



IxNetwork Report

Test: RFC2544 - Throughput/Latency

Test Date: 08/02/2017 20:10:34

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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 :	08/02/2017
Time Executed :	20:10:34
User Name :	
Number of Trials Executed :	1
Stream Duration (sec) :	20

Output Parameters

Number of Trials Passed :	N/A
Test Duration :	00:11:20

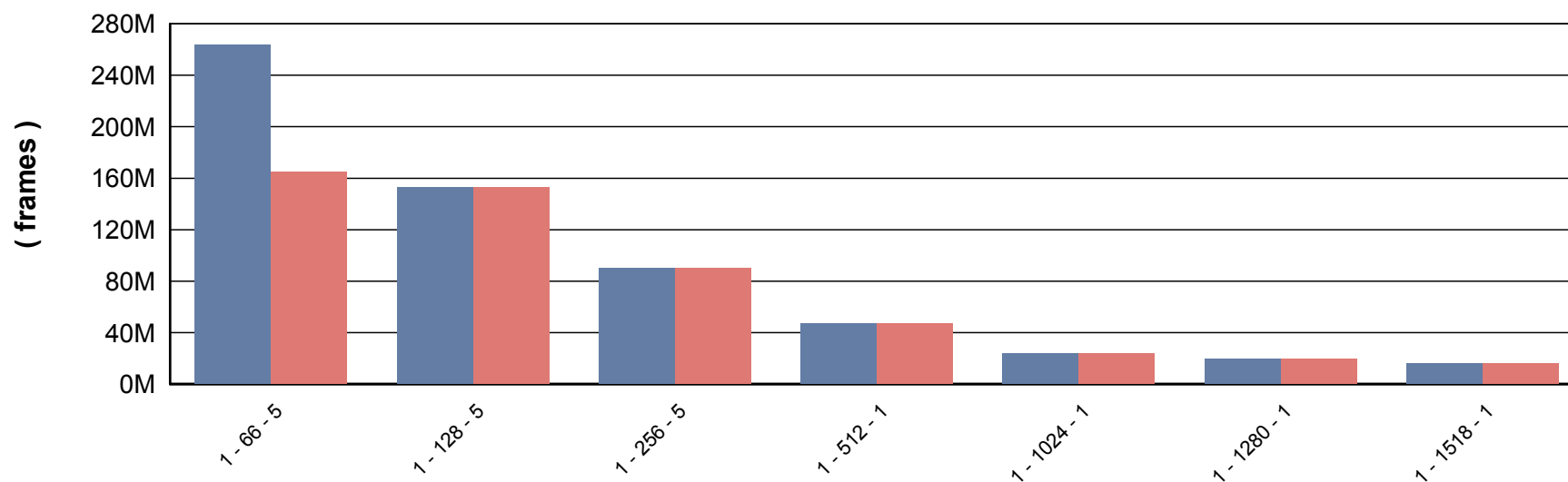
RFC2544 - Throughput/Latency - Port Map Information

Port Map :	Tx Port	Tx Speed (Mbps)	Rx Port	Rx Speed (Mbps)
	172.16.0.9:2:1	10000	172.16.0.9:2:2	10000

RFC2544 - Throughput/Latency - Aggregated Graph

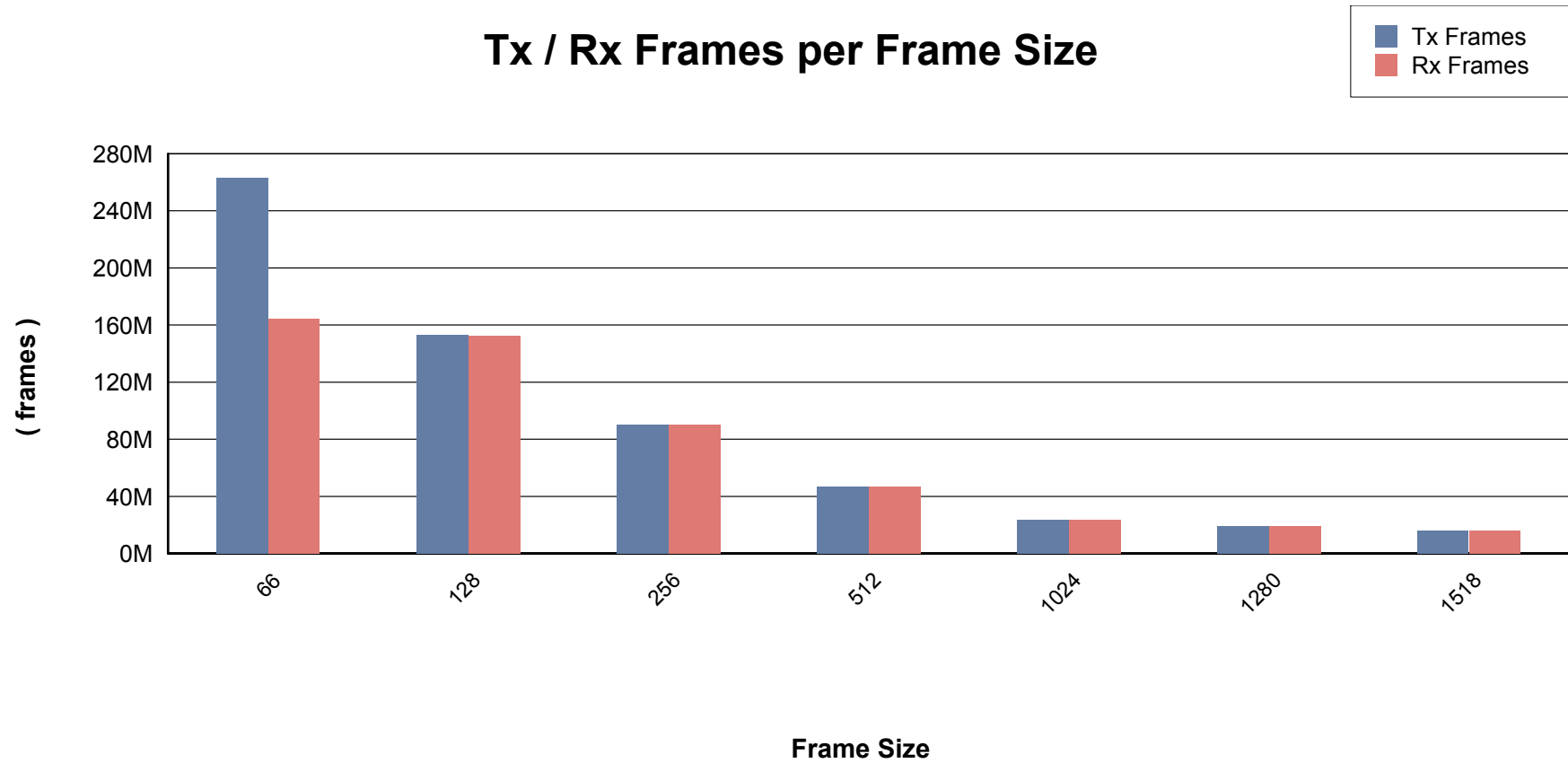
Total Frames Transmitted and Received

Tx Frames
Rx Frames



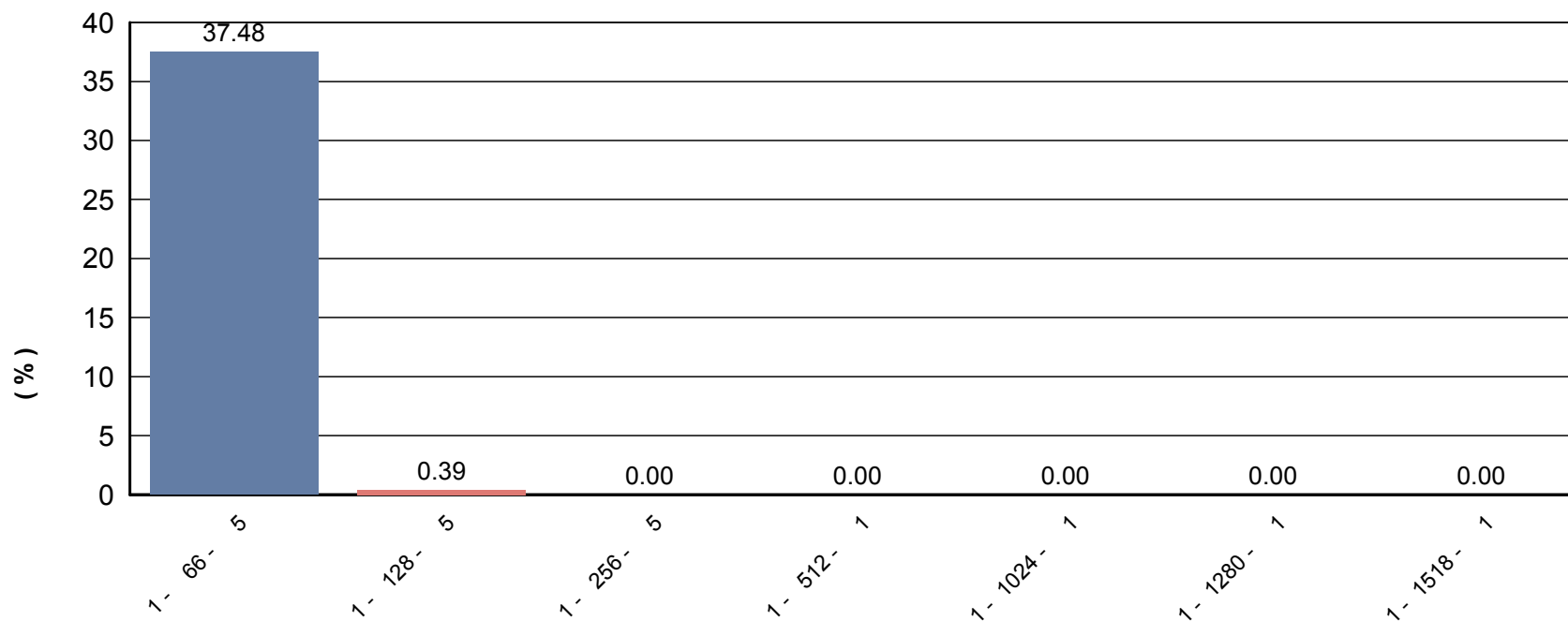
Trial - Framesize - Iteration

RFC2544 - Throughput/Latency - Aggregated Graph



RFC2544 - Throughput/Latency - Aggregated Graph

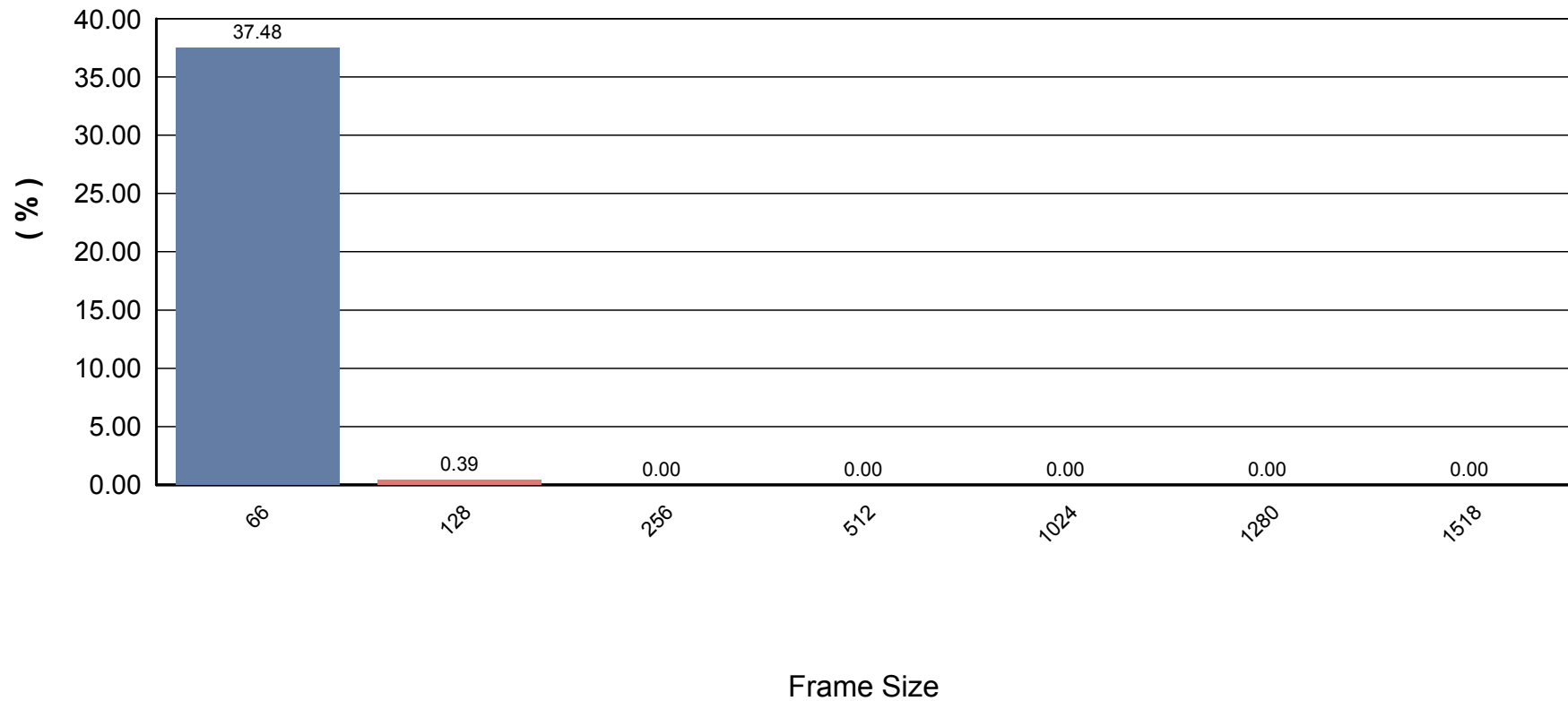
Aggregated Frame Loss



Trial - Framesize - Iteration

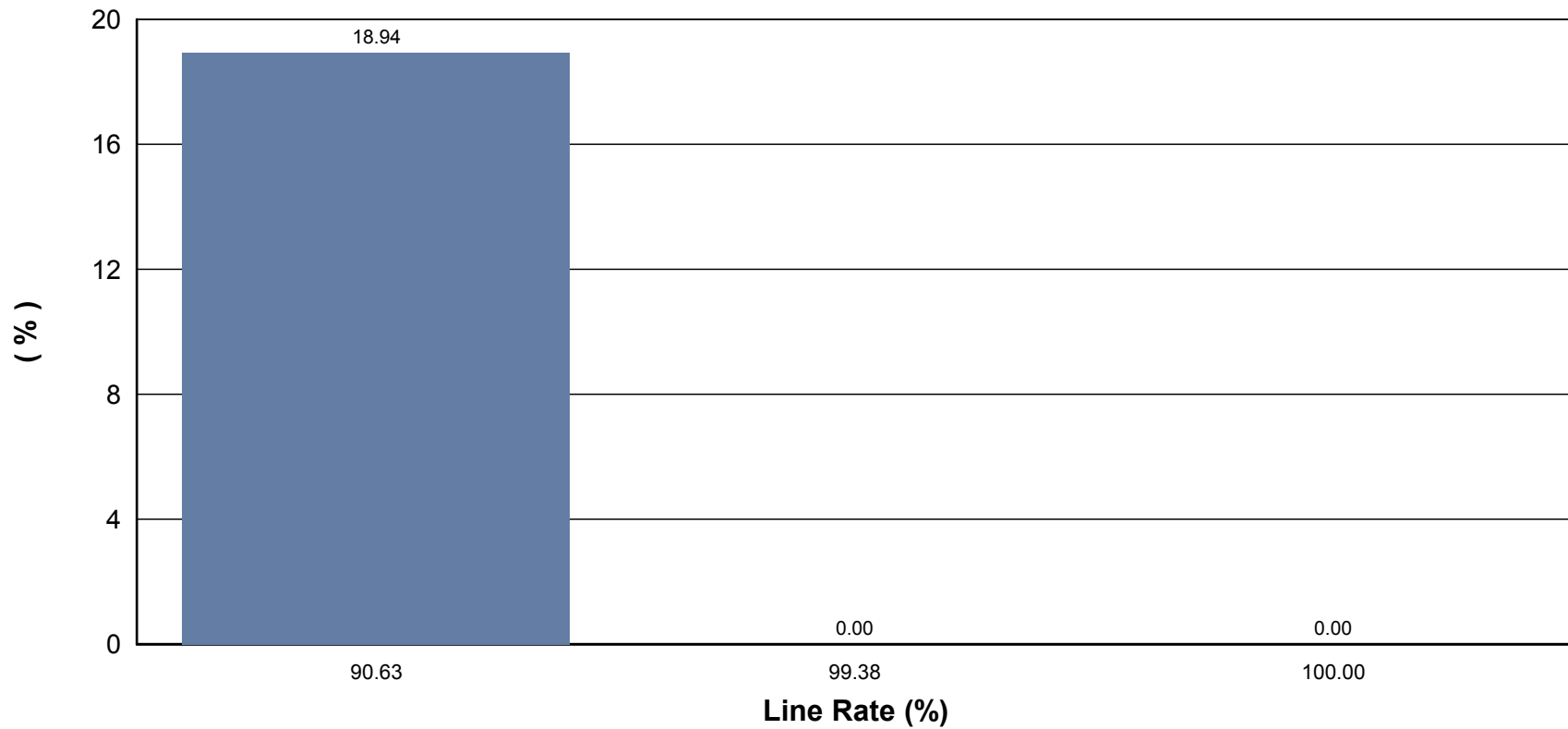
RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Frame Size



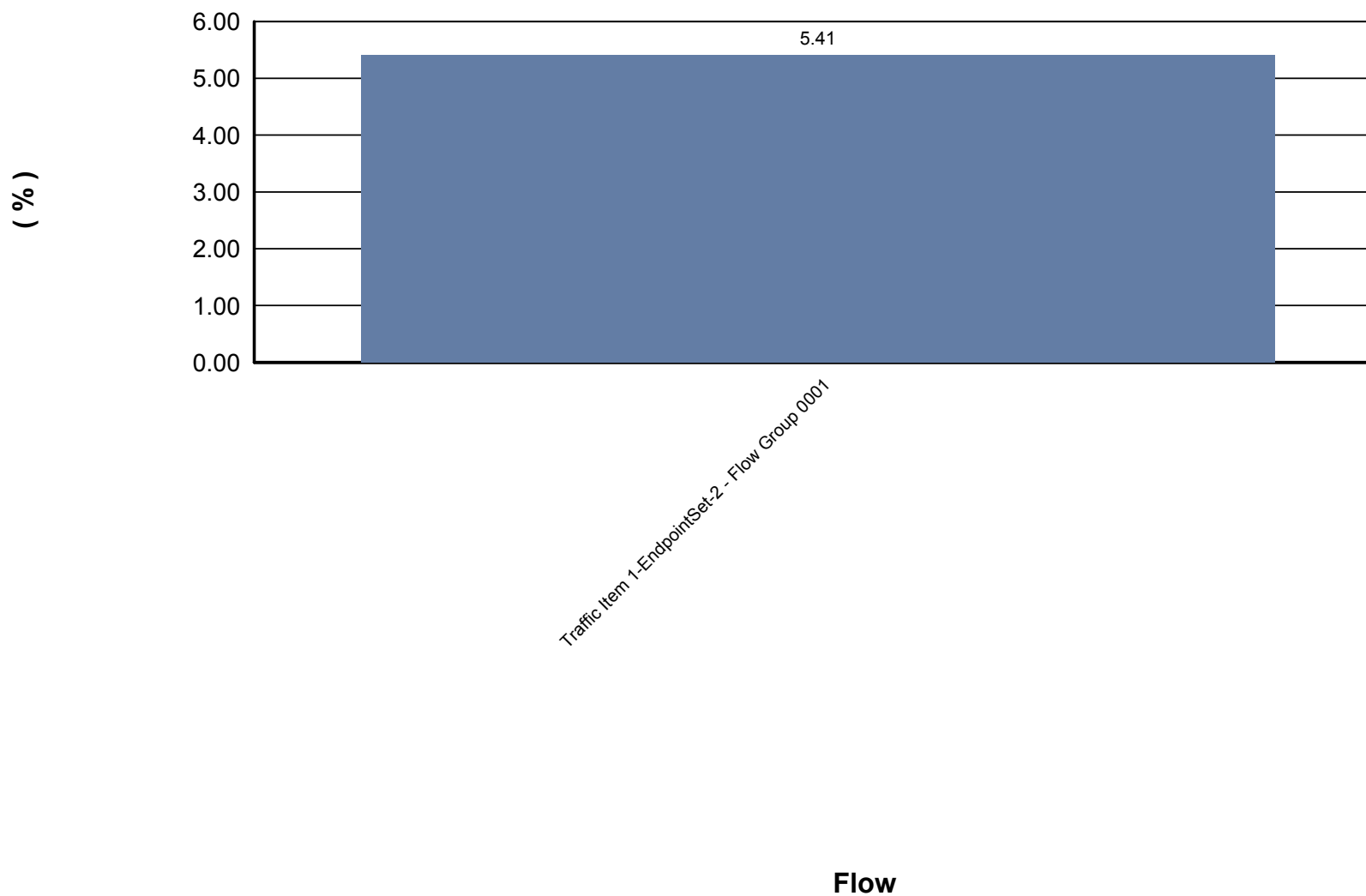
RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Frame Loss per Line Rate



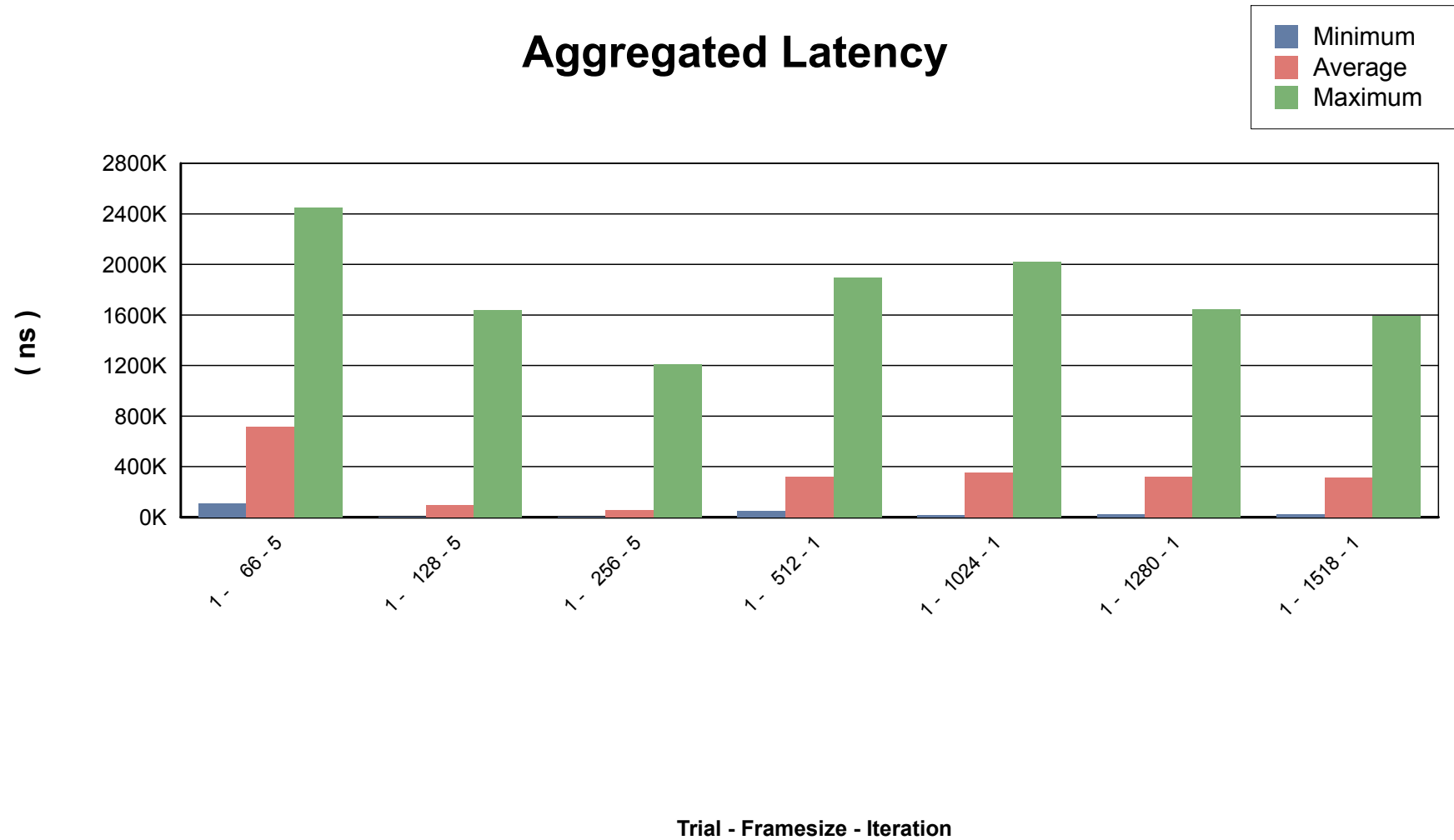
RFC2544 - Throughput/Latency - Per Flow Graph

Average Frame Loss per Flow



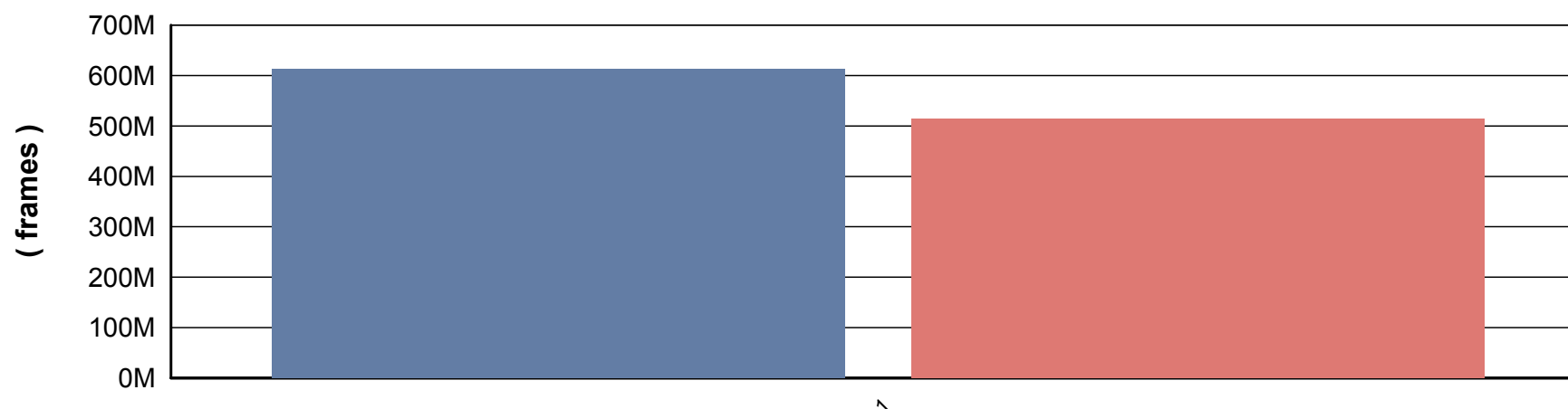
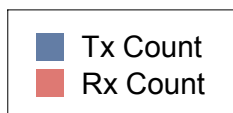
RFC2544 - Throughput/Latency - Aggregated Graph

Aggregated Latency



RFC2544 - Throughput/Latency - Per Flow Graph

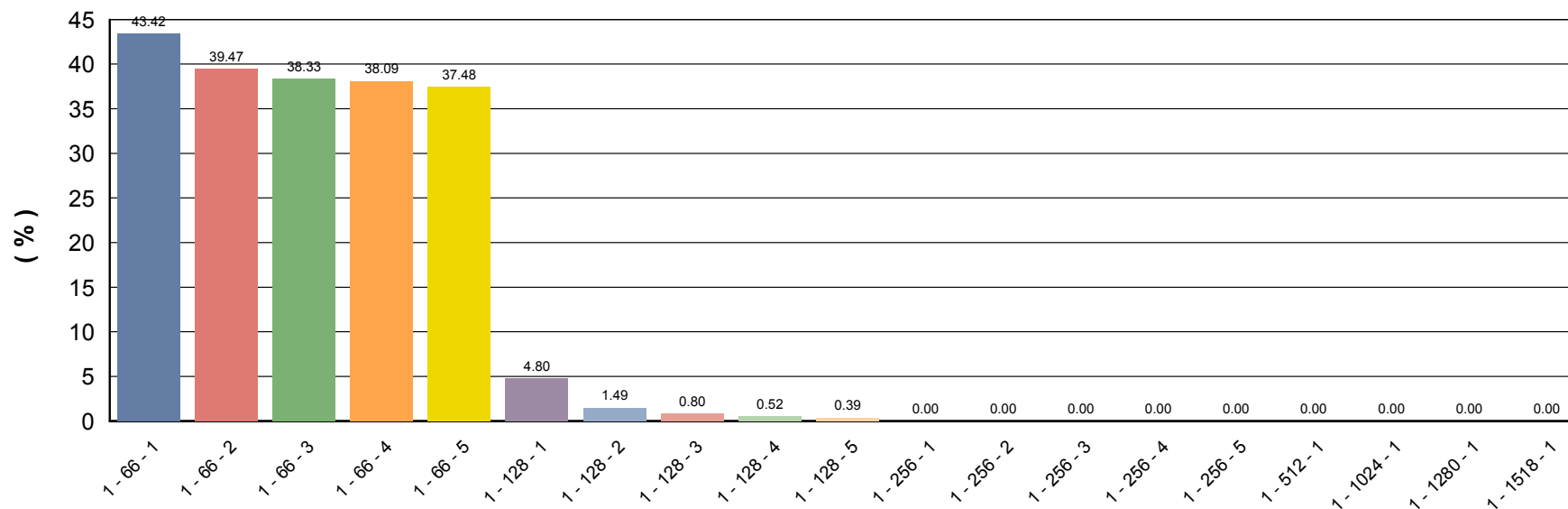
Tx / Rx Frame Count



Trial

RFC2544 - Throughput/Latency - Iteration Graph

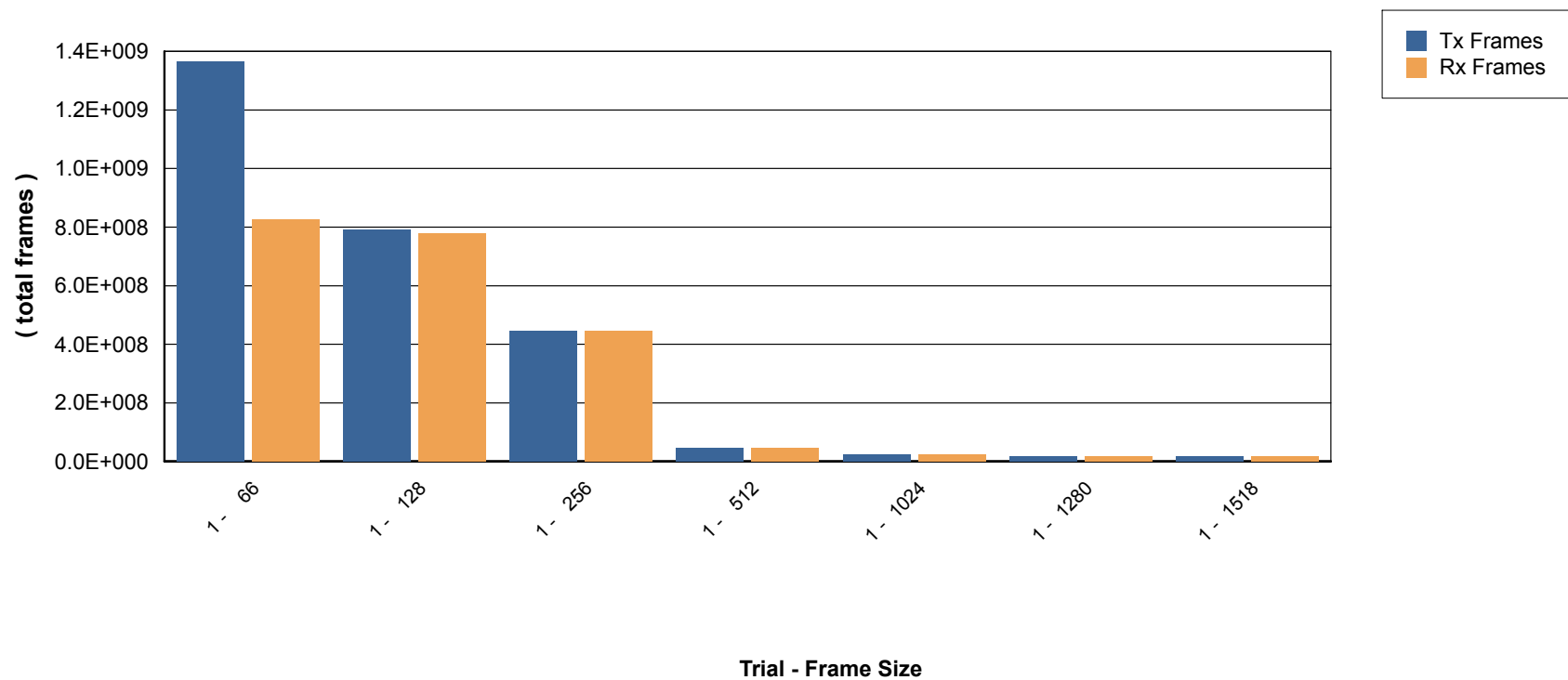
Aggregated Frame Loss (%)



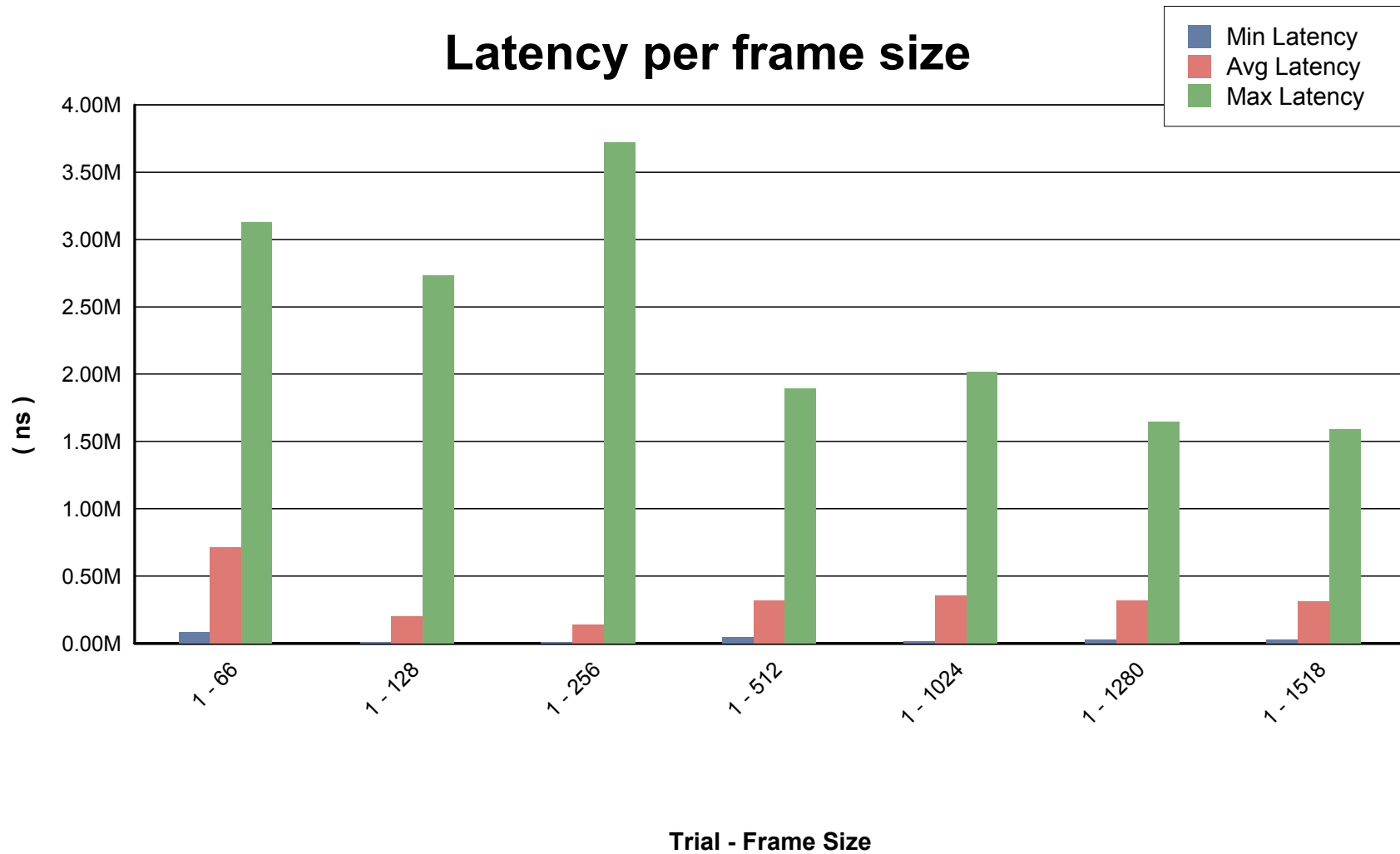
Trial - Frame Size - Iteration

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			
	AggTx Rate %	Agg Rx Rate			Tx Rate Mbps	Rx Rate Mbps		Min (ns)	Max (ns)	Average (ns)	
		%	FPS	Mbps							
Trial: 1 / FS: 66 / Iter: 5	90.63	57	8234226.5	4347.672			Tx : 263444767.000 Rx : 164695102.000 Loss : 98749665 Loss% : 37.48	111757	2448577	717676.000	
Trial: 1 / FS: 128 / Iter: 5	90.63	90	7624571.0	7807.561			Tx : 153082770.000 Rx : 152490358.000 Loss : 592412 Loss% : 0.39	6405	1637922	98292.000	
Trial: 1 / FS: 256 / Iter: 5	99.38	99	4500694.8	9217.423			Tx : 90013587.000 Rx : 90013587.000 Loss : 0 Loss% : 0.00	6600	1206037	51893.000	
Trial: 1 / FS: 512 / Iter: 1	100.00	100	2349575.8	9623.862			Tx : 46992481.000 Rx : 46992481.000 Loss : 0 Loss% : 0.00	46862	1893767	316682.000	
Trial: 1 / FS: 1024 / Iter: 1	100.00	100	1197290.4	9808.203			Tx : 23946360.000 Rx : 23946360.000 Loss : 0 Loss% : 0.00	17187	2020067	355813.000	
Trial: 1 / FS: 1280 / Iter: 1	100.00	100	961518.8	9845.952			Tx : 19230769.000 Rx : 19230769.000 Loss : 0 Loss% : 0.00	26085	1644137	319269.000	
Trial: 1 / FS: 1518 / Iter: 1	100.00	100	812727.0	9869.757			Tx : 16254876.000 Rx : 16254876.000 Loss : 0 Loss% : 0.00	24715	1589365	313001.000	

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			Tx Rate Mbps	Rx Rate Mbps	
				%	FPS	Mbps				
Trial: 1 / FS: 66 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	57	8234226.5	4347.67			Tx : 263444767 Rx : 164695102 Loss : 98749665 Loss% : 37.484
Trial: 1 / FS: 128 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	90	7624571.0	7807.56			Tx : 153082770 Rx : 152490358 Loss : 592412 Loss% : 0.387
Trial: 1 / FS: 256 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	99.38	99	4500694.8	9217.42			Tx : 90013587 Rx : 90013587 Loss : 0 Loss% : 0.000
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100	2349575.8	9623.86			Tx : 46992481 Rx : 46992481 Loss : 0 Loss% : 0.000
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100	1197290.4	9808.20			Tx : 23946360 Rx : 23946360 Loss : 0 Loss% : 0.000
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100	961518.8	9845.95			Tx : 19230769 Rx : 19230769 Loss : 0 Loss% : 0.000
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100	812727.0	9869.76			Tx : 16254876 Rx : 16254876 Loss : 0 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: 66 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	111757	2448577	717676
Trial: 1 / FS: 128 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6405	1637922	98292
Trial: 1 / FS: 256 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6600	1206037	51893
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	46862	1893767	316682
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	17187	2020067	355813
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	26085	1644137	319269
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	24715	1589365	313001

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: 66 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	56.58	8223389.0	4341.95			Tx : 290697674 Rx : 164479383 Loss : 126218291 Loss% : 43.419	
Trial: 1 / FS: 66 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	95.00	57.50	8358070.4	4413.06			Tx : 276162791 Rx : 167171168 Loss : 108991623 Loss% : 39.466	
Trial: 1 / FS: 66 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	92.50	57.04	8290512.5	4377.39			Tx : 268895349 Rx : 165821134 Loss : 103074215 Loss% : 38.332	
Trial: 1 / FS: 66 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	91.25	56.49	8210200.8	4334.99			Tx : 265261628 Rx : 164213176 Loss : 101048452 Loss% : 38.094	
Trial: 1 / FS: 66 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	56.65	8234226.5	4347.67			Tx : 263444767 Rx : 164695102 Loss : 98749665 Loss% : 37.484	
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	95.20	8040110.0	8233.07			Tx : 168918919 Rx : 160813161 Loss : 8105758 Loss% : 4.799	
Trial: 1 / FS: 128 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	95.00	93.58	7904025.0	8093.72			Tx : 160472973 Rx : 158079816 Loss : 2393157 Loss% : 1.491	
Trial: 1 / FS: 128 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	92.50	91.76	7750081.2	7936.08			Tx : 156250000 Rx : 155001373 Loss : 1248627 Loss% : 0.799	
Trial: 1 / FS: 128 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	91.25	90.78	7667008.8	7851.02			Tx : 154138514 Rx : 153339576 Loss : 798938 Loss% : 0.518	
Trial: 1 / FS: 128 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	90.63	90.28	7624571.0	7807.56			Tx : 153082770 Rx : 152490358 Loss : 592412 Loss% : 0.387	
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100.00	4528795.0	9274.97			Tx : 90579710 Rx : 90579491 Loss : 219 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	95.00	95.00	4302555.5	8811.63			Tx : 86050725 Rx : 86050725 Loss : 0 Loss% : 0.000	
Trial: 1 / FS: 256 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	97.50	97.50	4415773.6	9043.50			Tx : 88315217 Rx : 88315217 Loss : 0 Loss% : 0.000	

Trial: 1 / FS: 256 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	98.75	98.75	4472388.4	9159.45	Tx : 89447464
								Rx : 89447464
								Loss : 0
								Loss% : 0.000
Trial: 1 / FS: 256 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	99.38	99.38	4500694.8	9217.42	Tx : 90013587
								Rx : 90013587
								Loss : 0
								Loss% : 0.000
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100.00	2349575.8	9623.86	Tx : 46992481
								Rx : 46992481
								Loss : 0
								Loss% : 0.000
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100.00	1197290.4	9808.20	Tx : 23946360
								Rx : 23946360
								Loss : 0
								Loss% : 0.000
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100.00	961518.8	9845.95	Tx : 19230769
								Rx : 19230769
								Loss : 0
								Loss% : 0.000
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	100.00	100.00	812727.0	9869.76	Tx : 16254876
								Rx : 16254876
								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: 66 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	113807	3128837	718661.00
Trial: 1 / FS: 66 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	111582	2013052	701287.00
Trial: 1 / FS: 66 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	108115	3020630	705602.00
Trial: 1 / FS: 66 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	80375	3123700	716744.00
Trial: 1 / FS: 66 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	111757	2448577	717676.00
Trial: 1 / FS: 128 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	8730	2733477	489327.00
Trial: 1 / FS: 128 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	7055	2538397	178199.00
Trial: 1 / FS: 128 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6867	2602747	120420.00
Trial: 1 / FS: 128 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6935	2271520	107182.00
Trial: 1 / FS: 128 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6405	1637922	98292.00
Trial: 1 / FS: 256 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	16817	3721780	502678.00
Trial: 1 / FS: 256 / Iter: 2	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6145	622902	44542.00
Trial: 1 / FS: 256 / Iter: 3	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6295	1402732	47619.00
Trial: 1 / FS: 256 / Iter: 4	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6280	552882	49840.00
Trial: 1 / FS: 256 / Iter: 5	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	6600	1206037	51893.00
Trial: 1 / FS: 512 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	46862	1893767	316682.00
Trial: 1 / FS: 1024 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	17187	2020067	355813.00
Trial: 1 / FS: 1280 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	26085	1644137	319269.00
Trial: 1 / FS: 1518 / Iter: 1	Ethernet - 001	Ethernet - 002	Traffic Item 1-EndpointSet-2 - Flow Group 0001	24715	1589365	313001.00

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