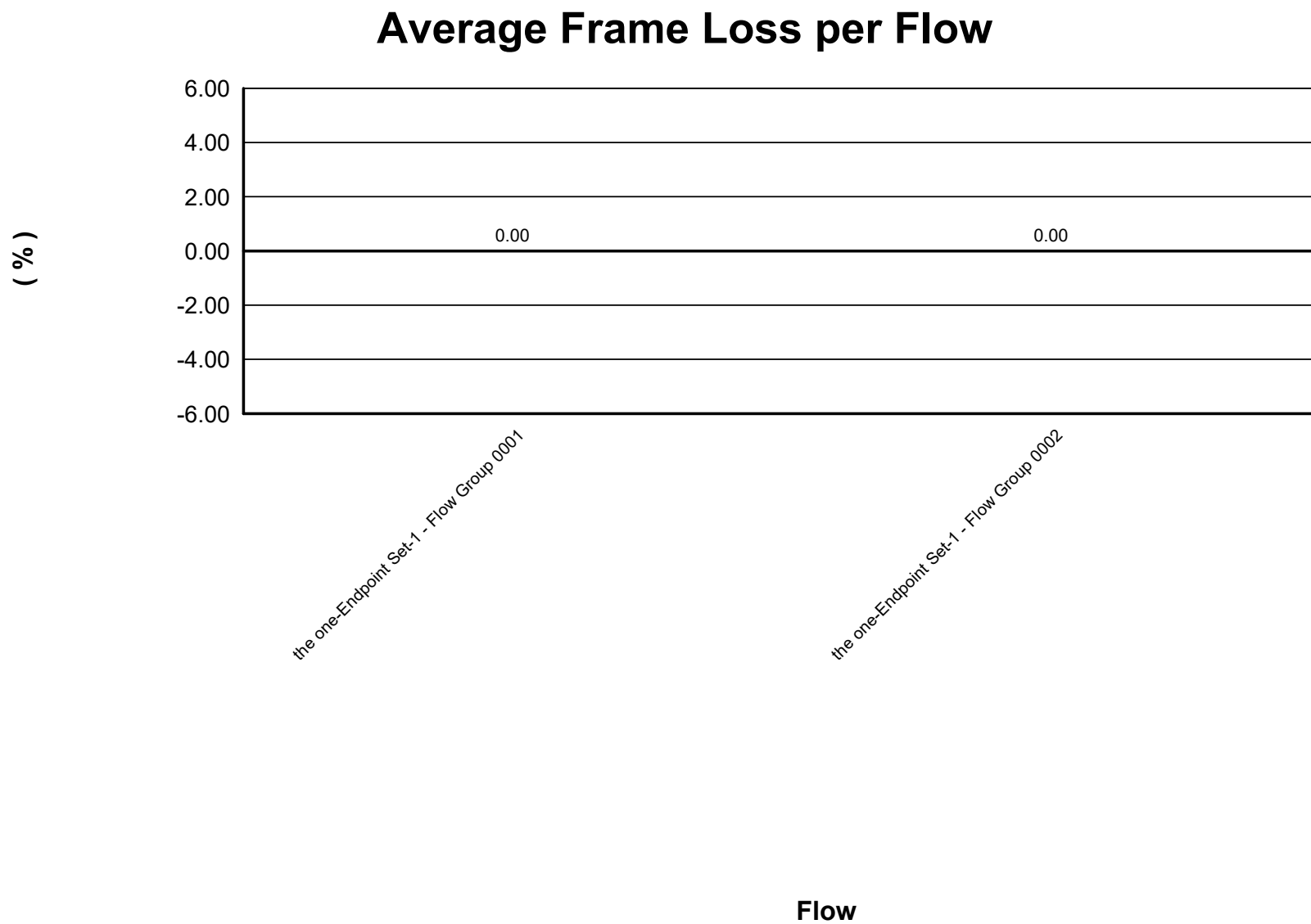


RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Line Rate

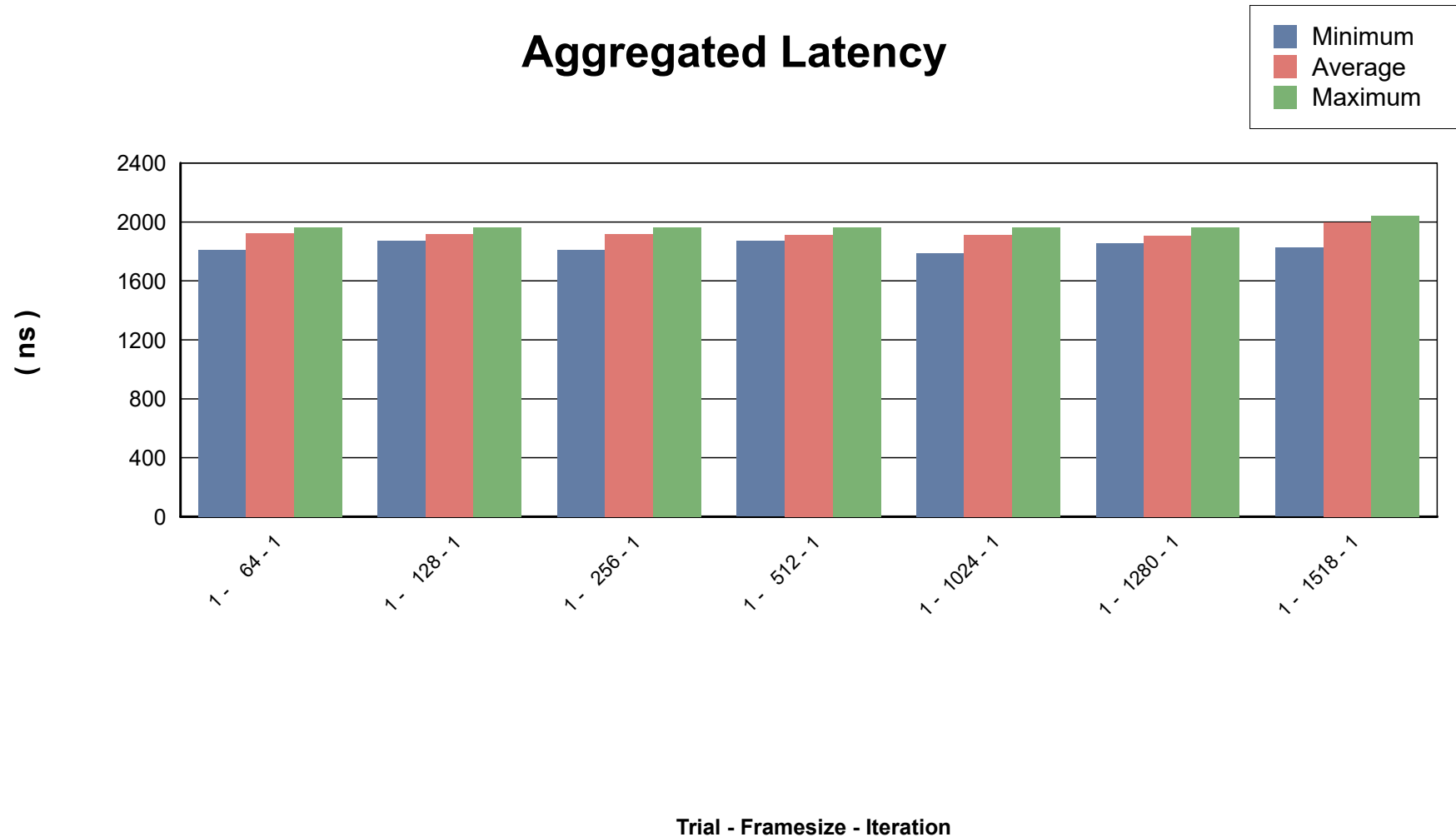


RFC2544 - Throughput/Latency - Per Flow Graph



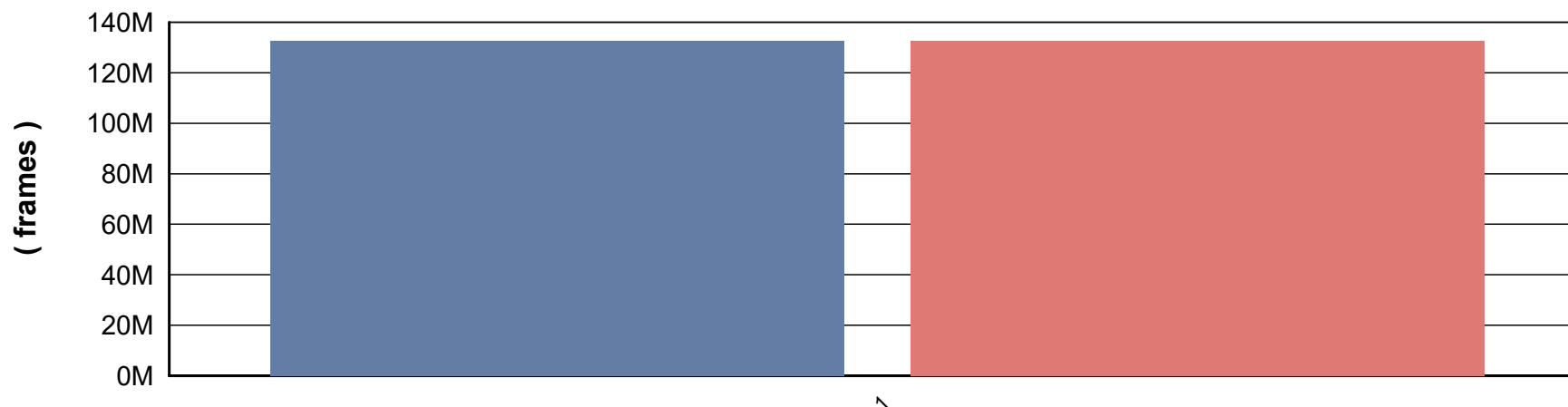
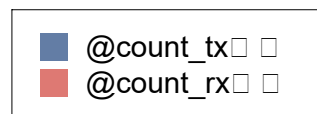
RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Latency



RFC2544 - Throughput/Latency - Per Flow Graph

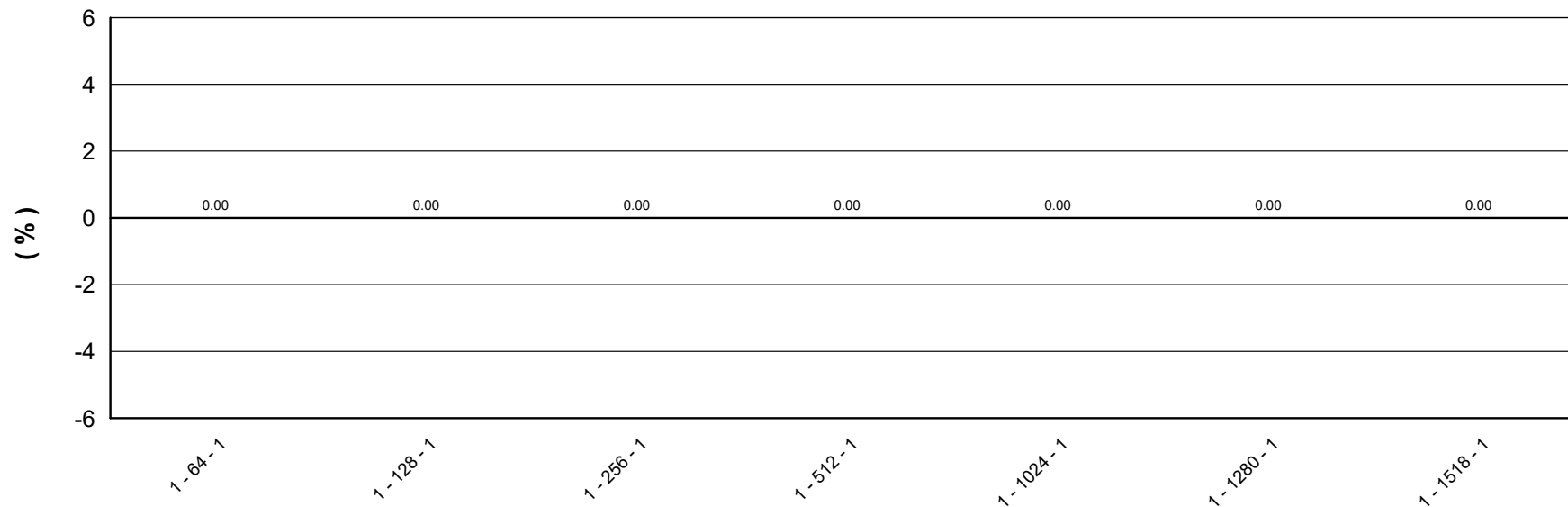
Tx / Rx Frame Count



Trial

RFC2544 - Throughput/Latency - Iteration Graph

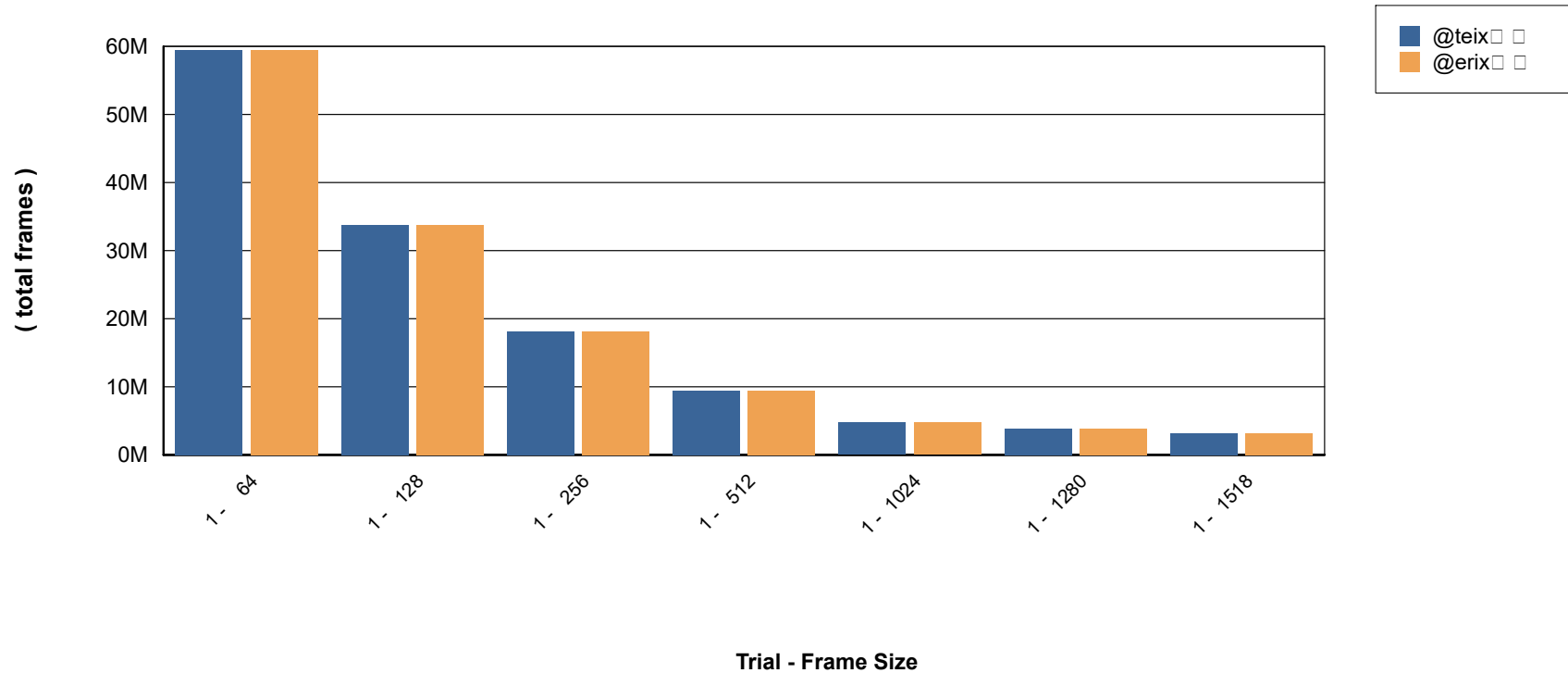
Aggregated Frame Loss (%)



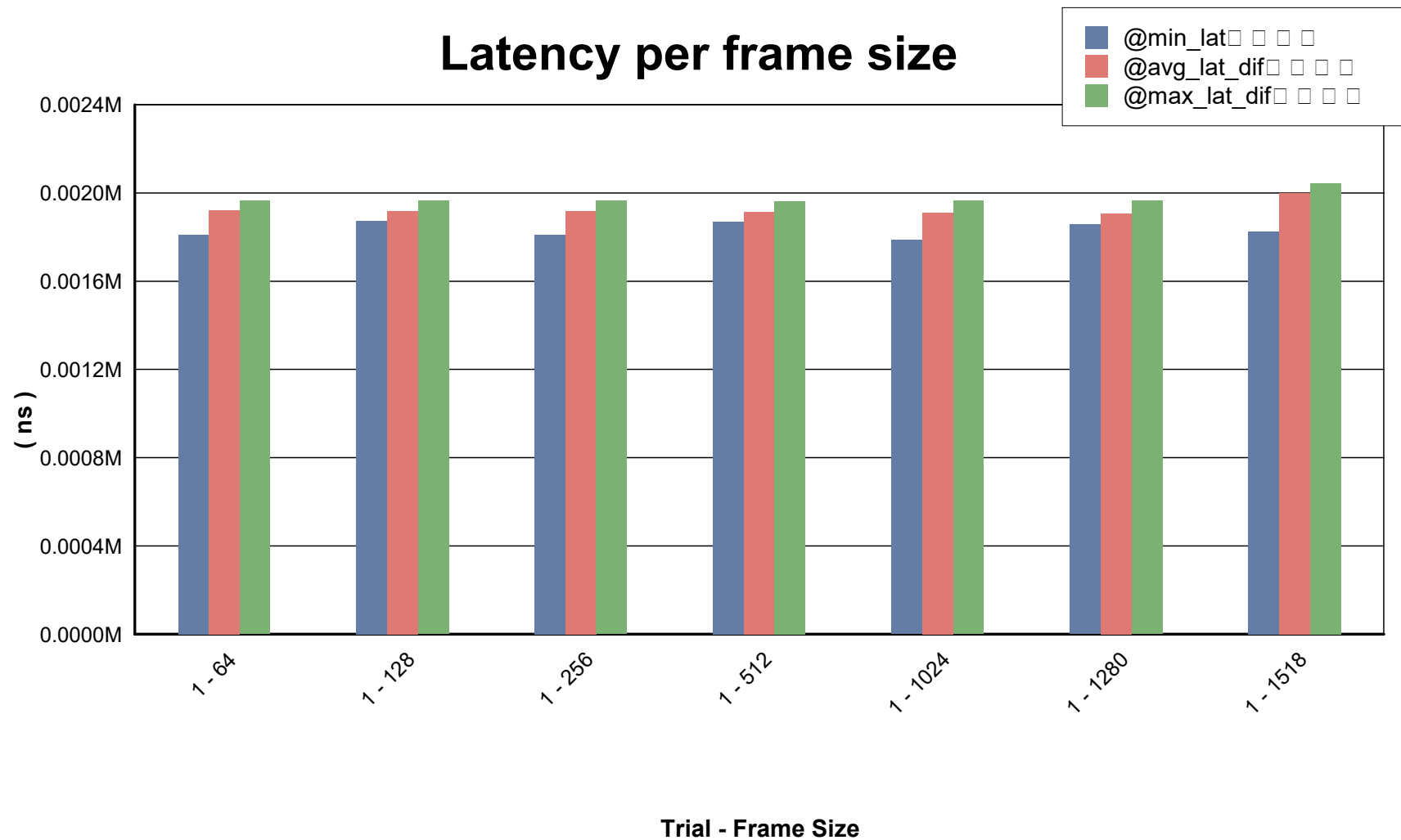
Trial - Frame Size - Iteration

RFC2544 - Throughput/Latency - Iteration Graph

Tx / Rx Frames per Frame Size



RFC2544 - Throughput/Latency - Iteration Graph



RFC2544 - Throughput/Latency - Aggregated Results

Trial / Framesize / Iteration	Agg L2 Throughput				Agg L1 Throughput	Throughput (frames)	Agg Latency (ns)		
	AggTx Rate %	Agg Rx Rate							
		%	FPS	Mbps					
Trial: 1 / FS: 64 / Iter: 1	100.00	100	2976190.5	1523.810	Tx Rate Mbps :	Tx :	59523810.000	Min :	1810
					Rx Rate Mbps :	Rx :	59523810.000	Max :	1965
						Loss :	0	Average :	1922.000
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 128 / Iter: 1	100.00	100	1689189.2	1729.730	Tx Rate Mbps :	Tx :	33783784.000	Min :	1872
					Rx Rate Mbps :	Rx :	33783784.000	Max :	1965
						Loss :	0	Average :	1919.000
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 256 / Iter: 1	100.00	100	905797.1	1855.072	Tx Rate Mbps :	Tx :	18115942.000	Min :	1810
					Rx Rate Mbps :	Rx :	18115942.000	Max :	1965
						Loss :	0	Average :	1918.000
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 512 / Iter: 1	100.00	100	469924.8	1924.812	Tx Rate Mbps :	Tx :	9398496.000	Min :	1870
					Rx Rate Mbps :	Rx :	9398496.000	Max :	1962
						Loss :	0	Average :	1913.000
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 1024 / Iter: 1	100.00	100	239463.6	1961.686	Tx Rate Mbps :	Tx :	4789272.000	Min :	1787
					Rx Rate Mbps :	Rx :	4789272.000	Max :	1965
						Loss :	0	Average :	1911.500
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 1280 / Iter: 1	100.00	100	192307.7	1969.231	Tx Rate Mbps :	Tx :	3846154.000	Min :	1857
					Rx Rate Mbps :	Rx :	3846154.000	Max :	1965
						Loss :	0	Average :	1909.000
					Lost Bits % :	Loss% :	0.00		
Trial: 1 / FS: 1518 / Iter: 1	100.00	100	162548.8	1973.992	Tx Rate Mbps :	Tx :	3250976.000	Min :	1825
					Rx Rate Mbps :	Rx :	3250976.000	Max :	2045
						Loss :	0	Average :	1999.000
					Lost Bits % :	Loss% :	0.00		

RFC2544 - Throughput/Latency - Aggregated Results

Trial / Framesize / Iteration	Agg L2 Throughput				Agg L1 Throughput		Throughput (frames)	Agg Latency			
	AggTx Rate %	Agg Rx Rate			Tx Rate Mbps	Rx Rate Mbps		Min (ns)	Max (ns)	Average (ns)	
		%	FPS	Mbps							
Trial: 1 / FS: 64 / Iter: 1	100	100	2976190.5	1523.810			Tx : 59523810.000 Rx : 59523810.000 Loss : 0 Loss% : 0.00	1810	1965	1922.000	
Trial: 1 / FS: 128 / Iter: 1	100	100	1689189.2	1729.730			Tx : 33783784.000 Rx : 33783784.000 Loss : 0 Loss% : 0.00	1872	1965	1919.000	
Trial: 1 / FS: 256 / Iter: 1	100	100	905797.1	1855.072			Tx : 18115942.000 Rx : 18115942.000 Loss : 0 Loss% : 0.00	1810	1965	1918.000	
Trial: 1 / FS: 512 / Iter: 1	100	100	469924.8	1924.812			Tx : 9398496.000 Rx : 9398496.000 Loss : 0 Loss% : 0.00	1870	1962	1913.000	
Trial: 1 / FS: 1024 / Iter: 1	100	100	239463.6	1961.686			Tx : 4789272.000 Rx : 4789272.000 Loss : 0 Loss% : 0.00	1787	1965	1911.500	
Trial: 1 / FS: 1280 / Iter: 1	100	100	192307.7	1969.231			Tx : 3846154.000 Rx : 3846154.000 Loss : 0 Loss% : 0.00	1857	1965	1909.000	
Trial: 1 / FS: 1518 / Iter: 1	100	100	162548.8	1973.992			Tx : 3250976.000 Rx : 3250976.000 Loss : 0 Loss% : 0.00	1825	2045	1999.000	

RFC2544 - Throughput/Latency - Per Flow Statistics - Part 1 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	L2 Throughput				L1 Throughput	Throughput (frames)		
				Tx Rate %	Rx Rate						
					%	FPS	Mbps				
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	1488095.2	761.91	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	29761905 29761905 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	1488095.2	761.91	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	29761905 29761905 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	844594.6	864.87	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	16891892 16891892 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	844594.6	864.87	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	16891892 16891892 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	452898.5	927.54	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	9057971 9057971 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	452898.6	927.54	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	9057971 9057971 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	234962.4	962.41	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	4699248 4699248 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	234962.4	962.41	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	4699248 4699248 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	119731.8	980.84	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	2394636 2394636 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	119731.8	980.84	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	2394636 2394636 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	96153.8	984.62	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	1923077 1923077 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	96153.8	984.62	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	1923077 1923077 0	
								Lost Bits % :	Loss% :	0.000	
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100	81274.4	987.00	Tx Rate Mbps : Rx Rate Mbps :	Tx : Rx : Loss :	1625488 1625488 0	
								Lost Bits % :	Loss% :	0.000	

Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100	81274.4	987.00	Tx Rate Mbps :	Tx :	1625488
								Rx Rate Mbps :	Rx :	1625488
									Loss :	0
								Lost Bits % :	Loss% :	0.000

RFC2544 - Throughput/Latency - Per Flow Statistics - Part 2 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	Min Latency (ns)	Max Latency (ns)	Avg Latency (ns)
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1810	1905	1898
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1867	1965	1946
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1872	1905	1895
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1897	1965	1943
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1810	1907	1894
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1885	1965	1942
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1870	1905	1889
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1912	1962	1937
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1872	1905	1887
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1787	1965	1936
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1857	1905	1884
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1900	1965	1934
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1825	2002	1975
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1882	2045	2023

RFC2544 - Throughput/Latency - Iteration Statistics - Part 1 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	L2 Throughput				L1 Throughput		Throughput (frames)	
				Tx Rate %	%	FPS	Mbps	Tx Rate Mbps	Rx Rate Mbps		
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	1488095.2	761.91			Tx : 29761905 Rx : 29761905 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	1488095.2	761.91			Tx : 29761905 Rx : 29761905 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	844594.6	864.87			Tx : 16891892 Rx : 16891892 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	844594.6	864.87			Tx : 16891892 Rx : 16891892 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	452898.5	927.54			Tx : 9057971 Rx : 9057971 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	452898.6	927.54			Tx : 9057971 Rx : 9057971 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	234962.4	962.41			Tx : 4699248 Rx : 4699248 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	234962.4	962.41			Tx : 4699248 Rx : 4699248 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	119731.8	980.84			Tx : 2394636 Rx : 2394636 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	119731.8	980.84			Tx : 2394636 Rx : 2394636 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	96153.8	984.62			Tx : 1923077 Rx : 1923077 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	96153.8	984.62			Tx : 1923077 Rx : 1923077 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	100.00	100.00	81274.4	987.00			Tx : 1625488 Rx : 1625488 Loss : 0 Loss% : 0.000	

Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	100.00	100.00	81274.4	987.00	Tx : 1625488
								Rx : 1625488
								Loss : 0
								Loss% : 0.000

RFC2544 - Throughput/Latency - Iteration Statistics - Part 2 of 2

Trial / Framesize / Iteration	Tx Port	Rx Port	Flow Group	Min Latency (ns)	Max Latency (ns)	Avg Latency (ns)
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1810	1905	1898.00
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1867	1965	1946.00
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1872	1905	1895.00
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1897	1965	1943.00
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1810	1907	1894.00
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1885	1965	1942.00
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1870	1905	1889.00
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1912	1962	1937.00
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1872	1905	1887.00
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1787	1965	1936.00
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1857	1905	1884.00
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1900	1965	1934.00
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 003	Ethernet - 004	the one-Endpoint Set-1 - Flow Group 0001	1825	2002	1975.00
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 004	Ethernet - 003	the one-Endpoint Set-1 - Flow Group 0002	1882	2045	2023.00

Theoretical maximum Frame Rates (frames/second) for different frame sizes (bytes)

Speed	64	128	256	512	1024	1280	1518
10 Mbps	14881	8446	4529	2350	1198	962	813
100 Mbps	148810	84460	45290	23497	11973	9616	8128
1000 Mbps	1488096	844595	452899	234963	119732	96154	81275
10 Gbps	14880952	8445946	4528986	2349625	1197318	961539	812744
25 Gbps	37202380	21114864	11322463	5874060	2993295	2403846	2031859
40 Gbps	59523809	33783783	18115942	9398496	4789272	3846153	3250975
100 Gbps	148809523	84459459	45289855	23496240	11973180	9615384	8127438
155 Mbps (Oc - 3)	288000	145116	72840	36491	18263	14614	12324
622 Mbps (Oc - 12)	1152000	580465	291362	145965	73054	58454	49296
2488 Mbps (Oc - 48)	4608000	2321860	1165447	583860	292215	233817	197182
9952 Mbps (Oc - 192)	18432000	9287442	4661790	2335439	1168859	935270	788730