

Document Information

Comment

Customer: DCB

Project/Description: LLEA

Operator: M SCHANK

Notes: AES-256

Instrument Information

Firmware Version	3.08
Controller model number	MT9090A
Module model number	MU909060A1
Controller serial number	6C60056935
Module serial number	6261784463

Result Overview

01:26:13 Wed Jul 15 2020 Test started 02:28:45 Wed Jul 15 2020 Test stopped
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State	Result	Test schedule	Test Duration dd:hh:mm:ss
OK	----	RFC2544 Latency 1	00:00:02:27
OK	----	RFC2544 Throughput 1	00:01:00:02

RFC2544 Latency 1 - Result

Port A TX				
Repetition:Step	Frame Size [Bytes]	Total frames	Utilization [Mbps]	Frame rate [FPS]
1 : 1	512	2.114661 M	900.0000	211.466 k
1 : 2	512	1.879699 M	800.0000	187.969 k
1 : 3	512	1.644736 M	700.0000	164.473 k
1 : 4	512	1.409774 M	600.0000	140.977 k
1 : 5	512	1.174812 M	500.0000	117.481 k
1 : 6	512	939.849 k	400.0000	93.984 k
1 : 7	512	704.887 k	300.0000	70.488 k
1 : 8	512	469.924 k	200.0000	46.992 k
1 : 9	512	234.962 k	100.0000	23.496 k

Port A RX						
Repetition:Step	Total frames	Throughput [Mbps]	Utilization [%]	Jitter [us] / Latency [us]		
				Min	Max	Avg
1 : 1	2.107268 M	879.7485	90.0050	0.0 / 418.7	388.0 / 8115.0	0.9 / 847.8
1 : 2	1.879699 M	782.0134	80.0060	0.0 / 413.5	404.8 / 1764.9	2.0 / 724.6
1 : 3	1.644736 M	684.2618	70.0052	0.0 / 404.2	408.7 / 1456.2	3.5 / 697.4
1 : 4	1.409774 M	586.5142	60.0049	0.0 / 402.0	444.5 / 1594.2	5.4 / 629.4
1 : 5	1.174812 M	488.7667	50.0046	0.0 / 404.1	478.6 / 1097.8	8.2 / 652.1
1 : 6	939.849 k	391.0234	40.0047	0.1 / 450.6	453.6 / 1090.0	12.2 / 619.9
1 : 7	704.887 k	293.2717	30.0039	5.3 / 401.9	459.3 / 1152.9	18.6 / 656.4
1 : 8	469.924 k	195.5450	20.0058	0.0 / 272.7	523.1 / 1089.7	30.1 / 535.8
1 : 9	234.962 k	97.7517	10.0007	0.0 / 191.0	453.0 / 747.6	33.1 / 297.4

RFC2544 Latency 1 - Setup

Test Mode	
Mode	Single Ended Network Test
Port	Port A
Advanced	
Transmit learning frames prior to test	No
Include addresses in frame filter on receiver	No
Accumulate repeated steps	No
Throughput Calculation	
Calculation Layer	Physical layer
Throughput Type	Maximum

Port A	
Duration	
Step Duration	10 Second(s)
Test Repetitions	1
Destination	
Use ARP	No
Destination MAC	00-00-00-00-01-AB
Use DNS	No
Dest. IP Address	0.0.0.0
Frame Size	
Frame Sizes (Bytes)	512
Line Load	
Only run steps where preceding test passed	No
Min	10.0000 %
Max	90.0000 %
Step	10.0000 %

RFC2544 Throughput 1 - Result

Port A TX				
Repetition:Step	Total frames	Utilization [Mbps]	Frame rate [FPS]	Frame Size [Bytes]
1 : 1	84.82143 M	950.0000	1.413690 M	64
1 : 2	75.89286 M	850.0000	1.264880 M	64
1 : 3	66.96429 M	750.0000	1.116071 M	64
1 : 4	58.03571 M	650.0000	967.261 k	64
1 : 5	49.10714 M	550.0000	818.452 k	64
1 : 6	40.17857 M	450.0000	669.642 k	64
1 : 7	31.25000 M	350.0000	520.833 k	64
1 : 8	22.32143 M	250.0000	372.023 k	64
1 : 9	13.39286 M	150.0000	223.214 k	64
1 : 10	48.14189 M	950.0000	802.364 k	128
1 : 11	43.07432 M	850.0000	717.905 k	128
1 : 12	38.00676 M	750.0000	633.445 k	128
1 : 13	32.93919 M	650.0000	548.986 k	128
1 : 14	27.87162 M	550.0000	464.527 k	128
1 : 15	22.80405 M	450.0000	380.067 k	128
1 : 16	17.73649 M	350.0000	295.608 k	128
1 : 17	12.66892 M	250.0000	211.148 k	128
1 : 18	7.601351 M	150.0000	126.689 k	128
1 : 19	13.39286 M	950.0000	223.214 k	512
1 : 20	11.98308 M	850.0000	199.718 k	512
1 : 21	10.57331 M	750.0000	176.221 k	512
1 : 22	9.163533 M	650.0000	152.725 k	512
1 : 23	7.753759 M	550.0000	129.229 k	512
1 : 24	6.343984 M	450.0000	105.733 k	512
1 : 25	4.934210 M	350.0000	82.236 k	512
1 : 26	3.524436 M	250.0000	58.740 k	512
1 : 27	2.114661 M	150.0000	35.244 k	512
1 : 28	6.824712 M	950.0000	113.745 k	1.024 k

1 : 29	6.106321 M	850.0000	101.772 k	1.024 k
1 : 30	5.387931 M	750.0000	89.798 k	1.024 k
1 : 31	4.669540 M	650.0000	77.825 k	1.024 k
1 : 32	3.951149 M	550.0000	65.852 k	1.024 k
1 : 33	3.232758 M	450.0000	53.879 k	1.024 k
1 : 34	2.514367 M	350.0000	41.906 k	1.024 k
1 : 35	1.795977 M	250.0000	29.932 k	1.024 k
1 : 36	1.077586 M	150.0000	17.959 k	1.024 k
1 : 37	5.480769 M	950.0000	91.346 k	1.280 k
1 : 38	4.903846 M	850.0000	81.730 k	1.280 k
1 : 39	4.326923 M	750.0000	72.115 k	1.280 k
1 : 40	3.750000 M	650.0000	62.500 k	1.280 k
1 : 41	3.173076 M	550.0000	52.884 k	1.280 k
1 : 42	2.596153 M	450.0000	43.269 k	1.280 k
1 : 43	2.019230 M	350.0000	33.653 k	1.280 k
1 : 44	1.442307 M	250.0000	24.038 k	1.280 k
1 : 45	865.384 k	150.0000	14.423 k	1.280 k
1 : 46	4.632639 M	950.0000	77.210 k	1.518 k
1 : 47	4.144993 M	850.0000	69.083 k	1.518 k
1 : 48	3.657347 M	750.0000	60.955 k	1.518 k
1 : 49	3.169700 M	650.0000	52.828 k	1.518 k
1 : 50	2.682054 M	550.0000	44.700 k	1.518 k
1 : 51	2.194408 M	450.0000	36.573 k	1.518 k
1 : 52	1.706762 M	350.0000	28.446 k	1.518 k
1 : 53	1.219115 M	250.0000	20.318 k	1.518 k
1 : 54	731.469 k	150.0000	12.191 k	1.518 k

Port A RX						
Repetition:Step	Total frames	Throughput	Utilization	Frames lost / Loss rate [%]		
		[Mbps]	[%]	Min	Max	Avg
1 : 1	65.48856 M	630.9562	73.6116	19.33287 M / 22.8	19.33287 M / 22.8	19.33287 M / 22.8

1 : 2	65.91281 M	633.6841	73.9298	9.980052 M / 13.2	9.980052 M / 13.2	9.980052 M / 13.2
1 : 3	66.83436 M	643.2751	75.0488	129.922 k / 0.2	129.922 k / 0.2	129.922 k / 0.2
1 : 4	57.96303 M	557.7016	65.0652	72.686 k / 0.1	72.686 k / 0.1	72.686 k / 0.1
1 : 5	49.10534 M	471.4790	55.0059	1.798 k / 0.0	1.798 k / 0.0	1.798 k / 0.0
1 : 6	40.17857 M	385.7628	45.0057	0 / 0.0	0 / 0.0	0 / 0.0
1 : 7	31.25000 M	300.0465	35.0054	0 / 0.0	0 / 0.0	0 / 0.0
1 : 8	22.32143 M	214.3279	25.0049	0 / 0.0	0 / 0.0	0 / 0.0
1 : 9	13.39286 M	128.5868	15.0018	0 / 0.0	0 / 0.0	0 / 0.0
1 : 10	48.09751 M	873.0362	95.0069	44.377 k / 0.1	44.377 k / 0.1	44.377 k / 0.1
1 : 11	43.07432 M	781.1470	85.0072	0 / 0.0	0 / 0.0	0 / 0.0
1 : 12	38.00676 M	689.2491	75.0065	0 / 0.0	0 / 0.0	0 / 0.0
1 : 13	32.93919 M	597.3686	65.0078	0 / 0.0	0 / 0.0	0 / 0.0
1 : 14	27.87162 M	505.4794	55.0080	0 / 0.0	0 / 0.0	0 / 0.0
1 : 15	22.80405 M	413.5684	45.0060	0 / 0.0	0 / 0.0	0 / 0.0
1 : 16	17.73649 M	321.7031	35.0089	0 / 0.0	0 / 0.0	0 / 0.0
1 : 17	12.66892 M	229.7682	25.0042	0 / 0.0	0 / 0.0	0 / 0.0
1 : 18	7.601351 M	137.8485	15.0012	0 / 0.0	0 / 0.0	0 / 0.0
1 : 19	13.38760 M	928.6326	95.0063	5.256 k / 0.0	5.256 k / 0.0	5.256 k / 0.0
1 : 20	11.98308 M	830.9018	85.0076	0 / 0.0	0 / 0.0	0 / 0.0
1 : 21	10.57331 M	733.1542	75.0073	0 / 0.0	0 / 0.0	0 / 0.0
1 : 22	9.163533 M	635.4150	65.0078	0 / 0.0	0 / 0.0	0 / 0.0
1 : 23	7.753759 M	537.6550	55.0062	0 / 0.0	0 / 0.0	0 / 0.0
1 : 24	6.343984 M	439.9117	45.0063	0 / 0.0	0 / 0.0	0 / 0.0
1 : 25	4.934210 M	342.1683	35.0065	0 / 0.0	0 / 0.0	0 / 0.0
1 : 26	3.524436 M	244.4000	25.0040	0 / 0.0	0 / 0.0	0 / 0.0
1 : 27	2.114661 M	146.6483	15.0033	0 / 0.0	0 / 0.0	0 / 0.0
1 : 28	6.822325 M	939.1448	95.0065	2.387 k / 0.0	2.387 k / 0.0	2.387 k / 0.0
1 : 29	6.106321 M	840.2957	85.0067	0 / 0.0	0 / 0.0	0 / 0.0
1 : 30	5.387931 M	741.4631	75.0085	0 / 0.0	0 / 0.0	0 / 0.0

1 : 31	4.669540 M	642.6058	65.0078	0 / 0.0	0 / 0.0	0 / 0.0
1 : 32	3.951149 M	543.7484	55.0071	0 / 0.0	0 / 0.0	0 / 0.0
1 : 33	3.232758 M	444.8828	45.0056	0 / 0.0	0 / 0.0	0 / 0.0
1 : 34	2.514367 M	346.0337	35.0057	0 / 0.0	0 / 0.0	0 / 0.0
1 : 35	1.795977 M	247.1681	25.0042	0 / 0.0	0 / 0.0	0 / 0.0
1 : 36	1.077586 M	148.2943	15.0019	0 / 0.0	0 / 0.0	0 / 0.0
1 : 37	5.480769 M	941.2807	95.0050	0 / 0.0	0 / 0.0	0 / 0.0
1 : 38	4.903846 M	842.2077	85.0054	0 / 0.0	0 / 0.0	0 / 0.0
1 : 39	4.326923 M	743.1657	75.0090	0 / 0.0	0 / 0.0	0 / 0.0
1 : 40	3.750000 M	644.0824	65.0083	0 / 0.0	0 / 0.0	0 / 0.0
1 : 41	3.173076 M	544.9889	55.0066	0 / 0.0	0 / 0.0	0 / 0.0
1 : 42	2.596153 M	445.9056	45.0060	0 / 0.0	0 / 0.0	0 / 0.0
1 : 43	2.019230 M	346.8532	35.0085	0 / 0.0	0 / 0.0	0 / 0.0
1 : 44	1.442307 M	247.7597	25.0068	0 / 0.0	0 / 0.0	0 / 0.0
1 : 45	865.384 k	148.6455	15.0030	0 / 0.0	0 / 0.0	0 / 0.0
1 : 46	4.632375 M	942.7628	95.0176	264 / 0.0	264 / 0.0	264 / 0.0
1 : 47	4.144993 M	843.4385	85.0071	0 / 0.0	0 / 0.0	0 / 0.0
1 : 48	3.657347 M	744.2485	75.0101	0 / 0.0	0 / 0.0	0 / 0.0
1 : 49	3.169700 M	644.9731	65.0045	0 / 0.0	0 / 0.0	0 / 0.0
1 : 50	2.682054 M	545.7708	55.0063	0 / 0.0	0 / 0.0	0 / 0.0
1 : 51	2.194408 M	446.5808	45.0093	0 / 0.0	0 / 0.0	0 / 0.0
1 : 52	1.706762 M	347.3298	35.0061	0 / 0.0	0 / 0.0	0 / 0.0
1 : 53	1.219115 M	248.1032	25.0054	0 / 0.0	0 / 0.0	0 / 0.0
1 : 54	731.469 k	148.8521	15.0023	0 / 0.0	0 / 0.0	0 / 0.0

RFC2544 Throughput 1 - Setup

Test Mode	
Mode	Single Ended Network Test
Port	Port A
Advanced	
Transmit learning frames prior to test	No
Include addresses in frame filter on receiver	No
Accumulate repeated steps	No
Throughput Calculation	
Calculation Layer	Physical layer
Throughput Type	Maximum

Port A	
Duration	
Step Duration	60 Second(s)
Test Repetitions	1
Destination	
Use ARP	No
Destination MAC	00-00-00-00-01-AB
Use DNS	No
Dest. IP Address	0.0.0.0
Frame Size	
Frame Sizes (Bytes)	64, 128, 512, 1024, 1280, 1518
Line Load	
Stop on no frame loss	No
Min	10.0000 %
Max	95.0000 %
Step	10.0000 %
Auto Search Mode	Disabled

Summary

Statistics		
	Port A	Port B
Total Frames	831.84552 M	0
Unicast Frames	831.84552 M	0
Multicast Frames	0	0
Broadcast Frames	0	0
UnTagged Frames	831.84552 M	0
Single VLAN Frames	0	0
Multiple VLAN Frames	0	0
UnLabeled Frames	831.84552 M	0
Single MPLS Frames	0	0
Multiple MPLS Frames	0	0
Pause Frames	0	0

Errors		
	Port A	Port B
FCS Errors	0	0
Fragmented	0	0
Aligment	0	0
Oversized	0	0
Undersized	0	0
Collisions	0	0
Preamble violations	0	0
IFG violations	-	-
Severe IFG violations	0	0

Event Log
01:26:13 Wed Jul 15 2020 Test started 01:26:13 RFC2544 Latency test started 01:28:40 RFC2544 Latency test stopped 01:28:41 RFC2544 Throughput test started 02:28:43 RFC2544 Throughput test stopped 02:28:45 Wed Jul 15 2020 Test stopped

Interface Setup

Port A	
Interface Type	RJ-45
Port Mode	Auto Negotiate
Autoneg. Advertisement	10 FDX, 100 FDX, 1000 FDX, 10 HDX, 100 HDX
1000Mbps clock mode	Auto
Respond to PAUSE frames	No
Incoming Frames	
Answer incoming ARP requests	Yes
Answer incoming ping requests	Yes
Accept incoming End-to-End configuration frames	Yes
RX Setup	
Expected Preamble Length	8 bytes
Ignore preamble violations	No
IFG lower threshold	12 bytes
Jumbo frame size upper limit	9018 bytes

Port A - Stream 1	
MAC	
Source MAC	00-00-00-00-01-AA
IPv4	
Source IP Address	192.168.99.11
Use DHCP	No
Primary DNS server	0.0.0.0
Secondary DNS server	0.0.0.0
Use Gateway	No
DSCP/TOS	0
More fragments	No
Don't fragment	No
Reserved	No
Fragment Offset	0

TTL	32
Protocol	0xfd