

IxNetwork Report

Test: RFC2544 - Throughput/Latency

Test Date: 11/14/2023 17:09:32

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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 :	11/14/2023
Time Executed :	17:09:32
User Name :	
Number of Trials Executed :	1
Stream Duration (sec) :	20
Calculate Lantency :	True
Lantency Type :	Store and Forward

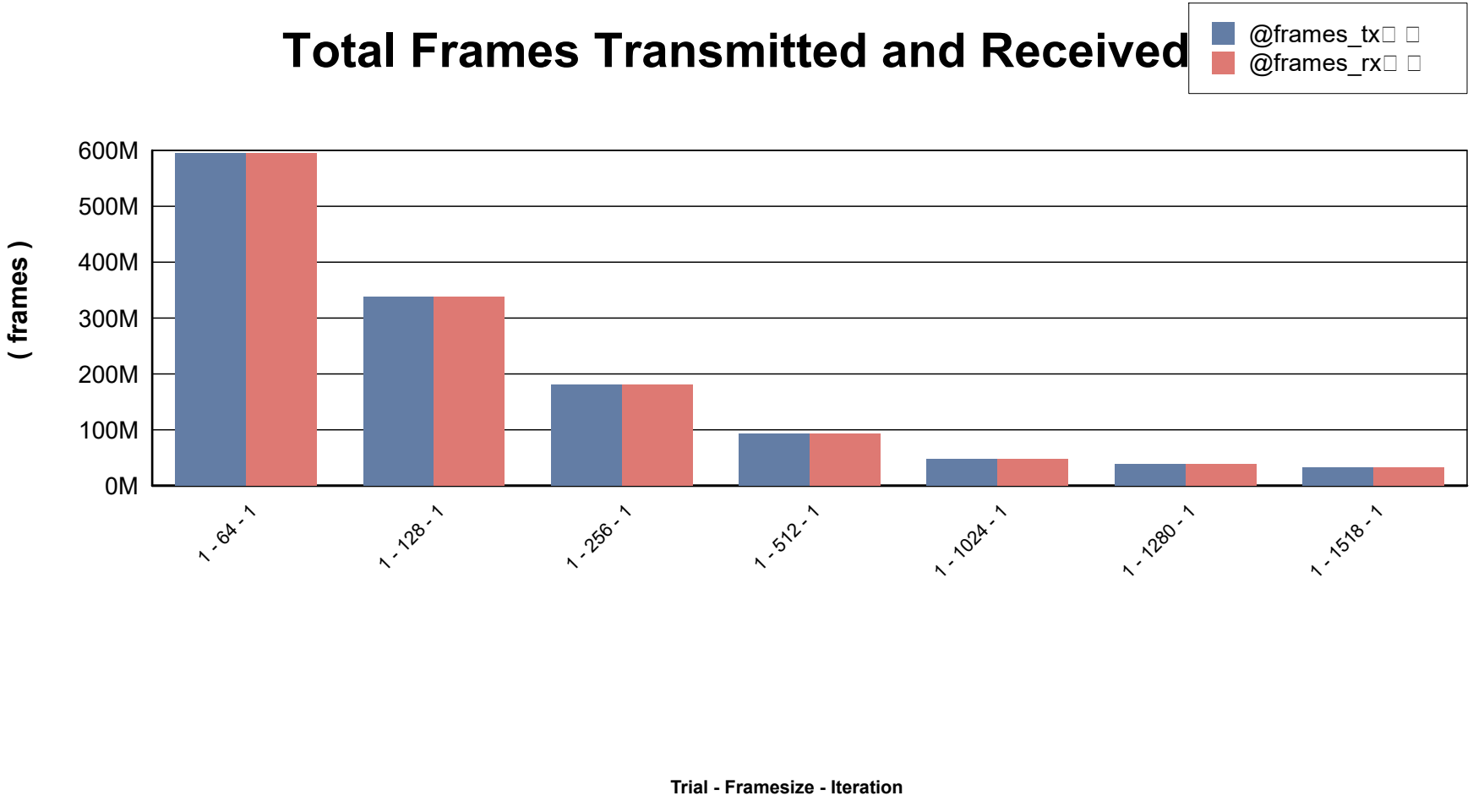
Output Parameters

Number of Trials Passed :	N/A
Test Duration (sec) :	00:04:22

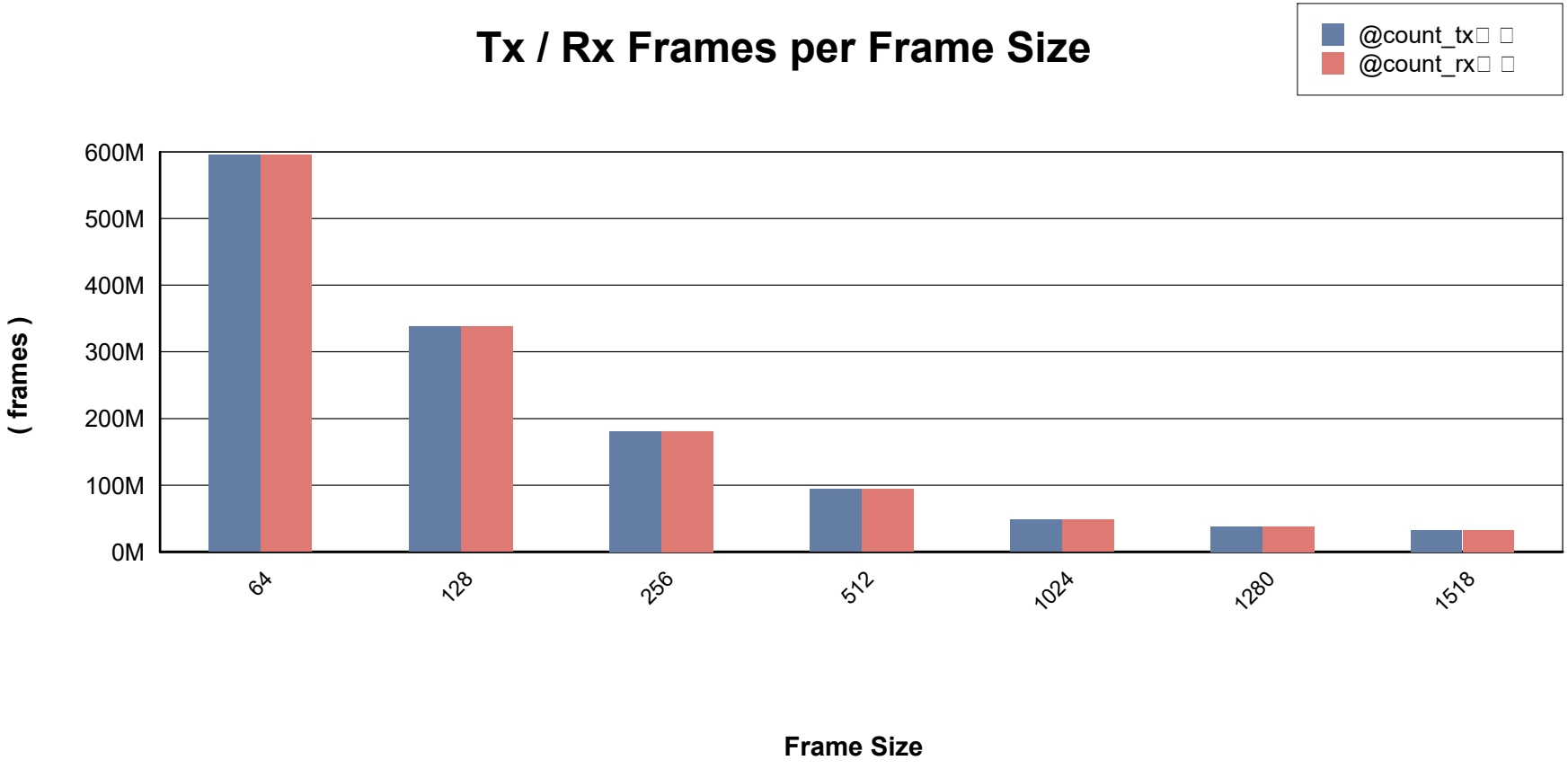
RFC2544 - Throughput/Latency - Port Map Information

Port Map :	Tx Port	Tx Speed (Mbps)	Rx Port	Rx Speed (Mbps)
	10.36.220.200;03;01	10000	10.36.220.200;03;02	10000
	10.36.220.200;03;02	10000	10.36.220.200;03;01	10000

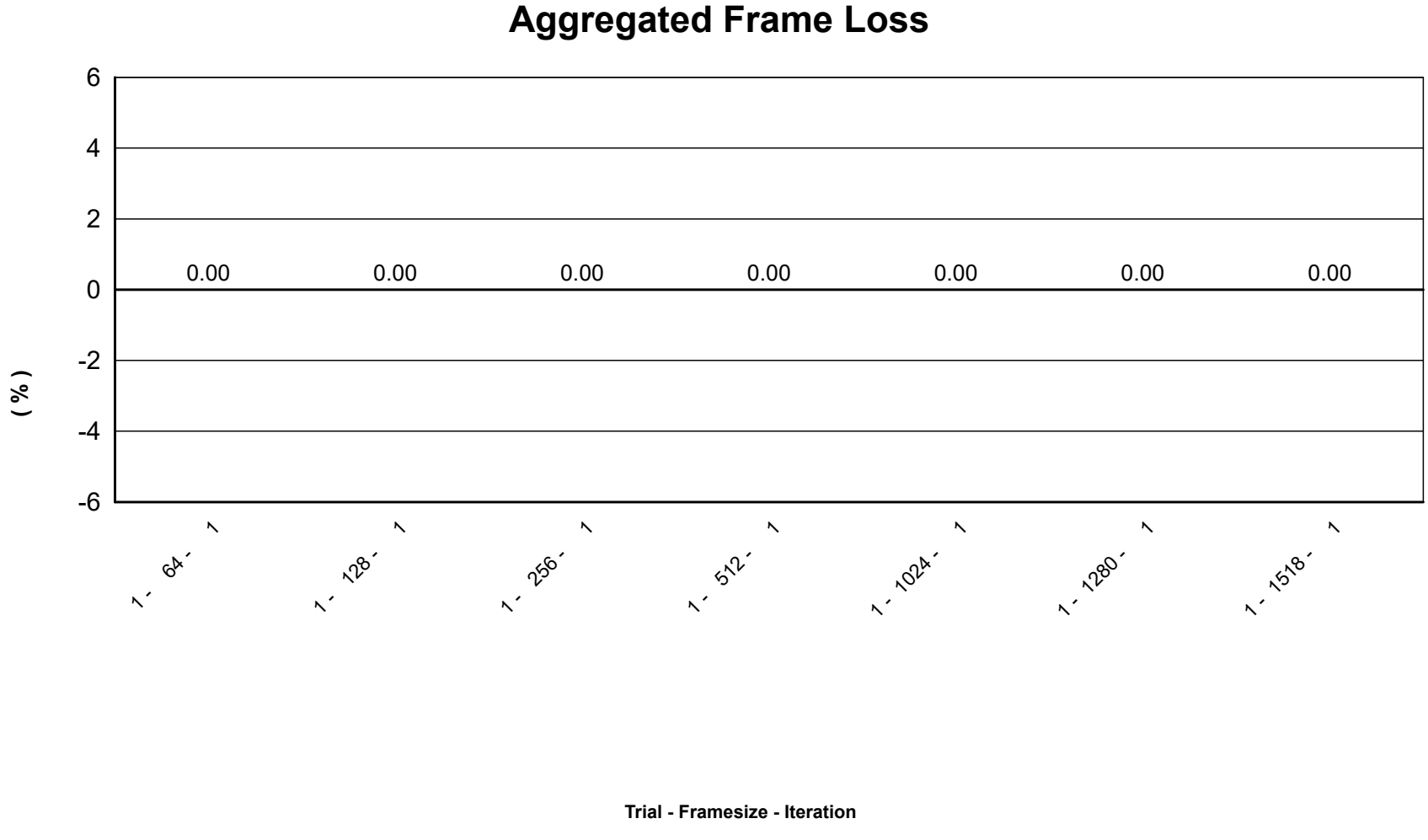
RFC2544 - Throughput/Latency - Aggregated Graph



RFC2544 - Throughput/Latency - Aggregated Graph

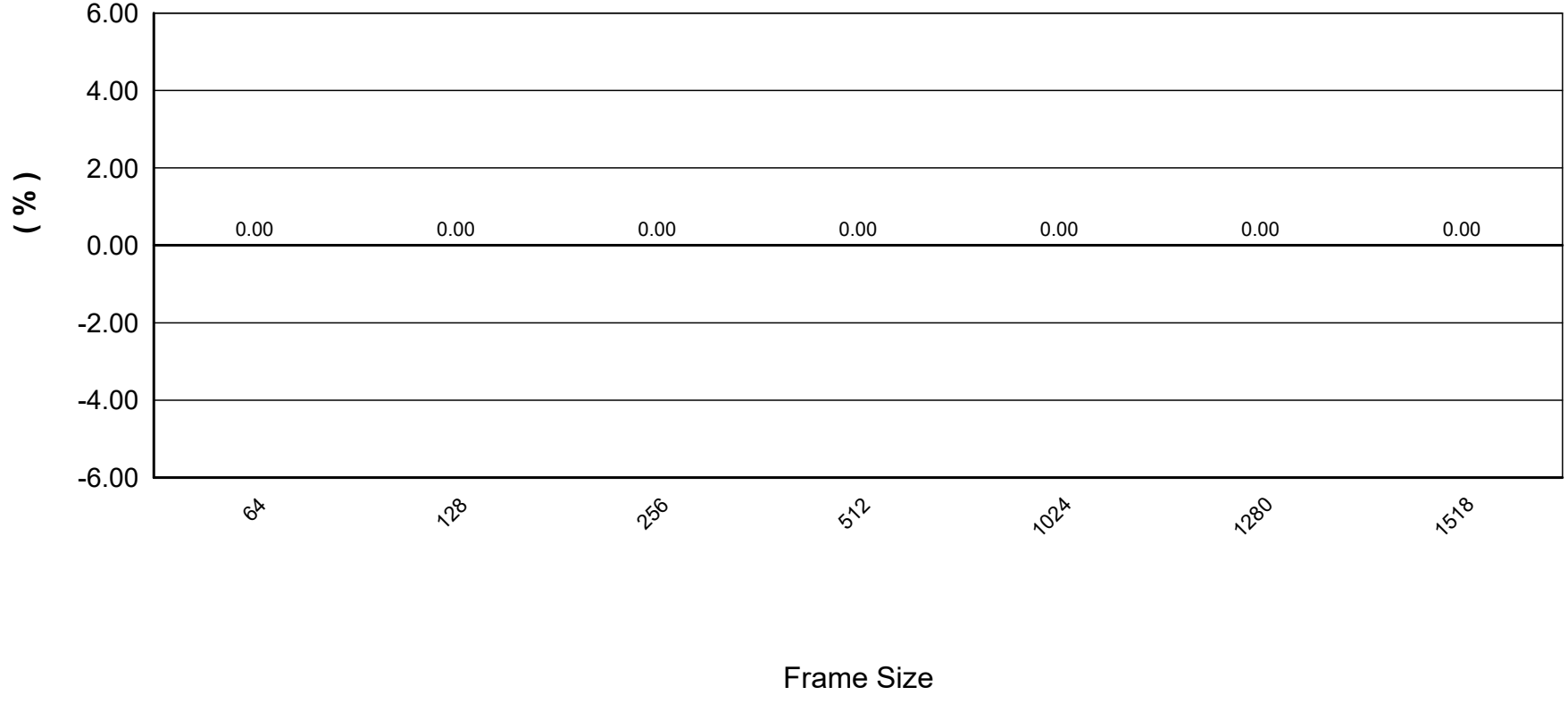


RFC2544 - Throughput/Latency - Aggregated Graph

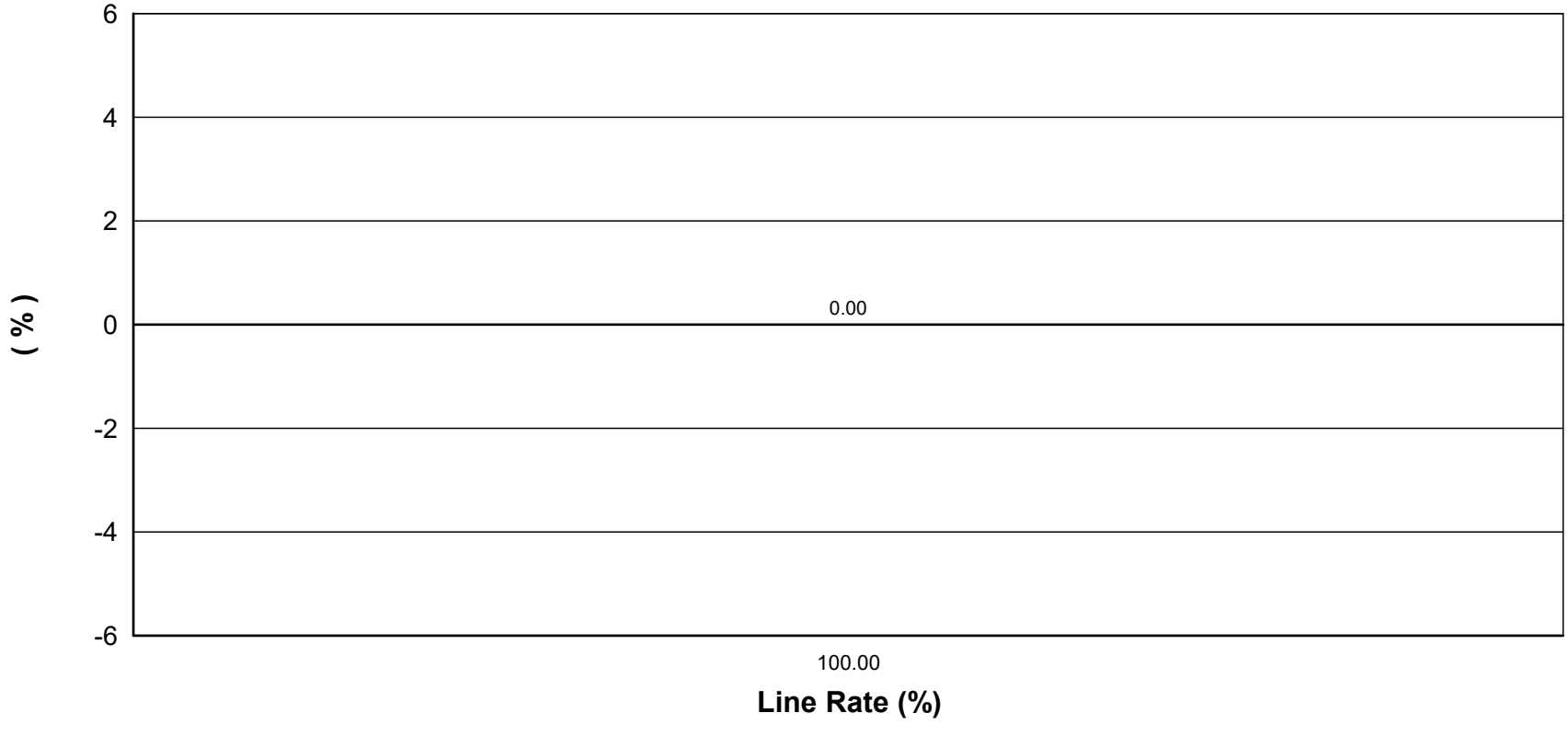


RFC2544 - Throughput/Latency - Aggregated Graph

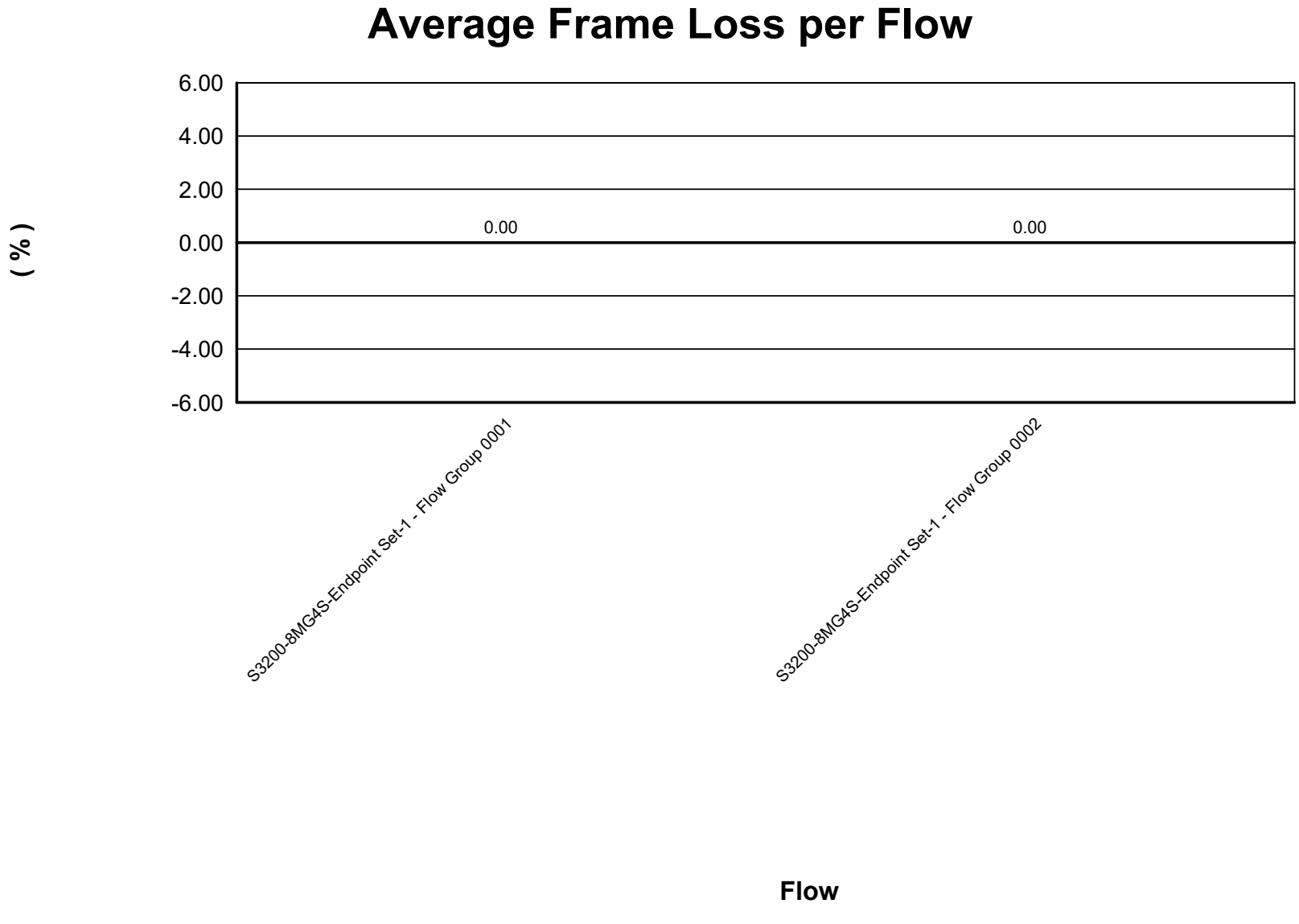
Aggregated Frame Loss per Frame Size



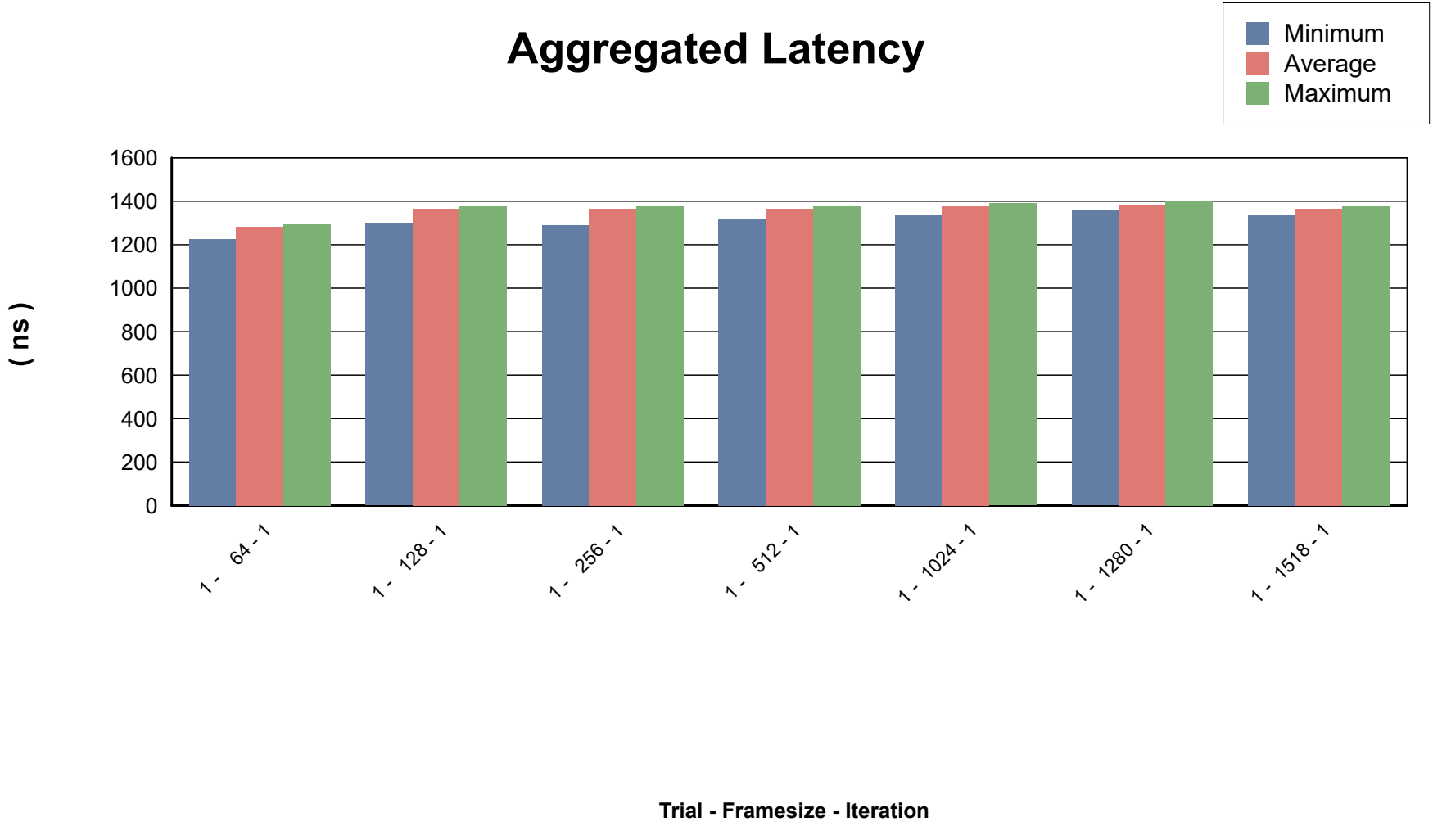
RFC2544 - Throughput/Latency - Aggregated Graph



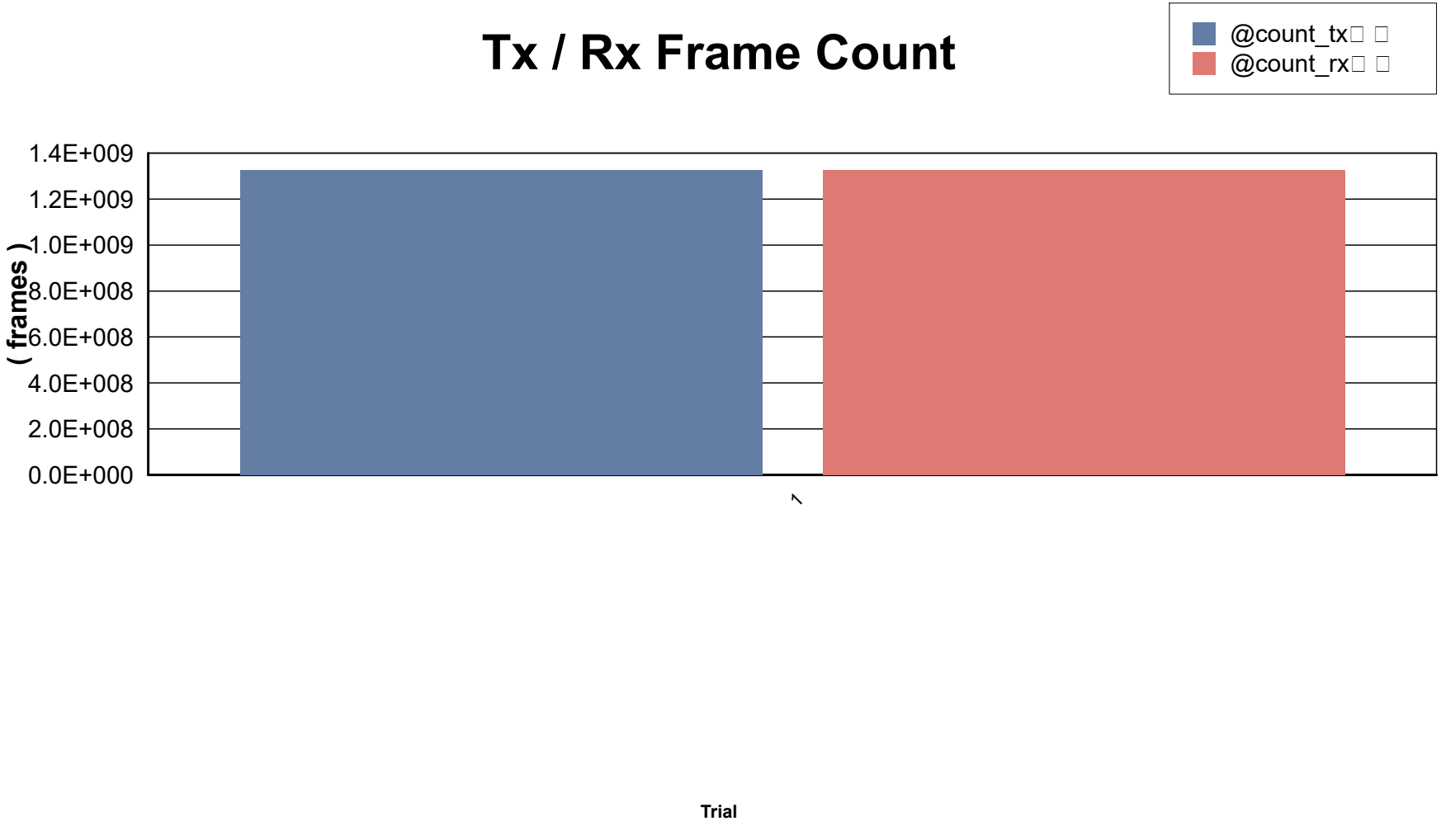
RFC2544 - Throughput/Latency - Per Flow Graph



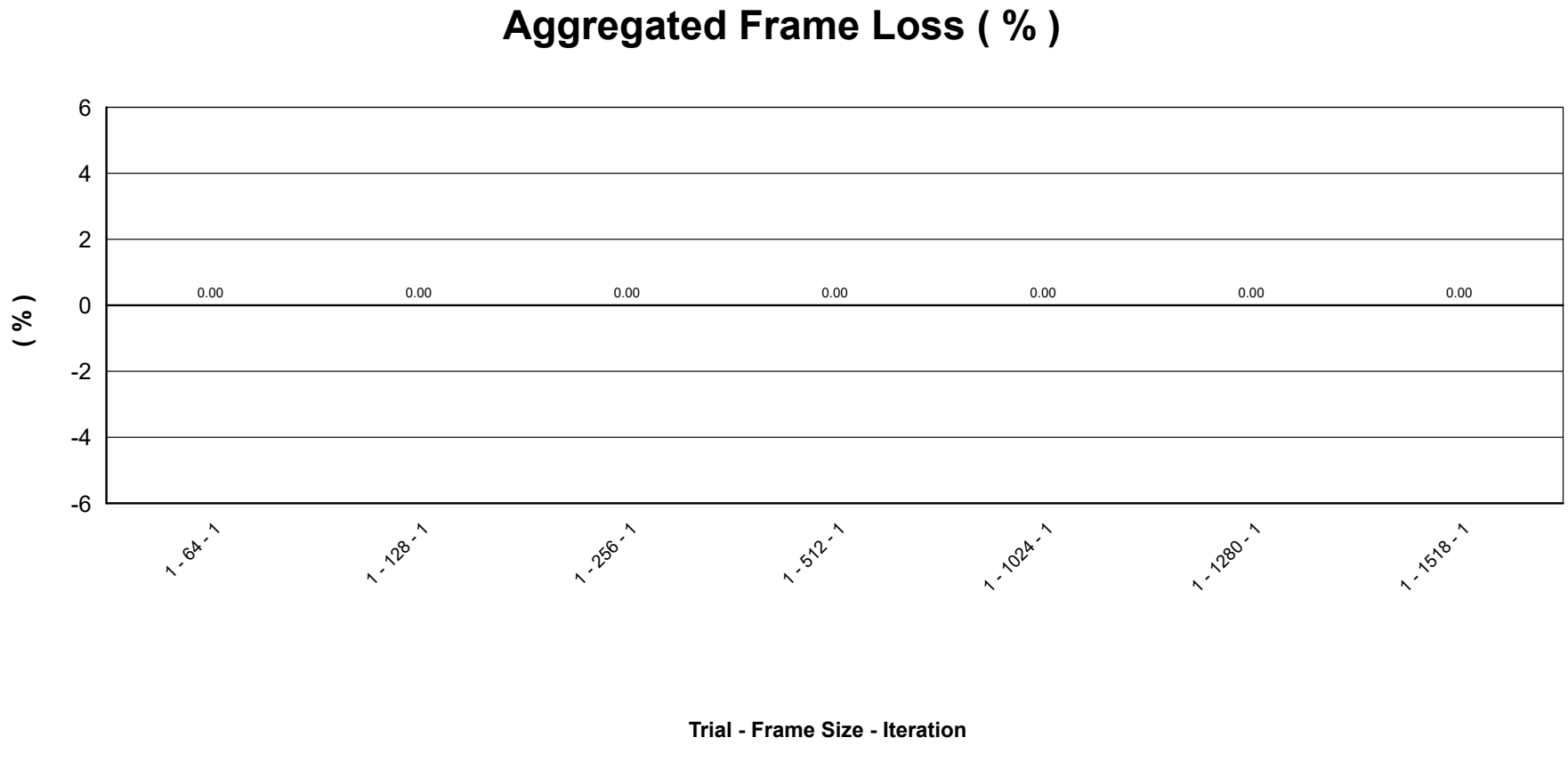
RFC2544 - Throughput/Latency - Aggregated Graph



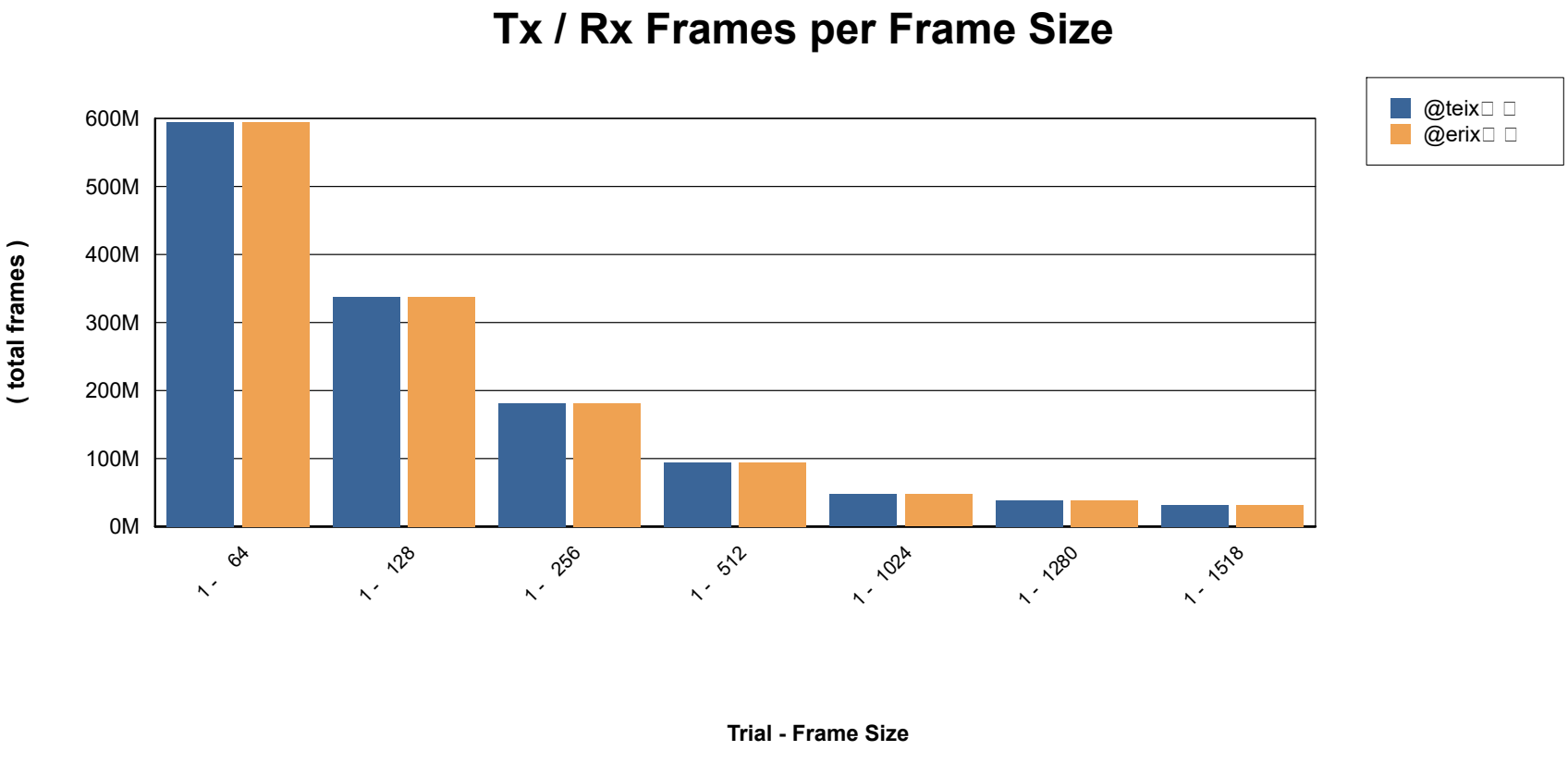
RFC2544 - Throughput/Latency - Per Flow Graph



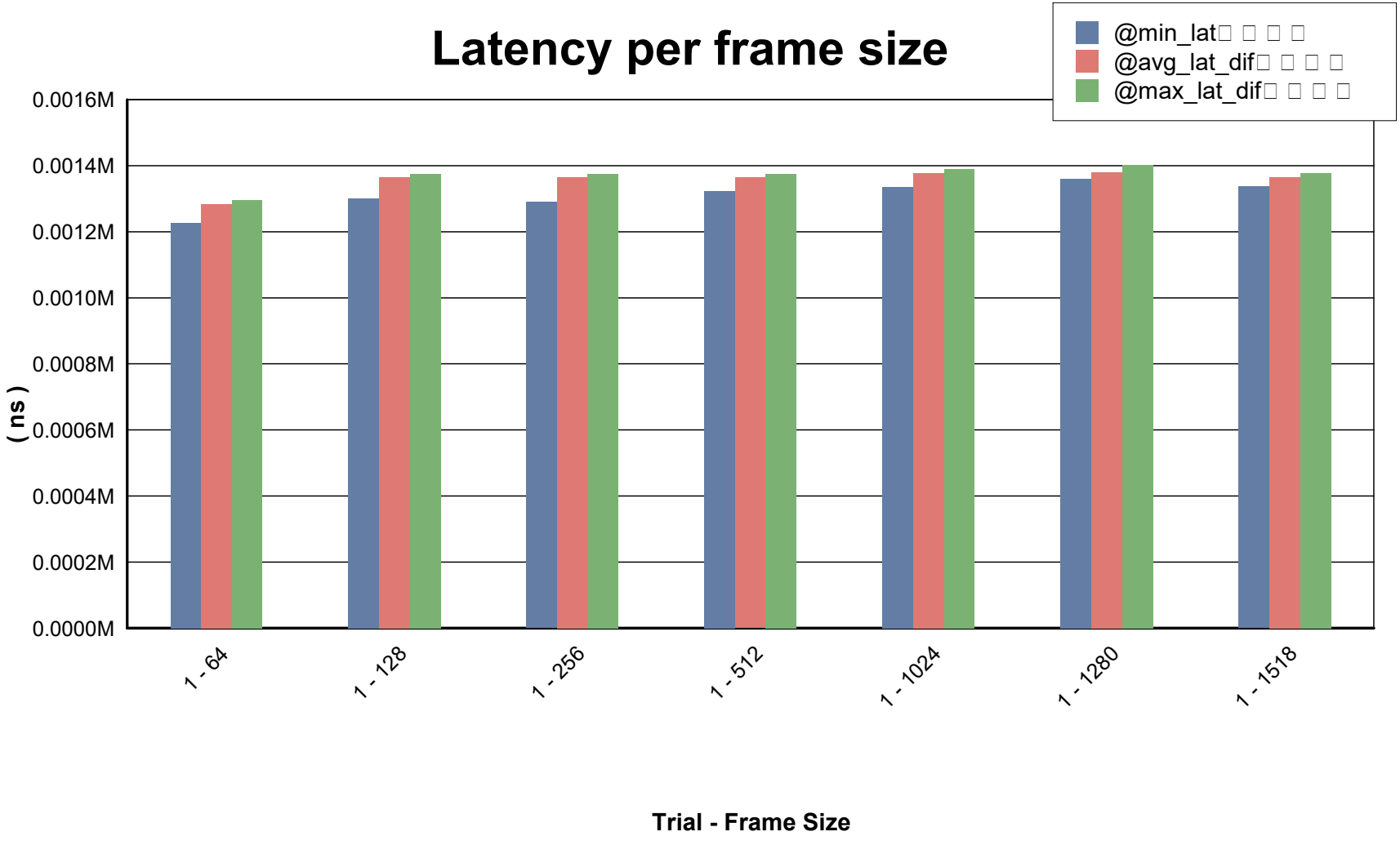
RFC2544 - Throughput/Latency - Iteration Graph



RFC2544 - Throughput/Latency - Iteration Graph



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	29761904.7	15238.095	Tx Rate Mbps :			Tx :	595238096.000		Min :	1227	
					Rx Rate Mbps :			Rx :	595238096.000		Max :	1295	
								Loss :	0		Average :	1283.500	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 128 / Iter: 1	100.00	100	16891891.9	17297.297	Tx Rate Mbps :			Tx :	337837838.000		Min :	1300	
					Rx Rate Mbps :			Rx :	337837838.000		Max :	1375	
								Loss :	0		Average :	1365.000	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 256 / Iter: 1	100.00	100	9057971.0	18550.725	Tx Rate Mbps :			Tx :	181159420.000		Min :	1290	
					Rx Rate Mbps :			Rx :	181159420.000		Max :	1375	
								Loss :	0		Average :	1364.500	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 512 / Iter: 1	100.00	100	4699248.1	19248.120	Tx Rate Mbps :			Tx :	93984962.000		Min :	1322	
					Rx Rate Mbps :			Rx :	93984962.000		Max :	1375	
								Loss :	0		Average :	1364.000	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 1024 / Iter: 1	100.00	100	2394636.0	19616.858	Tx Rate Mbps :			Tx :	47892720.000		Min :	1335	
					Rx Rate Mbps :			Rx :	47892720.000		Max :	1390	
								Loss :	0		Average :	1377.500	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 1280 / Iter: 1	100.00	100	1923076.9	19692.308	Tx Rate Mbps :			Tx :	38461538.000		Min :	1360	
					Rx Rate Mbps :			Rx :	38461538.000		Max :	1402	
								Loss :	0		Average :	1381.000	
					Lost Bits % :			Loss% :	0.00				
Trial: 1 / FS: 1518 / Iter: 1	100.00	100	1625487.6	19739.922	Tx Rate Mbps :			Tx :	32509752.000		Min :	1337	
					Rx Rate Mbps :			Rx :	32509752.000		Max :	1377	
								Loss :	0		Average :	1364.500	
					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	29761904.7	15238.095			Tx : Rx : Loss : Loss% :	595238096.000 595238096.000 0 0.00	1227	1295	1283.500
Trial: 1 / FS: 128 / Iter: 1	100	100	16891891.9	17297.297			Tx : Rx : Loss : Loss% :	337837838.000 337837838.000 0 0.00	1300	1375	1365.000
Trial: 1 / FS: 256 / Iter: 1	100	100	9057971.0	18550.725			Tx : Rx : Loss : Loss% :	181159420.000 181159420.000 0 0.00	1290	1375	1364.500
Trial: 1 / FS: 512 / Iter: 1	100	100	4699248.1	19248.120			Tx : Rx : Loss : Loss% :	93984962.000 93984962.000 0 0.00	1322	1375	1364.000
Trial: 1 / FS: 1024 / Iter: 1	100	100	2394636.0	19616.858			Tx : Rx : Loss : Loss% :	47892720.000 47892720.000 0 0.00	1335	1390	1377.500
Trial: 1 / FS: 1280 / Iter: 1	100	100	1923076.9	19692.308			Tx : Rx : Loss : Loss% :	38461538.000 38461538.000 0 0.00	1360	1402	1381.000
Trial: 1 / FS: 1518 / Iter: 1	100	100	1625487.6	19739.922			Tx : Rx : Loss : Loss% :	32509752.000 32509752.000 0 0.00	1337	1377	1364.500

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 - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	14880952.3	7619.05	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	297619048 297619048 0 0.000
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	14880952.4	7619.05	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	297619048 297619048 0 0.000
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	8445945.9	8648.65	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	168918919 168918919 0 0.000
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	8445945.9	8648.65	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	168918919 168918919 0 0.000
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	4528985.5	9275.36	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	90579710 90579710 0 0.000
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	4528985.5	9275.36	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	90579710 90579710 0 0.000
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	2349624.1	9624.06	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	46992481 46992481 0 0.000
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	2349624.1	9624.06	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	46992481 46992481 0 0.000
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	1197318.0	9808.43	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	23946360 23946360 0 0.000
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	1197318.0	9808.43	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	23946360 23946360 0 0.000
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	961538.5	9846.15	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	19230769 19230769 0 0.000
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	961538.5	9846.15	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	19230769 19230769 0 0.000
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100	812743.8	9869.96	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	16254876 16254876 0 0.000

Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100	812743.8	9869.96	Tx Rate Mbps : Rx Rate Mbps : Lost Bits % :		Tx : Rx : Loss : Loss% :	16254876 16254876 0 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 - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1227	1295	1286
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1265	1290	1281
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1300	1375	1368
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1335	1370	1362
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1290	1375	1367
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1322	1370	1362
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1327	1375	1367
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1322	1370	1361
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1335	1390	1380
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1365	1385	1375
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1367	1402	1384
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1360	1395	1378
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1340	1377	1367
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1337	1372	1362

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 %	Rx Rate			Tx Rate Mbps	Rx Rate Mbps		
					%	FPS	Mbps				
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	14880952.3	7619.05			Tx : 297619048 Rx : 297619048 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	14880952.4	7619.05			Tx : 297619048 Rx : 297619048 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	8445945.9	8648.65			Tx : 168918919 Rx : 168918919 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	8445945.9	8648.65			Tx : 168918919 Rx : 168918919 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	4528985.5	9275.36			Tx : 90579710 Rx : 90579710 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	4528985.5	9275.36			Tx : 90579710 Rx : 90579710 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	2349624.1	9624.06			Tx : 46992481 Rx : 46992481 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	2349624.1	9624.06			Tx : 46992481 Rx : 46992481 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	1197318.0	9808.43			Tx : 23946360 Rx : 23946360 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	1197318.0	9808.43			Tx : 23946360 Rx : 23946360 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	961538.5	9846.15			Tx : 19230769 Rx : 19230769 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	961538.5	9846.15			Tx : 19230769 Rx : 19230769 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	100.00	100.00	812743.8	9869.96			Tx : 16254876 Rx : 16254876 Loss : 0 Loss% : 0.000	

Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	100.00	100.00	812743.8	9869.96	Tx : Rx : Loss : Loss% :	16254876 16254876 0 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 - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1227	1295	1286.00
Trial: 1 / FS: 64 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1265	1290	1281.00
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1300	1375	1368.00
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1335	1370	1362.00
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1290	1375	1367.00
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1322	1370	1362.00
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1327	1375	1367.00
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1322	1370	1361.00
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1335	1390	1380.00
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1365	1385	1375.00
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1367	1402	1384.00
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1360	1395	1378.00
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	S3200-8MG4S-Endpoint Set-1 - Flow Group 0001	1340	1377	1367.00
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 002	Ethernet - 001	S3200-8MG4S-Endpoint Set-1 - Flow Group 0002	1337	1372	1362.00

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