

Prerequisites:

- added rough support for arm v7: https://github.com/ikhorn/af_xdp_stuff/tree/af_xdp_armv7
- added xdp support for cpsw: https://github.com/ikhorn/af xdp stuff/tree/xdp cpsw
- added hw/sw timestamping for af_xdp: https://github.com/ikhorn/af_xdp_stuff/tree/xdp_hw_ts_cpsw
- plget tool is used: https://github.com/ikhorn/plget
- TIsdk 05.01.00.11 with kernel > 5.0 on am572 evm.

All measurements done retrieving one packet at time. As here not throughput is first requirement but latency for single packet. For throughput it could be different as af_xdp sockets can retrieve bunch of packets at a time from umem and this doesn't reflect real one packet latency. For comparison it can be added later, for now only 1 and 128 PPS, retrieving and handling one packet at a time, as it should be. As it's first evaluation report, that can be repeated after some optimization, only 1024 packets (512 Bytes) were sent, that's enough to think on values.

For accuracy reason, measurement before this test were verified as with h/w ts support and w/o h/w ts support for "af_xdp" stack, and there were no differences so all as is. No any cpu pinning and rt and priority settings were used. This is w/o zero copy support, that is also wasn't evaluated appropriately for packet latency. With cpu pinning, priority settings and RT kernel results will be more accurate and stable, this only for evaluation.

For arm v8 as soon as completely verified on linux/next master.

Driver latency – latency from wire to entrance in the stack Stack latency – latency from driver till receiving int the application Complete latency – Driver latency + Stack latency

Don't be confused in case of HI rate this latency could be different, for instance PPS=5000 with 10000 can drop in average 10us, with per packet retrieve:

RX	Socket (AF_XDP, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_RAW, 0)
Complete latency	max val(#2489) = 290.43us min val(#8763) = 41.38us peak-to-peak = 249.04us mean +- RMS = 50.66 +- 4.96 us	max val(#7495) = 367.90us min val(#9756) = 38.11us peak-to-peak = 329.79us mean +- RMS = 54.53 +- 5.77 us

Significant improve possible in throughput, as that's possible to receive packet BATCHes... but for single packet situation is different, at least for now.

1 Conclusion

- 2 Tx complete latency (app \rightarrow wire)
 - 2.1 AF_XDP "socket(AF_XDP, SOCK_RAW, 0)"
 - 2.1.1 AF_XDP, 1PPS
 - 2.1.2 AF XDP 128 PPS
 - 2.2 RAW AF_PACKET "socket(AF_PACKET, SOCK_RAW, 0)"
 - 2.2.1 RAW AF_PACKET, 1 PPS
 - 2.2.1 RAW AF_PACKET, 128 PPS
 - 2.3 AF_PACKET "socket(AF_PACKET, SOCK_DGRAM, ETH_P_1588)"
 - 2.3.1 AF_PACKET, 1 PPS
 - 2.3.2 AF_PACKET, 128 PPS
 - 2.4 AF_INET "socket(AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
 - 2.4.1 AF_INET, 1 PPS
 - 2.4.2 AF_INET, 128 PPS
- 3 Rx complete latency ("driver" latency + "af_xdp stack" latency)
 - 3.1 AF_XDP "socket(AF_XDP, SOCK_RAW, 0)"
 - 3.1.1 AF_XDP, 1 PPS
 - 3.1.2 AF_XDP, 128 PPS
 - 3.2 RAW AF_PACKET "socket(AF_PACKET, SOCK_RAW, 0)"
 - 3.2.1 RAW AF_PACKET, 1 PPS
 - 3.2.2 RAW AF_PACKET, 128 PPS
 - 3.3 AF_PACKET "socket(AF_PACKET, SOCK_DGRAM, ETH_P_1588)"
 - 3.3.1 AF_PACKET, 1 PPS
 - 3.3.2 AF_PACKET, 128 PPS
 - 3.4 AF_INET "socket(AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
 - 3.4.1 AF INET, 1 PPS
 - 3.4.2 AF INET, 128 PPS

1 Conclusion

Summary for **TX (app** \rightarrow **wire)**, 1 PPS

TX 1 PPS	Socket (AF_XDP, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_DGRAM, ETH_P_1588)	Socket (AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
latency	max val(#0) = 31.78us	max val(#0) = 36.26us	max val(#40) = 37.51us	max val(#0) = 60.23us
	min val(#829) = 17.45us	min val(#508) = 18.93us	min val(#144) = 18.59us	min val(#204) = 27.19us
	peak-to-peak = 14.33us	peak-to-peak = 17.33us	peak-to-peak = 18.92us	peak-to-peak = 33.04us
	mean +- RMS = 19.16 +- 1.19 us	mean +- RMS = 20.96 +- 1.36 us	mean +- RMS = 20.76 +- 1.77 us	mean +- RMS = 30.15 +- 2.29 us

Summary for **TX (app → wire)**, 128 PPS

	Socket (AF_XDP, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_DGRAM, ETH_P_1588)	Socket (AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
Compete latency	max val(#0) = 29.95us min val(#1) = 15.05us peak-to-peak = 14.90us mean +- RMS = 17.42 +- 1.13 us	max val(#0) = 36.04us min val(#3) = 16.25us peak-to-peak = 19.79us mean +- RMS = 17.62 +- 0.90 us	max val(#0) = 35.43us min val(#990) = 17.21us peak-to-peak = 18.22us mean +- RMS = 18.05 +- 0.78 us	max val(#0) = 55.14us min val(#982) = 23.95us peak-to-peak = 31.20us mean +- RMS = 25.25 +- 1.31 us

Summary for **RX**, 1 PPS

RX 1 PPS	Socket (AF_XDP, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_DGRAM, ETH_P_1588)	Socket (AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
Driver latency	max val(#860) = 42.21us min val(#817) = 22.29us peak-to-peak = 19.93us mean +- RMS = 27.15 +- 4.27 us	max val(#702) = 43.23us min val(#525) = 24.76us peak-to-peak = 18.47us mean +- RMS = 29.94 +- 3.58 us	max val(#872) = 58.29us min val(#535) = 24.18us peak-to-peak = 34.11us mean +- RMS = 30.24 +- 4.68 us	max val(#885) = 53.85us min val(#120) = 24.96us peak-to-peak = 28.89us mean +- RMS = 30.69 +- 4.24 us
Stack latency	max val(#527) = 229.52us min val(#476) = 278.16us min val(#500) = 27.65us min val(#9) = 31.07us peak-to-peak = 201.87us mean +- RMS = 35.79 +- 8.07 us mean +- RMS = 39.34 +- 10.88 us		max val(#33) = 66.20us min val(#940) = 29.12us peak-to-peak = 37.09us mean +- RMS = 41.22 +- 5.32 us	max val(#0) = 85.72us min val(#869) = 40.02us peak-to-peak = 45.71us mean +- RMS = 52.17 +- 5.51 us
Complete latency	max val(#527) = 254.29us min val(#661) = 51.31us peak-to-peak = 202.98us mean +- RMS = 62.94 +- 9.50 us	max val(#476) = 303.84us min val(#9) = 56.61us peak-to-peak = 247.23us mean +- RMS = 69.28 +- 11.95 us	max val(#33) = 107.52us min val(#940) = 54.33us peak-to-peak = 53.18us mean +- RMS = 71.46 +- 9.18 us	max val(#0) = 123.39us min val(#869) = 66.93us peak-to-peak = 56.45us mean +- RMS = 82.86 +- 8.81 us

Summary for **RX**, 128 PPS

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RX 128 PPS	Socket (AF_XDP, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_RAW, 0)	Socket (AF_PACKET, SOCK_DGRAM, ETH_P_1588)	Socket (AF_INET, SOCK_DGRAM, IPPROTO_UDP)"
Driver latency	max val(#32) = 34.68us min val(#653) = 20.82us peak-to-peak = 13.86us mean +- RMS = 22.70 +- 1.67 us	max val(#599) = 72.21us min val(#147) = 21.04us peak-to-peak = 51.17us mean +- RMS = 24.25 +- 2.92 us	max val(#81) = 36.89us min val(#1007) = 20.95us peak-to-peak = 15.94us mean +- RMS = 23.82 +- 2.04 us	max val(#0) = 37.35us min val(#355) = 23.23us peak-to-peak = 14.12us mean +- RMS = 25.95 +- 1.66 us
Stack latency	max val(#1017) = 207.89us min val(#434) = 28.30us peak-to-peak = 179.58us mean +- RMS = 35.23 +- 7.83 us	max val(#0) = 65.07us min val(#358) = 17.89us peak-to-peak = 47.17us mean +- RMS = 30.89 +- 8.50 us	max val(#292) = 131.60us min val(#641) = 17.89us peak-to-peak = 113.71us mean +- RMS = 30.62 +- 9.31 us	max val(#351) = 287.76us min val(#355) = 37.58us peak-to-peak = 250.18us mean +- RMS = 47.58 +- 9.66 us
Complete latency	max val(#1017) = 238.65us min val(#434) = 49.77us peak-to-peak = 188.88us mean +- RMS = 57.94 +- 8.60 us	max val(#599) = 106.53us min val(#458) = 39.43us peak-to-peak = 67.11us mean +- RMS = 55.14 +- 9.78 us	max val(#292) = 158.43us min val(#1007) = 39.65us peak-to-peak = 118.78us mean +- RMS = 54.44 +- 10.45 us	max val(#351) = 324.08us min val(#355) = 60.81us peak-to-peak = 263.27us mean +- RMS = 73.53 +- 10.33 us

2 Tx complete latency (app \rightarrow wire)

2.1 AF_XDP "socket(AF_XDP, SOCK_RAW, 0)" 2.1.1 AF_XDP, 1PPS

root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null &
root@am57xx-evm:~# ./plget -i eth0 -t xdp_ptp12 -m tx-lat -n 1024 --pps=1 -l 512 -a 18:03:73:66:87:42
SIOCGHWTSTAMP: tx_type was 0; rx_filter was 0
SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0
setting ts_flags: 0x53
new ts_flags: 0x53

mplete tx latency, was a state of the state	22 517 I	20 36 I	19 438 I	17 882 I	21 596 I	18 888 I	20 144
19.241	17.958	19.728	19.430	18.759	17.994	19.17	20.144
18.138	18.801	17.911	17.875	18.437	17.515	20.026	23.004
19.717	20.209	19.765	18.833	17.742	19.386	20.224	19.867
19.778	17.665	20.193 18.041	19.446	17.457 18.194	19.022	19.001	18.168
17.758	17.957	20.911	19.501	19.927	20.211	21.746	20.307
19.653	19.703	18.187	18.294	18.674	18.807	18.577	19.939
18.218	18.3//	20.585 18.26	20.02 18 411	21.664 20.275	20.319 18 446	19.342 18.183	19.586
19.391	19.636	19.849	19.516	22.776	19.475	19.332	19.478
20.335	18.997	20.342	18.348	18.674	18.3	17.842	19.294
19.81	18.184	18.038	19.998	19.106	20 024	18.634	19.035
18.389	18.355	22.341	20.06	19.509	18.351	18.085	18.299
19.082	18.217	20.502	19.795	17.758	19.95	20.457	18.69
18.142	18.361 18.544	18.309 20.534	18.473 20 182	18.175	17.929	18.489 19.797	17.865
21.12	20.856	19.526	20.992	19.411	19.15	19.482	19.818
18.699	19.49	19.759	18.942	18.13	19.001	18.081	17.814
18.751	18.193	18.342	18.16	18.045	18.047 18.325	19.009	21.021
19.587	18.625	17.682	19.679	20.046	18.695	19.686	19.405
18.613	19.617	20.374	19.571	18.875	18.495	19.375	18.565
20 111 1	19.364	19.287	18.047	19.093	23 033	20 334 1	17.819
18.546	20.708	19.736	18.56	19.222	18.206	19.705	19.625
18.213	18.991	18.117	18.507	18.54	18.858	18.085	17.591
18.315	18.354	19.599	18.694	18.267	17.962	18.895 17.807	18.868
19.561	18.218	18.995	19.203	18.333	19.055	18.027	20.18
25.651	18.352	19.898	18.867	18.5	18.289	18.589	18.737
18.482	18.474	18.137	17.836	19.579	18.418	20.409	18.751
19.153	18.2	19.052	19.805	18.397	18.22	18.361	18.478
18.875	18.529	18.342	19.659	17.929	18.604	20.416	18.36
19.557	19.924	18.634	17.799	18.235	18.242	17.737	18.171
17.73	18.736	19.862	20.618	19.56	19.366 I	20.672	19.243
18.173	20.183	18.114	18.488	19.746	20.405	19.936	19.93
20.262	19.714	20.095	18.478	17.918	19.797	22.937	19.558
18.098	19.021	18.893	18.226	20.326 18.983	18.347	18.851	19.139
18.193	18.533	19.48	18.41	20.019	17.905	18.118	18.404
18.307	18.579	18.781	19.328	22.881	19.485	17.713	17.855
19.579	20.914 17 974	19.608	19.955	18.407	19.503	17.95 18.591	18.936
17.825	19.18	17.841	17.709	19.018	18.009	20.042	18.475
17.853	19.381	21.919	20.21	19.928	20.233	20.697	17.981
19.147	18 122	18.222	20 304 1	18.282	18.853	18.453 17.879	19.775
18.174	19.688	18.609	18.151	18.82	18.372	18.167	18.391
18.318	23.387	18.911	19.963	20.365	18.357	18.263	19.237
18.085	18.955	19.867	19.193	18.694	18.012	19.314	18.4/4 20.043
19.561	18.151	20.185	18.524	20.781	19.649	19.215	21.612
18.94	19.301	20.979	18.41	18.819	17.912	17.724	19.582
18.165	18.927	18.581	17.86	18.769	20.068	18.694	18.237
18.205	17.963	18.389	20.954	19.032	22.93	18.781	19.22
20.005	18.101	19.436	19.393	20.018	20.116	18.619	19.76
18.949	18.217	18.344	18.11 19.652	17.978	18.43 18.547	18.341	19.471
26.544	19.791	18.602	21.841	19.048	21.649	20.199	18.752
19.898	19.424	18.062	19.698	19.973	21.019	18.984	18.145
19.281 18.015	18.622 17.82	18.548 18.378	18.57 20.064	18.486	18.659 17.933	20.067 20.036	18.258 18.501
18.723	18.129	22.158	19.258	19.989	18.508	18.626	19.926
20.138	19.86	19.349	20.044	20.562	18.315	19.19	19.434
19.401 19.705	18.285 20.076	18.542 20.728	18.431 18.737	18.073 19.775	20.116 20.304	18.448 19.351	19.761 19.321
22.231	19.487	19.609	20.539	19.773	18.105	18.029	19.489
18.291	18.682	18.773	19.814	18.954	20.585	18.142	18.044
18.284	18.254	19.988	18.62	19.597	17.517	18.793	18.475
19.115 20.13	17.944 18.083	19.922 18.77	18.305 19.122	17.7 19.034	20.242 20.545	21.316 19.115	19.569 19.49
18.681	18.57	19.392	19.221	18.36	19.809	18.463	19.458
18.467	18.626	18.047	17.624	19.337	18.34	20.442	18.458
19.565 19.172	18.415 18.071	18.147 17.81	19.015 19.115	22.957 19.247	20.774 19.078	21.031 18.48	18.922 18.443
19.162	17.98	18.504	18.456	18.541	18.486	20.233	18.621
19.572	19.891	18.816	20.09	18.665	18.23 18.978	18.285	19.23
18.953 17.966	18.176 20.381	17.801 19.737	22.454 20.643	20.046 19.153	18.978 18.582	19.456 19.748	19.97 18.729
18.221	19.73	18.109	18.895	18.307	18.775	17.774	19.511
19.074	18.375	19.3	18.461	18.054	18.732	19.003	18.7
17.892 18.595	23.584 19.362	20.321 18.397	20.958 17.927	19.735 19.089	19.14 18.446	18.662 18.253	19.35 19.791
18.584	18.566	19.884	18.293	17.863	17.851	18.982	18.166
18.565	21.389	20.439	18.723	18.182	18.418	18.379	23.458
20.739	19.208	19.908	19.785	18.586	20.431	19.088	19.667
18.074 18.085	18.278 19.063	19.44 18.015	18.034 18.155	18.847 19.465	20.174 20.079	18.06 19.74	18.332 18.973
18.21	18.84	19.239	20.433	18.163	23.847	20.974	18.717
19.238	18.415	18.271	19.632	18.024	19.154	18.949	18.557
26.019	19.191	18.976	19.622	18.366	19.392	18.614	19.337

18.262	18.128	18.667	17.766	18.169	19.958	20.106	18.585
18.057 i		20.13				19.44	
18.247	20.617	20.287	19.593	18.743	18.362	18.969	20.408
18.478 i	18.101	18.657 19.613	18.552	18.87 18.351	18.752	17.819	19.669
18.76 i	18.585	19.613	19.063	18.351	19.406	18.836	19.28
19.697 i	18.455	23.226	19.173	20.353	18.703	18.745	18.924
18.824		19.026	18.09	18.528	19.004	18.528	18.062
18.787 i	19.728	18.211	18.937	17.763	17.452	18.684	18.098
18.945 i	20.739	18.211 17.98	17.889	17.763 20.11	18.444	18.093	18.745
23.029	18.525	19.622	20.74	18.267	20.599	18.843	19.299
17.929 I	18.048	18.72	18.506	18.626	19.966	18.944	19.486
17.856 i	18.384	19.702	18.159	19.017	18.31	20.524	18.753
18.865 I	19.198	19.185	18.159 18.549	19.735	18.562	21.274	18.753 19.315
19.897 i	18.322	18.214	19.91	18.736	20.977	18.212	18.743
18.565	19.834	20.307	19.763	18.719	18.937	18.966	18.527
19.976 i	20.502	19.193 19.982	18.464	18.768 18.526	18.92	18.511	18.202
20.655	18.705	19.982	18.104	18.526	20.75	21.268	19.807
18.774 i	20.467	20.612	19.263	19.035	20.234	18.744	19.072
18.81	18.541	18.279	18.579	18.483	20.028	18.201	19.966
19.275 i	20.124	20.466 19.431	19.884	20.199 20.943	19.459	18.797	18.586
20.057	20.353	19.431	23.655	20.943	18.933	18.578	20.139
19.07	19.726	19.468	18.364	19.234	18.953	19.392	18.688
18.816 i	19.327	19.913	20.451	19.474	18.57	19.33	18.974
19.521	19.037	20.059	18.278	18.587	18.426	17.976	19.701
19.607	21.61	21.284	20.214	18.339	20.408	18.968	20.327
19.323 i	20.28	19.152	18.626	18.947	20.034	18.776	18.465
18.337	18.562	17.824	17.795	18.853	18.55	20.367	20.13
18.586	19.265	18.87	19.024	20.061	19.808	18.784	22.255
21.128	18.643	19.632	20.331	18.318	19.236	19.257	18.267
18.718	18.425	18.098	19.85	18.217	18.752	18.285	18.267 18.74
18.443		18.633	17.804	18.769	19.214	20.18	19.178
25.227	20.421	18.686	19.331	18.781	18.225	21.36	20.018

max val(#0) = 31.78us min val(#829) = 17.45us peak-to-peak = 14.33us mean +- RMS = 19.16 +- 1.19 us

packet size: 512
number of packets: 1024
RATE = 4.10kbps, PPS = 1.0

2.1.2 AF_XDP 128 PPS

root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null &
root@am57xx-evm:~# ./plget -i eth0 -t xdp_ptpl2 -m tx-lat -n 1024 --pps=128 -l 512 -a 18:03:73:66:87:42
SIOCSHWISTAMP: tx_type was 0; rx_filter was 0
SIOCSHWISTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0
setting ts_flags: 0x53
new ts_flags: 0x53

lete tx latency, u	s (includes driver	latency and stack	latency, app -> w	ire): packets 1024	:		
29.952 16.574	15.054	17.188 16.755	16.853	16.977	16.65 16.156	18.357	17.407 17.901
19.225	16.261	17.907	18.965	16.478	17.369	17.427	15.891
15.373 17.603	15.849 18.555	17.721 16.024	18.427 17.652	16.606 17.547	17.608 17.834	17.723 17.811	15.673 15.743
17.419	15.314	17.604	18.259	18.282	16.262	17.449	17.648
19.544 18.151	17.751 17.899	16.316 18.237	17.872 17.69	15.879 17.701	17.65 17.67	18.275 17.946	15.884 15.663
17.738	17.947	17.702	17.47	19.618	17.582	15.703	18.139
19.538	15.81	15.538	17.737	19.893	18.072	18.063	17.783
17.784	17.987	17.573	17.466	16.28	17.356	18.244	18.039
15.797	17.734	18.841	18.08	19.231	19.162	17.441	17.672
19.664	18.035	17.53	17.917	17.92	18.229	17.596	17.217
17.676	17.447	19.218	17.696	17.351	17.859	18.245	17.645
19.77	17.876	16.466	17.79	17.695	17.941	15.941	18.319
17.763	18.123	17.812	18.156	19.574	17.801	18.39	18.064
17.387	18.291	17.936	18.894	19.731	18.116	17.837	16.094
18.733	18.053	16.237	16.323	20.492	18.944	17.774	17.882
16.106 19.963	17.762 17.959	16.374 18.542	17.73 18.03	17.828 20.123	17.874	17.489 18.207	15.557 15.504
16.294	16.268	17.772	20.364	17.748	17.836	17.726	18.144
15.906 17.48	18.614 20.278	17.735 18.06	15.832 18.082	20.009 19.751	15.814 17.878	18.027 20.786	18.014 15.922
17.903	18.028	16.026	18.019	17.572	17.801	17.663	17.693
16.048 17.49	19.148 16.029	17.862 16.031	18.687 17.812	19.791 16.013	16.284 18.036	17.882 17.803	17.851 18.046
24.116	18.02	18.481	15.861	17.66	15.937	17.683	17.493
18.279	16.217	18.902 15.895	15.811	17.743	17.687	15.855	16.026
17.779	17.97	15.952	17.861	17.171	18.146	18.119	19.731
17.693	18.323	17.894	17.932	17.707	15.906	17.898	17.657
17.803	15.941	19.564	18.323	15.802	18.212	19.891	17.323
18.519	17.999	18.347	18.325	17.941	18.125	17.825	17.76
17.818	17.752	15.896	17.62	18.183	21.019	18.26	19.089
15.657	18.358	17.973	17.978	17.972	17.067	18.038	16.007
17.714	18.008	17.08	18.02	17.964	19.548	18.16	16.265
15.736	19.752	15.462	16.36	17.522	16.412	15.711	17.413
17.977 17.704	18.267 17.887	17.744 19.387	17.691 17.981	15.894 19.768	17.686 17.958	17.576 15.976	17.991 16.054
16.841	15.803	16.196	18.088	17.913	19.94	17.746	16.474
17.623 17.823	15.524 17.969	17.582 16.744	17.736 17.52	15.787 18.227	15.794 17.634	17.877 18.209	15.857 17.616
15.909	16.341	17.486	16.262	19.697	17.655	18.312	15.595
15.535	18.44 15.845	17.826 17.72	18.068 17.717	15.64 18.108	17.615	18.208 15.94	16.297
18.713	17.811	16.269	17.496	17.699	17.33	16.329	17.664
17.318	17.597	17.477	17.97	17.638	18.135	18.44	18.058
16.266	17.354	17.744	17.597	17.749	17.621	15.69	17.688
17.425	17.93	17.952	15.464	15.497	17.713	17.439	21.353
19.791 17.264	18.719 15.75	16.064	15.054	17.811	17.844 17.761	15.491	17.276 15.534
18.915	17.661	17.385	15.174	15.829	16.189	17.63	17.344
17.677 15.662	17.889 15.534	17.488 16.279	15.642 16.887	17.516 19.447	16.726 17.626	15.405 15.914	16.934 17.798
19.11	16.539	17.791	17.366	17.757	17.45	17.112	18.186
17.745	15.337	17.18	16.557	18.503	15.775	17.6	17.465
17.736 16.076	17.663 16.101	15.835 17.741	15.422 17.58	15.909 17.794	17.688 17.7	17.344 17.371	17.702 17.365
19.041	T0.430	10.03	17.570	13.004	10.341	17.303	11.331
17.672 17.62	17.605 17.653	17.528 16.697	17.535 17.86	17.374 17.811	15.607 17.602	17.564 15.497	18.448 17.888
17.396	17.316	17.595	17.535	17.507	16.165	17.414	16.317
15.677 17.371	17.567 17.999	15.579 17.807	17.144 17.618	15.901 18.599	15.689 16.046	17.601 15.906	17.435 16.147
17.262	17.512	17.322	17.48	15.605	17.678	15.433	17.433
17.52 17.387	16.513 17.548	17.259 17.853	15.933 17.623	17.524 17.619	17.772 18.308	17.151 17.905	17.263 19.201
18.05	17.213	17.796	17.409	18.768	17.561	17.285	18.112
17.345 17.129	15.496 17.21	18.415 16.921	17.864 17.619	17.475 17.541	17.563 17.283	17.411 17.509	17.509 18.834
17.708	17.802	15.836	17.057	17.195	15.62	17.406	17.662
17.252 15.272	15.135 17.639	17.61 15.335	17.521 17.171	18.183 17.085	17.847 17	17.758 17.503	17.664 15.482
17.239	16.292	17.352	17.419	17.614	17.759	17.403	17.256
18.147 17.922	18.148 17.708	17.554 17.534	17.241 17.346	17.855 17.582	17.736 17.462	16.833 16.944	15.739 16.597
17.458	17.444	17.532	17.666	19.604	17.703	15.818	19.577
17.35 17.44	15.954 17.715	17.618 17.642	17.336 19.23	17.398 19.395	15.281 17.405	17.202 17.329	20.49 15.513
17.377 17.685	17.293 17.631	17.34 17.611	17.576	16.187	17.712	18.288 18.479	18.501
17.325	18.536	18.168	17.403 15.923	17.57 17.629	16.578 16.966	17.25	17.567 17.429
17.301 15.955	17.568 17.695	19.078 17.8	15.58 17.433	17.22 15.76	16.975 16.026	18.597 16.642	17.403 16.131
17.02	17.24	15.814	15.865	15.633	17.643	18.858	17.808
19.083 17.741	17.18 17.651	15.429 18.536	17.223 16.035	17.564 15.8	17.36 15.752	17.192 18.003	18.079 17.666
17.823	17.653	18.907	15.299	16.413	15.645	17.761	17.495 I
17.31 17.426	17.614 16.634	19.401 17.456	17.235 17.515	15.324 17.578	16.589 17.705	16.613 15.503	15.539 15.734
11.720	TO:034	11.700	±1.3±3	11.010	11.103	10.000	10.104

18.159	16.319	15.808 I	15.489	17.878 I	17.742	18.388	15.211
	17.514				16.364		
16.119 i	15.526	15.609 i	16.577 i	17.731	15.41		
17.13 i	15.568	17.424 i	17.557 i	17.43 i	18.536 i		
16.28				16.801			
17.174 i	17.642				17.501 i		
17.456 i	17.537	17.773 i	17.825 i	17.604 i	16.979 i		
18.817			17.807		17.582		
15.409 i	16.072	17.726 i	17.585 i	17.621	17.554	16.515	17.157
	17.881						
16.154 i	17.64	17.554 i	19.031 i	19.299	17.418 j		
19.074	17.328	17.411	17.351	15.574	17.739	17.405	17.697
18.497	19.919	15.931	17.479	16.794	16.952	15.692	17.278
15.802	17.649	17.523	17.436	16.745	15.744	17.214	18.01
17.42	17.856	17.601	17.4	17.604	17.523	17.304	15.885
16.076	16.459	17.916	18.125	18.982	15.896	15.525	17.565
18.71	16.371	15.796	17.744	17.738	17.497	18.331	17.702
17.682	18.18	17.47	15.625	17.66	17.642	17.218	17.267
	17.1				17.266	16.364	16.023
19.416	17.415	16.963	17.64	17.822	15.325	15.686	17.393
16.815			17.68		18.086	15.576	17.555
17.228	19.354	17.447	17.472	16.336	15.936	15.878	18.425
	15.785				17.652		17.619
17.895			17.915			17.699	
	17.919						
17.734	17.823	16.071	15.917	15.899	17.841	17.386	16.63

max val(#0) = 29.95us min val(#1) = 15.05us peak-to-peak = 14.90us mean +- RMS = 17.42 +- 1.13 us

packet size: 512
number of packets: 1024
RATE = 524.29kbps, PPS = 128.0

2.2 RAW AF_PACKET "socket(AF_PACKET, SOCK_RAW, 0)"

2.2.1 RAW AF_PACKET, 1 PPS

root@am57xx-evm:~# ./plget -i eth0 -t raw_ptpl2 -m tx-lat -n 1024 --pps=1 -1 512 -a 18:03:73:66:87:42
SIOCGHWTSTAMP: tx_type was 1; rx_filter was 0
SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0
setting ts_flags: 0x53
new ts_flags: 0x53

36.261 22.475 21.359 20.225 22.478 20.011 20.302 21.173 119.554 119.621 22.697 21.962 21.312 20.025 20.645 21.312 20.025 20.645 21.312 20.025 20.645 21.312 20.025 20.645 21.356 20.429 22.308 119.912 20.713 119.566 20.429 22.308 119.912 20.713 119.797 20.362 21.696 20.544 25.105 20.411 21.586 119.662 21.349 20.78	20.174 21.072 21.268	22.455	20.710	25 521 1	21 804 1	22 025 1	20.710
20.475 21.359 20.29	21.072 21.268		20.313	23.321	21.001	22.023	22.901
20.29		21.385	19.515 19.822	20.006 19.417	19.699 19.539	20.048 20.214	20.42
	21.543	19.574	21.311	20.443	19.668	20.499	20.183
20.011	21.002 19.412	20.06 20.867	26.673 20.044	23.067 21.615	24.118 21.566	21.78 19.635	20.216 20.761
20.026	19.717	20.852	21.176	21.647	20.069	20.466	19.781
20.302	24.337	22.822	22.076	20.011	20.942	20.045	19.604
21.173	21.636	20.939	20.217	21.746	21.505	20.977	19.981
19.621	19.431	19.791	20.656	22.219	20.516	19.332	25.04
22.697 21.962	21.214 20.723	20.049 20.689	20.239 22.382	18.991 21.364	19.366 19.515	22.495 22.285	21.325 21.564
21.312	21.267	21.377	20.156	19.343	22.441	20.097	20.04
20.645	21.021	19.948	20.948	23.196	20.589	19.51	20.457
21.056	21.72	20.772	19.472 21.362	20.215	20.278 19.386	21.16	19.892 19.812
22.308	22.227	21.048	21.423	24.636	24.755	20.571	20.92
20.713	19.981	22.531 20.841	20.803 21.225	21.34/ 21.182	20.586 21.36	19.5/3	22.468
19.499	21.066	20.961	20.077	20.152	19.661	20.783	20.807
20.362	20.585	19.838	20.665	20.69	22.384	20.775	20.32
21.696 20.544	19.829 19.681	21.088 19.943	19.976 21.731	20.489 22.198	20.472 21.644	19.999 19.707	21.987 21.112
25.105	24.473	20.926	21.498	20.705	19.953	22.335	19.93
21.586	20.586	20.127	20.857 20.211	20.148	21.074	19.788	20.074
19.662	19.643	20.567	20.417	22.445	19.568	24.855	23.97
20.789	22.107	20.903	20.307	19.922	19.82	20.644	20.909
20.223 21.591	20.432 21.514	20.157 19.778	20.627 21.558	20.125 19.493	20.436 26.986	19.783 21.435	19.861 21.619
20.285	19.532	21.518	20.265	21.653	21.616	20.229	21.327
19.663	20.84	21.927	19.514	20.521	19.874	21.005	22.221
19.832	21.448	19.894	26.504	22.323	21.88	20.211	21.888
20.53	20.961	20.536	20.889	20.067	22.194	19.651	21.221
20.502 19.966	19.967 25.647	20.483 21.932	21.516 21.043	22.291 20.547	20.83 19.929	20.085 21.124	20.16 20.819
21.946	21.151	20.328	21.122	20.424	19.468	21.132	20.491
20.004	19.784	20.845	20.495	20.131	19.342	20.078	25.079
22.067 21.397	21.923 21.804	22.587	19.906 20.378	21.926 23.654	20.775 19.633	20.255 21.145	21.033 19.893
21.383	20.892	21.425	21.668	21.082	22.301	20.54	22.27
20.332	20.283 20.067	23.443	20.705	22.333	20.318	20.577	22.843
21.631	19.333	22.152	20.966	22.177	20.827	21.171	20.089
19.563	19.265	19.457	20.412	24.748	23.26	20.636	21.973
21.682 19.456	20.88 22.011	20 21.052	21.028 19.993	20.681 19.741	21.505 21.394	20.513 19.901	19.499 21.014
20.748	20.65	20.268	19.597	22.613	21.318	20.356	19.32
21.397	20.273	19.941	21.123	20.629	19.933	21.417	20.123
21.417	21.346	20.624	19.742	19.787	21.033	19.825	21.44
24.677	22.021	21.351	20.255	22.308	20.124	19.795	21.048
20.21	22.049 20.966	20.465	21.147	18.928 19.947	20.443 21.359	19.816	19.858
21.805	22.739	21.186	19.874	20.01	20.954	19.649	26.71
20.48	20.91	20.689	22.43	22.245	20.363	19.832	19.461
21.381 20.08	21.429 21.405	19.773 19.593	19.651 20.106	22.218 21.494	19.944 25.327	20.725 21.257	19.83 20.65
22.309 19.644	20.944 19.251	19.935 20.855	20.512 19.781	20.845 19.897	20.941 20.473	20.885 19.836	19.72
20.399	19.554	19.973	19.376	22.066	21.319	20.229	21.74
21.935 21.687	21.83 21.048	20.261 20.106	25.149 21.955	22.567 21.996	20.647 20.407	22.947 22.149	21.12 21.39
21.971	20.173	20.138	19.981	19.938	20.162	19.997	19.5
19.921 22.728	20.213 24.34	20.386 21.184	19.73 20.012	19.569 22.228	19.882 20.724	20.037 20.112	20.79 20.06
22.153	21.68 21.179	20.753 19.796	22.002	19.559 20.937	19.493	21.158 22.559	20.94
20.928	20.334	20.437	19.865	19.915	22.47 20.318	19.959	20.02 19.79
24.559 22.313	20.976 20.193	23.449 21.737	21.326 20.714	21.491 21.409	20.567 20.322	21.248 20.387	22.92 19.74
21.841	21.444	20.018	19.947	20.479	19.18	20.161	20.60
19.86 23.654	20.435 20.989	19.587 19.988	20.882 20.217	20.375 21.565	19.678 21.923	24.739 20.991	21.51 19.71
20.494	20.339	21.555	20.383	19.809	21.05	19.727	20.98
20.36 20.096	19.847 20.431	20.21 20.51	19.927 19.791	22.23 24.346	20.746 21.387	20.717 23.193	19.74 21.2
22.072 21.344	20.771 20.614	20.787 20.574	22.099 19.914	20.695 19.863	20.768 20.495	20.651 20.042	20.9 19.77
20.216	19.289	20.646	20.04	19.821	19.363	19.733	20.826
20.323 22.019	20.202 21.926	24.675 20.769	22.453 20.301	23.796 19.544	21.552 20.117	19.966 20.971	20.403
20.758	21.874	20.029	21.521	20.344	19.422	20.185	22.043
21.372 19.716	21.252 25.263	19.988 23.66	19.889 21.799	20.343 21.785	21.013 22.644	20.131 20.523	20.352 21.872
21.693	19.657	22.01	21.873	21.951	20.409	20.823	20.95

20.837	22.346	20.554	19.782	20.05	23.957	20.499	20.693
19.817	19.483	20.328	21.819	20.129	19.602	19.624	24.727
24.376	21.492	19.849 i	20.261	20.408	21.74	20.704	19.415
19.318 i	19.94	21.015	20.414	20.575	21.493	19.946	21.661
20.398	21.535	19.975	19.613	21.282	20.465	21.366	19.683
19.543	21.149	21.167	19.836	19.587	25.401	23.781	21.607
21.962	20.886	20.418	20.939	20.289	19.916	21.424	20.907
21.785		21.47	20.399	19.949	21.865	20.047	19.651
19.827	19.68	20.998	19.828	19.766	19.454	19.894	19.673
	19.535	19.548	23.711	23.805	21.126	22.057	20.574
20.962	22.177	20.951	19.908	19.273	20.1	20.204	19.642
19.591	21.385	20.273	20.767	20.046	19.707	19.847	20.071
	21.161	20.275	19.739	20.417	20.238	19.714	19.891
19.715	21.747	23.137	21.391	23.256	22.292	20.418	23.34
22.088	19.932	21.564	21.207	23.104	20.93		
						23.082	20.068
19.954	21.434	20.282	19.931	20.366	20.25	21.331	
19.929	22.161	20.746	20.827	21.371	20.374	19.842	20.545
27.243	22.231	22.461	20.083	21.533	22.351	20.807	19.97
19.22	19.748	20.611	20.727	19.971	21.944	20.009	21.331
20.25	19.537	20.407	19.914	22.502	21.157	20.084	21.92
19.778	21.193	21.763	21.899	21.78	19.578	26.879	
22.754	20.622	19.943	23.737	21.343	21.405	21.487	20.287
22.962	20.434	19.614	19.974	20.138	22.082	20.84	19.628
22.098	21.658	22.088	20.144	20.065	19.948	20.621	21.491
20.169	20.043	22.236	19.629	25.534	22.696	20.553	19.76
22.432	23.171	20.406	20.519	19.612	19.574	20.594	19.722
19.482	21.082	21.348	20.969	20.881	19.9	19.635	20.67
21.735 i	20.347	20.464	19.473	19.859	20.541	19.972	21.598
20.191		20.109	24.895	22.998	20.085	21.511	22.571
		22.138	20.335	21.689			

max val(#0) = 36.26us min val(#508) = 18.93us peak-to-peak = 17.33us mean +- RMS = 20.96 +- 1.36 us

packet size: 512
number of packets: 1024
RATE = 4.10kbps, PPS = 1.0

2.2.1 RAW AF_PACKET, 128 PPS

root@am57xx-evm:~# ./plget -i eth0 -t raw_ptpl2 -m tx-lat -n 1024 --pps=128 -l 512 -a 18:03:73:66:87:42
SIOCGHWTSTAMP: tx_type was 1; rx_filter was 0
SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0
setting ts_flags: 0x53
new ts_flags: 0x53

complete tx	latency,	us (includes d	river latency and s			1024:		
	5.042 7.256	18.528 18.27	17.898 17.158	16.253 17.344 18.265 17.142 17.183 17.274 17.509 17.338 17.414 16.949 17.976 17.362 21.472 17.269 17.558 17.629 17.522 17.522 17.522 17.522 17.522 17.522 17.522 17.522 17.646 17.335 17.428 17.646 17.335 17.451 17.452 18.321 17.757 18.321 17.757 18.321 17.187 17.289 17.299 17.355 17.473 18.029 17.355 17.475 17.483 17.475 17.475 17.475 17.475 17.483 17.355 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.475 17.551 17.483 17.551 17.483 17.551 17.483 17.551 17.483 17.551 17.483 17.588 19.368 17.561	16.478 17.198	19.141 17.188	17.871 17.656	17.163 19.791
	3.247	17 594	17.158 19.286	18.265	17.198	17.188	17.209	17.322
17	7.066	17.114	17.234	17.142	17.753 17.251	17.484	17.793	17.542 17.285
	0.264 7.559	17.935 17.371	17.344	17.183	17.4 17.39	17.536	17.676 17.676 17.692 17.793 17.793 17.793 17.793 17.427 17.427 17.427 17.223 16.921 17.321 17.527 17.527 17.527 17.527 17.204 17.391 17.527 17.263 17.224 17.505 17.128 17.128 17.128 17.224 17.505 17.233 17.648 17.	17.285
19	0.454 I	17.364	18.5	17.509	17.187	16.933 17.672 17.797 17.021 17.608	17.702	17.02
	7.151 7.081	17.568 16.948	17.846 17.027	17.338 17.414	17.187 17.454 17.268 17.181 17.529	17.672	17.427 17.193	17.521 17.413
17	7.481	17.108	17.242	16.949	17.181	17.021	17.223	17.638
	7.433 17.15	17.425 21.488	20.032 1 17.964	17.976 17.362	17.529 19.732	17.608 19.112	16.921 17.121	17.002 17.311
17	7.288	17.606	17.68	21.472	17.753	17.256	17.082	17.455
	7.164 7.035	16.861 17.254	17.712 16.95	17.244 19.15	17.298 17.251	17.266 17.287	17.498 17.527	17.173 17.328
1	.7.51	17.254 17.035	17.189	17.269	17.251 17.627 17.354	17.205	17.204	17.397
	7.371 17.2	17.412 17.221	17.266 17.654	17.598	17.354 17.124	19.319	17.391 17.595	17.64 19.47
18	3.137	18.042	17.52	17.522	17.015	17.128	17.073	17.029
17	7.021 7.214	17.015 17.417	17.291 16.944	17.127	17.115 17.645	17.333 17.288	17.263 17.128	17.395 17.475
17	7.027	17.297	17.334	17.242	17.557	17.328	17.224	17.025
	17.07 17.51	16.983 17.098	17.279 17.362	17.451	17.377 17.753	17.003 16.923	17.505 17.233	17.308 17.39
17	7.053	16.906	17.077	17.487	17.063	19.064	17.648	17.076
	7.243 7.997	17.323 17.83	17.043 19.637	17.097	17.048 17.249	17.184 17.339	17.546 16.829	17.304 17.294
17	7.213	17.313	20.734	17.532	17.261	17.876	17.406	17.293
	3.041 5.985	17.613 17.217	17.671 17.294	16.886 17.337	17.143 17.513	17.358 17.333	17.092 17.291	17.174 17.621
17	7.496	17.327	17.112	17.335	16.967	16.909	17.076	17.238
	7.632 5.887	17.398 17.389	17.531 16.959	17.452	17.438 17.571	17.278 19.393	17.233 17.648 17.546 16.829 17.406 17.092 17.291 17.395 17.517 17.289 17.371 17.31	17.223 17.592
17	7.653	17.531	17.189	17.757	17.571 17.062 17.507	17.349	17.289	19.699
	3.211 7.417	17.233 17.452	17.372 17.239	18.321	17.507 17.342	17.493 17.453	17.371 17.31	17.211 17.391
17	7.358	17.515	17.464	17.289	17.887	17.517	17.493	17.089
	7.616 7.479	17.239 17.229	17.345 17.214	17.793 17.176	17.57 17.5 17.392 17.679 17.761	17.236 21.691	17.371 17.371 17.371 17.373 17.493 17.81 19.531 17.368 17.704 18.01 17.703 17.55 17.591 17.424 17.605 17.055 17.556 17.287 17.464 17.607 17.428 17.464 17.607 17.428 17.393 17.393	17.501 17.476
17	7.493	19.844	19.927	17.463	17.679	17.651	17.368	17.244
	7.451	17.489 17.678	19.116	18.083	17.761 17.118	17.46	17.704	17.407 17.578
17	7.452	17.45	19.543	17.47	17.804	17.524	17.703	19.493
	9.032 7.854	17.624 17.445	20.101	18.029	19.453 17.546	17.84	17.5 17.591	17.493 17.78
17	7.702	17.555	17.693	17.475	17.663 17.506	17.469	17.424	17.657
	7.166 7.923	17.447 17.518	17.854	17.551	17.506 17.468	17.524	17.605 17.055	17.511 19.522
17	7.591	17.257	21.342	17.58	17.758	17.332	17.556	17.279
	7.186 7.711	18.103 17.616	17.481 17.725	17.483 17.58 19.368 17.501 17.639 17.42 17.426 17.331 17.689 17.411 17.531 19.293	17.202 17.749	18.064	17.287 17.464	21.332 17.432
17	7.216	17.364	16.811	17.639	17.542 17.033	17.306	17.664	17.332
	7.741 7.252	17.233 17.613	17.93 17.287	17.529	17.033 17.282	17.256	17.607 17.428	17.116 17.486
17	7.229	17.458	17.646	17.426	17.352	17.095	17.373	17.447
	7.837 7.339	17.572 17.523	17.468 19.555	17.331	17.197 17.968	16.972 17.399 17.903	17.715 17.393	19.521 17.692
17	7.558	17.596	17.316	17.411	17.62	17.903	17.39	17.015
	5.988 7.349	17.643 16.78	19.625 20.658	17.531	17.647 17.62	22.53 17.654	1/.0	17.682 17.51
17	7.626	18.021	17.497			17.332 17.427 17.17 17.28	17.419	16.932
	7.446 7.341	17.34 17.462	17.272 17.502	17.661	17.576 17.435	17.427	17.539 17.364	17.699 17.043
18	3.276	17.956	19.676	17.344	17.435 17.99	17.28	17.1	20.378
	7.402 7.214	17.47 17.603		17.204 17.773	18.489 17.527	17.628 17.263	17.203	17.571 19.278
17	7.498	17.903	17.478	17.269	17.885	17.608	17.274	17.471
	7.657 3.232	17.634 17.313	17.376 17.534	17.272 17.729	17.232 17.216	17.068 17.363	17.596 17.565	17.159 17.453
17	7.367	17.313 17.538	17.321	17.636	17.769	17.199	17.312	19.622
	7.445 7.682	17.306 17.437		17.511 17.498	17.476 17.672	17.559 17.055	17.665 17.341	17.352 20.521
17	7.507 j	17.309	17.793	17.443	17.467	17.475	17.234	17.682
	7.419 17.05	17.187 17.193		17.181 17.897	17.406 17.196	17.458 17.155	17.267 17.59	
17	7.177	17.885	20.226	19.301	17.466	17.675	17.888	19.594
	7.062 7.343	17.649 17.415		17.361 17.536	17.434 17.111	17.069 17.537	17.18 17.375	17.252 17.014
17	7.675	18.973	17.143	17.856	17.786	17.394	17.635	17.278
	7.337 7.271	17.229 17.346		16.971 17.33	17.626 17.469	17.215 17.577	17.247 17.44	19.601 17.121
17	7.403	18.007	17.365	17.408	17.553	17.47	17.009	19.358
	3.088 5.852	18.295 17.014		17.616 17.619	17.692 17.435	17.203 17.532	17.275 18.003	17.086 17.51
17	7.311	17.376	17.389	17.546	16.804	17.077	17.345	17.059
17	17.8 7.266	17.146 17.464		17.774 17.683	17.412 16.931	17.351 17.063	17.148 18.567	
17	7.544	17.438	18	17.456	19.179	17.565	17.066	17.501
	7.569 7.732	17.39 19.189		16.96 17.024	17.171 16.823	17.244 16.965	17.821 18.337	17.63 17.307
17	7.425	17.291	17.393	19.476	17.488	17.586	17.295	17.255
	7.176 7.194	17.162 17.718		17.696 17.831	17.79 17.105	17.581 17.231	17.766 17.366	
17	7.133	17.09	17.427	17.528	16.918	17.7	17.408	17.211
	17.74 5.853	17.327 17.81		17.381 17.329	17.253 19.314	17.449 17.798	17.338 17.156	
18	3.213	19.244	19.036	16.94	17.074	17.62	17.378	19.838
	7.731 7.267	17.503 17.707	17.29 17.081	17.995 17.386	17.14 17.606	17.29 17.072	17.203 17.336	21.183 16.968
17	7.271	17.196	17.215	17.496	17.598	17.478	17.291	17.414
	17.14 7.697	17.441 17.28		17.656 17.335	16.998 17.167	17.309 17.234	17.165 17.696	16.937 17.2
± /	I	120					= - • • • • • •	

17.316	17.629	17.542	17.12	17.217	18.607	17.62	20.317
17.602 i	17.204	17.109 i	17.175 i	17.729 i	17.695 i	17.396	17.728 j
	17.27				17.694		
	17.339						
	17.538					17.178	
	17.409				17.469		
16.79 i	17.687	17.537 i	17.418	17.164 i			
	17.522						
	17.283						
	17.512					17.418	
	17.06						
	17.427						
17.844			17.262		17.545		
	17.249						
	17.759						
17.677	17.229 I	17.126 I	17.619 I	17.401	17.338 I	17.611	19.814 I
17.886 i	17.597	17.882	17.314	17.6	17.468	17.586 i	17.17 i
	17.617						
	17.229						
	17.633						
	17.81					17.1	
	19.967						
	19.574					17.545	
	17.644				17.192		
	17.595				17.45		
	17.762						17.517

max val(#0) = 36.04us min val(#3) = 16.25us peak-to-peak = 19.79us mean +- RMS = 17.62 +- 0.90 us

packet size: 512
number of packets: 1024
RATE = 524.29kbps, PPS = 128.0

2.3 AF_PACKET "socket(AF_PACKET, SOCK_DGRAM, ETH_P_1588)"

2.3.1 AF_PACKET, 1 PPS

root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null & root@am57xx-evm:~# ./plget -i eth0 -t ptpl2 -m tx-lat -n 1024 --pps=1 -l 512 -a 18:03:73:66:87:42 SIOCSHWTSTAMP: tx_type was 0; rx_filter was 0 SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0 setting ts_flags: 0x53 new ts_flags: 0x53

complete tx latency,	us (includes driver	r latency and stack	a latency, app -> w	ire): packets 1024	:		
36.357	25.4	27.973	25.397	24.294	21.684	20.547	23.429
20.585	20.283	20.169	22.805	20.338	20.051	20.588	20.477
23.605	21.142	20.15	21.003	22.79	20.425	21.249	20.778
37.514	34.601	27.628	25.064	23.075	20.918	21.481	22.519
19.495 18.932	20.45 22.541	20.388	18.937 19.146	19.407	20.455 20.176	18.811 20.434	27.513
21.305	20.163	19.429	22.383	20.472	20.305	21.445	19.533
19.501	19.114	20.899	21.196	20.777	21.628	21.595	19.842
19.405 19.571	18.76 22.263	19.249 20.104	18.937 19.261	19.574 20.29	25.321 20.345	21.441 21.01	20.517 20.401
19.558	19.275	19.118	19.999	19.734	19.031	21.268	19.505
19.265	19.308	20.152	25.71	22.932	22.334	19.009	22.101
19.416 21.415	19.106 20.001	20.343 19.11	19.264 19.112	19.68 20.997	21.009 20.436	21.263 22.899	20.04 19.388
18.592	19.522	19.288	20.018	19.782	21.011	19.054	19.183
21.333	19.961	20.11	19.855	21.102	21.077	19.856	20.507
19.222 19.301	21.636 22.588	19.393 20.173	21.447 21.468	22.035 19.195	20.275 19.66	19.28 22.318	21.172 19.761
24.653	21.746	19.634	21.845	19.634	21.27	20.366	19.17
19.339	18.858	19.26	19.199	20.718	19.857	19.316	19.113
19.535 19.932	19.233 24.692	21.66 19.948	19.606 20.901	19.634 22.53	19.096 19.844	24.279 21.342	21.963 20.589
21.234	21.559	20.039	19.72	19.485	19.521	19.295	22.145
21.364	20.375	21.768	20.808	24.792	21.832	20.085	23.411
19.582 19.338	19.488 20.091	20.872 20.026	19.43 19.382	20.052 21.032	19.946 20.965	20.228 20.043	19.295
18.921	20.276	19.491	21.25	19.771	19.286	22.22	19.106
21.696	21.161	20.659	19.926	19.66	19.489	19.057	19.99
19.323 20.882	19.375 22.204	19.062 21.037	19.272 21.511	19.333	20.89	20.889 21.057	19.73 21.881
21.849 20.297	25.012 20.122	20.506	23.44	21.15	19.734 19.377	20.723 19.629	19.165
18.975	20.458	20.006	18.759	21.287	21.93	19.183	19.775
21.134	24.322	20.363 21	19.081	21.188	21.33	21.747	19.927
19.767 20.241	19.337 19.771	21.225 18.792	21.121 19.571	19.238 19.186	19.584 22.212	21.18 21.429	19.188 19.268
19.428	20.9	21.229	21.431	20.121	25.282	21.695	23.232
21.479	19.843	21.111	19.147	19.027	19.927	20.468	19.017
18.969 19.945	20.169 19.337	19.27 19.236	19.845 23.745	20.312 20.707	18.784 23.939	19.833 20.556	20.827 19.074
21.491	19.163	20.014	20.137	21.326	18.865	19.856	19.73
19.447	22.485	19.871	21.14	21.255	21.909	21.773	20.441
20.903	20.034	20.789	19.257	20.261	19.789	19.222	19.372
19.189 19.139	19.157 20.676	20.27 21.241	19 19.016	19.046 19.465	19.693 18.983	18.827 20.302	19.31 19.282
23.786	23.049	19.885	21.734	21.278	20.055	20.18	19.245
20.083	19.183	20.962	19.631	18.997	21.528	19.601	19.381
19.696 20.436	20.931 21.531	21.54 20.811	20.587 19.418	21.389 21.097	21.77 19.861	24.563 20.178	23.173 19.808
20.74	21.312	21.84	19.643	19.083	22.282	20.399	19.217
20.568	21.456	19.277	21.298	24.864	24.9	20.289	19.33
21.737 20.16	19.187 19.677	21.381 19.989	21.122 19.042	18.878 21.128	19.214 19.415	19.66 21.226	21.024 20.576
19.262 21.144	21.778 19.743	21.019 19.548	19.046 25.833	19.751 20.51	21.514 19.449	21.61 21.072	22.063 19.277
20.859	20.405	18.959	21.314	21.214	20.922	20.613	20.534
19.419 19.961	19.895 19.116	21.372 19.24	19.825 19.81	18.846 20.169	19.939 20.497	19.371 19.552	20.443 20.862
21.05 19.682	25.789 19.568	20.949 21.668	21.527 21.217	21.513 19.523	21.851 21.579	21.399 21.034	20.749 19.552
19.335 19.932	19.176 20.568	19.184 20.119	19.546 21.835	19.371 19.542	22.208 20.141	20.248 21.891	21.522 24.076
21.107	19.298	21.273	19.486	20.361	20.888	19.628	19.137
19.317 19.24	19.932 20.262	20.253 20.237	19.611 20.902	19.292 19.872	20.047 23.223	21.768 19.909	20.882 21.269
19.891 21.752	21.793 20.068	20.662 21.075	19.48 20.03	21.21 20.678	24.68 20.898	21.354 20.743	19.634 20.388
19.31	19.662	19.653 I	18.988	20.536	19.993	19.052	19.709
19.211 20.747	21.844 21.804	22.807 21.317	19.651 21.252	20.461 24.102	20.888 19.778	23.45 21.425	20.846 20.296
20.918 19.313	19.73 20.994	19.112 20.247	21.457 21.047	20.474 20.939	20.762 19.964	19.743 20.396	19.402 21.014
20.776 20.994	21.198 21.668	21.704 24.796	19.758 20.414	19.998 21.84	21.375 20.184	21.269 22.494	19.86
21.396	19.676	19.387	20.377	19.698	18.976	19.763	19.269
20.422 19.532	19.434 20.249	20.865 22.902	21.578 20.601	19.267 19.698	22.736 20.143	20.215 19.108	19.53 20.907
25.453 19.469	20.635 20.559	21.514 19.724	19.931 19.481	20.978 21.436	20.34 19.159	21.437 20.36	19.26 18.944
21.32 21.129	19.631 19.714	18.924 21.566	19.348 19.303	21.195 19.065	19.722 21.928	20.03 22.839	22.017 20.861
22.524	19.669	21.881	20.476	19.464	20.555	19.63	20.118
20.086	19.99	19.193	19.099	19.832	20.97	19.398	21.67

18.975	22.432	21.133	21.477	19.33	20.852	21.312	20.986
20.768	19.562	19.248	20.704	19.326	24.538	21.21	19.177
20.947	21.848	21.743		19.495	20.368	19.45	19.464
21.353 i	21.456	19.673	21.265 i	19.166	20.948	19.558 i	19.78 i
21.234 i		19.212		19.264	29.274		22.239 j
19.934 I	26.552	20.379	27.146	24.799	21.056		21.759 j
19.409				19.22		19.468	19.545 i
20.28	19.825	21.242	21.689	19.296	22.412	22.526	21.389
20.577			21.866	20.646	21.377		21.459
19.789			21.984		21.56	20.436	19.772
19.768			19.922		19.989		20.088
21.825	20.248	22.667	21.355	20.961	20.443		19.888
20.512		19.612	20.074	21.354			24.29
23.131	21.284		20.807	23.989	20.021	20.283	20.303
19.863	19.442		19.918	20.239	19.366 i		19.545
19.369 i	23.31	20.743	21.649	20.05	22.334	23.863	20.924
21.495 i	20.267	20.151	20.848	22.803	21.459	26.268	21.591
22.283	21.188		20.181	19.826	20.753		20.462
20.17	20.654	20.686	20.622	19.399	20.256	19.986	20.563
19.958	19.631	19.915	20.142	22.592	21.329	20.445	20.916
19.86	22.746	21.319	19.93	25.859	21.58	22.69	21.705
20.627	20.849	21.338	22.703	20.033	20.39	22.307	20.026
21.066	20.208	20.011	20.533	20.066	22.481	21.651	22.016
22.264	21.985	22.267	21.563	21.014	20.098	19.972	20.696
20.571	19.812	25.655	22.22	22.474	22.006	22.526	20.726
20.891	21.417		21.341	24.023	19.765	21.327	20.064
21.788	20.133	20.014	19.723	20.561	19.983		22.183
20.059	20.061		20.364	19.918	23.106	20.51	22.178
24.644	21.397	22.76	22.386	19.917	20.096	20.701	20.73
19.922	20.453	20.099	19.696	22.202	20.163	20.372	20.786
19.982	23.456	21.543	20.429	20.543	22.371	22.411	20.912

max val(#40) = 37.51us min val(#144) = 18.59us peak-to-peak = 18.92us mean +- RMS = 20.76 +- 1.77 us

packet size: 512
number of packets: 1024
RATE = 4.10kbps, PPS = 1.0

2.3.2 AF_PACKET, 128 PPS

root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null & root@am57xx-evm:~# ./plget -i eth0 -t ptpl2 -m tx-lat -n 1024 --pps=128 -1 512 -a 18:03:73:66:87:42 SIOCSHWTSTAMP: tx_type was 1; rx_filter was 0 SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0 setting ts_flags: 0x53 new ts_flags: 0x53

	, us (includes drive			ire): packets 1024	: 18.119 18.523 18.352 18.087 18.179 17.799 17.597 17.684 17.431 17.844 18.93 17.866 17.946 18.01 17.704 17.745 17.842 17.792 18.594 17.858 18.14 17.538 17.697 17.74 19.686 17.859 18.14 17.736 18.14 17.736 18.18 17.7705 17.766 17.7705 17.705 17.597 17.705 17.596 17.411 17.794 17.692 17.411 17.692 17.746 17.834 17.777 17.948 17.778 17.697 17.705 17.596 17.411 17.692 17.411 17.692 17.746 17.834 17.771 17.657 17.705 17.861 17.734 17.771 17.657 17.765 17.861 17.7734 17.771 17.657 17.705 17.861 17.7734 17.771 17.657 17.705 17.861 17.734 17.771 17.657 17.705 17.856 18.279 17.646 18.139 17.464 17.771 17.657 17.705 17.7		
35.431 18.008	19.039 18.109	17.967 18.071	17.966 18.062	18.249 18.012	18.119 18.523	17.71 18.126	18.484 17.679
18.174 18.014	17.562	17.491	17.415 17.401	18.553 18.081	18.352 18.087	17.651	17.877 17.967 17.55
17.722 17.615 17.807	18.109 17.845 17.562 18.721 17.897 17.723	19.114	17.615	18.489 17.619 17.631	17.799	18.681	17.846 18.059
17.566 17.58	17.862	18.501	18.318	18.005	17.684	17.765	17.925 19.078
17.854 18.015	17.883	18.622 17.842 17.865	17.684	18.022	17.844	17.432 17.83 17.745	17.276 17.734
17.813 17.631	17.774 18.537	17.519 18.02	17.59 17.913	17.86 17.881	17.866 17.946	17.411 17.694	17.706 17.837
17.866 17.802	21.3/1 17.883 18.076 17.774 18.537 17.744 17.651 17.938 17.833	17.712 17.932	17.58 19.948	18.005 17.969 18.022 20.489 17.86 17.881 17.65 17.942 17.678 18.141 18.212 18.513 17.791	18.01 17.704	18.481 17.352	18.108
17.693 17.687	17.938 17.833	18.688 17.487	18.465 17.673	17.678 18.141	17.745 17.842	18.014 17.947	17.995 18.258
18.47 17.545	18.014	17.894 17.957	17.603 17.881	18.212 18.513	17.792 18.594	17.806 18.047	17.542 18.149
17.889 22.11	17.419 18.514	17.782 18.039	17.582 17.657	17.791 17.978	17.858 18.14	17.711 17.489	18.833 18.043
17.761 17.904	18.169 17.582	17.792 19.909	17.677 17.682	17.372 17.448	17.538 17.697	18.24 17.995	17.887 18.219
17.674 17.845	17.887 18.969	17.895 17.679	18.73 17.666	18.061 17.416	17.74 19.686	18.523 17.864	18.261 18.462 19.56
18.015 17.933 17.609	18.093 17.867 17.705 18.682 17.881	17.645	17. 415 17. 401 18. 117 17. 415 17. 401 18. 117 17. 615 17. 972 18. 318 17. 588 17. 684 17. 694 17. 598 17. 518 19. 948 18. 465 17. 673 17. 682 18. 7657 17. 682 18. 7657 17. 682 18. 73 17. 686 17. 454 17. 582 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 515 17. 677 17. 684 17. 934 18. 479 17. 846 17. 947 17. 748 18. 206 17. 804 18. 206 17. 804 18. 206 17. 804 18. 206 17. 804 18. 155 17. 755 18. 553 17. 778 19. 021 17. 788 18. 553 17. 778 19. 021 17. 783 18. 553 17. 788 19. 021 17. 783 18. 577 20. 155 17. 575 17. 575 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 575 17. 575 17. 575 17. 575 17. 575 17. 575 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 783 19. 021 17. 785 19. 0	18.061 17.416 18.637 18.261 17.879 17.806 17.73 17.486 18.177 17.416 18.135	17.839 18.424 17.838	18.251	18.037 17.651
17.74 17.736	18.682	18.018 17.526	17.888	17.806	18.097	17.831 18.601	17.838 17.497
17.681 17.721	19.821 17.553	18.116 17.744	17.914 18.529	17.486 18.177	17.705 17.595	17.643 17.408	17.923 17.788
18.042 18.257	17.608	17.926 17.956	17.8 17.752	17.416 18.135	17.861 17.736	17.579 17.405	17.583 17.323
17.778 17.545	17.853 17.356 18.561	17.667 18.47	17.455 17.515	18.584 17.564	18.184	17.862 17.314	17.909 17.556
17.793 18.157	17.899 I	17.716 17.73	17.655 17.62	17.564 17.629 17.841	17.927 17.596	17.36 18.699	17.75 18.227
17.829 17.445	17.999 17.856 17.789	17.967 17.717	17.61 18.315	17.642 18.118 18.049	17.411 17.692	17.833 18.168	17.476 18.172
17.487 20.684	17.999	17.278 17.941	18.479 17.346	18.049 17.553 18.614	17.764 17.834	17.398 17.686	17.845 17.239
17.573 17.85	21.997 17.578	18.211 17.822	17.964 17.845	18.614 18.07 18.25	17.943 17.464	19.839 17.834	17.978 17.517
17.687 17.426	19.412 17.907	19.083 17.823	18.206 17.804	18.25 17.782	17.83 17.734	17.663 20.262	17.825 18
18.152 17.658 18.315	17.954 17.804 18.197	17.85	18.026 18.848	17.58 18.325	17.657	17.836 17.957 17.482	17.885 17.919 17.884
18.603 17.976	20.349	17.947	17.503	18.325 17.786 17.721 17.791 17.866 18.138 17.766 18.012	17.703 17.856 18.279	17.756	17.583 17.844
17.976 17.884	17.715 18.101 18.553	17.776 17.776	17.764	17.866 18.138	17.646 18.114	17.647	18.335
17.898 18.093	18.811 18.311	17.492 18.051	17.725	17.766 18.012	17.785 17.633	18.698 17.83	17.996 17.683
18.057 18.091	17.301 19.228	17.666 18.447	18.553 17.78	18.146 18.046	17.712 21.186	18.21 17.796	18.025 17.886
18.651 17.859	19.342 17.726	18.041 18.026	19.021 17.783	18.039 17.897	18.139 18.387	17.927 18.143	18.116 18.055
18.021 17.922	17.655 17.692	17.904 19.185	18.07 20.15	17.605 18.226	17.547 17.94	17.883 17.762	21.495 21.456
17.998 18.292	17.965 18.044	18.026 17.819		17.426 17.764	17.812 17.839	18.788 17.685	17.661 17.567
17.455 19.739	17.756 17.879	18.133 17.872	18.787 17.868	17.764 19.356 17.655	17.948 17.587	17.834 18.1	18.111 17.748
18.41 17.886 18.053	18.998 17.923 17.86	17.924 17.998 18.256	18.151 17.981 17.823	17.862 17.932 18.002	18.032 18.638 17.649	17.79 18.462 17.762	17.957 18.376 17.949
18.031 17.992	17.846 17.285	18.813 17.818	19.546	18.499 17.724	17.049 18.396 17.979	18.043 18.324	17.945 17.945 17.828
18.22	17.978 18.166	17.748 18.101	18.358	18.024 18.264	17.639 17.719	19.816 18.029	17.903 17.953
18.096 18.831	18.532 19.549	19.874 18.381	18.639 17.708	17.767 17.904	18.65 18.04	17 66 1	17.801 17.57
18.053 17.906	17.896 17.902	17.805 18.093	17.895 17.646	17.745 18.124	18.569 17.786	17.736 17.736 18.273 17.699 17.636 17.807	18.075 18.125
17.93 17.86	17.618 18.055	17.948	18.162 17.959	17.966 17.96	18.289 17.829	17.636 17.807	18.145 18.584
18.145 17.572	19.826 17.526	17.911	17.842 18.68	17.686 18.32	17.811 18.142	18.084	20.051 18.055
18.272 18.545	17.529 18.088	17.554 17.797	17.878 17.689	18.002 18 17.469	17.668 18.119	17.901 17.681	17.728 17.542
18.041 17.89	18.058 17.663	18.044 18.104	17.748 17.848	18.117	18.868 17.764	18.404 18.015	17.775 17.843
19.828 18.078	18.022 18.385	18.575 18.232	18.032 18.016	18.243 17.62	17.873 18.244	17.423 17.882	18.006 18.652
18.027 19.464 18.441	18.261 17.917 18.027		18.358 18.872 18.639 17.708 17.895 17.646 18.162 17.959 17.842 18.68 17.878 17.689 17.748 17.848 18.032 18.016 18.257 18.16 17.919 17.833 17.514 17.877 19.735 17.744 18.207	18.098 18.797 17.79	17.811 17.818 22.115	17.882 17.943 18.565 18.056 17.692	18.094 18.331 17.967
18.687 17.792	18.35 17.765	17.831	17.833	17.79 18.045 17.709	18.2 18.719	18.036 17.692 18.274	18.086 18.265
18.163	17.806 18.103	18.015 18.567	17.877 19.735	17.76 17.776	18.188 18.138	17.799 17.554	17.907 17.879
17.944 20.141	17.662 18.026	17.787 20.125	17.744 18.207	17.832 17.95	18.003 17.866	18.163 18.017	18.813 17.702
17.757 17.841	17.902 17.574	17.92 17.639	17.94 18.29	18.694 17.781	17.874 20.288	18.08 17.946	18.199 18.082
18.416 18.004	18.435 18.059	17.879 17.915	18.138 18.018	18.166 17.942	18.163 18.611	17.718 18.499	17.59 18.247
18.027 17.964	17.451 17.684	17.89 20.551	17.735 18.215	17.833 18.222	18.158 17.945	18.172 17.75	17.887 18.153

17 007 1	17 006 1	10 172 1	17 707 1	17 641 1	17 075 1	10 040 1	20 124 1
	17.886				17.875		20.124
18.289					17.879		
17.878					18.094		
	18.97				18.082		
	18.605				17.8		
17.764					18.48		17.959
18.205					17.79		17.734
18.06	17.907	18.715	18.147	18.123	17.974	17.784	18.178
17.712	17.764	17.643	18.075	17.751	17.772	17.918	18.482
18.014	18.491	17.93	18.121	17.756	17.709	17.92	17.997
	17.7						
17.911 j	17.908	17.749 i	17.813	17.837 j	17.848	17.688 i	17.813
17.939 i	18.463	18.271	17.612 i	17.893 i	17.993 i	17.706	17.484
18.099					17.718		
17.702					17.695 i		
	19.698						
17.883					17.647		
17.985					17.778		
	17.647						
	18.705						
	18.533				17.871		
17.537					17.761		
18.081	17.858				17.509		
17.729	18.012				17.998		
17.726					17.662		
18.254					17.892		
17.74					18.043		
11.14	17.049	11.142	17.730	10.72	10.042	11.143	17.903

max val(#0) = 35.43us min val(#990) = 17.21us peak-to-peak = 18.22us mean +- RMS = 18.05 +- 0.78 us

packet size: 512
number of packets: 1024
RATE = 524.29kbps, PPS = 128.0

2.4 AF_INET "socket(AF_INET, SOCK_DGRAM, IPPROTO_UDP)"

2.4.1 AF_INET, 1 PPS

```
root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null & root@am57xx-evm:~# ./plget -i eth0 -t ptpl4 -m tx-lat -n 1024 --pps=1 -l 512 -a 18:03:73:66:87:42 Destination address is set to 224.0.1.129 SIOCSHWISTAMP: tx_type was 1; rx_filter was 0 SIOCSHWISTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0 setting ts_flags: 0x8d3 new ts_flags: 0x8d3
```

omplete tx latency, v	38.22	31.299	32.167	30.4	31.313	28.333	32.67
32.067	28.409	30.668	28.998	29.972	32.181	28.789	30.791
28.706	29.524	29.6	28.806	30.152	27.969	28.312	32.033
31.164	30.97	29.835	28.535	29.233	28.644	33.004	27.805
37.308	33.174	29.831 31.978	28.71	29.204	31.702	28.575	30.62
28.669	28.185	30.142	27.569	28.213	28.243	29.933	30.498
28.219	32.885	28.529	30.649	28.178	27.654 27.946	30.153	39.917
30.573	29.113	30.123	30.592	27.832	29.7	29.74	27.931
32.234	31.836	32.744	28.618	30.494	29.936	28.176	31.571
27.995	28.834	28.733	30.562	30.932	37.907	30.391	28.598
28.693	30.803	29.606	29.81	28.682	28.253	30.123	28.495
28.818	28.122	28.513	27.437	30.032	31.207	27.533	30.321
29.685	29.786	27.533	30.343	32.282	28.207	27.808	28.632
32.737	30.878	29.142	30.26	28.103	28.744	31.903	31.193
30.123	36.258	31.791	32.579	32.035	32.076	27.854	30.461
28.287	30.325	31.375	28.373	28.269	28.952	29.9	28.658 27.548
31.634	32.32	27.553	31.16	29.777	27.62	31.127	30.885
39.448 30.397	28.693 28.106	30.93 29.956	31.33 28.875	27.192	31.109 29.367	30.364 31.111	29.593 31 058
31.853	32.006	35.663	28.146	30.994	28.305	28.1	31.436
28.048 29.633	30.351 30.871	29.758 27.895	28.01 29.627	28.985 31.137	28.729 28.518	37.163 30.643	30.643 28.123
30.201	28.805	29.107	29.03	28.952	28.817	27.788	28.88
29.761 28.848	29.643 29.835	31.45 29.35	28.293 29.064	30.23 37.571	31.246 30.674	30.159 31.37	29.691 32.325
29.887	30.185	29.851	32.078	31.531	28.461	30.276	31.532
31.421 29.467	31.074 29.091	30.271 27.569	31.559 31.05	30.438 30.088	28.363 28.578	32.891 28.637	27.877
29.505	28.716	36.457	32.385	31.708	32.448	28.592	30.391
29.611	29.269 29.676	27.979	29.709 28.292	29.699 29.785	29.443	30.384	29.499
30.211	32.085	30.119	30.862	29.918	28.366	31.049	29.623
29.961	29.212	29.252	29.155	33.013 31.123	29.964 31.315	28.558 28.907	28.958 29.517
31.18	29.146	33.892	29.135	32.136	29.241	28.614	30.835
30.737	31.823	29.239	30.989	28.025	28.381	29.873	29.605
28.735	28.151	28.255	29.074	31.16	29.531	28.301	31.082
29.393	28.806	29.863	27.954	28.4	36.704	31.178	31.923
29.731	31.143	29.122	30.297	30.239	30.281	28.27	27.783
29.766	30.724	27.88	30.293	30.457	29.474	28.509	30.297
29.214	29.24	28.975 31.563	36.284	34.147	31.854	28.158	30.046
30.208	28.214	29.792	31.725	29.975	28.845	30.098	29.105
31.073 28.331	30.665 28.22	32.178 37.582	30.273 30.562	30.363 30.924	28.516 30.032	30.623 28.164	28.561 28.605
33.118	28.684	31.086	29.104	30.296	30.377	29.661	28.627
32.255 27.847	31.697 31.541	33.668 30.929	28.782 28.386	30.721 29.217	28.228 29.039	28.267 28.564	31.928 31.717
36.995	32.52	29.867	29.586	30.989	31.685	32.54	28.516
29.447	30.844	32.578	30.133	32.001	32.697	30.189	28.455
29.43	28.731	29.883	28.322	27.726	30.125	38.627	32.721
31.381	30.39	31.57	29.569	27.895	29.795	32.634	29.748
30.703 30.31	28.362 28.284	28.115 28.645	31.445 28.165	30.097 38.415	30.714 33.445	28.411	28.972 32.254
28.384	28.49	31.368	27.971	28.58	28.825	27.618	29.943
29.779 30.526	28.337 30.835	30.321 27.572	30.729 32.304	30.179 30.786	27.98 29.992	28.467 31.443	28.414 30.19
27.798	30.545	28.549	38.092	29.3//	31.424	28.808	21.182
34.189 32.26	30.289 31.038	29.146 34.092	29.981 29.656	31.564 30.28	31.308 28.501	30.117 27.693	28.713 31.193
28.933	29.738	29.034	29.116	29.575	28.513	28.839	29.966
28.17 28.058	38.883 29.182	29.409 30.377	31.11 28.786	28.056 29.158	27.91 29.305	32.577 27.545	30.459 28.058
29.059	28.049	31.153	29.417 28.669	29.809 31.637	31.568	28.745	29.819
29.127 31.449	29.182 31.085	28.986 28.711	28.155	32.144	28.168 31.36	28.399 29.432	36.602 28.905
31.209 29.166	30.756 30.765	31.762 28.238	29.003 30.106	30.791 27.809	28.908 32.182	33.96 28.948	29.656 27.929
28.403	28.684	30.579	27.863	28.948	38.295	29.986	31.837
30.204 29.184	28.407 29.659	32.242 29.385	28.44 28.484	27.889 29.319	28.793 27.417	28.154 28.616	28.762 27.574
33.008	31.919	29.096	31.438	28.557	29.178	29.61	29.039
30.995 33.147	27.621 30.426	32.921 30.644	31.121 28.569	38.186 31.064	32.585 32.317	28.787 29.138	28.727 29.188
33.056	30.688	33.855	29.694	31.263	28.555	29.163	32.253
28.485 29.741	29.515 29.311	28.388 37.352	28.317 33.446	30.709 29.231	30.813 28.434	30.546 33.094	30.197 28.404
29.555	28.977	27.777	30.924	30.449	29.275	28.082	28.353
29.846 31.659	28.013 29.531	28.466 30.512	29.922 28.643	30.145 29.227	30.499 28.367	28.434 29.797	30.813 29.481
39.506	31.268	28.926	28.175	33.309	28.888	30.925	28.492
32.292 29.452	32.146 28.85	29.535 29.694	29.027 31.717	31.94 28.47	29.108 30.607	33.315 32.483	28.244 28.399
29.817	28.787	30.055	29.882	30.16	29.248	37.577	33.993

31.089	28.987		29.866	29.205	29.124	27.732	31.38
29.084	28.788		28.219	29.016	30.097	29.513	27.994
30.716	30.629	28.263	30.416	28.297	29.812	30.525	28.281
28.595	28.385	27.989	28.762	27.723	38.143	29.095	28.241
35.361	27.925	31.289	28.639	31.973	31.417	30.617	28.946
33.421	31.53	32.335	30.374	30.378	28.379	28.472	30.545
27.699	29.439	28.865	28.746	28.839	28.901	31.116	28.504
30.239 i	29.247	27.94	40.495	30.548			
31.724	29.796	27.77	29.812	31.452	28.649	30.238	29.429
30.095	30.451	28.824	28.25	30.645			33.605
29.043	29.139	30.569	28.492	30.409	27.829	30.375	29.041
29.519	38.926	29.969	28.937	32.943	28.135	32.369	29.931
31.674	30.405	31.421	30.109	31.659	30.297	32.69	29.729
31.632	30.067	28.383	32.147	27.435	29.286	28.794	28.849
29.737	28.773	28.594	30.553	28.659	28.906	28.191	37.963
29.968	29.904	33.377	28.271	29.462	31.092	29.847	29.897
29.546	28.635			29.98			
30.663	31.193	28.39	30.539	28.64	28.191	30.388	30.423
31.695	28.351		29.847	27.887	30.688	36.539	29.522
32.925	28.785		32.727	32.816		32.137	29.887
31.403	30.851	32.521	28.457	31.315	30.493	27.959	31.126
29.037	29.387	28.138	29.404	29.508		30.139	27.921
28.546	29.739		28.339	39.968			30.9
29.073	29.719	28.985	29.605	28.606	29.331	28.572	29.173
29.442			29.197	32.699	30.706	28.691	31.324
28.213	30.654	29.54	29.129	30.13		30.776	29.089
27.596	28.839	37.325				31.251	30.281
32.751	30.479		29.251	30.377		32.111	28.398
29.813	28.453		30.426	28.722		31.594	29.616
30.235			27.962		31.381		28.829
38.345	30.089	33.269	28.955	29.417	29.294	28.301	29.421

max val(#0) = 60.23us min val(#204) = 27.19us peak-to-peak = 33.04us mean +- RMS = 30.15 +- 2.29 us

number of packets: 1024
RATE = 0.00kbps, PPS = 1.0

2.4.2 AF_INET, 128 PPS

root@am57xx-evm:~# phc2sys -s CLOCK_REALTIME -c eth0 -m -0 0 > /dev/null & root@am57xx-evm:~# ./plget -i eth0 -t ptp14 -m tx-lat -n 1024 --pps=128 -l 512 -a 18:03:73:66:87:42 Destination address is set to 224.0.1.129 SIOCSHWTSTAMP: tx_type was 1; rx_filter was 0 SIOCSHWTSTAMP: tx_type 1 requested, got 1; rx_filter 0 requested, got 0 setting ts_flags: 0x8d3 new ts_flags: 0x8d3

Lete tx latency,	28.28 27.527 24.911	24.133 25.159 25.293	25.694 25.988	25.288 25.271	25.583 26.224	25.237 26.578	26.095 25.317
29.224 25.031 25.229	24.911	25 293 1	25.500	20.271			
25.031 25.229		23.233	25.256	25.426	26.828	25.889	25.322
	24.886	25.351	26.081	24.897	27.786	25.174	24.201
24.33	25.452	25.096	24.713	24.888	24.203	24.507	25.019
25.776	32.485	25.108	27.642	25.028	25.379	26.522	24.969
24.736	25.024	24.739	24.611	24.488	26.571	25.256	25.355
24.459	24.463	25.229	25.094	24.85	24.658	26.985	24.936
25.183 26.682	24.986 25.192	26.167 24.974	24.987	25.433 25.169	24.701 25.335	24.444 24.648	25.039 24.594
24.451	24.592	25.178	24.972	24.493	28.216	25.089	25.192
24.479 24.496	25.309 25.536	25.144 24.87	24.884 24.911	25.122 24.858	24.347 24.881	25.284 24.505	25.072
26.86	24.964	24.969	24.5	24.505	25.108	24.89	25.516
25.036 24.145	27.086 24.969	25.163 25.391	25.171	24.557 25.287	25.202 24.457	25.291 24.813	25.575 25.407
25.31	24.897	24.419	25.023	24.816	25.198	24.903	24.981
26.958 25.258	25.255 29.798	25.094 25.34	24.546 25.032	25.103 24.457	29.149 24.631	25.38 25.079	24.172 29.668
24.587	24.866	25.04	25.32	24.675	24.42	25.478	24.671
25.36 24 841	30.533 25.08	24.055 25.319	25.685	25.357 25.373	25.295 25.011	24.423 24.709	28.217 24 665
24.98	24.816	25.161	26.808	24.411	25.799	25.228	24.936
24.6	24.713	24.806	25.152	25.138	24.281	25.292	27.399 25.252
24.86	24.674	25.089	25.138	24.719	25.115	25.01	24.317
25	25.486	24.918	25.137	24.412	27.07	25.32	25.142
25.627	24.951	24.589	25.092	27.371	25.109	24.888	27.199
25.553	25.396	26.758	24.534	24.937	25.222	24.811	24.767
24.043	24.839	25.738	24.751	24.972	24.727	25.109	24.675
25.484	25.42	24.443	25.392	25.265	24.881	24.424	25.021
24.551	25.161 25.017	25.24	25.417	24.373	24.812	25.379	24.485
24.644	25.258	25.077	25.173	24.864	24.441	25.227	25.382
24.87 27.572	29.341 25.144	28.548 25.696	28.269 24.551	25.556 25.033	26.06 25.398	24.161 25.029	26.644 26.308
25.586	29.637	26.769	25.629	24.868	25.04	25.041	25.168
24.483 25.168	24.901 25.071	25.048 24.575	25.06	24.868 26.848	24.671 24.988	25.112 24.703	25.36 24.908
27.176	25.717	27.205	24.38	25.05	25.219	24.979	24.762
24.961 24.451	25.589 24.691	25.213	27.813	24.614	27.551	24.685	25.256 25.534
25.209	24.843	24.446	25.14	25.044	24.544	24.489	25.463
25.019	27.325	27.325	24.454	24.936	27.591	24.65	24.3
24.548	24.961	24.69	25.02	24.888	24.147	25.146	25.123
25.162	25.274	24.543	24.979	25.455	25.029	24.089	25.6
25.297	25.158	25.032	25.366	24.462	24.736	25.175	25.319
24.443	25.185	25.778	24.941	25.198	24.995	24.896	25.122
25.858	25.18	24.779	24.907	25.538	25.025	25.131	24.765
24.738	25.661	25.18	25.243	24.628	25.116	25.342	25.1
24.721 25.436	25.388	24.389	25.305	25.061	24.3	24.994	27.219
24.691	25.003	25.066	24.187	25.458	25.365	24.859	24.803
25.577 24.769	24.739 25.207	25.595 25.467	24.982 25.339	24.583 25.402	24.27	25.386 24.929	25.247
24.861	25.192	24.828	24.747	25.363	25.116	24.55	24.77
25.027 25.002	25.293 25.327	25.119	24.485 25.615	25.109 25.164	24.936 24.795	25.249 25.354	24.032
24.256	25.193	25.004	25.038	25.23	24.61	24.729	25.172
25.292 25.225	24.737 24.878	24.752 24.85	25.074 24.92	24.931 25.547	25.739 27.131	25.039 27.673	24.456 24.639
26.974	25.629	25.258	25.119	24.749	25.218	26.176	29.647
24.661 25.3	25.156 25.741	25.326 30.603	25.447 25.046	25.066 25.326	24.535 29.075	25.095 26.652	25.108 25.589
25.109	25.351	25.921	24.5	25.384	25.758	25.29	24.498
27.758 24.753	25.091 25.283	25.467 25.02	25.287 25.194	24.586 25.346	25.236 24.218	25.237 25.466	25.254 24.993
24.922	25.266	24.402	24.916	27.087	25.27	24.278	25.593
25.315 25.179	24.914 25.339	25.288 24.977	24.61 25.592	24.889 24.407	25.752 27.43	25.405 25.459	24.273 25.219
24.204	25.467	25.607	24.75	24.915	24.541	24.745	25.252
25.413 25.305	25.123 25.135	24.695 25.246	25.055 24.315	25.002 25.746	25.193 25.155	24.543 25.174	24.785 24.61
24.75	25.25	25.643	24.798	24.371	25.595	25.219	25.02
26.944	25.032 25.305	24.728 24.073	24.99	24.84 25.374	24.849	25.208	24.704 25.029
28.195 26.793	25.305 25.086	25.091	25.057 24.365	25.374 25.462	24.654 25.291	24.462 28.468	25.029 24.515
25.145	25.247	24.967	25.351	24.353	24.643	25.08	24.669
24.521 24.76	25.253 25.183	24.79 28.378	25.057 27.155	25.011 25.264	24.296 25.15	24.834 24.535	25.094 24.762
24.98	24.967	25.183	24.612	24.825	25.676	25.164	24.606
29.114 24.45	25.131 24.944	27.02 25.079	24.99 24.751	24.243 25.259	24.936 24.628	25.745 24.815	25.236 25.134
25.137	24.654	24.594	25.223	25.077	25.038	24.543	25.006
24.969 24.913	24.997 25.691	24.745 24.724	25.152 25.03	25.202 24.778	25.045 27.638	24.834 24.904	24.685 24.996
24.707	25.593	25.292	24.995	24.752	24.387	25.24	24.368
	24.811	24.251	24.945 24.142	25.234 24.957	24.856 25.437	24.64 25.09	25.263 24.815
25.049							
25.049 24.525 24.957	24.833 24.841	25.328 24.789	25.037	24.148	24.905	24.785	25.058
24.525							

24.861	25.386	24.721	25.079	24.562	24.768	25.015	24.851
24.2			24.871		24.595		
25.201			27.034		24.938		
				27.24			
25.409				24.782			
			25.428		24.345		
25.034			25.212		24.926		
	25.23				25.152		
25.457				24.13			
			25.024		24.217		
		24.484			25.138		
	25.023	25.178	24.504	24.725	25.108		
24.997				24.62			
			26.845		25.877		
25.424		24.582			25.413		
25.28	25.553	24.997	24.449	25.001	24.967	27.59	
24.714	25.013	24.959	27.043	24.045	25.279 i	25.072	25.08
28.032	25.189	25.351	27.823	25.011	24.48	25.142	25.373
25.326	25.577	28.31	25.099	25.162	24.917		
24.701	25.142	25.65	24.459	25.048	25.507	24.703	24.218
27.531				26.19			25.409
24.554	25.276	25.253	25.425	25.06 25.211	24.148	25.286	25.53
24.85	27.286	24.275	24.681	25.211	25.304	23.945	25.016
25.235	25.048	24.791	24.932	24.788	25.009		24.215
25.201			25.665		27.236	25.132	25.178
24.281	25.248	24.861	24.663 24.794	25.237	24.412	24.987	25.317
25.365	25.079	24.403	24.794	24.918	25.053		
25.211			24.437		25.033	25.133	24.564

max val(#0) = 55.14us min val(#982) = 23.95us peak-to-peak = 31.20us mean +- RMS = 25.25 +- 1.31 us

number of packets: 1024 RATE = 0.00kbps, PPS = 128.0

3 Rx complete latency ("driver" latency + "af_xdp stack" latency)

3.1 AF_XDP "socket(AF_XDP, SOCK_RAW, 0)"

3.1.1 AF_XDP, 1 PPS

root@am57xx-evm:~# ./plget -i eth0 -t xdp_ptp12 -m rx-lat -n 1024 SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12 SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12 setting ts_flags: 0x58 new ts_flags: 0x58

25.48	26.175	31.065	25.465	23.119	28.576	24.124	24.147
33.134	23.669	22.657	28.789	25.98	22.721	29.195 i	23.404
23.247	33.265	24.148	22.785	33.616	22.843	23.642	28.226
22.593	24.345	27.73	23.024	25.363	27.574	22.708	25.179
36.151	25.552	36.312	25.647	26.225	36.912	26.023	25.667
35.89	25.573	25.567	35.511	28.198	24.796	31.665	26.033
27.054	36.523	26.079	25.92	36.807	26.468	26.065	31.934
25.501	23.17	33.364	23.246	25.65	29.403	23.258	22.396
28.38	22.287	24.026	29.627	22.481	22.625	28.599	23.226
32.596	22.632	23.37					23.921
23.592	28.987	25.569			25.456	25.54	35.853
25.795	25.393	35.766	22.366				25.254
32.15	25.771	26.596	35.138		25.171		25.375
25.335	35.283	26.135	23.474				23.305
23.627	31.012	23.863					29.755
23.24	23.954						23.163
28.384	22.401	23.687	28.324				23.07
23.163	36.196	27.159	26.62	39.958	23.735	26.117	36.637
26.529	26.161	30.57	25.336	35.827	25.182		35.881
25.452	25.592	35.861	24.819		31.611		24.906
36.058	25.144	23.345	29.389				22.644
22.825	30.978	22.724				23.039	29.124
23.519	23.061	22.834					23.856
29.097	22.916	28.509					25.425
37.275	25.375	25.712	37.121				27.266
26.106	29.086	26.279	26.592				35.024
26.136	25.518	30.603	26.261		35.672		22.6
29.89	24.012	23.241			23.003		22.762
28.797	22.623	23.341	29.149		24.44		23.343
23.426	30.223	22.519					28.907
22.91	24.295	32.511	26.688	25.399	35.692	26.844	23.562
29.012	23.459	23.592	36.665	29.235	26.362		24.846
25.673	35.595	25.249	25.95				25.5
25.019	35.717	23.115	23.437	32.073	23.067	23.156	28.588

max val(#860) = 42.21us min val(#817) = 22.29us peak-to-peak = 19.93us mean +- RMS = 27.15 +- 4.27 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app): packets 1024:

\$\begin{array}{c c c c c c c c c c c c c c c c c c c								
\$4.01 \$4.07 \$4.07 \$4.40 \$3.40 \$4.40 \$3.40 \$4.40 \$3.40 \$4.40 \$3.40	60 607 1	24 011	22 500 1	20 745 1	25 040 1	40 504 1	22 (72)	22 007 1
34.81	62.62/	34.811	33.509	38./15	35.949	40.504	33.6/2	33.99/
33,672 33,949 34,485 33,662 34,485 33,872 34,661 32,046 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 33,072 34,661 34,072 34,	34 811 1	34 973 1	34 322 1	34 648 1	33 998 1	42 131 I	36 112 I	34 486 I
34 80	22.670	25.040	24 405	35 460	24.405	22.232	22 004	20.606
34.685 34.696 33.697 33.696 33.697 33.696 34.16 33.695 33.697 34.16 33.695 33.696 33.697 34.16 33.697 34.16 33.697 34.16 33.697 34.16 33.697 34.16 33.697 34.16 33.697 34.16 33.697 34.16 34.293 34.2	33.6/2	35.949	34.485	35.462	34.485	33.835	33.021	32.696
34.973 36.926 36.926 36.497 34.485 34.203 34.203 34.973 34.481 33.486 34.485 34.485 34.203 34.485 33.486 34.485 33.486 34.485 33.486 34.485 33.486 33.486 33.486 33.486 33.486 33.487 33.197 33.197 33.197 33.184 33.203 34.481 33.204 33.	34 485 1	34 974	35 624 1	33 184	33 835 1	35 949 I	34 16 1	42 944 1
31.99 31.99 32.99 32.99 33.194 33.494 33.997 34.494	24 072	26.006	26.021	26.101	24 405	24 202	24 072	24.044
33, 998 34, 465 32, 696 33, 672 34, 168 34, 261 34, 26	34.9/3	36.926	36.926	36.43/	34.485	34.323	34.9/3	34.811
32,533 37,759 35,156 33,835 33,835 33,835 33,837 34,157 33,164 33,267 33,164 33,267 34,153 33,271 33,164 33,267 34,161 34,273 33,172 33,164 33,272 33,164 33,272 33,164 33,274 33,164 33,272 33,164 33,272 33,164 33,275 33,171 33,835 33,837 33,471 33,461 33,273 34,161 34,162 34,162 34,162 34,162 34,162 34,162 34,162 34,162 34,162 34,162 34,162 34,	33 008 1	3/ /85	32 696 1	33 672 1	/1 968 I	3/1 9/11	3/1 16 1	3/ / 25
34.151 33.672 33.673 33.674 33.675 34.681 33.899 34.083 34.161 33.672 33	33.330	37.703	32.030	33.072	41.700	24.011	24.10	37.703
33.997	32.533	37.739	35.136	33.835	33.835	33.834	33.997	34.16
34.973 36.112 33.072 34.81 34.973 33.474 33.346 34.223 33.347 34.81 34.16 34.811 33.346 34.223 33.347 33.572 33.346 34.223 33.477 33.346 34.223 33.477 33.346 34.223 33.477 33.346 34.223 33.477 33.346 34.223 33.477 33.346 34.223 33.477 33.346 34.223 33.477 33.477 34.61 34.255	33 997 i	33 19/	33 18/ i	35 208 i	33 835 i	33 835 i	33 997 i	33 N21 i
33.972 36.121 33.658 34.186 33.486 40.621 34.166 34.186 33.599 33.572 33.672 33.	33.337	33.104	22.104	33.270	33.033	33.033	33.337	33.021
33.022 33.021 39.588 34.323 33.347 33.672 33.346 34.223 33.471 33.672 33.346 34.231 33.474 33.872 33.346 34.231 33.481 33.184 33.386 34.231 33.487 33.4872	34.973	36.112	33.672	34.16	35.949 I	40.83	34.16 I	34.811 I
33, 472	22 022	22 021	20 520 1	24 222 1	22 247 1	22 672 1	22 246 1	24 222 1
33.672 35.288 32.371 33.505 33.505 33.597 33.672 34.161 35.285 33.672 34.161 37.738 33.536 33.536 33.536 33.672 37.541 33.672 37.541 33.551 33.672 37.576 33.672 37.576 33.776 33.672 37.576 33.777 33.552 37.766 33.776 33.777 33.577 33.577 33.577 33.577 33.577 33.777 33.318 33.672 33.777 33.577 33.577 33.577 33.777 33.	33.022	33.021	39.320	34.323	33.34/	33.072	33.340	34.323
33.184 33.599 33.51 33.835 33.997 33.347 34.16 33.672 37.414 33.835 33.936 33.561 33.572 37.576 33.772 33.77	33.672	35.298	32.37	33.509	33.997	33.672	34.16	32.859 I
32,686 33,884 33,184 33,346 32,046 39,04 33,472 37,741 41,594 34,811 37,738 38,389 32,533 37,413 37,799 31,556 30,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 38,744 31,835 32,046 32,046 32,046 33,021 34,323 38,044 31,835 32,046 32,046 32,046 33,047 38,552 37,576 32,206 32,371 33,184 31,889 32,271 32,047 38,552 37,576 32,371 33,44 31,558 38,444 31,889 32,371 33,487 34,	22 104	22 500	22 54 1	22 025 1	22 007 1	22 247 1	24.46.1	22 (72)
32.696 33.834 33.824 33.346 32.045 39.04 33.672 37.414 40.944 38.345 33.355 32.366 37.375 37.175 37.052 37.144 40.944 38.345 37.375 31.325 37.375 37.375 37.175 37.052 37.375 37.3	33.184	33.509	33.31	33.833	33.99/	33.34/	34.10	33.6/2
33,594	32 696 1	33 834	33 184 I	33 346 1	32 045 1	39 04 1	33 672 1	37 414 I
10, 17, 17, 18, 18, 17, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	42 504 1	24.04	27 720 1	20.200	22.010	27 442	27 720	21 550
30.744 38.714 33.835 32.045 37.576 31.72 37.688 37.901 30.507 31.735 31.235 32.256 31.835 32.276 32.276 32.276 32.276 32.276 32.276 32.276 32.276 32.276 32.277 33.184 33.835 32.271 32.271 33.184 33.277 32.2	43.594	34.81	3/./38	38.389	32.333	3/.413	3/./39	31.338
30,907	30 744 1	38 714	33 835 1	32 045 1	37 576 I	31 72 I	37 088 1	37 901 I
31,021	20 007	24 205	24 020	00.700	20 274	22 404	20.000	24 002
33.021 34.323 32.696 32.696 31.222 38.064 33.297 30.555 37.576 32.208 33.208 32.208 33.208 32.208 33.208 32.208 33.208 32.208 33.208 32.208 33.	30.907	31.395	31.232	29.768	32.3/1	33.184	32.208	31.883
38,552	33 021 1	34 323 1	32 696 1	32 696 1	32 696 I	31 232 1	38 064 1	33 997 I
32.045	20.021	37.526	20.000	20.074	22.090	24 002	20.001	20.37
32.045 36.763 33.347 31.558 30.419 34.485 39.203 32.696 38.064 34.877 32.271 30.271 30.271 30.271 31.485 32.208 32.208 33.208 33.271 33.271 33.485 32.208 33.208 33.271 3	38.552	3/.5/6	32.208	32.3/1	33.184	31.883	32.3/1	32.3/
38.877 36.926 39.04 32.208 38.064 38.877 52.371 40.178 37.576 32.37 34.485 32.696 38.889 32.888 31.232 39.691 33.134 33.371 31.883 33.672 33.8871 34.485 32.371 38.8871 34.485 32.371 38.889 32.888 31.232 39.691 33.134 33.371 31.883 33.672 33.9971 32.232 33.021 37.25 34.322 33.901 33.577 33.8871 33.672 33.9971 32.898 32.371 33.672 33.9971 32.898 33.371 33.672 33.9971 33.883 37.234 37.901	32 045 1	36 763	33 347 1	31 558 1	30 419 I	34 485 1	39 203 1	32 696 1
38.87 32.25 32.35 32.65 32.65 33.65 34.86 34.27 32.27 34.86 32.28 35.67 32.37 38.064 32.38 33.672 34.27 38.064 32.38 33.672 34.27 38.064 32.38 33.672 34.27 34.28 33.672 34.27 34.28 34.27 34.28 34.27 34.28 34.27 34.28 34.27 34.28 34.27 34.28 34.27 34.28	32.013	30.703	33.317	31.330	30.113	51.105	33.203	32.030
37.576 32.37 38.39 39.69 33.51 44.083 38.715 32.27 38.876 32.37 38.881 31.232 39.691 35.136 32.37 38.887 32.888 31.232 39.691 35.136 32.37 38.887 32.888 31.232 39.691 35.136 32.37 38.66 33.37 38.66 33.384 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.387 38.66 33.884 38.389 33.66 33	38.877	36.926	39.04	32.208	38.064	38.877	32.371	40.178
32.877 34.465 32.696 38.389 32.888 31.232 39.691 35.136 32.371 38.064 32.533 33.672 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.346 33.021 33.021 33.346 33.021 33.021 33.346 33.021 33.021 33.346 33.021 33.021 33.021 33.346 33.021 33.021 33.021 33.021 33.021 33.346 33.041 33.021 3	37 576 i	32 37	38 30 1	39 691 1	33 51 1	44 083 1	38 715 1	32 37 i
1.5	37.376	32.37	30.33	33.031	20.21	77.000	20.713	32.37
32,371	38.877	34.485	32.696	38.389	32.858	31.232	39.691	35.136
32.553 33.672 33.725 33.021 33.346 38.064 32.208 39.365 33.557 33.572 33.397 32.859 32.37 38.064 39.203 35.298 38.389 39.856 33.997 32.859 32.37 38.064 39.203 35.298 38.389 39.854 34.773 36.661 37.251 37.201 32.208 37.901 37.413 33.184 38.389 39.854 34.851 37.251 37.901 32.858 39.853 39.	32 371 i	38 064	32 533 i	32 534 i	33 N21 i	32 37 i	31 883 i	33 672 i
32.203 33.672 33.722 33.021 33.346 32.208 39.365 33.672 33.347 33.222 37.901 32.208 37.201 33.201 33.201 37.21 33.222 37.901 32.208 37.201 33	J2.J/I	30.004	32.333	22.227	33.021	32.37	31.003	33.072
31,557 31,232 33,021 37,25 34,322 37,901 31,557 33,672 38,389 39,854 34,973 39,691 40,667 32,208 37,901 37,413 33,184 38,389 39,854 34,4973 39,691 37,251 37,901 32,659 33,873 37,739 32,534 34,485 3	32.533	33.672	31.72	33.021	33.346	38.064	32.208	39.365
33,997 32,859 42,371 32,062 33,203 35,298 38,389 39,854 34,973 32,981 40,667 32,208 37,901 37,413 33,184 38,389 31,883 37,251 37,901 32,2659 39,853 37,739 32,534 34,485 33,022 32,371 32,859 33,488 33,528 33,221 41,48 34,974 32,371 32,371 32,371 32,371 32,859 33,488 33,528 33,321 41,48 34,974 32,281 32,208 33,595 32,208 33,208 32,208 33	31 557	31 222	33 021	37 25 i	3/1 322 1	37 901 1	31 557 i	33 672 1
33.997 32.899 32.307 33.809 33.901 37.413 33.184 38.389 39.834 34.618 3	31.33/	31.434	33.041	31.43	J7.J24	37.301 I	J±.JJ/	22.072
34, 973 39, 691 40, 667 32, 208 37, 901 37, 413 33, 184 38, 389 31, 648 38, 064 34, 648 33, 025 37, 739 32, 534 34, 485 34, 648 38, 064 34, 648 33, 027 33, 996 32, 208 33, 208 33, 211 32, 812 34, 822 34, 822 32, 208 33, 207 33, 996 32, 208 33, 208 33, 572 33, 672 32, 045 31, 882 33, 208 33, 184 32, 696 33, 599 32, 208 34,	33.997	32.859	32.37	38.064	39.203	35.298	38.389	39.854
11.883	24 072 1	30 601	10 667 1	22 200 i	27 001 i	27 412 1	22 104 1	20 200 i
31.883 37.251 37.901 32.859 39.853 37.739 32.534 34.485 34.686 34.686 34.686 33.022 33.022 34.286 33.022 33.021 33.021 33.026 33.027 33.	34.9/3	39.091	40.00/	32.200	37.901	37.413	33.104	30.309
34,648 38,064 34,648 39,528 33,021 41,48 34,974 32,371 32,285 34,485 33,022 33,981 32,208 32,208 32,208 35,95 33,184 31,72 36,762 31,557 37,576 38,715 33,184 31,72 36,762 31,557 37,576 38,715 33,184 31,72 36,762 31,557 37,576 38,715 33,184 31,72 33,599 33,184 33,228 34,811 38,226 37,739 33,022 34,323 34,211 33,322 34,211 34,233 33,211 33,022 33,341 33,226 37,739 33,022 32,231 34,231	31.883	37.251	37.901 I	32.859	39.853	37.739 I	32.534	34.485 I
32,737 32,858 34,686 35,062 33,997 32,208 32,208 32,208 32,208 33,184 31,72 36,762 31,857 37,576 38,715 33,184 31,72 33,672 32,045 31,882 32,208 33,184 32,696 33,599 43,106 40,341 33,672 38,072 38,072 37,251 32,858 34,485 38,064 34,648 34,223 33,021 32,696 33,347 38,227 31,557 36,6 34,16 37,901 32,859 32,696 37,414 33,834 33,347 37,576 34,323 37,081 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 32,208 33,064 34,649	24 640 1	20 064	24 640 1	20 520 1	22 021	41 40 1	34 074 1	22 271
32.37 32.88 34.485 33.022 33.998 32.208 32.208 35.95	34.040	30.004	34.040	39.320	33.021	41.40	34.9/4	32.3/1
33,184 31,72 36,762 31,857 37,576 38,715 33,184 31,72 33,672 32,045 31,882 32,208 33,184 32,696 33,509 43,106 40,341 33,672 38,878 39,528 34,811 38,226 37,739 33,022 39,04 33,021 32,636 33,347 38,227 31,557 36,66 34,161 34,648 34,223 33,3021 32,636 33,347 38,227 31,557 36,66 34,161 37,969 32,258 32,258 32,258 33,27 34,253 33,021 32,696 33,347 38,227 31,557 36,66 34,161 37,088 36,762 31,069 22,792 36,763 30,419 30,093 32,371 37,088 36,762 31,069 22,792 36,763 30,419 30,093 32,371 37,739 32,258 38,277 39,69 40,992 38,064 35,624 38,552 38,877 39,69 40,992 38,064 35,624 38,552 38,877 32,696 32,208 38,897 37,739 32,208 31,357 34,16 39,69 32,696 32,268 33,371 33,184 33,371 33,184 33,371 34,385 34,383 34	32 37 1	32 858 1	34 485 1	33 022 1	33 998 1	32 208 1	32 208 1	35 95 1
33.672	22 104	21.70	26.760	24 557 1	27.576	20.745	22.200	24 70
33.672 32.045 33.882 32.208 33.184 32.696 33.509 43.106 40.341 33.672 33.878 39.528 34.811 38.226 37.739 33.022 37.251 32.888 34.885 38.064 34.688 39.04 34.688 38.064 34.688 37.739 33.022 37.251 32.888 34.885 38.064 34.688 37.022 37.031 32.888 32.696 37.739 33.022 32.696 37.739 33.347 38.27 33.557 36.6 34.36 37.088 37.088 32.696 37.414 33.887 32.208 37.576 34.334 37.088 36.762 33.022 32.696 32.045 39.04 38.715 31.069 30.973 32.289 38.226 38.877 39.69 40.992 38.064 35.624 38.552 38.877 32.696 32.208 38.399 33.997 37.739 32.208 38.552 38.877 32.696 32.208 38.399 33.997 37.739 32.208 38.351 40.992 33.184 33.347 32.533 35.624 32.899 33.497 37.739 32.208 38.399 33.151 40.992 33.184 33.347 32.533 35.624 32.899 33.597 37.739 32.208 33.184 33.347 32.533 35.624 32.899 33.599 33.347 33.184 31.833 32.208 34.16 34.16 37.733 33.502 33.531 34.604 39.691 33.509 32.208 34.16 34.66	33.184	31./2	36./62	31.55/	3/.3/6	38./15	33.184	31./2
40.341	33.672	32.045	31.882 I	32.208	33.184 I	32.696	33.509 I	43.106 I
40.541 33.02 35.08 39.529 34.851 35.226 37.39 33.022 38.066 34.46 39.529 37.301 32.266 37.314 33.347 36.66 34.46 37.301 32.268 32.266 37.314 33.347 33.027 37.76 34.323 37.77 37.76 34.323 37.028 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 36.762 37.088 37.739 32.859 38.226 38.877 39.69 40.992 38.064 37.379 32.208 38.387 37.739 32.889 38.226 38.877 39.69 40.992 38.064 35.624 38.359 37.339 37.	40.044	22.010	20.002	20.500	24.044	22.030	27 720	22.000
39.04 39.04 33.022 37.251 32.858 34.485 38.064 34.648 34.632 37.901 32.859 32.696 37.414 33.834 33.347 37.576 34.323 31.069 32.208 32.066 37.414 33.834 33.347 37.576 34.323 31.069 32.208 32.046 31.232 31.72 32.208 38.064 31.334 37.088 36.762 31.069 28.792 36.763 30.419 30.093 32.371 37.739 32.859 38.226 38.877 39.69 40.992 38.064 35.624 38.552 38.877 39.69 40.992 38.064 35.624 38.552 38.877 39.266 32.045 38.399 39.997 37.739 32.208 31.597 37.339 33.514 33.514 40.983 31.597 37.5739 32.208 33.347 37.576 32.334 33.514 40.983 40.983 40.992 40.99	40.341	33.6/2	38.8/8	39.528	34.811	38.226	3/./39	33.022
34.323 33.021 32.696 37.414 38.334 33.347 38.227 31.557 36.6 34.16 37.901 32.896 37.414 33.834 33.347 38.228 32.208 32.208 32.208 32.208 32.208 32.2046 31.232 31.72 32.208 38.064 31.334 33.347 39.256 33.022 32.696 32.2045 39.04 38.715 31.069 30.907 37.739 32.855 38.226 38.877 32.696 32.208 38.877 39.69 40.992 38.064 33.5624 38.552 38.877 32.696 32.208 38.383 33.997 37.739 32.855 38.237 34.18 39.694 33.552 38.551 33.514 33.514 33.552 38.551 33.514 33.552 38.551 33.514 33.551	39 04 1	39 04	33 022 1	37 251	32 858 I	34 485 I	38 064 1	34 648 I
34.323 33.021 32.696 37.414 33.834 33.347 36.56 34.18 33.347 37.576 34.23 31.098 32.285 32.696 37.414 33.834 33.347 37.576 34.23 31.098 32.285 32.296 32.245 39.285 33.285 33.008	24 202	22 004	20.606	22 247	20.000	24 555	26.6	24.46
37,901 32,859 32,696 37,414 33,834 33,347 37,576 34,323 31,069 32,208 32,046 31,232 31,72 32,208 38,064 31,334 31,069 32,208 33,022 32,696 32,045 39,04 38,715 31,069 32,371 37,739 32,2859 38,226 38,877 39,69 40,992 38,064 35,624 38,352 38,877 32,696 32,208 38,389 33,997 37,739 32,208 31,395 31,557 34,166 32,208 38,389 33,397 37,739 32,208 31,395 31,557 34,166 39,662 32,696 32,334 33,51 40,992 38,064 33,461 33,484 33,481	34.323	33.021	32.090	33.34/	38.22/	31.33/	30.0	34.10
31,059 32,208 32,046 31,232 31,72 32,228 38,064 31,334 31,334 31,334 31,334 31,334 32,696 32,045 39,04 38,715 31,069 30,977 37,739 32,285 38,877 32,696 32,208 38,877 39,69 40,992 38,064 35,624 38,552 38,877 32,696 32,208 38,389 33,997 37,739 32,285 31,557 34,16 39,69 32,696 32,534 33,51 40,992 33,184 33,347 32,533 35,624 32,859 33,347 33,184 31,883 32,859 32,533 44,408 39,691 33,509 32,208 34,16 34,16 36,676 33,471 33,184 31,883 32,696 37,413 32,859 33,347 33,346 34,16	37 901 1	32 859	32 696 1	37 414 I	33 834 1	33 347 1	37 576 1	34 323 Ⅰ
31, 089 32, 208 32, 1046 31, 232 36, 762 31, 1069 28, 792 36, 763 30, 419 30, 293 32, 371 30, 256 33, 022 32, 636 32, 045 39, 04 38, 715 31, 069 30, 907 37, 739 32, 285 38, 226 38, 877 39, 69 40, 992 38, 064 31, 524 31, 395 31, 395 31, 395 32, 208 38, 38, 389 33, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 38, 389 32, 397 37, 739 32, 208 32, 398 32, 398 33, 481 34, 481 34	24 060	20.009	20.016	24 020	24 70	20.000	20.064	24 204
37.088 36.762 31.069 28.792 36.763 30.419 30.093 32.371 37.739 32.859 38.226 38.877 39.69 40.992 38.064 35.624 38.875 38.525 38.877 39.69 40.992 38.064 35.624 38.355 38.552 38.877 32.696 32.208 38.389 33.997 37.739 32.208 31.395 31.557 34.16 39.69 32.696 32.534 33.51 40.992 38.341 33.347 33.184 31.883 32.859 32.533 44.408 39.691 33.559 32.208 34.16 34.16 34.16 34.16 34.16 34.16 34.16 34.16 34.16 34.16 34.811 39.696 32.534 33.599 33.347 33.51 33.51 33.509 32.208 34.16 34.16 34.16 34.16 34.16 34.811 39.696 37.413 32.859 33.021 39.203 40.016 33.346 39.854 34.811 39.04 38.39 32.045 37.413 37.576 32.245 37.251 39.853 33.672 32.371 37.901 32.208 32.371 34.485 33.184 33.835 33.672 32.371 37.901 32.208 32.371 34.485 33.184 33.835 32.859 33.184 33.672 32.371 34.485 33.184 33.835 32.859 33.184 33.672 32.371 33.184 33.835 32.859 33.184 33.672 32.371 33.184 33.835 32.859 33.184 33.672 32.371 33.184 33.835 32.859 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 36.926 34.481 39.853 32.650 33.3184 33.672 32.371 33.184 38.399 38.552 35.461 39.208 33.346 32.208 33.552 35.461 39.208 33.346 32.208 33.552 33.344 33.345 33.672 32.371 33.184 38.389 38.552 35.461 39.208 33.599 33.021 32.208 33.599 33.021 32.208 33.599 33.021 33.346 32.208 33.599 33.021 32.208 33.599 33.021 32.208 33.599 33.021 33.347 33.184 33.347 33.184 33.347 33.184 33.347 33.184 33.347 33.184 33.347 33.184 33.347 33.184 33.347 33.346 33.347 33.346 33.347 33.346 33.347 33.346 33.347 33.347 33.346 33.347 33.347 33.347 33.346 33.347 33.347 33.347 33.347 33.347 33.347 33.347 33.347 33.347 33.347 33.347	31.069	32.208	32.046	31.232	31./2	32.208	38.064	31.394
30.256 33.022 32.696 32.045 39.04 38.715 31.069 30.907 37.739 32.859 38.226 38.877 39.69 40.992 38.064 35.624 38.552 38.877 32.696 32.208 38.389 33.997 37.739 32.208 31.355 31.557 34.16 39.69 32.696 32.534 33.51 40.992 33.184 33.347 32.533 35.624 32.859 33.347 33.184 31.833 32.859 33.347 33.184 31.833 32.859 33.347 33.184 31.833 32.859 33.347 33.184 31.833 32.859 33.347 33.184 31.833 32.859 33.347 33.184 31.833 32.696 37.413 32.859 33.509 33.510 32.208 34.16 34.16 37.738 33.022 33.835 33.509 33.511 33.46 39.851 32.696 37.413 37.576 33.346 39.84 39.831 33.672 38.204 37.413 37.576 32.045 37.251 37.901 32.208 34.16 39.851 33.672 33.367 33.3	37 088 1	36 762	31 069 1	28 792 1	36 763 1	30 419 I	30 093 1	32 371 I
30.256 33.022 32.696 32.045 39.04 38.715 31.069 30.907 37.739 32.859 38.266 32.208 38.389 33.997 37.739 32.208 38.552 38.877 32.696 32.208 38.389 33.997 37.739 32.208 33.3141 33.547 32.533 35.624 32.859 32.534 33.511 40.992 33.347 33.164 33.347 32.533 35.624 32.859 33.347 33.164 33.347 32.533 35.624 32.859 33.347 33.164 31.883 33.509 32.208 33.347 33.164 31.883 33.509 32.208 33.347 33.164 31.883 33.509 32.208 33.347 33.164 31.883 33.509 32.208 33.346 33.509 3	37.000	30.702	31.005	20.752	30.703	30.113	30.033	32.371
37.739 32.859 38.226 38.877 39.69 40.992 38.064 35.624 31.395 31.395 31.557 34.16 39.69 32.208 38.389 33.997 37.739 32.208 31.395 31.557 34.16 39.69 32.696 32.534 33.51 40.992 38.3184 33.347 33.184 31.883 32.859 32.533 44.408 39.691 33.509 32.208 34.16 34.16 34.16 34.16 34.16 32.696 37.413 32.859 33.3021 39.203 40.016 33.346 39.854 34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 31.882 34.811 39.853 33.509 32.208 34.416 39.854 37.516 32.045 37.251 37.576 32.045 37.576 37.57	30.256	33.022	32.696	32.045	39.04	38.715	31.069	30.907
38.552 38.877 32.696 32.208 38.399 33.097 37.739 32.208 31.395 31.557 34.16 39.699 32.696 32.534 33.51 40.992 33.184 33.347 32.533 35.624 32.859 33.347 33.184 31.883 32.859 33.208 34.16 37.738 32.208 34.16 37.738 33.208 34.16 34.16 37.738 33.202 33.855 33.509 33.509 33.51 32.696 37.413 37.604 37.413 32.859 33.021 39.203 40.116 33.346 33.851 34.613 34.61 37.413 37.576 33.822 33.826 39.854 37.211 34.42 34.821 34.	37 739 1	32 859	38 226 1	38 877 1	39 69 1	40 992 1	38 064 1	35 624 1
38.552 38.877 32.696 32.208 38.399 33.397 37.739 32.208 33.347 33.347 33.347 32.533 35.624 32.859 32.353 33.441 31.883 32.859 32.533 34.408 39.691 33.509 32.208 34.16 34.16 34.16 36.763 30.906 34.16 37.738 33.022 33.355 33.509 33.551 32.696 37.413 32.859 33.021 39.203 40.016 33.346 33.346 33.551 33.509 33.51 33.461 34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 34.821 39.853 33.672 32.371 37.901 32.208 32.371 34.485 33.885 33.835 33.672 32.371 37.901 32.208 32.371 34.485 33.184 33.835 32.208 34.811 39.853 32.208 36.926 37.313 37.576 31.882 34.811 39.853 32.371 37.901 32.208 32.371 34.485 33.184 33.672 32.371 37.576 31.882 32.345 41.155 37.576 31.882 32.208 36.926 34.486 32.208 33.552 35.461 34.811 33.672 32.208 33.346 32.208 33.552 33.184 33.672 32.208 33.346 32.208 33.552 33.652 33.346 32.208 33.346 32.208 33.552 33.346 33.202 32.534 34.688 40.016 32.371 33.184 38.399 38.714 32.046 33.347 33.022 32.533 30.599 38.714 32.046 33.347 33.022 32.533 30.744 32.208 33.346 41.806 33.346 32.506 37.902 32.859 33.672 30.907 30.744 32.208 33.398 38.714 32.046 33.347 30.907 30.744 32.208 31.557 37.414 31.882 32.208 30.907 30.744 32.208 31.557 37.414 31.882 32.208 31.557 37.414 31.882 32.208 31.557 37.414 31.882 32.208 31.557 37.414 31.882 32.208 31.557 37.414 31.882 32.371 37.088 31.72 37.088 31.72 37.088 31.72 37.088 31.557 37.414 31.882 32.371 31.699 38.226 32.371 31.699 38.226 32.371 31.699 38.226 32.371 31.699 38.226 32.371 31.699 38.226 32.371 31.699 38.226 32.371 31.699 31.557 31.822 32.696 31.557 31.322 32.696 31.557 31.322 32.696 31.557 31.322 32.696 31.557 33	37.733	32.033	30.220	30.077	33.03	10.552	30.001	33.021
31.395 31.557 34.16 39.69 32.696 32.534 33.51 40.992 33.184 33.347 32.533 35.624 32.859 33.347 33.184 31.883 32.859 32.533 44.408 39.691 33.509 32.208 34.16 3	38.552	38.877	32.696	32.208	38.389	33.997	37.739	32.208
33.184 33.347 32.533 35.624 32.859 33.347 33.184 31.883 32.859 32.533 34.408 39.691 33.509 32.208 34.16	31 305 1	31 557	3/1 16 1	30 60 1	32 696 1	32 534 1	33 51 1	40 992 I
33.184 33.44 32.533 35.624 32.859 33.347 33.184 31.883 32.859 32.533 44.408 39.691 33.509 32.208 34.16	31.333	31.337	34.10	37.07	32.030	32.334	33.31	40.332
32.859 32.533 44.408 39.691 33.509 32.208 34.16 34.16 34.16 36.763 30.906 34.16 37.738 33.022 33.835 33.509 33.51 32.696 37.413 32.859 33.021 39.203 40.016 33.346 39.854 34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 34.811 39.853 33.672 32.371 34.485 33.184 33.835 32.859 33.184 37.901 32.208 32.37 34.485 33.184 33.835 32.859 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 36.926 34.486 32.208 31.558 38.552 35.461 33.184 33.302 32.353 34.648 40.016 32.371 33.184 33.389 38.552 35.461 33.184 33.302 32.233 33.346 41.806 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.253 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.371 33.997 30.419 30.974 30.974 30.419 31.232 37.088 31.557 37.414 31.882 32.371 30.418 30.266 33.397 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.371 30.418 30.266 32.371 33.997 30.419 31.232 37.088 31.557 37.414 31.882 32.371 30.418 30.266 30.744 32.208 31.882 32.696 33.509 34.16 30.907 30.419 31.232 37.088 31.557 37.414 31.882 32.371 30.418 30.266 32.371 30.419 31.232 37.088 31.557 37.444 32.208 31.857 37.088 31.557 37.444 32.208 31.882 32.696 33.509 34.16 30.907 31.883 31.72 30.907 31.883 31.72 30.907 31.882 32.208 31.557 37.088 31.557 37.088 31.557 37.088 31.557 37.088 31.557 37.088 31.557 37.088 31.523 37.568 37.568 37.568 37.576 33.347 33.485 33.998 33.202 33.855 33.855 33.899 33.202 33.855 33.899 33.369 33.202 33.855 33.899 33.369 33.202 33.855	33.184	33.347	32.533	35.624	32.859	33.347	33.184	31.883
36.763 30.906 34.16 37.738 33.002 33.835 33.509 33.51 32.696 37.413 32.859 33.021 39.203 40.016 33.346 39.854 34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 34.811 39.853 33.672 32.371 37.901 32.208 32.37 34.485 33.184 33.835 32.859 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 36.926 34.486 32.208 31.558 38.552 33.184 37.576 31.884 37.901 33.3184 38.399 38.552 35.461 33.184 37.901 31.588 38.346 32.208 33.184 37.901 33.021 33.021 32.331 33.346 32.208 33.184 37.901 31.558 38.346 32.208 33.346 32.208 33.346 32.208 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.398 38.714 32.046 33.347 30.907 30.744 32.534 30.907 30.744 32.534 30.907 30.419 37.901 32.208 33.471 33.483 31.72 32.534 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.371 30.907 30.418 30.256 30.744 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 31.557 36.762 39.528 32.371 30.419 31.232 31.395 30.907 31.833 31.72 30.419 31.232 37.088 31.557 37.414 31.882 32.696 33.347 33.696 33.533 30.419 31.232 37.568 33.557 37.414 31.882 32.696 33.533 30.419 31.535 39.528 31.557 37.414 31.882 32.696 33.533 30.419 31.535 39.528 31.557 37.414 31.882 32.696 33.573 30.419 31.535 30.419 31.232 31.335 30.419 31.232 31.335 30.419 31.232 31.335 30.419 31.232 31.335 31.72 31.395 31.72 31.395 31.72 31.	32 859 1	32 533	44 408 1	39 691 1	33 509 1	32 208 1	34 16 1	34 16 1
36.763 30.906 34.16 37.788 33.022 33.835 33.596 39.554 34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 34.811 39.854 33.672 32.371 37.901 32.208 32.37 34.485 33.184 33.855 32.859 33.184 33.672 32.208 32.371 33.996 34.323 31.882 32.045 31.395 33.184 33.5756 31.882 32.208 36.926 34.486 32.208 31.558 33.552 35.461 33.184	32.037	32.333	11.000	33.031	33.303	32.200	24.10	24.10
32,696 37,413 32,859 33,021 39,203 40,016 33,346 39,854 34,811 39,04 38,39 32,045 37,413 37,576 32,045 37,211 39,834 34,322 38,226 39,69 34,323 31,882 31,882 34,811 39,853 32,672 32,371 37,901 32,208 32,377 34,485 33,184 33,835 32,859 33,184 33,672 32,696 31,395 32,045 41,155 37,576 31,882 32,208 36,926 34,486 32,208 31,558 38,552 33,184 33,672 32,696 31,395 32,045 41,155 37,576 31,882 32,208 36,926 34,486 32,208 31,558 38,552 33,184 33,022 32,534 34,648 40,016 32,371 33,184 38,389 38,552 35,461 33,194 37,901 31,558 33,346 41,806 33,346 32,696 37,902 33,022 32,533 40,504 32,208 33,998 38,714 32,046 33,347 30,907 30,744 32,534 30,906 30,419 37,901 32,045 32,208 32,288 33,672 30,907 30,419 31,232 37,088 31,557 37,414 31,882 32,534 30,744 32,208 31,557 37,414 31,882 32,533 30,419 30,744 32,208 31,557 37,414 31,882 32,533 30,419 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 33,347 30,582 32,533 30,419 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 32,208 31,882 32,534 30,744 31,883 31,72 37,088 31,557 36,762 39,528 32,533 30,419 30,744 31,883 31,557 36,762 39,528 31,557 36,762 39,528 31,537 36,925 36,744 39,528 31,557 36,762 39,528 31,833 31,72 30,418 30,419 30,419 31,232 31,232 32,696 32,371 30,418 30,419 30,419 31,232 31,232 32,696 32,371 30,418 30,419 31,232 31,232 32,696 32,371 31,883 31,72 31,395 31,222 32,696 32,371 31,883 31,72 31,395 31,232 32,696 32,371 31,882 32,371 31,882 32,551 31,557 31,72 32,045 32,371 31,882 32,596 32,371 31,882 32,596	36.763	30.906	34.16	37.738	33.022	33.835	33.509	33.51
34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 34.811 39.853 33.672 32.371 37.901 32.208 32.37 34.485 33.184 33.835 32.859 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 36.926 34.486 32.208 31.558 38.552 32.534 34.648 40.016 32.371 33.184 38.389 38.552 35.461 33.184 37.901 31.558 33.346 41.806 33.398 38.714 32.046 37.902 33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 32.559 33.672 30.907 31.883 31.72 32.534 30.906 30.419 37.901 32.045 32.208 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 31.232 31.232 29.605 30.744 31.883 30.003 38.226 32.533 30.419 31.232 31.322 29.605 30.744 31.883 30.093 38.226 32.533 30.419 31.232 31.322 29.605 30.744 31.883 30.093 38.226 32.533 30.419 31.232 31.322 29.605 30.744 31.883 30.093 38.226 32.533 32.533 32.533 32.533 32.533 32.533 32.535 32.535 32.595 30.744 31.883 30.093 38.226 33.537 30.419 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 31.232 32.696 33.597 33.697 33.697 33.697 33.697 33.697	32 696 1	37 /13	32 850 i	33 N21 i	30 203 i	40 016 i	33 3/6 i	30 85/ i
34.811 39.04 38.39 32.045 37.413 37.576 32.045 37.251 43.92 34.322 38.226 39.69 34.323 31.882 31.882 34.811 39.853 33.672 32.371 37.901 32.208 32.37 34.485 33.184 33.835 32.859 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 36.926 34.486 32.208 31.558 38.552 32.534 34.648 40.016 32.371 33.184 38.389 38.552 35.461 33.184 37.901 31.558 33.346 41.806 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 32.859 33.672 30.907 31.883 31.72 32.534 30.744 33.347 30.582 32.533 30.419 30.744 32.208 31.882 32.696 37.514 31.557 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.266 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.882 32.371 30.418 30.256 30.744 39.528 31.557 36.762 39.528 31.882 32.533 32.534 32.696 32.371 33.2696 32.371 33.2696 33.347 33.226 32.371 33.2696 33.347 33.2696 33.347 33.2696 33.347 33.2696 33.347 33.2696 33.3598 33.371 33.2696	32.030	37.413	32.033	33.021	33.203	40.010	33.340	33.034
43,92 34,322 38,226 39,69 34,323 31,882 31,882 34,811 39,853 33,672 32,371 37,901 32,208 32,37 34,485 33,184 33,835 32,859 33,184 33,672 32,686 31,395 32,045 41,155 37,576 31,882 32,208 36,926 34,486 32,208 31,558 38,552 35,461 33,184 37,901 31,558 33,346 41,806 33,346 32,696 37,902 33,022 32,533 40,504 32,208 33,346 32,696 37,902 30,907 30,744 32,534 30,906 30,419 37,901 32,045 32,208 32,859 33,672 30,907 31,883 31,72 32,534 30,406 31,484 30,907 30,419 30,744 32,208 31,882 32,534 30,744 32,208 31,857 37,414 31,882 30,582 32,533	34.811	39.04	38.39	32.045	37.413	37.576	32.045	37.251
39.853 33.672 32.371 37.901 32.208 31.395 32.045 41.155 37.576 31.882 32.208 33.184 33.672 32.696 31.395 32.045 41.155 37.576 31.882 32.208 33.184 33.672 32.696 31.395 32.045 41.155 38.552 32.534 34.648 40.016 32.371 33.184 38.389 38.552 35.461 33.184 37.901 31.558 33.346 41.806 33.346 32.208 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.398 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 32.535 30.419 37.901 32.045 32.208 33.347 30.907 30.419 30.907 31.883 31.72 32.534 30.744 33.347 30.907 30.419 30.744 32.208 31.882 32.533 30.419 30.744 32.208 31.882 32.533 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 33.509 34.16 32.371 30.418 30.256 30.744 33.228 31.557 36.762 39.528 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 30.418 30.256 30.744 39.528 34.16 30.907 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.72 30.495 32.371 30.997 31.395 32.593 31.557 33.347 33.347 33.347 33.37	13 00 i	3/1 3/2	30 226 1	30 60 1	34 323 1	31 882 i	31 882 i	3/1 2/11
39,853 32,859 33,184 33,672 32,208 32,208 31,395 32,045 41,155 37,576 31,882 32,208 36,926 34,486 32,208 31,558 38,552 32,534 34,648 40,016 32,371 33,184 38,389 38,552 35,461 33,184 37,901 31,558 33,346 41,806 33,346 32,208 37,902 32,533 40,504 32,208 33,998 38,714 32,046 33,347 30,907 30,744 32,534 30,906 30,419 37,901 32,045 32,208 33,347 30,582 32,533 30,419 31,232 37,088 31,557 37,414 31,882 30,907 30,419 31,204 31,882 32,533 30,419 31,232 37,088 31,557 37,414 31,882 32,533 30,419 31,332 37,088 31,557 37,414 31,882 32,533 30,419 31,395 34,16 32,533 31,72 33,041 32,046 33,509 34,16 32,533 31,72 37,088 43,107 32,696 39,528 38,226 32,371 30,418 30,256 30,744 39,528 34,16 30,907 29,768 31,883 31,72 30,418 30,256 30,744 39,528 34,16 30,907 29,768 31,883 31,72 30,418 30,256 30,744 39,528 34,16 30,907 31,883 31,72 30,418 30,256 30,744 39,528 34,16 30,907 31,883 31,72 30,418 30,256 30,744 39,528 34,16 30,907 31,883 31,72 30,418 30,256 30,744 39,528 31,557 30,744 31,883 31,72 30,418 30,256 30,744 39,528 31,557 30,744 31,883 31,72 30,418 30,256 30,744 39,528 31,557 30,907 31,069 36,763 37,901 32,045 31,557 31,72 36,437 30,907 31,039 31,232 32,331 30,907 31,039 36,266 33,347 38,256 33,357 31,322 33,835 31,232 32,533 30,907 31,232 33,835 31,232 33,835 31,321 33,898 31,72 31,321 32,696 31,557 31,72 36,66 31,557 31,72 36,66 31,557 31,72 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,322 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395 31,395	77.74	57.522	30.220	37.07	37.323	J±.002	31.002	24.011
33,835 32,859 33,184 33,672 32,696 31,395 32,045 41,155 37,576 31,882 32,208 36,926 34,486 32,208 31,558 38,552 35,461 32,534 34,648 40,016 32,371 33,184 38,389 38,552 35,461 33,184 37,901 31,558 33,346 41,806 33,346 32,696 37,902 33,022 32,533 40,504 32,208 33,998 38,714 32,046 33,347 30,907 30,744 32,534 30,906 30,419 37,901 32,045 32,208 32,859 33,672 30,907 31,883 31,72 32,534 30,744 31,882 30,907 30,419 30,744 31,882 32,533 31,72 37,088 31,557 37,414 31,882 32,533 31,72 37,088 43,107 32,696 39,528 38,226 32,533 32,371 30,418 30,256 30,744 39,528 31,557 36,625 39,528 31,883 31,72 30,419 31,232 37,088 31,557 36,625 39,528 32,371 30,418 30,256 30,744 39,528 31,557 36,625 39,528 31,883 31,72 30,419 31,232 37,088 31,557 36,625 39,528 31,883 31,72 30,419 31,232 31,232 29,605 30,744 31,883 30,093 38,226 32,533 33,545 33,347 33,245 33,347 33,246 33,347 33,246 33,347 33,246 33,347 34,346 32,347 34,446	39.853	33.672	32.371	37.901	32.208	32.37	34.485	33.184
31.576 31.882 32.208 36.926 34.486 32.208 31.558 38.552 35.461 34.486 32.371 33.184 38.389 38.552 35.461 34.883 33.022 32.533 40.504 32.208 33.988 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.907 31.883 31.72 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 31.335 39.528 33.577 36.762 32.578 36.762 32.578 36.762 32.371 30.907 30.419 31.332 37.088 31.557 37.414 31.882 32.533 30.419 31.335 39.528 38.226 32.371 30.907 30.418 30.256 30.744 32.208 31.322 37.088 31.557 37.414 31.882 32.533 30.419 31.335 39.528 38.226 32.371 30.418 30.256 30.744 39.528 34.16 30.907 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 31.883 31.52 30.419 31.332 37.088 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 31.883 31.52 30.419 31.232 37.088 31.557 36.762 39.528 31.883 31.52 30.419 31.232 31.232 29.605 30.744 31.883 31.322 32.533 32.535 33.347 33.226 33.337 33.266 33.337 33.266 33.337 33.347 33.266 33.337	રર ઘરદ i	32 850	33 18/ i	33 672 1	32 696 1	31 395 1	32 045 1	41 155 i
31.576 31.882 32.208 34.486 32.208 31.558 33.552 35.461 32.371 33.184 38.389 38.552 35.461 33.184 37.901 31.558 33.346 41.806 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 33.978 34.16 32.534 30.907 31.883 31.72 32.534 30.744 33.347 30.907 31.883 31.72 32.534 30.744 33.347 33.416 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.533 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.762 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 31.3557 30.907 29.768 31.883 31.72 30.418 30.256 30.744 39.528 31.3557 30.907 31.883 30.93 38.226 32.533 32.533 32.533 27.653 31.395 30.907 31.232 31.883 31.325 30.907 31.232 31.325	33.033	32.033	33.101	33.072	32.030	31.333	32.013	11.155
32.534 34.648 40.016 32.371 33.184 38.389 38.552 35.461 33.3184 37.901 31.558 33.346 41.806 33.346 32.696 37.902 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 33.672 30.907 31.883 31.72 32.534 30.907 31.883 31.72 32.534 30.907 31.882 32.533 30.419 31.232 37.088 31.557 37.414 31.882 32.696 33.509 34.16 32.533 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.82 32.696 33.3509 34.16 30.907 29.768 31.883 31.822 32.696 33.509 34.16 30.907 29.768 31.883 31.822 32.696 33.509 34.16 30.907 31.883 31.835 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.696 33.0907 31.232 33.835 33.232 33.672 36.925 39.853 31.557 31.72 32.696 32.371 38.226 33.347 38.552 38.714 32.045 37.576 3	37.576	31.882	32.208	36.926	34.486	32.208	31.558	38.552
33.184 37.901 31.558 33.346 41.806 33.346 32.696 37.902 33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 33.347 30.585 33.672 30.907 31.883 31.72 32.534 30.744 33.347 30.582 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 33.232 31.232 29.605 30.744 31.883 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.696 32.371 38.226 33.371 38.226 33.571 33.347 38.226 33.575	32 534 i	34 648	40 016 1	32 371 1	33.184	38.389	38.552 I	35 461 1
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33.022 32.533 40.504 32.208 33.998 38.714 32.046 33.347 30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 32.859 33.672 30.907 31.883 31.72 32.534 30.744 33.347 30.582 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 32.533 27.653 31.395 30.907 31.022 33.835 31.232 32.696 31.557 36.925 31.72 32.696 32.371 30.2045 31.72 32.696 32.045 32.371 30.222 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 30.222 33.835 31.232 32.696 33.347 38.552 38.714 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.72 32.696 32.045 37.576 35.624 34.323 39.907 43.432 33.998 31.72 31.395 30.907 31.882 229.523 31.72 33.347 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.578 37.576 37.576 37.576 37.576 37.576 37.576 37.57	33.184	37.901	31.338	33.340	41.800	33.340	32.090	37.902
30.907 30.744 32.534 30.906 30.419 37.901 32.045 32.208 32.859 33.672 30.907 31.883 31.72 32.534 30.744 33.347 30.907 30.419 31.232 37.088 31.557 37.414 31.882 32.696 33.509 34.16 32.533 30.744 33.347 32.533 31.72 37.088 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 33.528 34.16 30.907 29.768 31.883 31.72 30.418 30.256 30.744 33.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 32.045 32.371 38.226 32.371 38.226 32.371 38.226 33.598 31.72 32.696 32.045 32.371 38.226 32.371 38.226 33.598 31.72 36.437 30.907 31.822 33.835 31.232 33.835 31.232 33.835 31.557 31.72 32.696 32.045 32.371 38.226 33.696 33.598 33.226 33.347 33.998 39.202 33.835 32.859 38.899 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72	33.022	32.533	40.504	32.208	33.998	38.714	32.046	33.347
30.907 30.744 32.534 30.907 31.883 31.72 32.534 30.744 33.347 30.582 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 31.883 31.72 32.534 30.419 31.232 37.088 31.557 37.414 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.232 33.835 31.232 32.696 31.557 36.762 39.528 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.66 37.576 37.576 37.273 32.646 31.72 32.533	20.022	20.000	20.501	20.006	20.330	27 001	22.010	20.017
32.859 33.672 30.907 31.883 31.72 32.534 30.744 33.347 30.582 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.383 30.931 38.226 32.533 32.533 27.653 31.395 30.907 31.232 33.835 31.232 32.696 32.371 38.226 33.672 36.925 39.853 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 35.624 34.323 39.907 43.432 33.898 31.72 31.395 30.907 31.395 31.72 32.045 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72 31.3041 31.555 31.72 31.395 31.3041 31.3041 30.419 30.582 31.72 31.322 31.3347 31.07	30.907	30./44	32.534	30.906	30.419	3/.901	3Z.U45	32.208
30.582 32.533 30.419 31.232 37.088 31.557 37.414 31.882 30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.822 31.232 29.605 30.744 31.883 31.322 33.237 30.419 31.232 31.232 29.605 30.907 31.232 33.335 32.533 32.533 27.653 31.395 30.907 31.232 33.835 31.232 32.696 32.533 32.533 32.533 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 37.739 32.696 31.72 33.835 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.899 49.613 37.576 35.624 34.323 30.419 30.582 31.72 37.088 43.595 36.6 37.576 37.	32.859	33.672	30.907	31.883	31.72	32.534	30.744	33.347
30.907 32.533 31.72 37.088 31.822 32.696 32.533 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.023 33.835 33.532 33.672 36.925 33.557 31.72 32.696 32.371 38.226 33.835 33.672 36.925 39.853 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 35.624 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.72 31.72 32.046 31.72 31.395 31.72 31.72 31.72 31.395 31.72 31.72 31.72 31.72 31.72 31.72 31.72 31.72 31.72 31.72 31.395 31.72 31.72 31.395 31.72 31.72 31.72 31.395 31.72 31.327 31.325 31.72 31.325 31.325 31.72 31.325 31.72 31.325 31.225 31.225 31.2	20 500	20 522	20 440	34 020	27 000	24 [[7]	27 444	24 000
30.907 30.419 30.744 32.208 31.882 32.696 33.509 34.16 32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.577 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.232 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.322 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 31.72 33.021 33.347 33.998 39.202 33.835 32.859 38.899 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.72 31.395 31.72 3	30.582	32.533	30.419	31.232	31.088	31.55/	3/.414	31.882
32.533 31.72 37.088 43.107 32.696 39.528 38.226 32.37 36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 31.557 36.762 39.528 31.833 31.72 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.521 33.3021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.72 31.325 31.72 31.72 31.395 31.72 31.395 31.72 31.72 31.395 31.72 31.72 31.395 31.72 31.3041 31.557 31.72 31.72 31.395 31.72 31.3041 31.505 31.72 31.3041 31.505 31.72 31.304 31.507 32.533	30.907	30.419	30.744	32.208	31.882	32.696	33.509	34.16
32.353 31.72 37.086 43.107 32.696 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.72 32.696 32.045 32.371 38.226 33.672 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.379 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.72 31.395 31.576 35.624 34.323 30.419 30.582 31.72 37.088 43.555 36.66 37.576 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	20.507	24 72	27 000	42 407	22 (00	20 500 1	20 226	20 27
36.925 76.779 33.997 31.395 39.528 31.557 36.762 39.528 32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.903 38.226 32.533 32.533 27.653 31.395 30.907 31.232 33.835 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.533 32.696 31.395 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 33.321 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.395 31.72 31.323 31.72 31.333 31.07 32.533	32.533	31./2	3/.088	43.10/	3∠.696	39.528	38.ZZ6	32.31
32.371 30.418 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.232 33.835 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 22.9523 43.269 33.347 38.552 38.714 32.045 37.576 37.379 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72 31.72 31.375 31.72 31.72 31.395 31.72 31.72 31.395 31.72 31.72 31.375 31.72 31.72 31.375 31.72 31.375 31.72 31.375 31.72 31.375 32.533	36 925 1	76 779	33 997 1	31 395 1	39.528	31.557 I	36.762	39 528 1
30.31 30.416 30.256 30.744 39.528 34.16 30.907 29.768 31.883 31.32 30.907 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 22.653 31.395 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 31.696 31.72 33.347 33.921 33.998 39.202 33.835 32.859 38.899 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.72 31.395 31.72 31.72 31.72 31.395 31.72 31.72 31.375 31.72 31.375 31.72 31.395 31.576 37.576	20.223	20 440	20.557	20 744	20 520	24.46	20.702	20.320
31.883 31.72 30.419 31.232 31.232 29.605 30.744 31.883 30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 37.576 37.379 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.07 32.533 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	32.371	30.418	30.256	30.744	39.528	34.16	30.907	29.768
30.093 38.226 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 32.696 32.045 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 31.557 39.854 37.901 31.882 229.523 43.269 33.347 33.921 33.935 39.853 31.557 39.854 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.89 49.613 37.576 37.576 37.576 37.576 37.576 37.576 37.576 37.576 31.72 31.395 31.72 31.72 31.72 31.395 31.72 31.72 31.72 31.395 36.66 37.576 33.347 30.419 30.582 31.72 31.72 33.347 31.07 32.533	31 883 i	31 72	30 419 i	31 232 1	31 232 1	29 605 1	30 744 1	31 883 i
30.995 38.226 32.533 32.533 27.653 31.395 30.907 31.069 36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.395 31.72 31.375 31.72 31.375 33.347 30.419 30.582 31.72 33.347 31.07 32.533	31.003	31.72	30.113	21.222	07.202	23.000	20.711	31.003
36.763 37.901 32.045 31.72 36.437 30.907 31.232 33.835 31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 37.379 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.233 30.907 43.432 33.998 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	30.093	38.226	32.533	32.533	27.653	31.395	30.907	31.069
31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.899 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.72 31.375 31.72 31.375 31.72 31.375 31.72 31.375 31.72 31.375 31.72 31.375 32.533	36 762	37 901	32 0/15	31 72 i	36 137 i	30 an7 i	31 232 i	32 825 i
31.232 32.696 31.557 31.72 32.696 32.045 32.371 38.226 33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	20./03	31.5UI	24.043	31.74	20.427	30.307	J±.434	22.022
33.672 36.925 39.853 31.557 39.854 37.901 31.882 229.523 43.269 33.347 38.552 38.714 32.045 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	31.232	32.696	31.557	31.72	32.696	32.045	32.371	38.226
31.72 33.021 35.035 37.031 37.039 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 31.375 35.666 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.72 36.66 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	22 672	36 025	30 053 1	21 557 1	20 054	27 001	21 002 1	220 522 1
43.269 33.347 38.552 38.714 32.045 37.576 37.739 32.696 31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72 31.72 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	33.072	30.923	39.633	31.337	39.034	37.901	31.002	229.023
31.72 33.021 33.998 39.202 33.835 32.859 38.389 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72 31.72 32.046 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	43.269	33.347	38.552	38.714	32.045	37.576 I	37.739	32.696
31.72 35.021 35.396 39.202 33.855 32.859 49.613 37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 34.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	21 70	22 024	22 000	20 202 1	22 025 1	22 050 1	20 200 1	40 613
37.576 35.624 34.323 30.907 43.432 33.998 31.72 31.395 31.72 31.72 32.046 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	31./2	33.021	33.998	39.202	۱ دوه.دد	J∠.8J9	۱ ۲۵۰.3	49.013
31.72 31.72 32.046 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	37 576 1	35.624	34.323	30.907	43.432	33.998	31.72	31.395 L
31.72 31.72 32.046 31.72 31.72 37.088 43.595 36.6 37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533		55.027	31.323	24 72	24 72	27 000	42 505	01.000
37.576 33.347 30.419 30.582 31.72 33.347 31.07 32.533	21 70							
	31.72	31.72	32.046	31.72	31.72	37.088	43.595	36.6
	31.72 37.576	31.72 33.347	30.419	30.582	31.72	37.088	43.595 31.07	36.6

32.696 I	32.37	32.859	31.069 I	32.696	33.347	39.203 I	40.016 I
33.672	37.088	37.901 i	33.672	40.179	37.738 i	32.696 i	37.576 i
32.534	32.859	37.088	32.859	37.414	33.997	33.346	34.811
31.557	34.485	33.184	32.533	31.394	31.72	30.744	30.093
30.907	32.371	30.093	29.93	31.72	30.581	30.744	33.022
32.696	38.552	37.25	31.395	39.203	37.413	32.533	31.882
30.744	29.768	36.112	36.112	35.461	34.973	31.069	34.81
34.486	40.666	32.859	38.226	39.854	33.834	41.806	38.227
32.371	40.341	34.973	39.366	39.69	32.046	38.226	40.504
	37.901		33.51	39.09	38.877		
33.184		40.667				32.371	31.883
145.261	45.71	34.486	32.859	38.552	31.557	34.323	40.83
32.533	30.744	35.624	30.906	29.443	28.792	35.136	30.256
37.25 I	31.069	30.581 I	35.136 I	30.093 i	33.509 i	36.763 i	29.443 i
36.926	36.112	29.28	36.6	29.931	29.768 i	40.667	45.872
40.342	43.595	39.854	39.528	42.944	43.269	39.366	41.806
38.715	40.83	42.944	40.992	38.226	40.179	40.342	39.202
40.342	38.878	38.878	41.642	38.389	40.504	40.667	33.021
33.509	39.528	37.901	36.925	39.04	37.739	39.203	31.883
31.069	38.715	33.022	30.581	35.298	32.858	30.744	36.112
31.07	30.419	36.275	30.744	30.906	36.6 i	30.744	29.117
45.547 I	31.069 i	31.232	40.504	39.528	40.178	40.992	41.805 i
39.69	39.365	39.365	44.408	42.781	41.155	38.715	40.666
40.667	38.714	40.341	40.667	40.992	40.016	39.366	40.341
						39.366	
33.184	33.997	40.992	33.184	33.835	38.552	32.208	32.696
39.203	32.696	30.093	37.251	31.395	30.906	35.624	29.605
30.744	45.221	34.16	36.6	44.083	32.208	33.347	36.6
31.069 j	30.581	36.112	32.208	32.046	36.6 i	29.443	38.552
40.992 i	40.016	41.48	37.576 i	39.854	41.48	39.203	39.203 i
41.642	39.203	38.552	43.432	39.04	38.227	40.83	39.528
43.757	43.757	38.878	38.064	44.733	34.973	34.811	41.642
39.202	33.51	40.992	42.131	38.715	40.83	32.045	30.256
36.763	30.093	30.093	36.437	29.931	28.792	37.251	29.605
44.571	36.6	29.118	38.064	31.883	30.744	41.806	32.371
29.768	38.227	32.37	31.558 I	37.251	39.528	40.016	40.504
40.667	38.064	40.016	32.534	40.667	41.48	35.136	33.347
41.968	33.834	39.691 i	40.341	39.853	38.064	41.155	39.04
37.738	39.365	33.672	32.371	47.662	42.294	39.528	34.323
34.81	42.131	38.389	31.07	36.6	32.046	33.51	39.365
30.581	30.581	37.251	33.347	30.419	44.245	36.275	32.045
35.949	30.256	30.907	35.624	30.907	30.094	35.787	30.256
32.208	40.992	34.323	46.198	42.944	31.883	41.154	42.131
39.853	39.691	39.691	33.672	42.131	38.715 i	38.227	41.806
40.504	40.179	40.829	39.528	40.504	41.155	33.51	38.714
41.642	38.226	33.672	39.365	32.696	37.901	39.853	36.112
30.094	41.643	30.744	32.696	38.226	32.533	30.093	37.25
30.256	31.72	37.576	36.112	30.419	37.738	31.882	31.883
39.528	30.256	37.088	33.672	31.232	37.088	39.203	38.878
40.992	39.69	38.064	40.016	33.509	41.155	39.203	43.92
41.155	37.902	40.83	41.642	41.317	39.528	39.365	41.318
40.016	33.835	39.202	39.528	39.365	41.155	34.322	33.347
42.618	33.834	38.715	38.389	37.088	30.419	36.926	31.069
37.088	30.256	30.582	36.274	30.581	34.973	45.547	36.926
					34.9/3	45.54/	
33.346	39.69	30.907	33.021	37.088	30.907	30.744	38.715
30.906	33.184	41.642	34.648	34.486	40.83	40.341	34.973
43.106	34.974	35.624	43.432	40.83	39.365	40.992	38.226
38.227	41.155	38.389	34.973	45.059	32.859	43.92	34.485
38.064	40.504	33.021	40.992	40.016	32.371	37.414	36.274
	·	,		•	•		

max val(#527) = 229.52us min val(#500) = 27.65us peak-to-peak = 201.87us mean +- RMS = 35.79 +- 8.07 us

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

complete rx latency	(includes driver	latency and stack	latency), us (wir	e -> app): packets	1024:		
95.304	58.072	56.689	68.539	62.197	64.133	62.992	57. 178 62.947 55.516 66.417 58.471 63.778 57.442 56.346 58.713 64.784 56.635 58.17 63.346 67.078 64.425 54.754 63.911 60.749 68.636 66.191 61.734
59.207	64.114	57.36	58.195	62.754	67.81	61.107	62.947
56.635	59.322	67.007	60.105	58.196	63.413	56.204	55.516
65.054	58.711	65.193	56.742	56.963	65.769	57.119	66.417
70.036	59.915	63.378	60.693	65.125	57.62	63.916	58.471 63.778
57.387	63.612	56.436	57.263	74.083	57.917	57.505	63.778
56.325	61.481	68.037 I	57.49	57.669	62.468	57.058	57.442
62.554	56.376	56.429	64.68	57.673	57.027	62.85	56.346
64.257	59.366	59.095	62.127	60.155	65.24	64.87	58.713 64.784
56.274	63.102	65.941	58.608	63.718	57.849	57.359	64.784
58.144	59.426	65.006	57.474	58.774	69.4	58.702	56.635
63.034	58.029	56.992	66.044	58.7	57.347	64.348	58.17
55.606	64.838	58.74	56.314	63.443	65.076	70.026	63.346
71.804	72.959	64.042	65.035	68.578	63.26	63.657	67.078
56.144	65.221	75.157	58.45	62.59	62.837	63.005	64.425
60.405	54.367	54.757	58.588	56.354	56.228	61.055	54.754
56.243	64.315	59.111	55.995	62.521	54.341	63.795	63.911
61.517	61.123	60.732	56.053	63.586	55.19	55.205	60.749
55.555	61.262	65.377	54.627	54.46	60.058	65.645	68.636
64.932	62.861	66.079	69.308	63.607	64.231	68.161	66.191
66.022	67.757	64.637	66.351	66.905	70.392	64.695	61.734
65.319	60.658	64.162	63.555	58.798	59.82	62.896	58.488
64.678	61.898	65.693	55.726	56.379	60.724	55.042	57.847
62.349	58.05	54.312	61.936	57.373	61.399	65.434	62.274
57.963	64.769	57.097	62.443	64.149	61.47	54.675	67.77
57.668	56.009	60.953	63.899	65.252	71.569	64.159	65.737
74.23	67.348	67.877	69.658	64.57	63.044	68.364	63.432
63.947	63.114	63.751	61.692	65.781	63.632	61.062	60.155
63.705	72.561	61.264	63.499	63.612	65.644	58.859	61.376
55.295	55.845	65.66	56.218	56.936	61.408	55.378	59.367
64.183	55.504	59.96	64.783	60.816	62.81	62.087	55.031
57.156	60.97	55.805	55.241	61.734	56.632	63.64	67.839
69.986	70.693	64.568	65.886	71.513	64.69	63.639	68.487
65.092	65.595	69.856	63.399	58.653	72.203	64.508	58.165
66.905	56.969	57.207	68.715	63.447	57.063	73.048	57.851
61.397	66.168	56.409	60.948	63.687	56.863	63.478	64.375
56.795	55.931	60.742	54.329	54.917	62.134	61.649	65.365
60.166	59.992	64.552	51.499	59.652	60.259	53.498	55.893
61.912	57.729	56.224	61.473	66.36	66.279	67.895	55.06
63.871	68.601	63.935	64.468	77.475	68.49	63.907	72.584
67.171	65.171	68.742	58.447	64.246	66.327	61.433	57.359
62.938	55.301	63.38	63.035	55.466	66.416	57.144	64.625
64.604	56.269	56.096	64.589	56.443	_57.09	62.116	55.332
56.181	62.073	69.768	63.268	67.146	55.987	58.28	62.137 57.458
62.284	54.093	63.614	60.768	56.787	63.707	56.997	57.458
69.013	63.426	56.306	69.656	64.759	63.484	69.23	65.331
68.034	66.176	64.745	60.948	63.39	63.981	66.144	60.527
7/1.381	66.475	64.464	55.995 56.053 54.627 69.308 66.351 63.555 55.726 61.936 62.443 63.899 69.658 61.692 63.499 56.218 64.783 55.241 65.886 63.399 68.715 60.948 54.329 51.499 61.473 64.468 58.447 63.035 64.589 63.268 60.768 69.956 60.948 60.968	63.582	57.306	55.705	67.713

66.489 62.931	57.344 56.09	61.491 57.414	61.217 62.728	55.824 55.88	61.863 55.199	58.317 65.777	56.6 64.
62.597	60.914	55.516	59.478	69.794	56.162	60.96	63.6
57.062 59.006	65.51 63.687	63.967 67.291	55.663 57.084	62.573 67.083	61.448 69.002	65.304 56.665	71.9 63.8
69.999	56.401	65.997	65.496	57.473	64.849	61.632	56.9
56.763 57.393	59.699 56.946	55.516 63.967 67.291 65.997 65.997 56.171 59.019 54.756 54.548 63.29 72.287 59.548 54.12 56.809	57.084 65.496 54.702 55.979 65.676 61.412 71.914	67.083 57.473 58.696 60.405	63.516 56.57	56.784 54.378	62.0 62.0
56.17	55.642	54.756	65.676	59.811	56.57 66.737	61.064	55.4
65.434 59.214	53.684 68.399	54.548 63.29	61.412 71.914	55.066 70.172	55.928 66.686	62.84 65.008	57. 69.9
62.586	101.783	72.287	54.321	64.773	67.669	63.087	65.
71.087 61.946	54.068 56.01	59.548 54.12	54.917 59.678	66.35 54.093	63.883 52.872	54.828 59.043	54.2 56.1
55.949	70.253	54.12 56.809	55.631	56.077	55.045	53.444	65.6
60.06 62.603	61.35 56.393	65.32 55.479	55.203 61.4	59.703 56.487	60.971 55.284	54.237 63.473	58.0 63.8
70.866	62.836	64.871	61.547	66.47	63.849	66.857	254.2
73.97 57.514	70.319 58.394	64.919 64.729	62.335 64.631	68.124 58.821	63.532 65.668	63.703 61.662	64.3 79.8
74.126	59.516	58.373	64.631 59.639 54.374 53.427 54.374 70.429 58.421	67.326	58.325	61.012	55.3
55.782 63.322	59.446 67.558	54.985 53.261	54.374 53.427	59.795 60.794	59.843 57.597	68.261 53.765	72.1 61.8
55.696	56.082	53.261 62.265	54.374	58.537	69.819	65.398 i	66.0
73.506 58.975	63.131 70.208	64.293 63.059	70.429 58.421	67.007 69.804	63.719 58.873	69.14 56.685	63.1 64.0
57.882	59.542	63.049	55.649	00.132	54.511	53.687	57.3
54.28 64.666	62.836 70.319 58.394 59.516 59.516 59.516 67.558 66.082 63.131 70.208 59.542 55.846 61.363 57.974 66.572 66.375 63.312 84.769 53.979 54.503 63.382 81.46 67.465 64.403 66.403 66.403 67.465 64.403 66.4	57.448 60.355	70.429 58.421 55.649 52.547 64.443 59.76 64.204 64.89 68.967	54.405 62.457	58.778 60.097	53.392 65.815	55.4 55.8
54.466	57.974	60.355 61.252	59.76	65.102	58.404	54.47	63.9
61.506 69.23	66.572 66.375	68.521 71.018	64.204 64.89	65.329 65.225	68.858 67.328	67.962 64.368	63. 66.4
72.001	63.312	66.554	68.967	65.277	64.473	60.714	57.5
170.964 58.881	84.769 53.979	60.154 63.923	56.515 54.135	66.692 51.926	55.411 51.307	57.8 62.987	68.9 53.0
66.764	54.503	53.619	63.048	53.146	56.354	67.163	51.9
66.37 67.649	63.382 81.46	52.443 65.203	64 . 204 64 . 89 68 . 967 56 . 515 54 . 135 63 . 048 64 . 338 65 . 566 77 . 448 77 . 738	52.607 79.427	52.47 70.069	76.869 67.688	73.8 78.
64.562	67.465	65.203 69.257	77.448	63.496	71.254	65.781	65.0
75.746 57.754	64.403 68.742	64.686 61.316	77.738 59.636	63.159 67.519	65.334 63.579	78.772 69.268	58.8 55.7
54.529	68.742 69.791	61.316 55.782	53.661	64.02 53.97	55.56	56.654	64.6
53.979 79.645	59.791 54.122 55.988 75.843 64.563 60.172 56.365	64.642 54.042	54.184 76.74	53.97 65.183	65.423 65.992	53.918 79.065	52.0 67.6
66.106	75.843	54.042 65.027	76.74 76.74 72.93 63.725 58.649 66.04 59.385 55.232 63.223 78.943 63.984	80.129	66.634	63.758	76.
66.63 58.664	60.172	69.232 72.057	58.649	72.65 56.954	66.087 67.128	64.979 56.332	72. 56.8
72.337 53.991	56.365 78.486	52.75 58.308	66.04	57.375 77.699	53.627	64.819 56.989	53.0
53.662	54.926	63.842	55.232	57.409	55.051 64.174	52.151	64.8 63.7
77.143	65.568	77.792	63.223	66.079 67.238	78.392	65.226	64.
77.532 70.811	64.776 80.28	64.119 64.957	63.984	81.54	63.023 61.441	72.495 60.876	65.5 73.5
64.703	56.68	74.356 54.119 52.488 57.939	65.377	64.365 52.412	70.233	55.303	52.6
65.143 77.167	59.232	52.488	66.064 65.922	57.375	51.417 54.43	65.85 72.58	52.8 56.2
53.36 66.462	67.214	57.939 75.782	54.805 54.9	67.244 68.584	64.984 77.809	65.556 61.341	76.3 58.6
74.118	59.605	66.287 59.807	75.479	65.577 I	63.235	76.719 I	64.4
63.073 58.437	74.648	59.807 62.252	55.845 53.818	89.874 65.176	68.197 54.699	68.714 56.896	57.6 69.
53.821	80.28 56.68 52.38 59.232 67.214 63.457 59.605 74.648 73.143 54.535 52.457	66.958	56.048	56.291 I	76.983	59.789	55.2
64.333 55.371	52.657 77.188	54.594 61.482	63.948 72.818	53.696 82.902	53.371 55.618	63.973 67.271	53.3 78.7
66.382	65.852	70.261 I	59.008	77.958 I	63.897 72.766	63.577	77.6
65.956 77.7	65.771 63.37	76.69 57.017	64.347 68.754	68.258 55.9	72.766 61.278	58.927 69.203	63. 58.7
52.919	72.621	53.468	56.065	70 063 1	57.115 66.575	53.132	66.3
53.775	54.781	60.41	65.098	52.854	66.575	54.63	55.7
78.267	65.065	63.776	77.137	58.793	66.951	67.935	71.1
67.261	66.988	67.109	68.234	78.845	65.365	65.368 57.851	76.3
72.508	57.846	61.956	67.409	62.732	53.422	66.009	53.8
65.885 56.772	52.879	53.923	65.423	53.622	59.413 54.305	79.805	60.2
53.816	57.479	74.153	61.336	59.885	76.522	67.185	58.5
72.118	58.433 76.75	59.216 63.638	80.097 60.923	70.065 82 194	65.727 56.887	76.117 77 543	63.0
63.083	76.221	56.136	64.429	72.089	55.438	60.57	64.8
53.816 72.118 63.9 63.083 63.083 63.083 64.082 64.08	dus 1s	74.153 59.216 63.638 56.136	65. 098 57. 878 77. 137 68. 234 65. 789 67. 409 65. 423 56. 889 61. 336 80. 097 60. 923	59.885 70.065 82.194 72.089	76.522 65.727 56.887 55.438	67.185 76.117 77.543 60.57	

packet size: 530
number of packets: 1024
RATE = 4.24kbps, PPS = 1.0

3.1.2 AF_XDP, 128 PPS

SIOCGHWTSTAMP: tx_type was 0; rx_filter was 0 SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12 setting ts_flags: 0x58 new ts_flags: 0x58

new ts_flags: 0x58							
driver rx latency,	us (doesn't include s	stack latency, wire	e -> net subsystem)	: packets 1024:			
32 583 1	 25 602 I	24 882 1	23 037	22 263 1	24 732	28 178 I	22 899 1
22.921	22.199	22.278	21.936	21.743	21.429	24.463	24.152
21.95	24.235	21.922	24.085	22.325	22.159	23.887	21.866
34.68	23.333	21.729	21.706	21.352	21.542	23.773	22.4
22.075	22.059	24.869	24.242	24.144	22.428	22.839	22.072
21.549 24.161	21.66 23.934	21.623 22.284	22.119 21.924	24.211 21.551	24.321 21.63	23.598 21.794	24.325 21.572
32.273	24.325	24.18	22.446	21.683	23.899	25.877	22.304
21.962	20.999	21.76	21.825	22.231	21.527	24.687	24.445
21.437	21.236	21.171	22.04	22.394	29.842	24.915	22.041
24.231	22.182	21.476	21.705	21.535	21.616	24.285	24.132
21.002	22.009	23.998 21.382	23.782 21.818	24.149 24.191	24.048	24.924	24.061
23.684	21.798	22.515	21.757	21.521	26.794	21.776	21.595
21.669	23.755	24.165	22.665	21.54	24.488	25.635	22.107
21.71	22.544	21.402	23.993	21.869	21.757	22.814	21.499
21.602	21.263	24.062	21.363	23.56	33.61	24.563	21.445
21.141	21.471	21.885	23.794	23.68	21.607	22.116	21.729
21.604	21.739	21.397	21.563	21.162	23.552	23.318	24.099
24.236 21.48	23.948 21.702	23.941	22.037	21.476 21.17	23.835	25.341	22.433
21.79	21.222	21.264	22.016	21.338	21.563	21.686	24.154
23.845	22.396	21.494	23.997	22.043	21.674	24.127	21.369
21.852	22.277	21.534	21.609	21.412	21.99	23.249	21.866
21.591	23.908	23.947	24.178	23.871	21.457	22.131	21.805
23.594	23.03	21.513	22.607	21.742	27.405	21.782	21.231
21.141	21.51	21.395	21.614	21.882	24.228	26.63	22.764
21.875	21.823 22.39	21.451 21.518	21.172 24.3	21.391 22.132	21.34 21.839	24.134 23.437	24.049 21.68
21.421	21.356	25.543	21.57	24.399	26.812	24.119	21.428
24.084	23.416	21.681	21.426	21.333	21.778	23.748	21.564
21.742	21.328	21.074	20.987	21.709	23.882	23.298	24.049
23.985	23.709	22.372	22.256	21.668	27.508	21.791	20.883
22.122	21.723 21.817	21.484	22.092	21.155	21.155	21.69	23.88
24.273	22.147	21.58	23.848	22.475	21.925	23.289	21.408
21.686 24.306	21.318 22.686	21.569 22.147	21.684 21.528	27.156 21.579	24.448 21.38	24.368 23.062	21.831 21.924
21.035	21.331	21.618	23.79	23.977	21.299	22.539	21.826
21.288	21.385	21.287	21.259	21.704	23.911	23.19	24.131
21.416	21.81	23.907	21.397	21.586	23.9	25.196	24.468
22.492	21.485	21.388	21.688	21.758	21.214	21.916	23.982
24.29	21.234	22.187	23.086	29.754	22.432	23.815 24.211	21.712
24.178	23.684	21.794	21.609	21.013	21.48	23.029	21.961
21.468 21.429	21.396 21.905	21.852	23.874 21 256	24.382 21.924	21.751	22.406	21.721
23.759	23.747	22.257	22.243	26.822	21.308	21.847	21.266
21.2	21.621	23.69	22.295	21.496	23.566	25.794	23.759
24.075	22.175	21.578	24.046	24.008	21.968	23.542	21.588
22.082	21.511	21.156	21.337	29.598	24.226	21.498	21.723
21.382	24.033	21.552	23.916	24.461	21.634	22.489	21.608
21.369	21.787	21.339	21.651	21.903	24.104	23.608	24.292
23.871 21.625	24.039 21.653	24.243	22.23	20.886	21.452 24.443	25.746	24.808
22.399	22.328	21.398	21.719	21.728	20.93	21.81	24.073
23.978 22.198	22.545 21.4	21.745 21.897	24.135 21.986	23.856 29.702	22.443 24.603	21.81 23.409 24.29	21.238 21.843
21.659	23.765	22.452	21.813	21.616	21.726	23.671	22.095
21.856	24.123	23.89	24.048 21.626	24.097	21.581	22.165	21.399
23.726	24.178	22.482	22.502	26.764	21.249	21.805	21.213
21.371	21.618	24.099	22.427	21.548	23.697	23.671 22.165 23.386 21.805 25.629 21.656 23.5	24.014
23.963	22.166	21.221	23.898	24.133	22.454	23.5	21.11
21.627	21.596	27.188	22.104	24.541	22.17	24.085	21.61
21.469	24.17	23.773	23.933	23.739	21.682	21.907	24.102
21.803	21.831	21.083	21.117	21.362	22.199	23.83	21.288
21.368 21.264	22.214 21.536	27.354 24.088	22.736 22.026	22.2	21.644 24.259	21.902 25.748	21.112 24.156
22.285	21.514	21.414	21.304	21.401	20.815	21.69	24.343
21.758	24.355	21.279	23.984	23.907	22.348	23.548	21.739
23.603	23.93	22.087	21.499	21.394	21.24	23.676	22.003
21.695	23.875	23.97	24.059	23.542	21.844	23.6	22.209
23.652	23.766	28.361	22.21	21.567	21.204	23.386 21.805 21.805 25.629 21.656 23.5 24.085 22.99 21.907 23.83 21.902 25.748 21.69 23.548 23.968 23.66 22.964 21.46 25.751 21.46 25.751 21.46 25.751 21.745 21.69 23.548 23.945 21.745 21.893 23.531 23.205 21.712 26.308 21.893 23.749	20.907
21.418	21.405	23.873	22.399	21.487	24.023	25.751	23.945
24.111	21.809 22.64	21.019 21.38	22.043 23.958	23.75	22.253	23.348	24.UU/ 21.622
21.668	21.528	26.698	21.891	24.246	23.822	23.945	21.595
24.154	23.481 24.184	22.34	25.044	21.114	21.322	22.745	21.918
21.326	21.973	21.51	21.187	21.553	24.333	23.205	21.746
24.66	23.869	31.983	22.321	22.156	21.247	21.712	21.415
22.378	22.159	21.455	21.335	21.753	21.098	21.893	23.849
23.663	22.505	21.575	21.794	24.189	22.451	23.749	21.831
21.518 24.15	21.387 23.808	27.032 22.136	21.682 21.992	23.92 21.022	23.81/ 21.223	23.5/6 23.481	21.701 21.385
21.413	22. 328 22. 545 21. 4 23. 765 24. 123 22. 097 24. 178 21. 618 22. 055 22. 166 21. 596 22. 098 24. 17 21. 831 22. 214 21. 536 21. 514 24. 355 21. 314 23. 93 23. 875 21. 553 23. 766 21. 553 23. 766 21. 528 23. 481 24. 184 24. 184 21. 528 23. 481 24. 184 21. 973 23. 869 21. 792 22. 505 22. 1387 22. 159 22. 505 21. 886 21. 886	23.822	24.383	24.083	21.665	24.138	21.892

21.819	21.698	21.148	21.346	21.479	24.027	23.285	24.487
24.145 j	23.788	28.447	21.709	22.169	21.678	22.005	21.095
21.733 j	21.113	21.664	24.086	21.662	24.366	25.901	23.95
21.875 j	22.401	21.717	21.633	22.217	21.503	21.345	21.872
23.887	22.837	21.523	23.868	24.097	22.467	23.52	21.556
21.556	21.388	21.252	21.756	21.803	24.097	24.21	21.547
23.913	24.129	22.494	21.451	21.143	21.07	23.16	21.931
21.685	21.798	21.617	21.704	24.098	21.524	24.307	22.692
21.968	21.639	21.216	21.799	21.249	21.717	23.477	24.368
24.049	28.741	24.604	21.698	22.477	21.759	21.581	21.578
21.842	21.385	21.799	21.994	21.599	24.798	25.771	24.257
21.859	22.415	22.014	21.549	21.649	21.508	21.693	21.237
24.01	22.286	21.395	24.139	23.942	22.484	23.367	21.915
21.485	27.587	21.506	21.489	21.925	24.126	24.087	21.507
23.945	24.131	22.711	21.513	21.603	21.615	23.358	21.91
21.364	21.088	21.46	21.474	21.579	21.505	23.77	22.46
21.726	21.000	21.168	21.52	21.968	21.892	23.47	24.252
24.048	29.946	22.733	21.45	22.154	21.794	21.383	21.55
21.564	21.284	21.99	23.95	21.663	24.076	25.646	24.078
21.456	22.718	21.45	21.625	21.627	21.134	21.412	21.596
23.861	21.943	21.33	23.943	23.869	21.399	24.69	21.553
21.354	26.386	21.38	21.26	21.761	24.064	23.994	21.432
23.855	23.716	21.993	21.42	21.029	21.137	23.315	21.868
21.592	21.508	24.551	21.839	23.975	21.162	23.992	22.434
21.498	21.256	21.398	21.287	21.396	21.72	23.336	24.306
23.84	30.759	22.521	21.634	22.446	21.463	21.857	21.296

max val(#32) = 34.68us min val(#653) = 20.82us peak-to-peak = 13.86us mean +- RMS = 22.70 +- 1.67 us

71 N85 I							
71.000	36.762	driver latency, net 48.149 31.069 32.371 45.546 31.72 33.834 29.28 32.696 33.184 30.093 44.246 31.72 30.907 44.408 32.208 32.696 31.07 43.269 46.035 31.557 33.346 40.992 32.533 33.509 30.256 44.408 33.509 29.605 32.696 31.07 43.269 46.035 31.557 33.346 40.992 32.533 33.509 30.256 32.533 33.509 30.256 32.534 33.998 30.256 32.533 41.48 31.72 32.533 45.221 30.256 32.534 33.998 30.256 32.534 33.998 30.256 32.533 41.48 31.72 32.533 45.221 30.256 32.533 41.48 31.72 32.533 43.256 32.534 33.998 30.256 32.533 41.48 31.72 33.022 30.419 43.595 32.208 30.744 44.246 32.37 29.931 44.083 45.059 33.184 44.155 33.184 41.155	34.974	33.022	50.102	34.486	35.
44.57	31.069	31.069	30.419	33.672	32.045	45.221	33.
33 509 i	45 547 i	32 371 i	33 021 i	45 872 i	32 371 i	30 093 i	42
20 744	22 025 1	45 546 1	22 104 1	22 021	11 722 1	22 247 1	22.
30./44	33.633	43.340	33.104	33.021	44.733	33.347	32.
48.475	36.6	31.72	30.582	28.955	32.371	32.208	32.
51.89 I	33.834	33.834	46.36	33.998	33.997 I	42.456 I	30.
30 744 1	30 581 i	29 28 1	32 534 1	45 872 i	35 136 i	32 858 1	11
30.744	30.301	27.20	32.334	13.072	33.130	32.030	77.
33.347	32.371	32.696	29.443	29.93	31.232	30.256	28.
49.125 I	33.021	33.184	44.571	32.046	34.16	44.408	33.
30 093 i	43 594 i	30 093 i	33 184 i	34 16 i	32 208 i	33 347 i	45
30.033	10.001	30.035	30.101	20 050	32.200	33.317	10.
33.184	32.208	44.246	32.838	32.839	32.3/1	30.906	29
43.269	30.256	31.72	29.443	32.696	41.48	46.36	32.
32 533 1	45 547 1	30 907 1	29 93 1	40 992 1	32 208 I	33 346 1	4.5
22.000	22 022 1	44 400 1	22.30	20.000	24 04 1	20.760	20.
32.333	33.022	44.400	33.34/	32.200	34.01	29.700	30.
31.394	35.298	30.419	32.533	32.534	45.222	33.672	32.
44.57 I	32.533 I	32.208	43.107 I	30.744	38.39	30.419 I	29.
22 51 1	45 050 1	22 606 1	22 046 1	12 122 1	22 024 1	22 522 1	22
33.31	43.036	32.090	32.040	43.432	33.034	32.333	32.
29.931	30.418	31.07	30.256	45.384	32.046	32.859	44.
32.696 I	32.208 I	43.269 I	32.371 I	33.835 I	31.394 I	29.93	30.
30 410 1	22 050 1	46 025 1	21 002 1	22 247 1	47 007 1	22 104 1	22.
30.410	32.039	40.033	31.002	33.34/	47.907	33.104	34.
44.408	38.226	31.557	30.581	29.931	31.72	31.557	30.
29.93 I	42.456 I	33.346 L	32.858 I	45.059 I	31.72 I	33.672	42.
31 060 1	20 410 1	40 000 1	20 256 1	22 104 1	47 011	22 021	2.2
31.009	30.419	40.992	30.230	33.104	47.011	33.021	33
44.896	32.696	32.533	45.547	30.256	38.227	30.582	29.
30.744 i	33.672 i	33.509 i	44.408	32.208 i	33.997 i	45.222	33
24 204	44 000	20.000	22 (06)	30 504	20.057	22 004	4.5
31.394	41.968	30.256	32.696	30.581	28.955	33.021	45.
33.672	32.371	44.408	33.184	34.648	32.371	29.931	30.
30 581 i	30 094 i	33 509 i	32 858 i	34 323 i	48 475 i	33 835 i	32
30.301	30.031	00.605	32.030	31.323	24 205 1	43.430	22.
33.021	33.998	29.605	30.094	29.28	31.395	43.432	33.
31.232	44.408	32.696	32.371	45.384	32.045	34.485	42.
31 069 i	29 931 i	41 642 i	30 256 i	32 534 i	46 197 i	33 347 i	32
31.005	25.551	20.006	30.230	32.331	27 222	33.317	00
44.896	35.949	30.906	48.475	30.581	37.902	31.882	29.
30.744	43.107 I	30.418 I	33.346	44.245	34.973 I	33.347	33.
20 256 1	20 501 1	12 011	20 501 1	20 744 1	41 005 i	20 227 1	22
30.236	30.361	42.344	30.361	30.744	41.003	30.227	32.
33.509	32.859	31.883	46.034	33.834	31.232	42.293	30.
30 094 1	30 094 1	40 992 1	32 37 1	45 709 1	41 318 I	33 184 1	44
33 033 1	26 427	21 72 1	21 205 1	20 605	22 045 1	30 410	11.
33.022	30.43/	31.72	31.393	29.603	32.043	30.419	44.
29.606	33.021	45.384	33.021	32.533	44.083	34.486	29
30 907 1	29 606 1	29 117 I	42 619 I	32 696 1	34 648 1	44 733 1	32
32 200 1	44 571	20 522 1	22 672	42 202	20 064 1	20 256	40
32.200	44.3/1	32.333	33.072	42.293	30.004	30.236	40.
30.581	32.371	45.221	32.696	32.046	45.059	33.347	31
46 198 I	30 581 i	30 256 1	34 811 i	30 744 1	29 443 1	44 896 1	33
32 050 1	44 57	22 524 1	22 104 1	22 500 1	21 557 1	30 006	42
32.039	44.37	32.334	33.104	33.309	31.337	30.900	42.
30.582	30.581	33.998	32.534	40.504	46.035	33.184	32.
44 734 1	33 347 1	30 256 1	29 931 1	29 28 1	31 557 i	30 419 1	3.0
20 055 1	12 610 1	22 522 1	32 050 1	44 000	21 002 1	33 500 1	12
20.933	42.019	32.333	32.039	44.002	31.002	33.309	43.
30.581	29.768	41.48	30.093	32.37	46.36	32.696	32.
44 571 I	32 696 1	31 72 1	46 035 1	37 738 i	30 581 i	30 582 1	28
20 256	22 247 1	22 022 1	22 524	21 72 1	22 025 1	46 034 1	20
30.236	33.34/	33.022	32.334	31.72	33.033	40.034	32.
33.347	42.456	30.419	29.931	29.605	29.117	33.347	44.
32 696 1	32 371 i	43 595 1	33 021 1	32 371 i	35 136 I	29 606 1	29
30 356 1	20 501	22 200 1	22 27 1	40 020	22 27 1	22 271	21
30.230	30.381	32.208	34.31	40.829	34.31	32.3/1	31
44.896	35.95	30.744	29.93	29.28	31.882	30.744	30
29.443 i	30 256 i	33 022 i	45.872 i	33.021 i	32.208 i	33.672 i	3.0
20 744	20.200	20.022	20.072	22 050 1	2/ 16	22 200 1	4 4
50.744	30.093	20.304	30.094	34.039	24.10	J4.4U0	44
32.371	32.371	43.758	33.672	38.877	42.294	30.093	28
42.619 i	32.696 i	32.859 I	44,408	31.883	34.485	44.571 I	33
33 022	12 156	30 744 1	33 021 1	30 582 1	20 28 1	32 850 i	11
33.022	42.430	30.744	33.UZI	30.304	43.40	32.039	44
33.184	32.534	44.246	32.371	32.534	34.16	30.418	30
30.907 i	29.93 i	32.208	43.92	40.667	32.533	32.534	31
32 271	22 10/	20 605	30 256	12 701	31 000 1	30 501	37
JZ.J/1	33.104	29.000	30.230	42./O1	J1.004	20.301	32
32.045	32.696	32.371	32.371	45.71	31.883	33.509	42
31.394 i	30.094 i	40.504	30.256	33.346	47.011	32.696	32
45 547	20.051	22 045 1	22 025 1	27 000	21 07 1	20 440	22
40.54/	32.839	32.043	33.833	37.902	31.0/	30.419	2
29.768	33.184	32.37	44.408	31.72	33.347	45.221	31
33 509 1	30 419	29 931 1	30 094 1	29 443 1	29 117 i	32 208 i	41
22.202	20 000 1	44 000 I	22 404 1	20 204 1	23 [00]	20.200	27
33.6/2	32.858	44.083	33.184	32.3/1	33.509	30.094	30
30.744	29.93	45.059	31.882	39.691	45.222	32.533	31
44.896	37.413	34.16	31.72	29.28	32.208	30.744	33
24.090	3/.413	34.10	21.74	45.20	32.200	30./44	33
31.883	46.197	33.184	32.859	45.221	32.371	33.509	43
31.394	29.768	41.155	29.93	32.858	45.547 i	33.346 i	33
71.774	20.700	30 000 1	22.22	20 000 1	10.07	21 205	22
44.571	32.859	32.208	33.346	38.227	30.907	31.395	30
30.582	45.384	33.184	32.37	44.083	34.322	33.022	44
33.347 I	29.768	43.27	32.696	31.232	41.968	33.184	33.
45.547	33.347	31.883	46.035	32.696	34.648	42.131	30.
	29.931	42.131	33.347	45.872	32.045	32.858	43.
30.581		33.347	30.744	29.28	43.92	31.394	34.
30.581							
32.859	31.883						
	31.883 33.346 30.907	32.859 29.28	44.408 31.07	32.533 31.395	31.232 36.6	47.173 30.256	4.

	0.5.000		0.5.000		40 504		
30.582	35.299	37.902	35.299	30.093	43.594	29.768	29.605
43.432	33.021	33.021	44.896	31.72	33.997	44.733	32.208
33.021	42.781	30.256	30.093	30.256	29.117	33.346	46.035
32.858	32.533	42.944	32.696 i	32.046	34.323	30.582	30.418
	29.605						
30.907		62.789	32.045	32.859	44.571	32.533	31.72
44.896	37.902	34.322	31.395	29.28	32.208	31.394	33.184
31.72	45.872	33.021 I	32.533	45.709 I	32.045	33.997	45.059 I
31.558	30.256	41.805	30.419	32.696	46.522	33.021	32.696
44.571	33.021	40.016	33.347	30.581	30.256	31.232	29.28
30.256	44.733	32.859	31.72	44.083	33.509	33.022	44.246
34.16	30.744	42.782	32.696	30.582	41.317	33.509	33.184
45.059	32.37	32.046	44.246	32.533	33.51	43.27	30.582
30.256	30.581	40.341	31.883	44.733	33.022	33.021	43.92
				28.954	44.245		
32.859	33.997	33.184	36.925		44.245	30.906	33.021
44.082	33.184	32.37	44.896	32.534	32.208	44.57	32.533
31.395 I	33.997	30.093	30.256	33.998	36.438	29.93	45.384
33.021 j	33.021 i	47.824	31.883	32.859	43.107	30.094 i	29.443
42.294	32.696	33.022	44.571	32.371	33.998	44.408	32.696
					28.955		
33.51	42.618	30.419	30.093	29.768		32.534	44.896
32.858	31.883	43.92	32.696	32.208	34.16	30.744	29.931
30.744	30.256	40.829	31.72	32.208	44.571	32.858	31.72
44.571 i	38.714	33.997	30.094	29.768	32.208	30.907	30.744
29.28	45.872	33.834	32.533	44.733	32.534	32.371	46.36
31.232	30.256	41.48	30.256	33.347	45.872	33.022	32.371
44.245	33.021	39.365	43.758	35.299	30.093	29.931	28.955
30.256	30.581	33.021	44.408	32.859	33.998	44.896	33.021
31.883 j	46.197 i	29.605 i	33.346 i	30.581 i	29.442 i	30.581	45.059 i
33.672	32.208	43.432	33.021	32.696	34.648	30.093	30.419
	30.256	32.859	43.757	33.509	33.184	45.058	32.858
42.944							
33.022	44.408	33.51	30.581	41.48	31.557	30.256	29.931
28.955	29.606	42.294	33.021	32.371	43.757	32.534	33.672
30.907 I	29.931	29.28	41.968	30.582	33.997	44.734	33.184
33.021	40.504	32.858	32.696	34.648	29.768	42.131	29.443
30.419	42.131	32.859	33.997	44.082	33.672	32.858	43.92
		42.131		29.768			
31.72	33.51		30.418		40.829	30.744	32.859
44.896	33.672	32.37	44.082	32.533	34.648	42.293	30.582
30.094	38.064	30.419	29.117	44.571	32.859	32.371	42.944
32.859	37.576	35.949	31.394	29.605	44.246	30.419	30.094
41.154	30.581	30.419	29.768 i	32.533	31.883	45.222	33.997
30.744	29.931	29.28	30.093	42.13	34.16	32.371	45.059
33.021	40.829	44.734	32.208	33.672	42.456	30.744	28.792
41.642	30.418	32.859	44.571	31.72	34.485	44.57	33.347
31.558	46.197	31.232	33.184	31.395	29.117	30.581	44.408
33.509 i	32.533 i	42.944	33.021 i	32.208	33.997	33.998	29.443
43.594	37.576	30.256	40.666	32.859	32.859	45.872	32.208
33.347	44.571	33.021	29.605	41.155	31.883	29.93	29.768
29.443	32.859	45.872	32.208	32.208	43.758	33.021	33.509
30.906	29.768	28.63	30.581	30.094	46.197	32.859	33.184
44.246	207.888	30.581	43.92	34.811	32.046	29.931	29.605

max val(#1017) = 207.89us min val(#434) = 28.30us peak-to-peak = 179.58us mean +- RMS = 35.23 +- 7.83 us

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

complete ix latency	(INCIDGES GIIVEI	and stack	racency), us (wire				
103.668	62.364	73.031	58.011 52.355 57.106 54.992 52.288 70.602 54.653 51.357 67.017 55.009 56.834 51.483 51.635 57.129 54.351 64.864 54.711 51.547 56.364 51.547 56.364 51.547 56.552 51.819 67.584 66.439 55.7129 54.712 57.181 53.988 51.703 56.557 71.082 54.712 57.181 53.988 51.703 56.549 51.557 71.082 54.712 57.181 53.988 51.703 56.549 51.559 51.559 56.903 57.032 56.903 57.032 56.903 57.032 56.903 57.032 56.903 57.032 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.903 57.032 56.649 51.352 56.707 53.766 53.939 69.746 51.359 69.746 51.359 69.746 51.355 55.915	55.285	74.834	62.664	58.198
67.491	53.268	53.347	52.355	55.415	53.474	69.684	57.173
55.459	69.782	54.293	57.106	68.197	54.53	53.98	64.81
52.383	55.547	69.848	54.992	57.171	66.302	57.954	53.912
83.155	59.933	53.449	52.288	50.307	53.913	55.981	54.934
73.965	55.893	58.703	70.602	58.142	56.425	65.295	52.816
52.293	52.241	50.903	54.653	70.083	59.457	56.456	69.058
37.308	56.305	54.98	51.36/	51.481	52.862	32.03	50.527
81.398	57.346	5/.364 51 052	67.017	56 301 1	58.059	/U.285 50 034	55.488
57 024 1	54 792 I	65 712	56 834 1	55 108 1	54 672	53 472 1	51 715
64 706 1	51 492	52 891 1	51 483 1	55 09 1	71 322 1	71 275 1	54 412 1
56.764	67.729	52.383	51.635	62.527	53.824	57.631	69.191
54.195	57.059	68.406	57.129	56.357	56.741	51.956	51.277
52.7	57.307	51.801	54.351	56.725	69.27	58.596	56.757
68.254	54.331	54.723	64.864	52.265	65.184	52.195	50.713
55.179	68.813	56.861	54.711	64.972	58.322	58.168	54.478
51.589	51.673	53.12	51.547	67.344	53.819	56.829	68.327
54.406	54.752	64.671	56.364	55.704	53.151	52.744	51.918
52.02	54.122	70.097	53.245	56.907	81.59/	57.747	53.653
68.//8	62.344	53.003	51.8	50.99	53.536	55.066	51.98
52.071	52 158 I	53.231 62.380	50.032	54 346 1	70 563 1	56 330 1	57 609 1
69 132 1	56 644 1	54 577 1	67 584 1	51 732	64 998 1	52 531 1	50 829 1
52.224	55.374	57.45	66.439	53.378	57.832	70.563	55.943
53.184	63.19	51.52	54.712	51.919	50.518	54.707	69.863
57.517	54.767	65.902	57.181	56.691	54.045	54.058	51.462
52.601	51.632	54.946	53.988	58.234	82.764	57.991	53.689
54.873	56.275	51.139	51.703	50.692	53.385	66.681	54.887
52.823	68.316	56.643	56.549	69.255	53.502	56.616	64.261
52.436	51.573	62.572	51.567	54.276	70.53	56.745	57.074
68.49	58.979	52.419	/1.082	52.123	65.307	53.664	50.836
51.885 52.131	52 404 1	21.813	54.96	50.12/ 52.125	59.201 62 145	59.977	56 745
55 32 1	55 249 I	53 401 1	70 334 1	55 966 1	53 071 1	65 73 1	52 587 1
51 515 1	51 45 1	66 535 1	53 94 1	70 108 1	68 13 1	57 303 1	65 836 1
57.106	59.853	53.401	52.821	50.938	53.823	54.167	65.647
50.967	54.184	68.895	56.93	56.485	65.226	56.727	51.755
52.649	50.934	50.191	63.606	54.405	58.53	68.031	56.745
56.193	68.28	54.905	55.928	63.961	65.572	52.047	61.549
52.051	54.094	69.004	55.062	53.199	69.095	59.082	55.943
68.32	52.398	51.74	56.903	52.41	50.598	66.586	57.389
57.132	50./1/ 51 000	54.114 55.567	57.032	55.984	70 402	57 552 1	54.332
52.200	56 033 1	52 403 1	51 /50	50 859 1	70.403 52 937	57.552	52 18 1
49 99 1	63 95 1	54 151 1	56 649 1	68 059 1	53 181 1	56 048 1	64 933 1
51.869	51.153	62.767	51.352	54.074	70.271	55.886	56.827
68.494	56.682	53.96	68.426	64.464	52.099	52.511	50.366
51.672	55.157	56.929	53.931	53.306	57.735	71.23	56.839
55.839	63.941	51.807	51.619	51.363	50.331	55.263	68.715
56.986	55.022	64.946	56.707	54.12	57.568	53.421	51.48
52.579	51.815	54.395	53.766	70.583	54.377	56.582	53.117
69.074	59.634	52.538	51.539	50.293	53.362	53.773	52.217
50.911	51.652	54.874	69.746	5/.403	53.959	56.078	52.14
56.13 56.13	51.998 56.119	49.771 66.015	51.35 55 915	65 690 1	63 602 1	51 9/	50 050 1
50.13	20.110	00.013	33.313	05.059	03.002	J1.54	30.036

63.819	54.317	56.549	66.703	53.379	58.051	70.365	56.781
55.473	63.955	52.05	54.909	52.635	50.848	54.7	68.6
57.259	54.709	65.824	56.417	56.542	56.128	53.96	52.007
52.989	51.441	53.364	65.257	70.265	56.759	54.032	53.28
56.272	55.45	51.56	51.4	63.858	53.604	53.976	55.297
53.427 52.763	56.729 51.881	53.923 61.843	56.287 51.907	70.171 55.249	53.517 71.115	55.998 56.304	64.552 56.988
69.418	56.898	54.611	56.065	64.788	52.522	52.619	50.597
51.393	54.837	56.613	66.792	53.306	57.79	70.967	56.366
55.908	52.747	51.329	51.813	51.171	50.047	54.018	68.806
57.65	55.403	65.828	57.319	56.227	55.952	53.503	51.494
52.942	51.33	66.956	53.868	69.393	69.825	56.823	53.401
66.555 53.739	61.178 70.32	56.612 57.074	53.533 56.907	50.896 69.318	53.934 53.952	54.415 55.674	55.604 64.505
53.067	51.865	62.859	51.556	54.892	69.437	56.732	57.055
68.297	57.037	54.69	55.848	64.991	52.156	53.2	51.794
51.953	67.002	57.283	54.797	65.631	58.019	58.651	68.91 i
55.75	51.823	64.284	54.911	52.742	63.447	54.84	57.179
69.51 52.208	55.513 51.527	53.104 69.319	69.933 55.451	56.829 70.413	57.102 54.215	65.631 56.943	51.854 65.368
57.013	53.981	55.815	52.218	50.372	65.457	54.384	56.024
65.227	57.516	56.632	68.341	56.272	52.914	69.08	60.702
53.035	52.738	50.363	52.187	52.757	58.799	54.086	64.558
51.95	57.513	65.256	58.035	52.293	65.238	51.67	50.717
64.696 55.306	54.557 64.295	57.109 51.67	66.922 51.397	53.188 51.657	58.256 49.932	70.481 55.036	56.364 70.378
54.616	56.888 I	64.223	56.68	55.953	56.671	54.13	52.157 I
52.948	50.919	89.732	53.717	56.86	68.56	56.501	53.146
68.499	61.832	56.409	52.894	50.674	53.448	55.07	55.187
53.415	69.747	56.991	56.592	69.251	53.889	57.597	67.268
53.131 68.223	51.809 56.787	63.278 68.377	51.922 55.557	54.476 52.148	69.997 51.46	55.985 52.692	56.874 50.187
51.674	66.138	56.732	54.119	65.57	57.532	58.773	68.191
56.776	52.553	64.401	54.739	52.27	62.941	55.109	57.191
69.17	55.01	53.426	68.204	56.283	55.763	66.618	52.204
51.924	52.109	67.039	53.774	68.979	56.844	56.966	65.515
57.013	57.478	55.524	61.969	50.068 56.644	65.567	53.651	54.939
65.643 52.721	57.368 55.97	56.167 51.603	68.719 51.443	55.551	53.786 60.771	68.101 53.135	54.792 67.13
57.681	56.89	79.807	54.204	55.015	64.354	51.806	50.858
63.7	54.488	56.645	67.028	53.778	58.381	70.716	56.898
55.888	64.777	51.874	51.428	51.521	50.053	54.427	68.745
56.521	54.388	65.495	54.49	56.397	56.611	54.493	51.762
52.262 68.721	51.643 62.522	67.861 56.133	53.402 52.086	56.128 50.79	68.388 53.431	56.434 54.388	53.421 52.129
50.693	67.758	57.656	56.916	68.816	54.199	56.509	68.252
53.051	51.954	62.628	51.602	54.826	69.899	56.307	56.858
68.39	56.809	67.812	65.467	57.468	51.771	51.936	50.05
51.989 53.758	51.694 68.598	54.685	68.494 54.979	54.521 52.798	58.364 50.945	70.797 51.926	56.971 66.931
57.559	55.045	51.322 64.955	56.889	56.793	57.115	53.613	51.975
64.5	51.644	54.111	65.513	55.312	57.281	69.268	54.405
56.935	68.537	56.004	52.032	62.623	52.627	53.416	51.862
50.64	51.404	63.911	54.725	56.469	65.281	56.841	56.364
52.875 57.07	51.57 69.245	50.496 57.462	63.767 54.394	51.831 57.125	55.714 51.527	68.211 63.712	57.552 51.021
52.261	63.516	54.658	55.991	65.681	58.47	58.629	68.177
53.579	55.925	64.145	51.967	51.417	62.337	52.437	54.834
68.906 j	55.958	53.765	68.221	56.475	57.132	65.66	52.497
51.579	65.651	51.925	50.606	66.496	56.985	56.458	64.451
56.804 62.518	61.707 51.669	58.66 51.879	52.907 51.242	51.208 54.112	65.861 53.388	53.777 68.992	52.004 56.457
52.47	51.869	50.448	51.242 51.613	64.098	56.052	55.841 I	69.311
57.069	70.775	67.467	53.658	55.826	64.25	52.127	50.342
63.206	51.702	54.849	68.521	53.383	58.561	70.216	57.425
53.014	68.915	52.682	54.809	53.022	50.251	51.993	66.004
57.37	54.476 63.962	64.274	56.964 61.926	56.077 54.62	55.396 56.923	58.688	50.996
64.948 57.202	63.962 68.287	51.636 55.014	51.025	54.62 62.184	56.923	69.866 53.245	53.64 51.636
51.035	54.367	70.423	54.047	56.183	64.92	57.013	55.943
52.404	51.024	50.028	51.868	51.49	67.917	56.195	57.49
68.086	238.647	53.102	65.554	57.257	53.509	51.788	50.901

max val(#1017) = 238.65us min val(#434) = 49.77us peak-to-peak = 188.88us mean +- RMS = 57.94 +- 8.60 us

packet size: 530 number of packets: 1024 RATE = 542.71kbps, PPS = 128.0

3.2 RAW AF_PACKET "socket(AF_PACKET, SOCK_RAW, 0)"

3.2.1 RAW AF_PACKET, 1 PPS

root@am57xx-evm:~# ./plget -i eth0 -t raw_ptpl2 -m rx-lat -n 1024 SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12 SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12 setting ts_flags: 0x58 new ts_flags: 0x58

26 AE I	22 502 1	stack latency, wirr	26 560 1	20 27 1	26.4.1	26 100 1	20 757
25.537	25.543	29.857	28.777	30.538	32.244	28.8	29.963
30.058	36.138	32.735	29.16	30.111	32.429	29.752	29.948
33.72	28.67	26.133	31.112	30.537	29.29	33.012	27.726
29.557 25.606	30.535 25.825	28.576 31.501	27.449 25.966	30.793 25.732	26.883	26.811 30.342	31.198 28.432
33.176	26.004	29.986	30.424	26.575	26.298	32.856	25.832
31.091	26.59	26.915	30.977	26.314	27.279	32.059	29.046
28.006 28.161	33.204 28.536	31.345	28.698 28.269	33.924 29.088	28.314 40.048	28.142 30.354	31.445 26.892
33.427	26.009	32.907	33.4	28.961	28.865	32.203	28.937
30.015	32.817	26.247	25.612	32.921	26.305	30.071	26.256
26 372 I	26 046 1	29.155	25.896	29.668	26.35 31 5/5	26.87	31.166
31.761	27.315	29.166	33.602	27.619	28.573	33.418	28.768
28.684	31.308	30.034	29.279	32.812	28.935	25.469	33.064
28.951	28.253	33.915	25.87	33.963	29.013	28.101	32.134
27.026	30.546	29.254	32.087	27.029	26.495	29.927	27.027
27.356	31.245	25.86	26.42	31.079	26.77	26.888	29.288
25.626	25.698	33.687	25.97	26.639	30.173	25.666	30.734
31.647	29.7	31.764	33.35	29.526	26.545	34.306	26.398
28.321	33.388	26.144	29.552	33.808	27.949	28.467	30.711
26.517	26.711	33.479	26.091	26.35	33.288	29.729	26.117
27 348 1	25.296 30 911	28 331	31.949	28 376 1	25.736 26.652	31.369 29 953	27.03 26 463
26.655	31.211	26.127	25.898	33.014	25.766	29.585	32.032
28.723	28.601	32.657	29.343	33.764	34.679	31.318	27.273
37.147 28 737	29.55	30.233 32.991	31.768	25.933 31.879	28.897	33.504	29.209
27.459	30.261	25.361	25.895	31.249	25.23	27.242	29.976
25.666	26.561	31.48	31.71	26.413	31.538	26.571	26.575
30.066	25.352	26.686	31.593	26.774	26.356	30.405	27.437
28.468	26.026	34.223	29.734	33.321	28.801 I	25.837	30.806
36.042	29.826	34.266	26.268	30.329	33.985	30.302	28.796
30.976	27.205	26.606	31.547	26.187	26.673	31.578	26.724
28.302 27.231	30.193 26 083	26.681	26.95	30.802 25.812	26.043 32.795	26.24	31.488
35.991	26.793	32.917	27.583	26.437	33.192	26.048	30.145
30.409	34.811	28.833	31.127	29.923	29.261	32.897	29.494
28.531	33.238	29.599	25.92	32.682	26.19	26.672	31.472
28.01 34 593	28.185 27 468	29.749 27.803	28.91 30.396	30.057 26.727	36.019 27.043	28.18 31 514	27.1 26.708
31.36	27.171	27.678	31.56	26.062	25.231	29.931	25.77
28.092	29.926	25.427	26.549	30.958	25.537	26.446	30.767
26.06	27.184	33.874	32.167	30.005	31.417	30.882	29.452
27.63	31.316	28.156	26.758	30.836	28.828	32.713	29.122
31.146	30.543	27.773	26.534	31.699	26.316	25.742	31.376
27.243	31.39	34.343	25.933	26.9	27.578	31.366	25.988
27.112	30.315	26.394	26.383	31.362	26.353	26	31.42
33.238	28.044	33.123	28.671	31.401	30.812	29.413	32.9
33.74	26.9	35.321	28.791	28.125	31.97	27.113	29.806
39.186 27.376	29.338 31.376	28.358 26.585	31.453 26.054	30.416 29.865	28.086 26.256	30.39 26.239	25.892 33 159
29.792	26.21	31.16	27.488	28.278	30.474	30.649	26.82
32.8	27.845	28.114	30.354	25.679	31.45	25.907	26.62
35.51 28 433	29.625	27.389 28.012	33.252 28.673	28.428 34.764	28.369 28.954	31.801 26.158	29.12
31.556	27.974	34.11	28.505	29.413	34.824	32.146	26.90
30.255	25.217	26.219	33.156	27.319	26.927	33.184	26.92
32.873	25.373	25.467	30.041	25.194	27.446	31.173	25.20
31.886	25.864	29.102	32.046	27.474	31.461	31.038	28.88
30.902	32.068	29.368	30.081	28.731	28.872	34.429	28.6
28.403	30.725	28.269	29.609 28.464	29.86 32.882	28.088	32.764 30.365	25.71
30.401 26.562	35.34 31.882	26.944 34.014	28.468	26.696	28.589 30.771	27.114	31.18 27.42
33.111	28.267	26.244	32.154	28.117	27.062	33.566	26.5
26.956	32.234	26.232	26.309	29.451	25.793	26.977	30.95
26.908 32.384	26.841 29.551	30.732 36.593	26.264 29.435	32.745 29.804	29.673 36.699	31.952 29.448	38.40 29.22
33.514	29.848	29.195	33.565	28.945	28.84	35.69	30.20
28.796	32.593	26.142	26.188	31.881	26.369	26.476	30.53
25.784	26.745	30.965	26.244	26.066	35.469	32.105	27.03 27.53
31.185 32.565	26.016 27.427	31.596 27.367	28.452 30.385	28.189 26.775	31.147 26.901	26.927 34.165	26.63
25.993	30.286	28.291	27.253	33.544	29.601	29.33	35.40
30.298	29.55	33.981	33.28	32.252	31.271	38.877	29.48
30.027 34.376	31.206 29.114	30.286 30.816	33.613 32.694	29.533 26.658	29.385 26.429	35.491 34.529	29.3 26.44
27.162	32.08	27.238	26.329	26.658 31.42	26.429 27.776	26.503	26.44 31.63
26.417	26.139	38.78	27.358	28.722	37.615	28.65	27.80
33.789	27.574	27.354	33.426	28.672	27.083	31.534	26.44
26.367	33.445	26.608	29.118	38.996	27.817	43.235	29.21
28.629 34.175	39.264 29.623	28.926 41.635	28.576 28.852	41.278 27.271	29.979 35.566	28.951 32.214	38.6 29.78
35.252	26.924	27.462	32.823	26.925	26.698	32.232	27.77
26.547	37.047	25.884	26.609	32.421	26.175	28.732	32.11
26.81	27.096 26.309	37.398 32.604	25.876	35.745 27.909	26.438 33.358	30.298	35.4 27.85
28.028 34.751	26.309 31.241	32.604 30.579	28.497 41.837	30.206	33.358 31.038	29.271 40.884	29.80
29.218	41.016	29.573	31.101	40.711	29.694	32.775	41.81
31.609	29.38	31.688	27.342	30.3	36.888	31.163	27.3
32.492	28.626	33.066	27.236	27.015	36.813	30.783	27.2
32.492	28.626	33.066	27.236	27.015	36.813	30.783	27

26 001	31.972	26.811	33.853	26.886	26.797	31.382	26.013
26.901	37.844 i	26.463	27.502	36.16 j	28.219 i	29.636 i	31.809
26.273	26.473 i	31.744	31.303	26.919	32.109	26.616	28.604
40.618	29.34	29.287	40.304	29.9	29.379 i	42.577	29.654
41.872	30.216	30.006	41.483	29.009	28.494		28.847
28.204	38.899 i	26.199 I	28.954	33.593	26.205	30.716 i	32.328
27.69	29.465	33.791	26.853 i	25.771	34.041	27.112	26.281
33.068	26.211	27.535	32.137 i	26.804	30.337	39.201	30.863 i
27.882	32.592	25.892	26.853 32.137 30.855	32.465	27.063	31.77	26.72
26.09	32.841			32.306	26.311	30.412	29.432
33.712	29.612	39.747	30.783	31.204	39.805	28.322	29.346
41.732	30.138	29.845	38.661	28.757	29.367	40.936	28.661
28.871	38.485	29.802	29.32	39.243	29.197	28.394	40.06
27.378	26.599 i		29.322	33.194	31.237	31.213	32.178
26.777	28.361 i	33.662	30.341 i	27.801	31.647	27.517	26.703 i
31.703	25.944	26.394	34.376	27.81	26.81	34.881	27.121
26.904	32.144	26.375	26.439 i	33.185	28.855	26.193	31.927
28.911	29.275 i	40.579	28.985 i	36.715	41.377	31.285	31.589 i
42.32	27.782	42.075	29.852	29.879	40.062	28.562	28.345
39.009	29.115	28.895	39.862	28.639	25.985	42.742	27.055
28.773	31.799	26.432	26.741	33.463	26.411	26.381	32.177
27.984	26.236	39.023	26.912	26.704	35.139	29.872	25.896
33.435	26.806 i	27.023	33.118	26.526	25.834	32.361	28.53
32.856	26.937	26.484	32.472	26.661	26.807	42.331	26.999
29.966	41.416	29.546 I	28.749 I	38.439	29.574	29.114	38.842
32.679	31.354	41.783 I	30.733	30.775	36.279	32.167	29.712
41.356	29.202	20 1/13 1	32 074 1	28.888	29.617	33.9	26.798
26.581	31.982	27.498	27.212	31.719 25.233 29.155	26.421	33.47	27.352
28.145	32.174	26.507	26.235	25.233	32.97	31.179	33.562
20.143	29.995	34 048 1	25.881 I	29.155 I	33 47 1	28.864	26.892

stack rx latency,	us (doesn't include	e driver latency, net 34.485 31.232 42.944 35.136 32.858 32.533 40.992 36.437 39.366 35.136 33.184 37.901 34.974 42.782 38.389 37.251 33.835 31.883 32.696 37.576 41.317 37.738 35.288 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 42.618 31.72 37.413 38.389 37.901 41.155 41.48 32.696 33.997 33.509 32.208 35.95 32.37 33.595 32.37 33.595 32.37 33.595 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.208 35.95 32.37 33.509 33.84 34.408 44.155 44.68 44.155 46.68 35.68 41.64 41.155 41.64 41.64 33.56 33.56 41.64 33.56 33.65	subsystem -> app):	packets 1024:			
54.168	36.437	34.485	32.533	31.882	32.534	31.72	32.696
32.208	31.069	31.232	40.504	41.968	36./62	40.341	42.294
35 299 1	40 829 1	35 136 1	36 437	42 456 1	40 504 1	36 6 1	35 624 1
37.576	37.414	35.136	36.438	35.787	33.997	34.486	34.16
35.787	32.696	32.858	31.72	32.208	31.394	37.413	36.437
34.974	35.299	33.835	33.022	39.203	39.528	33.346	32.045
32.534	32.696	32.533	32.371	31.72	32.859	32.858	41.317
40.504	38.064	40.992	35.624	36.925	40.83	40.66/	35.624
41.40 37 413	40.03 37 413	30.437	40.016 37.251	40.992 35.136	40.13 35.299	42.701 33.509	30.702 41 318
37.413	35.787	35.136	35.136	38.064	40.829	32.533	31.72
37.739	35.624	33.184	31.557	31.232	32.371	33.184	37.738
43.757	43.432	37.901	45.709	40.016	37.902	39.528	38.715
33.184	33.997	34.974	36.6	33.021	36.926	36.6	40.829
40.504	35.95	42.782	40.341	35./86	41.31/	37.414	3/.251
32 046 1	43 106 1	37 251 1	36 112	35 299 1	35 461 1	42 456 1	40 341 1
36.112	36.925	33.835	33.672	33.835	34.648	32.371	39.528
32.696	34.16	31.883	33.51	32.37	38.877	32.371	32.208
31.72	34.973	32.696	37.413	32.533	32.046	32.858	39.203
39.202	40.667	37.576	32.858	42.944	44.734	37.088	40.504
35.136	46.197	41.317	37.25	36.112	33.346	36.763	34.16
35 298 1	36 275 1	37.730	35 299 1	37 902 1	37 25 1	36.61	32 371
33.184	33.672	33.184	33.021	32.696	31.72	33.022	33.184
39.691	37.901	32.696	33.835	34.811	33.347	32.208	37.088
32.696	33.834	32.045	32.696	35.461	32.696	40.667	35.624
40.341	43.269	31.72	40.341	47.174	37.738	42.618	33.184
37.739	42.619	42.618	34.811	37.901	42.944	36.6	41.154
34.463	34 486 1	37.000	32 371	32 371	34.974	33.104	31 72
31.882	35.136	37.413	33.021	33.51	33.672	33.184	33.998
32.046	31.394	34.322	33.835	33.509	32.696	31.883	34.16
34.974	37.576	40.83	41.155	33.021	41.48	40.992	36.275
40.342	31.72	38.389	40.667	36.763	40.83	37.901	34.81
48.312	42.618	37.901	38.877	38.552	37.088	37.576	42.456
32 045 1	32 696 1	41.134 32.859	30.437	39.320	32.022	33.309	34.323
32.208	38.064	33.184	38.064	32.208	35.949	31.72	45.547
33.835	34.323	34.486	35.136	33.184	36.275	33.672	42.944
41.805	37.576	41.155	33.672	42.294	42.131	35.949	43.432
32.696	38.064	41.48	33.997	35.787	32.208	34.974	34.973
35.95	35.136	32.696	40.504	43.106	41.318	42.293	35.136
32 045 1	32 533 1	33.507	32 37	31 557 1	38 39 1	32 696 1	35 461 1
32.533	31.395	32.208	33.509	33.184	32.045	32.696	32.371
31.557	34.323	35.95	46.197	43.107	33.509	43.757	44.896
36.112	39.853	32.37	37.088	36.6	42.131	35.95	32.696
37.414	34.974	35.136	35.299	32.37	37.088	35.462	39.04
34 16 1	37 576 1	40 667 1	40 179 I	40 829 1	39.033 41 642	31.002	33.346 40 341
39.691	40.016	44.082	33.184	32.045	33.51	33.347	37.738
32.045	32.696	32.208	32.208	32.859	33.021	32.371	36.275
43.106	41.317	37.251	42.131	33.021	44.083	42.13	36.6
46.522	34.323	37.576	36.274	40.666	36.112	35.136	44.082
39.365	42.131	33./86 33.51	33.130	43.10/ 31 883	40.83	33.299	32.045
38.064	30.473	48.638 I	32.37	34.322	32.533	47.336	232.451
43.758	43.27	42.294	40.667	278.16	42.294	40.992	43.92
43.758	53.843	41.155	43.757	52.704	53.355	34.323	42.456
35.299	35.461	40.504	39.854	42.944	54.493	37.738	44.083
52.704	57.747	41.805	40.504	43.269	44.408	44.896	38.39
43.107	40.504	38.552 //1 969	44.U83 32 208	42./81 41 /0	33.624 42.456	41.48 32 371	35./8/ //1 //0
53,03	33.021	54.981	54.493	32.37	42.782	40.178	35.787
44.083	39.853	39.853	42.456	45.709	34.485	44.408	55.47
35.949	57.584	55.307	34.648	57.096	56.608	34.323	55.795 i
53.843	33.021	53.843	54.818	33.184	55.307	41.318	31.558
55.632	40.342	32.859	40.992	40.992	36.6	43.432	42.456
33.UZ1 43.757	48.03/	46.523	30.0 35 624	41.803 42.456	42.019	33.99 <i>1</i> 37 413	42./81 41 15/
41.968	38.064	35.624	42.13	35.461	35.299	35.787	35.461
35.298	35.624	35.136	36.763	38.064	43.757	42.456	42.619
45.384	42.131	39.365	35.787	40.992	40.504	41.968	41.805

36.763			36.274	41.155	42.618	36.437 35.95	
40.666 35.298		34.811 35.299	33.834	35.461 35.461	35.624 44.571	35.95 41.968	35.624 36.925
37.739	26 762	35.299	35.949 38.227 35.624	37 002	35.786	41.900	
37.576	38.227	35.461	35.62/	35 624	39.528		36.275
36.274	35.787	38 226	36.61	36 763	42 456	36.112	38.064
39.04	42.944	36.763	47.661	46.685	39.528 42.456 46.848	40.016	42.131
41.968	45 709	42.619	36.925	43.92	41.642		37 739 i
36.438	36.438	36.437	37.088	36.275	41.642 43.758	I 42.619 I	35.786 i
37.088	43.106	35.298	35.298	42.456	37.739	37.901	41 805 I
34.486	34.973 37.088	48.15	36.438	43.92	37.739 44.734 37.738	42.619 41.805	44.083
44.245	37.088	36.762	43.757	37.902	37.738	41.805	35.624
36.926	43.27	35.624	35,949 38,227 35,624 36,6 47,661 36,925 37,088 35,298 36,438 43,757 42,293 42,293 53,842 49,938 35,949 41,968	42.456	43.106 41.318	44.57	42.131
41.643	42.13 43.107	40.829	42.293	45.059 40.666	41.318	41.48 43.432	43.432 43.432
47.824 50.101	43.107 40.992	1 / · U ±	53.842	40.666	J4.JJ	1 4.5 . 4.5 /. 1	43.432 36.112
35.624	40.992 42.619 36.438	42.436	49.938	40.992	37.413	43.100	36.112 42.619
34.811	36 438 1	1 10.024	1 41.968	42.944		47.173	47.174
38.064	26 075	11.100	11.500	26.711	44.571	36.437	37.413
44.408	43.594	41.968	37.413 43.107	36.762 42.944	44.571 43.269	1 30./37.1	41.803 1
41.805	50.426	42.294	42.131	50.264	1 11 215	41.805	50.752
45.546	50.426 41.968 38.552	40.667	34.81	41.155	44.896	38.715	34.322
41.806	38.552	42.782	34.16	34.485	46.034		
37.088	41.806	35.786	37,413 43,107 42,131 34,81 34,81 34,16 44,082 42,131 41,48 43,106 51,728 35,787 35,426	34.973 42.619 43.432	34.323	36.6 41.805 36.6 36.925 43.107	34.323
42.456	43.432	41.968	42.131	42.619	46.36	36.6	42.618
34.81	34.973	43.595	41.48	43.432	42.619	36.925 43.107	40.016
46.198 50.102	42.781 43.106	42.782	43.106	42.618 41.48	44.896	43.107 44.082	42.781 41.155
40.504	43.106 41.318	42.131	51./28	41.48	40.829	44.082	41.155 41.968
37.088	41.310	1 16 36] 35.707 35.136	43.92 35.461	40.829 36.275 45.384	35.949 34.485	41.968
57.258	35 299 1	37 088	42.131 41.48 43.106 51.728 35.787 35.136 47.824 33.834 33.834	53.843	37 414	1 43 269 1	36.275
52.541	42.944	34.973	33.834	43.107	34.811	43.269 43.27 36.6	35.624
35.461	44.082	36.437	33.834 35.95 44.408 42.456 40.504	43.107 41.643	37.251	36.6	40.016
45.384	42.294 37.088 42.131	41.805	44.408	44.571	42.944		42.293
45.709	37.088	40.992	42.456	40.83	42.944 43.27	43.92	35.136
41.643	42.131	41.643	40.504	42.13	41.317	I 40.992 I	42 131 I
36.763	34.322 38.877	41.643	37.738	44.896 36.112	41.642 42.131	38.226	41.805
33.997 41.968	38.877	43.595	42.944	36.112 35.624	42.131 38.715		
41.968 36.6		34.648 35.298 44.082	37.738 37.738 42.944 45.059 34.973	35.624 41.805	38./15	42.944 35.299	34.973 42.944
41.318	42.456	35.298	41.317	53.192	36.6 54.656	1 12 121 1	11 215 1
52.541	43.595	1 51 077	1 41.31/	41 643	1 44 408	1 42.131 40.667 43.92	40.667
43.106		51.077 41.643 34.648	42.619 43.432	41.643 40.992	36.925	43.92	
34.811	42.131	34.648	36.925		35.298	1 34.485 i	43.432
36.926	35.461	49.288	36.925 36.925	35.624	48.637	37.739	35.462
44 083	36.275	34.648 49.288 43.758	44.408	36.112	35.949		37.576 I
42.618	37.25	36.437 42.944	42.294 40.829	36.926	35.949 38.714 42.782	43.595 42.456	35.299
43.269	37.25 44.083	42.944	40.829	36.926 42.131	42.782	42.456	42.781
48.475	43 595 1	51.24	40.829 43.92 41.48 35.949	43.432	44.7.54	42.293	41.643
45.059 34.16		40.341 37.25	41.48	35.136 41.806		42.294	35.136 35.136
34.16	41.643	3/.25	35.949 35.298 43.106	41.806	36.763 42.13 48.475	41.968 47.173 44.571	35.136 45.059
36.703	41.643 50.589	J J J J J J J J J J J J J J J J J J J	33.298	40.829	1 42.13	4/.1/3 4/.171	45.059 41.806
30.323	30.369	1 49.120	1 42.100	42./01	1 40.473	1 44.0/1	41.000

max val(#476) = 278.16us min val(#9) = 31.07us peak-to-peak = 247.09us mean +- RMS = 39.34 +- 10.88 us

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

complete ix latency	(Includes driver	Tatency and Stack	ratency), us (wire	-> app): packets	1024:		
00 610 1	60 020 1	65 412 1	50 101 1	62 252 1	50 624 1	57 000	63. 453 72. 257 72. 892 63. 358 64. 869 57. 877 70. 363 67. 069 63. 654 70. 255 57. 976 68. 904 65. 177 69. 597 70. 315 66. 945 67. 752 66. 555 61. 496 69. 937 68. 994 60. 558 63. 732 64. 496 69. 597 70. 315 66. 555 61. 496 69. 573 68. 994 60. 558 63. 637 63. 656 64. 732 65. 616 60. 457 70. 363 61. 894 61. 696 60. 573 61. 597 68. 467 69. 597 68. 467 69. 593 61. 597 61. 894 61. 696 60. 573 61. 597 68. 467 69. 593 61. 214 63. 533 61. 252 61. 047 63. 533 61. 275 73. 089 72. 926 66. 445 66. 445 66. 445 66. 445 67. 231 68. 162 68. 162 68. 162 69. 9005 68. 162 64. 722 66. 329
50.010	55.029	61.000	59.101	72.232	50.054	57.900	03.433
57.745	36.612	61.089	69.281	72.506	69.006	09.141	12.231
66.983	88.68	/5.6/9	69.664	72.079	08.341	/1.395	/2.892
69.019	69.499	61.269	67.549	/2.993	69.794	69.612	63.35
67.133	67.949	63.712	63.887	66.58	60.88	61.297	65.358
61.393	58.521	64.359	57.686	57.94	61.044	67.755	64.869
68.15	61.303	63.821	63.446	65.778	65.826	66.202	57.877
63.625	59.286	59.448	63.348	58.034	60.138	64.917	70.363
68.51	71.268	72.337	64.322	70.849	69.144	68.809	67.069
69.641	69.366	68.643	68.285	70.08	88.198	73.135	63.654
70.84	63.422	72.273	70.651	64.097	64.164	65.712	70.255
67.428	68.604	61.383	60.748	70.985	67.134	62.604	57.976
63.739	66.014	62.339	57.453	60.9	58.721	60.054	68.904
70.129	69.478	68.143 I	76.337	67.556 I	69.447	65.652	65.177
64.945	61.312 i	64.14	70.202	60.64	65.499 I	70.018	69.597 i
69.188	67.258 i	72.816 i	69.62	68.598 I	70.252 i	62.883	70.315
65 551 I	70 221 i	72 304 I	59 054 1	69 912 i	69 191 i	64 051	66 945 1
57 264 1	76 813 1	73 767 1	64 842 1	62 307 1	67 165 1	70 191	67 752 1
63 138 1	67 471 1	63 089 1	65 759 1	60 864 1	61 143 1	62 298	66 555 1
60 052 1	65 405 1	57 743 1	50 03 1	63 1/19 1	65 647 1	59 259	61 / 196
57 346 1	60 671	66 383 1	63 383	59 172 1	62 219 1	58 524	60 037 1
75 712 1	68 672	71 /36	58 757 1	72 783 1	7/ 8/9	70 515	68 994 1
66 702 1	75 007 1	72 001 1	70 6	65 630 1	50 001 1	70.515	60.554
60.703	/3.09/	/3.001	74 357 1	03.030	59.691	/1.069	60.000
61 01 5 1	62.006	03.002	(1.33/	70.57	70 530 1	66.330	53./32
01.013	62.966	60.777	01.39	54.232	70.556	66.329	30.400
64.214	38.968	60.797	64.97	38.608	5/.456	64.591	60.214
67.039	68.812	61.02/	65.009	63.18/	59.999	02.101	63.551
59.351	65.045	58.172	38.394	68.4/5	38.462	70.252	67.656
69.064	/1.8/	64.3//	69.684	80.938	/2.41/	/3.936	60.45/
74.886	72.169	72.851	66.579	63.834	71.841	70.104	70.363
63.222	65.668	70.079	62.319	67.666	61.704	64.154	61.894
62.269	64.747	57.081	58.266	63.62	56.788	59.775	61.696
57.548	61.697	68.893	64.731	59.923	65.21	59.755	60.573
62.112	56.746	61.008	65.428	60.283	59.052	62.288	61.597
62.682	78.855	72.248	70.048	63.628	70.468	70.203	68.467
68.81	57.746	72.612	70.401	70.084	69.631	63.738	65.616
84.354	72.444	72.167	65.145	68.881	71.073	67.878	71.252
64.16	62.504	67.76	67.984	65.715	59.695	65.087	61.047
60.347	62.889	59.54	59.646	63.335	58.089	58.123	63.533
59.439	64.147	62.964	63.612	58.02	68.744	58.37	76.275
69.826	61.116	67.403	62.719	59.621	69.467	59.72	73.089
72.214	72.387	69.988	64.799	72.217	71.392	68.846	72.926
61.227	71.302	71.079	59.917	68.469	58.398	61.646	66.445
63.96	63.321	62.445	69.414	73.163 I	77.337	70.473	62.236
74.121	64.068 i	61.8	61.953 i	61.375 i	60.715 i	64.698	59.404
63.405	59.704	61.187	63.93	57.619	63.621	62.627	61.231
60.625	61.321	57.635	60.058	64.142	57.582	59.142	63.138
57.617	61.507	69.824	78.364	73.112	64.926	74.639	74.348
71.929	68.325	58.631	71.639	66.738	70.961	68.516	59.005
65 044 1	66 29 1	63 292 1	62 057	63 206 1	65 916 1	68 175	68 162
67 258 1	63 727 1	63 234 1	61 344 1	68 299 1	66 169 1	57 624	64 722 1
61 403 1	68 966 1	75 01 1	66 112	67 729 1	69 22 1	70 569	66 320 1
01.103	00.700	/5.01	00.112	07.729	07.22	70.309	00.329

73.123 59.157	66.971 63.011	70.409 58.602	63.754 58.591	57.574 64.221	59.089 59.374	65.236 58.371	63.9 67.6
76.344	69.361	70.374 72.897	70.802	64.422 68.791	74.895	71.543 62.249	69.
80.262 78.551	61.223 71.469	72.897 64.144	65.065 66.589	73.523	68.082 68.916	62.249 65.689	73.8 57.9
60.56	67.651	60.095	59.889	61.748	60.253	58.609	68.7
67.856	58.743	79.798	59.858	62.6	63.007	77.985	259.2
76.558 79.268	71.115 83.468	70.408 68.544	71.021 77.009	303.839 81.132	73.744 81.724	66.899 66.124	70.5 71.5
63.732	67.396	68.544 68.516	68.527	77.708	83.447	63.896	76.9
84.26 73.362	85.721 65.721	75.915	69.009 77.239	72.682 70.1	79.232 62.551	77.042 74.664	65.2 62.7
70.612	68.642	64.771 67.435	62.249	66.674	69.902	63.544	66.6
78.139	63.045	81.589 I	79.862	62.332	67.545	68.843	62.7
75.969 66.851	65.717 89.652	68.955 84.675	74.502 64.729	73.183 85.827	65.946 85.48	75.446 68.752	84.
82.246	63.746	82.112	84.427	63.044	83.395	74.082	57.2
86.033	75.682	59.803	69.456	73.874	65.189	73.797	73
59.583 76.868	80.519 62.427	80.537 67.887	65.068 67.778	68.501 70.573	73.39 70.331	61.111 70.979	70.2 67.6
68.924	70.298	61.856 65.868	68.439	64.912	61.092	62.764	66.
62.206	62.465	65.868	63.027	70.809	73.43	74.408	81.0
77.768 70.277	71.682 70.84	75.958 71.488	65.222 69.839	70.796 70.1	77.203 71.458	71.416 72.127	71.0 71.
69.462	68.055	60.953 I	60.022	67.342	61.993	62.426	66.1
61.082	63.183	66.264 68.196	62.193	61.527 66.091	80.04	74.073 69.057	63.9
68.924 70.141	62.779 65.654	62.828	66.679 66.009	62.399	66.933 66.429	71.578	69.6 62.9
62.267	66.073	66.517	63.853	70.307	72.057	65.442	73.4
69.338 71.995	72.494 76.915	70.744 72.905	80.941 70.538	78.937 73.453	78.119 71.027	78.893 73.067	71.6 67.0
70.814	65.552	67.253 I	69.782	62.933	70.187	77.148	62.2
64.25	75.186	62.536 86.93	61.627	73.876	65.515	64.404	73.4
60.903 78.034	61.112 64.662	86.93 64.116	63.796 77.183	72.642 66.574	82.349 64.821	71.269 73.339	71.8 62.0
63.293	76.715	62.232	71.411	81 452 I	70.923	87.805	71.3
70.272	81.394	69.755	70.869	86.337	71.297	70.431	82.1
81.999 85.353	72.73 67.916	88.645 69.918	82.694 82.761	67.937 67.917	89.896 61.509	75.646 75.338	73.2 63.8
62.171	79.666	69.918 61.508	62.558	75.365	63.588	64.193	74.7
61.621 66.092	63.534 62.584	81.806 74.898	67.844 65.91	78.689 64.671	67.755 77.929	77.471 65.708	82.5 65.2
79.159	74.835	72.547	84.944	73.15	74.307	91.636	71.6
71.023	91.442	71.867	73.232	90.975	73.939	74.58	92.5
77.155 74.298	71.348 67.178	72.355 75.848	62.152 61.396	71.455 61.5	81.784 82.847	69.878 67.383	61.6 63.0
64.782	73.778	62.597	77.935	61.859	61.12	73.187	60.3
69.357	81.276	68.431 I	69.633	78.779	74.579	66.236	74.4
61.083 86.816	61.446 72.121	75.339 72.069	72.783 83.41	70.351 72.518	74.728 74.275	63.541 85.684	68. 72.4
91.974	73.322	72.137 60.359	93.211	70.489	69.323	83.122	70.0
68.708	80.217	60.359	64.741	77.513	62.48	66.665	74.2
64.778 90.326	71.433 61.51	80.151 64.623	61.989 79.961	61.232 80.647	79.425 67.751	61.597 82.47	68.2 67.1
80.423	75.536	60.865	64.689	75.572	61.874	75.04	62.3
61.551 79.096	76.923 71.906	63.465	62.404 75.191	73.949	63.562 82.749	67.012 70.453	69.4 71.6
87.441	67.226	81.552 70.837	81.117	75.775 69.587	72.637	84.856	63.7
70.514	80.616	71.445 I	69.824	81.373	70.514	69.386	82.1
64.141 60.774	60.921 67.238	81.371 77.257	67.06 73.285	78.09 63.913	72.879 73.778	69.439 63.467	73.9 61.8
73.671	60.755	61.042 I	79.435	63.434	65.525	77.825	62.0
63.504	74.6	61.673 84.661	61.412	74.99	65.455	61.492	74.8
70.229 94.861	70.592 71.377	84.661 93.152	70.302 72.471	89.907 71.522	96.033 84.47	73.416 69.229	75.8 69.0
82.115	71.408	70.538	83.294	69.631	62.91	86.662	62.0
63.584	73.93	61.08	63.666	77.057	61.709	60.866	75.6
64.91 77.518	61.697 63.081	88.311 70.781	63.837 77.526	62.328 62.638	83.776 61.783	67.611 75.63	61.3 66.1
75.474	64.187	62.921	74.766	63.587	65.521	85.926	62.2
73.235	85.499	72.49	69.578	80.57	72.356	71.57	62.2 81.6 71.3 61.9
81.154 86.415	74.949 71.821	93.U23 69.484	73.554	64.024	01.013 71.911	76.194 I	61.9
60.741	64.187 85.499 74.949 71.821 73.625 73.817	64.748	63.161	73.525	63.184	85.926 71.57 74.46 76.194 75.438 78.352	62.4
64.908	73.817	62.294	74.766 69.578 74.653 73.554 63.161 61.533 68.987	66.062 71 936	65.521 72.356 81.013 71.911 63.184 75.1 81.945	78.352 73.435	78.0 68.0
62.395	00.004	00.1/4	00.501	/1.220	Oエ・フセン	10.400	00.1

packet size: 526 number of packets: 1024 RATE = 4.21kbps, PPS = 1.0

3.2.2 RAW AF_PACKET, 128 PPS

root@am57xx-evm:~# ./plget -i eth0 -t raw_ptpl2 -m rx-lat -n 1024 SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12 SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12 setting ts_flags: 0x58 new ts_flags: 0x58

38.698 I	25.448	24.63 23.442 26.442 30.611 24.3 23.644 25.691 24.145 25.919 23.192 26.228 21.905 23.247 21.527 21.527 21.558 23.854 28.891 22.743 22.208 22.208 22.406 22.208 22.408 22.208 22.408 22.208 22.408 22.208 22.408 22.208 22.408 22.208 22.408 22.208 22.208 22.408 22.208 22.209 22.408 22.209 22.408 22.209 22.408 22.209 22.408 22.209 22.408 22.209 22.408 22.208 22.209	26.839	25.121	24.397	26.197 I	24.257
23.658	23.571	23.442	23.755	27.496	24.238	23.761	25.832
23.674	23.675	30.611	26.284	26.704	26.516	26.072	24.22
28.293	23.839	24.3	23.869	24.099	26.244	24.385	24.5
23.515	24.289	25.691	24.846	25.059	23.647	24.787	23.577
24.338 24.182	26.485 23.825	24.145 25 919	23.739 25.876	36.398 24.672	24.533 23.548	24.174 25.871	23.704
23.428	23.602	23.192	23.599	26.007	24.046	23.841	25.606
25.598 23.587	24.474 22.905	26.228 21.905	23.095 24.447	23.568 24.408	23.814 25.069	23.857 25.019	31.13 22.536
24.091	21.996	23.247	21.667	23.518	21.513	21.744	23.138
24.278 21.759	24.152 23.794	21.527 21.95	23.843 22.097	25.855 23.51	23.008 24.726	21.945 22.963	23.108
21.725	24.5	27.567	23.287	23.888	22.052	23.833	21.559
22.816	22.093	21.558	23.578	23.306	24.216	21.989	24.265
24.005	22.502	23.854	21.041	21.288	22.988	21.799	21.711
24.414	21.343	22.743	21.273	23.874	26.355	22.202	23.776
22.042	23.896	21.346	21.523	25.148	24.436	21.987	23.047
21.748	24.227	27.752	24.002	23.643	21.922	23.838	21.609
23.614 22.991	21.886 21.56	24.552 21.846	24.098 23.76	22.374 23.678	21.759 23.735	24.612 21.447	22.345 24.385
24.494	22.268	23.669	21.454	21.709	22.841	21.778	21.757
23.441 21.836	21.48 21.889	28.685 22.874	23.499 21.669	23.86 23.51	24.696 22.119	24.222 21.709	22.757
24.493	24.137	21.462	24.078	25.567	22.561	21.776	23.316
21.516	24.651	28.115	23.669	23.433	22.243	23.622	22.249
23.843	21.394	24.408	24.41	22.375	21.955	24.738	21.61
24.778	22.707	24.353	21.766	22.101	22.894	21.786	21.812
23.431	25.622	30.917 22 983	24.577	24.056	23.991	24.014	23.751
21.867	24.068	22.209	21.916	25.805	24.783	21.725	23.279
22.044 23.145	24.055 30.771	21.907 26.358	21.931 23.13	23.569 23.751	24.92 21.989	22.874 23.725	21.898
23.54	21.606	24.626	24.453	23.157	22.545	24.385	21.533
23.078 24.49	21.846 22.619	21.451 24.246	23.645 21.808	23.463 21.626	23.877 23.364	21.682 21.681	24.634
23.973	27.657	24.08	22.287	23.649	24.706	24.057	22.946
24.061	24.587	21.785	24.546	25.836	22.841	21.967	23.099
22.158	23.688	22.16	21.604	23.873	24.661	22.786	21.986
23.669	21.648	24.753	24.766	21.891	21.932	24.58	24.369
23.213 24.463	22.038 22.961	21.835 24.662	23.844 21.962	23.299 21.902	24.223 23.322	22.224 21.888	24.605 21.643
23.842	28.718	23.993	24.5	23.694	24.539	24.322	22.804
24.368 21.806	21.703 24.451	23.365 22.15	21.718 21.907	23.775 25.802	25.239 22.368	22.447 22.321	23.974
22.265	24.03	22.319	21.788	23.662	24.804	22.746	21.922
23.88 23.977	21.987	26.301 26.583	23.606 24.459	23.676 23.291	22.113 25.401	24.218 24.44	21.723
23.391	23.214	21.371	23.001	26.005	22.278	22.023	23.495
24.159	28.032	24.268	24.682	23.877	24.41	24.416	22.985
23.108	22.517	23.64	26.115	23.279	21.925	22.742	23.179
22.187	23.449	21.898	21.515	23.995	25.164	22.837	30.816
25.738 23.544	23.96 22.55	22.938 24.871	23.997 24.446	23.889 23.063	23.188 21.858	23.803 24.289	21.481
23.259	21.902	21.729	23.577	23.372	24.354	22.169	24.829
24.308 23.6	22.983 21.909	24.081 23.814	21.541 24.139	24.303 23.605	23.344 24.426	22.508 24.403	62.628 22.218
24.488	21.514	23.318	21.675	24.001	25.656	22.405 21.952	23.69
21./2/	23.553	21.914	21./59	23.65	24.684	22.954	30.893
23.713 24.011	24.454 22.296	25.863 24.649	22.958 24.399	24.053 22.583	22.05 21.963	24.057 24.458	21.618 23.681
23.474	22.082	22.087	23.716	23.863	24.084	21.89	24.643
24.276 24.342	22.743 24.234	24.363 24.059	22.074 26.806	23.99 25.7	23.508 26.722	22.285 26.727	72.21 24.655
23.328	23.793	24.285	23.76	24.031	23.854	23.734	24.089
26.279 24.097	26.011 23.967	24.4 23.826	26.21 23.682	26.067 23.838	26.321 26.521	24.057 24.914	23.842
24.244	26.417	26.611	24.013	25.617	23.995	24.497	24.05
24.436 24.064	23.927 24.084	26.476 23.297	26.34 23.947	24.97 25.395	24.014 24.235	26.578 24.099	26.24 23.91
26.532 23.997	24.653 24.028	26.073 25.759	24.109	26.294 25.967	24.18 24.374	24.267 24.165	52.50 23.96
26.146	23.612	23.844	24.324 23.4	24.304	25.632	24.165 24.851	23.97
24.128 24.026	24.416 23.972	23.833 23.901	23.703 23.385	26.14 24.035	24.558 37.844	24.063 25.175	24.21
24.359	26.661	26.12	23.921	25.345	23.836	24.389	24.38
23.997 24.195	23.618 23.905	26.416 23.778	26.329 23.711	24.281 25.165	23.806 23.909	26.239 23.935	26.28 26.01
26.441	24.724	26.389	24.251	26.483	34.037	24.266	23.958
23.5 23.608	24.064 24.272	24.072 23.94	23.958 24.16	25.506 23.875	26.42 23.781	26.124 24.492	24.649 23.91
24.089	26.149	23.71	26.176	28.108	24.965	23.988	23.89
24.086 23.902	23.922 25.914	23.763 26.511	23.601 23.852	23.908 25.871	29.6 24.707	27.109 24.021	47.687 23.83
23.84	23.62	24.187	25.94	24.839	24.234	26.658	26.221
23.849 26.268	23.995 24.415	23.582 26.925	23.888 23.676	25.592 24.146	24.166 29.864	23.91 24.259	23.945 23.932
23.429	24.015 24.155	23.818 23.676	23.867 24.17	25.361 24.043	26.664 24.874	26.36 24.256	24.392 24.019
26.077							

23.78	23.7	23.862	23.519	23.849	28.999	26.846	26.24
23.938	26.166	26.423	24.527	25.656	24.008	23.904	24.13
23.89	23.387	23.696	23.86	26.081	23.738	26 j	
23.304	23.912	23.344	23.383 i			24.295	24.302
		26.453					
		23.765					
		23.713				23.41	
		23.568					
		23.729					
		23.868					
		23.641					
		23.433					
		26.166					
		23.378				26	
25.642	23.278	23.438	23.873	23.594			
		23.456					
		26.708			23.54		
		26.278					
		23.643		24.643	23.478		
		23.665					
		25.629					
		23.445			26.62		
		23.94					
		23.529			24.57		
		24.034			23.77		
23.217		26.011				23.91	

max val(#599) = 72.21us min val(#147) = 21.04us peak-to-peak = 51.17us mean +- RMS = 24.25 +- 2.92 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app): packets 1024:

stack rx latency,	us (doesn't includ	de driver latency,	net subsystem ->	app): packets 1024:			
65.067	35.299	35.787	I 50.59	35.95	34.811	48.312	35.462
34.486	35.949	31.395	37.738	36.112	34.648	34.16	48.475 I
34 811	34 973 1	46 197	34 322	34 648 1	46 848 1	35 624 1	31 883 i
47 011 1	35 95 1	43 757	48 963	34 811 1	34 648 1	48 963 1	35 461 1
44 082 1	16 36 1	3/ /85	35 136	3/1 8/1 1	40 992 1	35 949 1	35 /61
36 274 1	3/ /85	16 685	37.130	36 112 1	35 136 1	3/ 973	3/ 9/3
10 0 1	22 271 1	26 420	1 16 606	30.112	26 762 1	25 200 1	54.005
35 300 1	40 627 1	30.430	26.000	50.715	36.705	35.230	34.003
33.290	2/ 07/ 1	100	30.702	24 405 1	47 011 1	25 126 1	37.024
24 640 1	25 200 1	21 557	1 40 030	34.403	47.011	46 025 1	25 200
24.640	46 100 1	31.337	1 24 16	1 17 173 1	34.323	35 200 1	55.299
22.000	21 700 1	20.000	25 701	1 22 772 1	20.230	24 725	22 449 1
27 653 1	25 701	20.000	25.701	21 31 1	19 195	29 117 1	24 888 1
23 000 1	27 816 1	23 099	23.001	27 /91	22 //8	25 864 1	27 165 1
20.333	20 171	23.033	21.75	22 936 1	27 916 1	23.004	44 733 1
28 141	23 587 1	24 4	23 424	1 19 194 1	19 032 1	24 725 1	23 261 1
23 912 1	27 003 1	23 586	22 936	27 491 1	22 286 1	21 96 1	25 701
21 797	18 869 1	23.300	22.330	22 448 1	23 099 1	21 634 1	22 285 1
28 141	22 61 1	22 286	26.84	25 701	21 96 1	19 194 1	18 869 1
19 357	21 797	23 098	29 931	21 472 1	22 285 1	26 84 1	22 936 1
21 797	32 046 1	21 798	1 19 846	1 19 52 1	27 653 1	21 147 1	20 984 1
25 051	21 309	25 376	25 051	24 4 1	27 166 1	25 539 1	21 797 1
24 725 1	20 496 1	22 773	26.84	24 238 1	22 773 1	27 49 1	44 733 1
22.285	27.979	26.027	23.749	24.725	19.357	19.195	22.448
22.936	21.472	27.165	23.099	21.472	26.514 i	22.774	25.702 i
20 333 1	19 195 1	18 056	21 309	22 611 1	23 099 1	21 634 1	22 448 1
27.166	23.587	22.286	27.165	25.214	21.96	19.52	37.251
19.683	28.141	24.4	25.702	27.979	23.424	22.936	27.328
21 96 1	23 261 1	27 49	20 008	21 634 1	23 587 1	22 936 1	22 936 1
27.491 I	23.424	21.96	29.442	23.099	21.31	31.069	21.309
19.357 i	20.821	22.285	21.96	23.912	22.122	27.978	25.864
21.798 I	27.816	24.888	1 23.75	24.725 [20.17 i	19.845	22.286
22.286	22.123	28.141	23.098	22.773	26.84	23.261	25.864
21.472	18.381	18.544	25.864	23.261	23.586 i	26.84	22.285
22.611 i	27.653 i	23.587	21.96	24.726	21.797 i	19.032	24.075 I
20.659 i	24.888	25.051	24.888	22.773	28.955	22.936	23.912
28.304	25.539	22.448	24.888	20.984	27.653	26.027	20.659
25.539	21.146	18.707	23.912	30.744	23.912	26.027	27.654
20.334	20.008	22.448	21.797	22.773	27.816	23.099	25.538
27.165	23.098	23.424	25.701	21.147	18.544	20.334	22.774
28.467	22.286	22.936	27.003	22.773	21.309	27.165	25.213
20.333	19.194	18.544	21.31	22.773	23.587	21.147	27.816
22.936	21.797	26.84	27.328	24.888	27.165	19.682	38.714
24.888	22.611	24.075	28.467	22.448	22.122	27.653	22.61
22.285	31.232	21.797	19.52	20.496	18.706	17.893	24.562
23.099	28.142	22.773	23.749	27.978	22.936	25.701	27.653
20.171	19.845	22.285	21.635	21.96	27.49	24.562	25.051
26.677	22.936	22.448	26.352	20.821	19.52	25.539	22.773
23.587	27.491	23.424	22.61	22.774	21.634	23.099	27.816
26.027	20.821	24.4	21.147	22.774	23.912	21.96	22.61
28.467	22.61	22.448	27.002	25.213	21.472	19.683	35.624
20.496	22.448	24.888	29.28	22.448	22.936	27.979	22.774
22.285	25.701	22.285	19.683	20.008	27.165	21.635	20.984
25.864	20.659	18.382	20.658	19.52	22.285	25.051	20.822
18.869	19.52	22.448	21.798	30.094	23.586	22.611	24.725
22.448	22.285	29.443	27.003	21.309	26.514	20.008	22.611
25.912	21./9/	25.051	23.099	21.96	21./9/	22.448	22.285
20.213	22.123	10.036	20.02/	20.490	22.440	40 357 1	20.912
20.200	27.010 22.440	22.448	1 27.328	24.000	28 620	13.33/	23 000 1
20.364	22.448	23.912	1 23.149	21./98	20.029 10.707	25.424	20.099
20.033	23.370	20 000	20.400	21.750	23 262 1	25.550	26 24 1
20.1/1 19.8/5	21.309	20.000	23.73	20.333	27 653 1	20.027	20.04
28 467 1	23 749	21 96	27 165	21 798	19 846	26 189 1	23 099 1
23 749 1	27 003 1	23 424	22 285	27 328 1	22 285 1	22 611 1	27 003 1
25 702	19 194 1	24 238	21 96	22 61 1	23 75 1	20 984 1	22 448 1
28 467 1	23 424	22 448	27 003	22 448 1	25 539 1	20 008 1	19 52 1
19.032	27.979	23.587	23.912	27.166	22.936	22.611	27.491
22.61	25.05	27.328	19.845	20.333	27.166	21.472	19.845
25.702	21.146	18.544	25.376	24.4	27.816	26.027	22.122
24.075	20.496	22.448	27.003	23.912	21.797	27.491	24.4
22.936	27.816	26.84	27.491	26.84	19.52	20.17	22.61
22.611	21.309	27.328	23.424		26.677	23.098	23.424
25.539	20.496	18.869	26.84	22.448	23.749	27.49	22.936
22.936	26.84	22.773	27.979	30.093	26.027	20.822	34.323
37.088	37.088	35.461	36.925		47.662	34.811	34.811
47.824	34.648	34.811	47.987		34.973	47.499	34.322
34.973	47.01 i	34.16	35.461	35.136	35.136	34.648	47.336
35.298	34.973	35.787	31.232	34.648	48.8	34.648	42.456

40.323 34, 977 34, 648 33, 997 34, 811 35, 299 34, 323 34, 818 46, 848 34, 486 35, 299 47, 01 35, 95 35, 299 35, 299 35, 462 47, 661 35, 462 34, 323 33, 509 34, 485 35, 136 34, 811 34, 811 43, 432 35, 624 35, 299 46, 36 34, 811 35, 136 46, 686 35, 461 34, 974 47, 661 35, 298 30, 744 35, 298 34, 323 47, 174 34, 648 31, 395 37, 674 35, 299 37, 499 35, 299 47, 499 35, 299 47, 499 35, 299 47, 499 35, 299 34, 16 34, 648 34, 16 34, 648 34, 16 34, 648 35, 169 34, 648 36, 31, 323 34, 547 37, 38, 38, 38, 38, 38, 38, 38, 38, 38, 38	38.39 38.39 35.298 34.973 35.462 34.323 35.299 30.907 46.685	33.835 34.811 33.021 36.438 31.558 35.787 47.498 35.787 47.498 35.787 33.672 35.624 34.81 36.762	48.312 34.811 32.046 33.835 48.475 34.974 34.973 35.136 35.949 34.485 33.998 35.299	34.323 46.522 32.533 40.829 35.766 50.752 34.973 33.672 35.624 49.938 34.973 31.232	33.998 34.81 44.896 37.576 34.648 35.136 35.136 47.174 33.834 35.461 46.848	34.648 36.438 35.136 35.786 47.173 61.325 35.299 34.81 47.499 35.136
46.848 34.486 35.299 37.462 37.01 35.299 35.299 35.462 34.323 35.462 34.323 35.509 34.485 35.136 34.811 34.811 34.811 34.811 34.811 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.461 35.298 36.244 37.44 37.44 37.44 37.298 36.298 36.298 36.298 36.298 36.298 36.298 36.299 37.174 37.173 37.298 37.174 37.298 37.299 37	38.39 35.298 34.973 35.462 34.323 35.299 30.907 46.685	34 . 81.1 33 . 02.1 36 . 43.8 31 . 55.8 35 . 78.7 47 . 49.8 35 . 78.7 33 . 67.2	32.046 33.835 48.475 34.974 34.973 35.136 35.949 34.485 33.998	32.533 40.829 35.786 50.752 34.973 33.672 35.624 49.938 34.973	44.896 37.576 34.648 35.136 35.136 47.174 33.834 35.461	35.136 35.786 47.173 61.325 35.299 34.81 47.499
35.299 47.01 35.95 35.299 35.299 35.462 47.661 35.462 34.323 33.509 34.485 35.136 34.811 34.811 43.432 35.624 35.299 46.36 34.81 35.136 46.686 35.461 34.974 47.661 35.298 34.74 47.661 35.298 34.74 47.661 35.298 34.74 47.661 35.298 34.74 35.298 34.74 35.298 34.74 35.298 34.648 36.208 35.299 47.499 35.299 47.499 35.299 47.499 35.299 34.16 45.872 34.485 34.16 35.462 34.648 34.16 46.36 33.509 34.648 34.16 46.36 34.323 34.522 45.547 34.973 34.323 34.322 45.547 34.973 34.323 34.973 34.323 34.322 33.834 45.872 33.835 34.648 33.997 33.509 34.322 33.834 45.872 34.648 33.997 33.346 33.997 34.16 33.835 34.648 33.997 34.16 33.835	35.298 34.973 35.462 34.323 35.299 30.907 46.685	33.021 36.438 31.558 35.787 47.498 35.787 33.672	33.835 48.475 34.974 34.973 35.136 35.949 34.485 33.998	40.829 35.786 50.752 34.973 33.672 35.624 49.938 34.973	37.576 34.648 35.136 35.136 47.174 33.834 35.461	35.786 47.173 61.325 35.299 34.81 47.499
35.95 35.299 35.462 47.661 35.462 34.323 33.509 34.485 35.624 35.299 46.36 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.136 34.81 35.298 30.744 35.298 30.744 35.298 34.323 34.352 37.174 34.648 31.395 37.174 34.648 31.395 37.174 34.648 31.395 37.174 35.299 35.299 37.299	34.973 35.462 34.323 35.299 30.907 46.685	36.438 31.558 35.787 47.498 35.787 33.672	48.475 34.974 34.973 35.136 35.949 34.485 33.998	35.786 50.752 34.973 33.672 35.624 49.938 34.973	34.648 35.136 35.136 47.174 33.834 35.461	47.173 61.325 35.299 34.81 47.499
34. 485 35. 136 34. 811 34. 811 43. 432 35. 624 35. 299 46. 36 34. 81 35. 136 46. 686 35. 461 34. 974 47. 661 35. 298 30. 744 35. 298 34. 323 47. 174 34. 648 31. 395 37. 174 35. 297 35. 299 35. 299 47. 499 35. 299 47. 499 35. 299 34. 16 45. 872 34. 485 34. 163 35. 462 34. 648 36. 33. 509 34. 648 36. 33. 509 34. 648 36. 36. 36. 36. 36. 36. 36. 36. 36. 36.	30.907 46.685	31.558 35.787 47.498 35.787 33.672 35.624	34.974 34.973 35.136 35.949 34.485 33.998	50.752 34.973 33.672 35.624 49.938 34.973	35.136 35.136 47.174 33.834 35.461	61.325 35.299 34.81 47.499
34. 485 35. 136 34. 811 34. 811 43. 432 35. 624 35. 299 46. 36 34. 81 35. 136 46. 686 35. 461 34. 974 47. 661 35. 298 30. 744 35. 298 34. 323 47. 174 34. 648 31. 395 37. 174 35. 297 35. 299 35. 299 47. 499 35. 299 47. 499 35. 299 34. 16 45. 872 34. 485 34. 163 35. 462 34. 648 36. 33. 509 34. 648 36. 33. 509 34. 648 36. 36. 36. 36. 36. 36. 36. 36. 36. 36.	30.907 46.685	35.787 47.498 35.787 33.672 35.624	34.973 35.136 35.949 34.485 33.998	34.973 33.672 35.624 49.938 34.973	35.136 47.174 33.834 35.461	35.299 34.81 47.499
34. 485 35. 136 34. 811 34. 811 43. 432 35. 624 35. 299 46. 36 34. 81 35. 136 46. 686 35. 461 34. 974 47. 661 35. 298 30. 744 35. 298 34. 323 47. 174 34. 648 31. 395 37. 174 35. 297 35. 299 47. 499 35. 299 47. 499 35. 299 34. 16 45. 872 34. 485 34. 163 35. 462 34. 648 36. 33. 509 34. 648 36. 33. 509 34. 648 36. 36. 36. 36. 36. 36. 36. 36. 36. 36.	30.907 46.685	47.498 35.787 33.672 35.624	35.136 35.949 34.485 33.998	33.672 35.624 49.938 34.973	47.174 33.834 35.461	34.81 47.499
34. 485 35. 136 34. 811 34. 811 43. 432 35. 624 35. 299 46. 36 34. 81 35. 136 46. 686 35. 461 34. 974 47. 661 35. 298 30. 744 35. 298 34. 323 47. 174 34. 648 31. 395 37. 174 35. 297 35. 299 47. 499 35. 299 47. 499 35. 299 34. 16 45. 872 34. 485 34. 163 35. 462 34. 648 36. 33. 509 34. 648 36. 33. 509 34. 648 36. 36. 36. 36. 36. 36. 36. 36. 36. 36.	30.907 46.685	35.787 33.672 35.624	35.949 34.485 33.998	35.624 49.938 34.973	33.834 35.461	47.499
34.811 34.811 34.811 35.624 35.299 46.36 35.136 46.686 35.461 34.974 47.661 35.298 30.744 35.298 30.744 35.298 30.744 35.298 34.648 31.395 47.174 34.648 35.299 47.479 35.299 47.499 35.299 47.499 35.299 47.499 35.299 34.16 45.872 34.485 34.16 35.462 34.648 34.16 46.36 34.509 34.648 34.323 34.324 33.333 34.324	I 46.685 I	33.672 35.624	34.485	49.938 34.973	35.461	47.499 35.136
46.686 35.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.	46.685 35.787 34.973 46.522 34.974	35.672 35.624 34.81 36.762	33.998	34.973	35.461 46.848	.5.7 . 1.50 1
46.686 35.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.	34.973 46.522 34.974	34.81 36.762	35.299			
46.686 35.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.	46.522 34.974	36.762	33.299		35.136	33.998 47.986
46.686 35.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.461 37.471 37.	34.974	30.702		47.986	34.323	34.81
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	34.5/4		35.95 35.624	43.107	47.661	32.696
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835		35.787	46.36	34.648	35.136	35.136
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	34.648	34 648 1	46.198	34.81	34.81	47.661
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	46.36	34.648 36.275 42.944 35.787 34.16	35.461	35.787	30.744	34.81
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	35.949	42 944 1	35.136	43.92	34.973	35.461
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	35.624	35.787	46.523	35.299	34.486	46.523
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	46.848	34.16	33.997	36.275	35.624	35.299
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	30.906	36.6	35.136	47.336	33.672	34.648
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	34.811	36.6 46.523 35.624	36.763	42.944	46.36	35.136
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	34.16	35.624	46.523	34.973	35.299	35.299
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	47.336	34.81	34.811	46.035	34.973	34.16
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	33.834	48.637	35.462	33.997	45.709	34.322
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	34.486	34.81 48.637 33.672 36.112	46.522	42.456	34.323	34.648
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	47.336 33.835 33.997	36.112	33.997	46.36	34.81	33.997
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	33.835	46.198 36.112		33.834	47.824	36.438
45.547 34.973 34.323 45.547 39.853 34.16 46.848 33.997 33.509 34.322 33.834 45.872 34.648 33.835 34.648 34.16 33.346 33.997 34.16 33.835	33.997	36.112	34.486 46.848	34.485	33.834	45.709
34.16 33.835	33.834	41.154	34.3/4	47.001	34.811	34.485
34.16 33.835	34.323		34.81	34.485	46.523	34.974
34.16 33.835	34.323	33.997	46.36	33.672	34.323	46.36
34.16 33.835	45.547	36.112	35.136	34.648	33.672	35.299
34.16 33.835	33.672		34.648	34.16	34.811	34.648
34.16 33.835	34.16	24 46 1	22 224 1	34.486	45.872	34.485
34.16 33.835	35.136 33.184	34.16	33.834 47.662	38.226 34.648	34.974 33.834	34.974 46.848
34.16 33.835		33.290	34.485	34.486	33.834	34.486
34.16 33.835	1 33.104		34.403	46.36	34.485	34.485
34.16 34.16 34.648 34.16 46.36 34.16 34.485 45.547 34.811 34.811 46.36 34.648	41.968	41.805	24 222 1			34.16
34.648 34.16 46.36 34.16 34.485 45.547 34.811 34.811 46.36 34.648	33.104 41.968 47.336	41.805 35.787 47.336	34.322		76 107 I	
46.36 34.16 34.485 45.547 34.811 34.811 46.36 34.648	35.624	41.805 35.787 47.336 35.461	34.322 33.997	33.509	46.197	46 522 i
34.485 45.547 34.811 34.811 46.36 34.648	35.624	35.787 47.336	34.322 33.997 47.662 34.648	33.509	22 (72)	46.522 34 16
34.811 34.811 46.36 34.648	35.624	41.805 35.787 47.336 35.461 41.48 35.624	34.322 33.997 47.662 34.648 33.672	33.509	22 (72)	46.522 34.16 33.997
46.36 34.648	35.624	41.805 35.787 47.336 35.461 41.48 35.624 34.648	34.322 33.997 47.662 34.648 33.672 34.16	33.509	22 (72)	46.522 34.16 33.997 46.848
	35.624	41.805 35.787 47.336 35.461 41.48 35.624 34.648 35.461	34.322 33.997 47.662 34.648 33.672 34.16 34.973	33.509	22 (72)	46.522 34.16 33.997 46.848 34.16
33.998 45.872	35.624	41.805 35.787 47.336 35.461 41.48 35.624 34.648 35.461 48.149	34.322 33.997 47.662 34.648 33.672 34.16 34.973 34.81	33.509	22 (72)	46.522 34.16 33.997 46.848 34.16 34.322
	35.624	41.805 35.787 47.336 35.461 41.48 35.624 34.648 35.461 48.149 35.136	34.322 33.997 47.662 34.648 33.672 34.16 34.973 34.81 46.523	33.509	22 (72)	46.522 34.16 33.997 46.848 34.16 34.322 35.461
max val(#0) = 65.07us min val(#358) = 17.89us peak-to-peak = 47.17us mean +- RMS = 30.89 +- 8.50 us	35.624	41.805 35.787 47.336 35.461 41.48 35.624 34.648 35.461 48.149 35.136	34.322 33.997 47.662 34.648 33.672 34.16 34.973 34.81 46.523	33.509	22 (72)	46.522 34.16 33.997 46.848 34.16 34.322 35.461

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

103 765 1	60 747 1	60 417 1	77 /29	61 071	1 59 208	74 509	59 719 1
58 1// 1	59 52 1	5/ 937	61 /03	63 608	58 886	57 921	74 307 1
60 740 1	50 000 1	72 620 1	50 166 1	50 217	71 063	50 526	1 55 20 1
70 605	59.090	74.039	75 247	50.217	71.003	75.026	55.25
70.003	70 100 1	/4.300 E0 70E	73.247	61.313	01.104	75.033	J9.001
12.3/5	70.199	38./83	59.005	38.91	67.236	00.334	59.961
60.266	58.586	/0.329	61.003	62.735	59.594	58.5/9	58./13
72.315	56.66	62.129	71.532	63.774	60.41	60.085	77.582
59.636	75.122	59.932	60.501	87.801	60.808	59.473	59.328
58.342	58.799	74.719	60.686	59.157	70.559	61.007	58.37
58.076	58.901	54.749	73.538	62.444	58.369	69.876	60.905
60.246	70.672	61.689	57.255	70.741	59.112	59.155	91.805
46.685	44.703	41.913	50.148	47.181	54.999	49.744	44.984
51.744	47.697	44.556	47.531	44.828	40.708	50.861	48.026
47.377	51.968	44.626	47.593	53.346	45.456	47.809	50.273
42.092	43.965	45.862	44.057	46.446	52.542	46.224	66.519
49.866	48.087 I	51.967	46.711	43.082	41.084	48.558	44.82
47.293	48.627	47.902	46.844	49.501	44.073	46.27	47.507
44.613 I	40.962 I	45.308	46.026	45.754	47.315	1 43.623	1 46.55 1
52.146 i	45.112	46.14	47.881	46.989	44.948	1 40.993	40.58
42.793	43.714	51.989	55.47	45.812	46.946	i 51.228	45.449
46 211 1	53 389 1	44 541 1	41 119	43 394	54 008	1 43 349	44 76 1
47 093 1	45 205 1	46 722 1	46 574	49 548	51 602	47 526	44 844 1
46 676 1	44 08 1	44 86 1	48 768	47 607	47 348	50 343	66 273 1
10.070	52 206 1	53 770 1	17 751	19 368	1 11 279	1 43 033	1 44 057 1
46 55 1	13 358 I	51 717	47.73± 47.197	13 816	1 49 273	1 43.033	1 49.037
43 324 1	40.755	30 002 1	45.069	16 289	1 46.273	1 47.500	1 46 833 1
F1 66 I	40.755	45 055 1	40.610	46 022	1 40.034	1 41 200	1 50.000 1
42 124 1	40.631	52 005 1	40.019	51 020	1 44.001	1 41.230	50 005 1
43.124	49.021	55.065	49.201	JI.039	40.12	47.130	1 46 403 1
43.790	45.15	30.364	41.0//	45.144	43.706	44.045	40.403
31.984	47.561	43.422	33.32	48.000	43.8/1	52.845	44.623
41.4/	44.555	44.352	43./15	47.433	40.011	30.884	47.343
43.314	32.46/	53.003	47.419	48.138	42.413	43.46/	44.535
46.129	43.517	52.549	47.508	45.148	48.795	47.999	47.474
44.546	40.058	40.128	49.402	46.631	47.226	48.787	44.476
47.389	50.36	47.94	43.726	46.827	44.691	40.818	45.887
44.09	50.51	55.968	49.465	46.829	52.946	46.95	47.663
52.772	47.523	45.431	46.696	44.742	53.057	48.208	44.555
47.406	45.214	40.916	45.828	56.549	48.695	47.752	50.933
42.378	44.063	44.355	43.728	46.342	52.736	45.973	47.436
50.31	53.869	49.782	48.831	44.898	40.533	44.059	44.733
52.007	43.892	47.562	51.456	45.93	43.854	51.55	46.746
43.411	41.04	39.995	44.955	46.236	47.464	42.829	52.45
47.426	44.416	51.086	49.136	46.514	50.529	41.363	60.185
48.861	50.268	48.155	50.754	46.097	46.828	51.71	45.556
46.346	52.96	44.943	40.904	44.182	40.617	40.105	48.39
48.045	52.729 i	44.558	48.295	53.814	45.777	47.668	50.752
42.329	43.533 I	44.445	43.239	45.833	52.151	47.348	47.037
48.28	53.338 I	48.581	49.817	44.613	41.488	49.126	44.786
47.256	49.139	48.177	47.376	44.665	1 43,566	1 47.679	52.185
49.24	42.859 I	46.235	44.991	46.073	48,135	1 44.184	47.215
52.93	45.571	47.11	48.964	47.115	44.794	1 41.571	57.267
44 338 1	51 166 1	48 881 1	53 78	46 142	47 475	52 301	45 578
46 653 1	47 404 1	45 65 1	41 401	43 783	52 404	44 082	44 958
47 67 1	17 · 10 · 1	40 522 1	12.401	15.703	1 1/1 659	1 11.002	15.550
41 124	43 55 1	10.332	12.303	52 756	1 000	1 45 257	1 46 647 1
46 328 1	53 235 I	55 744 1	50 600 I	44 985	1 48 627	1 44 226	59,719 74,307 55,29 59,681 59,961 58,713 77,582 59,328 58,37 60,905 91,805 44,984 44,984 44,760 44,82 47,507 46,55 40,58 45,449 44,76 44,844 66,273 44,057 48,047 46,833 59,008 50,085 47,474 44,476 44,834 44,555 47,474 44,476 45,887 47,663 44,535 47,474 44,476 45,887 47,663 44,555 50,933 47,476 44,878 47,663 44,555 50,933 47,476 45,887 47,663 44,555 50,933 47,476 45,887 47,663 44,555 50,933 47,436 52,45 50,185 50,933 47,436 52,45 50,185 50,933 47,436 52,45 50,185 50,933 47,436 52,45 50,185 50,933 47,436 52,45 50,185 50,
40.520	55.255	55.744	50.009	44.900	10.02/	17.220	1 44.004

47.889 48.604 46.893 45.143 46.207 42.785 42.032 54.205 47.293 48.961 52.775 42.632 47.098 47.71 45.802 46.649 46.622 49.013 47.212 61.43 71.152 61.252 59.395 70.767 59.084 58.875 60.855 70.845 61.445 60.078 59.325 72.02 58.32 58.68 61.252 58.32 58.68 61.252 59.395 70.767 79.084 58.875 60.855 70.767 79.084 58.875 60.855 70.245 61.445 60.078 59.325 72.02 58.32 58.68 61.252 58.32 58.68 61.252 59.395 70.772 58.876 59.138 59.147 73.442 54.824 62.027 59.438 59.147 73.442 54.824 62.027 59.447 71.279 58.098 58.375 58.766 60.501 57.189 71.651 58.403 58.074 69.099 58.046 66.024 73.131 56.867 59.476 58.578 58.766 60.501 57.189 71.651 58.403 58.074 69.099 58.04 66.024 73.131 56.867 59.476 58.578 58.392 56.71 57.878 58.579 79.476 58.578 58.578 58.578 58.579 79.215 57.215	43.784 45.337 51.433 50.48 47.893 48.648 44.27 47.709 49.553 41.096 46.407 49.888 46.564 45.089 44.049 52.27 43.605 42.578 49.583 61.322 58.441 73.021 58.94 61.391 57.924 59.383 59.463 58.514 70.622 59.715 59.434 62.123 57.127 59.588 61.328 61.388 61.388 62.123 63.381	51.634 39.427 46.83 48.18 42.055 44.509 44.898 48.295 44.509 44.898 48.295 45.967 46.529 47.401 50.646 40.298 44.362 52.703 51.977 40.956 47.136 59.52 59.096 58.56 59.613 60.934 61.612 54.692 75.686 64.149 59.136 60.443 61.715 54.685 73.074 59.859 59.363 60.443 61.715 54.685 73.074 59.859 59.363 60.443 61.715 54.685 73.074 59.859 59.363 60.443 61.715 54.685 73.074 59.859 59.363 60.443 61.715 54.685 73.074 59.859 75.566 59.442 70.524 54.586 58.673 60.939 71.101 57.548 57.565 57.565 57.565 57.566 58.673 60.939 71.101 57.548 57.563 58.674 59.838 57.538 58.574 56.644 68.676 73.614 59.838 57.538 58.574 56.644 68.676 73.614 59.267	47.558 49.028 49.0354 48.431 54.581 45.775 43.801 51.162 46.731 45.537 48.544 48.051 41.52 47.727 48.762 50.449 47.823 50.556 50.053 63.731 71.747 61.671 54.914 59.637 73.351 60.222 57.944 59.135 60.141 54.943 559.708 73.827 59.498 57.923 59.582 58.97 62.938 70.124 59.639 60.163 60.164 59.654 59.654 59.654 59.654 59.654 59.654 59.654 59.655 59.93 60.151 59.93 60.151 58.67 72.02 57.328 60.279 69.968 62.576 70.517 73.519 59.93 59.93 59.93 59.93 59.93 59.93 59.93 59.93 59.93 59.93 59.036 70.426 59.035 60.188 61.188 73.726 59.035	45.251 46.747 45.675 46.747 45.675 45.077 56.982 45.955 45.955 45.982 45.955 45.982 45.955 45.983 45.982 46.751 50.771 44.334 50.288 47.562 50.893 45.194 46.311 54.083 60.836 59.98 61.203 58.486 60.428 59.293 73.707 61.105 58.013 58.139 74.615 59.009 60.318 59.417 61.114 60.968 59.504 59.504 59.504 59.504 59.505 59.507 61.053 59.174 61.114 60.968 59.504 59.504 59.504 59.505 59.282 71.884 63.299 60.612 72.179 60.892 61.149 72.865 59.379 58.235 74.684 59.166 60.305 70.64 60.129 61.097 59.772 57.428 75.65 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.668 58.724 59.666 58.724 59.668 58.724 59.678 58.724 59.678 58.724 59.678 58.724 59.668 58.724 59.678 58.724 59.678 58.724 59.688 58.864 72.878	47.198 44.726 46.071 53.039 40.632 47.055 52.817 43.034 44.143 48.104 48.883 47.362 52.822 53.284 46.481 47.833 49.535 74.384 58.827 61.457 75.321 59.456 58.011 58.558 70.702 56.907 66.461 60.344 88.596 58.809 57.478 59.533 83.975 61.393 55.013 72.951 72.707 59.355 59.044 59.533 72.951 72.707 59.355 59.044 59.533 73.784 61.963 61.149 72.081 71.943 58.981 69.773 58.981 69.773 58.115 72.493 73.023 57.459 59.331 71.349 58.531 57.732 58.531 57.732 58.587 56.987 58.587	46.888 49.188 41.503 47.84 48.28 48.094 46.424 49.992 46.9 43.153 47.876 67.556	45.187 47.407 59.75 46.084 43.675 49.93 53.264 44.58 50.985 47.277 82.148 49.709 43.536 45.213 55.293 44.228 47.105 47.579 106.533 59.466 58.411 71.178 74.45 59.674 61.376 65.816 61.376 67.25
58.392 56.71 57.878 58.466 60.449 69.532 60.371 58.597 70.479 57.215	57.016 60.253 57.279 57.724 58.348 58.19 69.077 60.934 58.473 71.934	73.614 59.267 56.849 71.664 57.28 57.937 69.726 58.031 60.333	60.492 60.188 73.726 59.035 70.709 59.383 58.434 61.278 81.604 59.543	59.668 58.64 72.874 60.924 59.029 58.287 62.1 58.973 71.54	70.275 70.275 56.987 58.587 57.669 60.943 57.014 71.093 58.255 58.468	58.096 72.281 56.856 58.514 72.966 58.698 57.625 73.089 58.558	58.421 60.127 69.961 57.682 58.411 70.615 57.965 60.298

packet size: 526 number of packets: 1024 RATE = 538.61kbps, PPS = 128.0

3.3 AF_PACKET "socket(AF_PACKET, SOCK_DGRAM, ETH_P_1588)"

3.3.1 AF_PACKET, 1 PPS

root@am57xx-evm:~# ./plget -i eth0 -t ptpl2 -m rx-lat -n 1024
Default address can be specified: 01:1B:19:00:00:00 or 01:80:C2:00:00:0E
SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12
SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12
setting ts_flags: 0x58
new ts_flags: 0x58

driver rx latency, us	39.474 I	28.488 I	27.493 I	37.792	27.233	27.411 27.79 45.498 27.388 31.48 26.398 32.342 32.833 26.009 33.433 38.835 27.659 27.659 27.638 28.314 32.003 25.741 29.016 32.055 31.454 28.507 26.153 27.117 37.893 28.734 29.253 31.652 30.783 27.231 27.361 38.472 37.664 28.166 27.27 27.655 36.631 27.408 26.265 30.783 27.106 27.27 27.655 36.631 27.408 26.265 30.783 27.106 27.27 27.655 36.631 27.408 26.265 32.889 33.776 26.265 32.889 33.81 30.776 26.265 32.889 33.81 30.776 26.265 32.889 33.876 27.41 30.143 32.979 27.98 29.573 32.356 25.123 27.19 25.67 37.856 29.046 29.232 32.34 29.955 25.066 33.371 36.024 37.952 25.066 33.371 36.024 27.952 25.066 33.371 36.024 27.972 27.972 27.9752 27.9772 27.9752 27.9772 27.9752 27.9772 27.9752 27.9772 27.9772 27.9752 27.9772	35.31
27.823	26.606	32.552	26.143	29.585	32.511	27.79	25.829
33.926	35.697	32.169	41.457	30.653	42.867	45.498	30.675
30.503	41.31	29.497	29.278	40.586	30.79	31.48	32.452
26.516	29.597	39.067	36.953	32.879	32.878	26.398	30.214
34.286 32.735	26.262	26.783	32.815	28.977	27.483	32.342	26.341 26.484
26.226	31.78	26.004	28.067	32.442	26.256	26.009	31.362
30.19	29.094	39.515	28.961	31.345	38.111	33.433	29.882
40.51 28.792	30.904 39.426	30.067 28.076	40.38 25.998	28.765 42.984	28.992 28.398	38.835 27.659	29.316
25.968	33.866	27.635	28.728	31.448	27.053	27.638	33.45
27.924	26.248	31.839	27.831	33.609	32.34	28.314	27.843
26.004	31.431	27.452	26.603	33.681	26.383	25.741	35.354
29.031	29.003	33.714	28.222	39.475	29.418	29.016	39.815
28.943 39.411	28.5/1 28.888	34.2 28 937	43.666 39.852	32.892 28.902	43.426 26.597	32.055 31.454	30.378 28.62
26.702	32.48	26.512	26.645	34.135	27.933	28.507	32.778
26.139	26.723	33.519	26.438	27.267	32.249	26.153	27.322
33.46	27.816	26.869	39.056	26.371	26.395	37.893	30.67
30.082	41.756	29.918	30.817	43.004	29.268	28.734	39.652
29.628 40.894	28.672	39.068 29.143	28.617	29.343 28.418	39.595 25.708	29.253 31.652	33.008 27 166
31.411	26.047	25.553	30.313	26.695	25.437	30.783	25.591
25.539	31.006	26.66	24.969	33.052	26.414	27.231	31.872
28.37 34.119	26.668	24.981	30.183	28.165	29.569	38.472	28.093
28.814	37.619	29.103	28.209	37.337	28.233	37.664	30.882
28.958 27.383	38.262	27.733	28.7	42.884	28.159	28.126	30.163
31.089	25.291	26.005	31.885	28.295	25.704	30.881	25.226
26.764	30.789	24.9	25.511	30.172	25.47	27.106	30.876
24.892 25.932	25.996	31.767	26.977	34.873 31.953	25.767	27.27	33.8 28 219
39.677	31.166	29.128	40.067	30.933	28.464	36.631	28.104
27.324	38.276	25.509	29.843	39.162	27.296	27.408	34.244
37.479	27.514	33.408	27.368	27.07	30.729	25.697	27.434
31.431	27.073	25.134	30.099	29.654	25.805	30.027	25.935
25.454	32.733	27.95 33.931	25.26	29.953	25.631	26.265	35.956
36.357	30.773	28.382	33.341	28.827	27.275	33.8	27.836
37.212	24.707	26.388	31.61	28.003	25.969	30.776	27.696
27.339 25.613	26.159	32.854	25.438	32.625	33.966	27.41	26.914
30.655	24.623	26.458	37.265	25.51	25.551	30.143	24.757
26.326 27.361	30.948	24.666	25.582	32.458	26.414	32.979	27.457
31.537	27.739	36.848	40.819	30.588	40.372	29.573	27.166
39.179	28.845	28.044	31.784	25.237	25.153	32.356	25.191
24.656 27.892	26.538	28.08 31.721	25.355	32.305	26.465	27.123	30.822
25.469	31.306	43.324	27.142	26.824	34.933	25.67	27.018
30.108	25.566	24.88	30.817	26.602	25.703	37.856	28.143
30.247	28.563	40.552	30.47	28.337	38.05	29.232	33.776
44.981	29.794	41.759	27.273	28.23	32.405	32.34	26.17
30.79 27.183	25.176 30.839	26.454 27.711	32.144 25.729	32.692	25.459 25.431	29.995 25.265	27.128
25.145	26.504	32.331	26.024	25.792	36.53	29.044	26.829
31.531	24.96	28.589	32.484	27.992	28.805	30.032	27.03
27.684	38.444	32.719	29.822	41.066	28.534	27.952	41.995
28.791	27.331 27.549	34.029	34.033	31.045	34.637	25.066	24.177
34.209 24.31	31.527	28.442 24.234	32.449 26.441	24.806 32.477	24.786 24.258	33.371 36.024	25.987 26.333
26.169	30.105	28.605	26.05	31.127	27.166	27.372	30.623
26.123 33.639	26.538 28.76	38.144 30.187	31.488 39.085	28.685 29.835	38.253 28.039	29.122 37.515	29.19 28.521
27	37.772	29.647	28.038	37.201	28.13	29.371	38.045
29.675	25.88	33.062	27	31.185	25.665	26.268	31.824
31.867 31.109	27.981 25.164	32.247 29.699	26.255 35.559	26.16 25.37	32.59 25.528	25.879 32.445	25.748 27.72
26.774	30.642	24.993	25.749	32.456	25.238	26.361	30.128
25.015	28.667	44.237	27.763	27.829	40.101	34.72	30.963
38.957 39.239	28.416 27.248	39.483 30.259	29.022 33.77	28.588 25.177	39.819 25.787	28.026 35.955	27.912 25.659
26.317	31.822	25.994	26.3	32.936	25.324	26.14	37.761
26.591 37.245	25.518 28.668	33.903 26.219	25.634 36.562	30.296 26.375	27.452 25.121	31.233 33.1	25.72 26.277
30.18	25.694	27.63	32.928	27.188	25.725	34.693	29.113
29.693	38.701	27.892	27.998	39.653	28.572	29.553	38.532
27.581 38.12	28.697 28.476	43.415 25.308	33.6 30.233	28.856 27.112	37.529 27.703	26.337 30.203	29.389 25.874
25.713	31.742	30.83	26.094	30.542	25.859	31.857	26.076
27.431	30.965	25.193	26.095	30.141	25.332	26.142	31.699
26.014 30.491	31.133 25.623	39.423 27.341	26.031 31.075	27.029 25.303	32.495 25.711	25.682 38.565	26.151 30.134
25.288	38.086	30.294	26.168	39.724	28.792	25.901	38.641
28.414	26.662	39.909	31.829	38.661	29.064	30.255	38.497
27.104 38.089	25.516 25.527	34.343 25.047	26.536 31.361	25.718 25.954	36.009 25.833	25.568 25.489	25.042 31.774
28.401	31.839	27.352	27.149	31.761	26.122	25.164	33.097
26.069	25.468	31.581	25.454	26.389	42.847	27.263	24.883

38.476	27.832	31.267	26.385	28.722	41.655	27.895	29.921
38.047	26.076	27.78	40.315	26.496	29.422	35.529	25.689
29.102	37.816	25.791	27.652	37.28	27.482	27.138	30.525
26.677	26.936	34.321	26.412	30.567	34.782	26.494	27.258
30.919	26.565	24.748	30.982	27.829	25.48	34.968	25.151
31.177	25.9	26.882	36.462	25.071	28.641	37.937	26.413
26.57	32.235	27.168	26.828	32.208	25.978	25.617	32.514
26.738	26.347	44.253	28.823	30.106	42.524	28.666	28.295
39.657	28.31	29.71	39.583	27.615	27.937	38.169	30.528
28.638	39.257	26.85	24.966	35.847	25.305	30.123	25.545
25.261	32.027	27.393		32.508		27.261	31.493
30.319	26.478	30.213	30.151	28.04	32.07	35.542	25.34
58.286	25.963	25.568	29.774	25.395	25.918	33.208	26.341
25.157	30.675		24.897		27.146		
27.897	27.654			41.722	30.68	33.967	40.54
28.724	30.999						
37.617	27.362						
29.484	29.64		25.785				
25.178	26.558				30.429		
30.315	25.271						
30.752	26.285		31.622				
28.954	38.965		28.378				34.347
30.462	28.121	39.886	33.86	29.514	41.215	27.849	
39.549	27.619			29.901	25.405		
30.82	26.708						
25.16	31.947	27.024	25.274				
25.982	30.518						
32.645	26.599		37.597		28.88	40.18	29.506
27.722	37.439						
29.371	38.3						
40.044	28.606	31.682	25.204	25.833	30.941	27.406	25.787

max val(#872) = 58.29us min val(#535) = 24.18us peak-to-peak = 34.11us mean +- RMS = 30.24 +- 4.68 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app): packets 1024:

Stack rx latency, us	(doesn't include dr	river latency, net	subsystem -> app):	packets 1024:			
59.211	56.282	57.258	55.47	55.306	56.608	41.643	49.776
37.413	37.25	42.944	38.714	38.226	43.595	36.6	35.136
43 269 I	48 963 i	45 547 i	44 571 i	38 064 i	45 872 i	52 541 i	38 715 i
51 565 1	36 6 1	37 25 1	53 355 1	12 782	37 576 1	37 /13	45 546
43 433 1	66 205 1	12 156 1	57 000 1	61 651 1	11 216 1	45 050 1	45 221 1
43.432	00.203	42.430	37.909	01.031	44.240	45.059	40.221
44.5/1	37.088	55./95	48.15	37.901	43.27	36.437	42.781
46.197	38.389	38.226	43.269	39.528	39.04	43.10/	36.925
43.432	39.366	37.088	45.709	36.6	36.925	44.896	35.949
35.624	42.781	35.298	36.274	43.106	34.81	34.648	41.968
36.763	41.805	42.456	43.595	42.293	54.33	41.968	43.432
43.757	43.27	43.92	44.896	41.643	41.317	44.733	42.944
41.968	42.456	40.504	37.251	44.408	41.48	35.461	41.48
33.835	42.293	37.088	41.155	41.154	34.973	37.414	41.805
37.902	35.786	42.781	40.341	40.992	42.131	36.762	34.974
44.896	36.926	35.786	41.155	42.293	36.274	42.944	36.437 I
35.461 i	42.456 i	35.299 i	38.877 i	42.619 i	34.811 i	35.136 i	47.986 i
42.456 i	41.805 i	41.968 i	41.155 i	42.456 i	42.294	41.806 i	42.781 i
40 992	41 317 I	47 336 I	47 336 I	43 757 i	44 733 i	44 896 I	42 294 1
42 781 1	41 968 i	41 968 i	51 403 i	41 317	35 298 i	40 992 i	35 624 1
35 461 1	42 293 1	36 275 1	36 925 1	43 106 1	36 925 1	44 408 1	43 432 1
35 /61	36 763 1	16 198 1	35 461 1	30 60 1	12 782 1	35 136 1	36 926 1
18 8 1	37 /13	52 542 1	40 504 1	39 691 1	14.734	36 763 1	37 /13
40.0	38 064 1	37 251 1	40.504	36 762 1	36 274 1	45 059 1	73 733 1
44.400	50.004	41 643 1	44.003	30.702	42 12 1	40.009	43.432
42./01	3U.732 41 643	41.043	40.304	44.3/1	44.13	40.000	41.900
42.944	41.043	43.107	40.504	41.805	44.408	42.782	47.987
45.384	49.125	49.939	50.914	38./14	39.203	45.872	42.293
45.547	41.805	39.853	45.872	42.456	39.853	46.035	34.323
33.6/2	42.293	37.25	36.438	40.992	35.461	36.438	40.829
37.088	41.968	40.992	36.43/	35.299	48.149	36./63	35./8/
45.058	35.462	33.997	42.944	35.95	42.293	49.45	41.48
39.853	40.992	41.317	40.016	48.312	41.643	48.312	43.432
42.781	48.637	38.552	43.107	51.24	38.715	41.318	40.504
38.39	35.136	43.92	40.016	35.786	42.782	37.738	35.299
41.805	31.72	35.299	45.222	33.184	35.136	40.83	35.136
42.294	41.318	31.72	33.998	40.341	36.274	37.739	41.805
33.184	41.968	42.456	42.619	42.944	32.859	35.95	44.733
32.208	46.035	45.872	48.638	50.914	50.59	45.384	46.36
47.987	49.613	47.987	53.192	45.058	46.848	50.427	44.896
46.36	49.451	38.715	49.614	44.082	44.083	45.709	41.968
35.136	40.341	42.456	42.293	40.667	43.269	36.112	35.136
47.824	43.27	45.872	35.136	35.787	45.872	40.83	43.106
46.36	40.829	39.366	47.174	42.781	40.992	45.384	41.155
40.667	43.432	38.715	33.672	40.178	35.299	41.805	48.638
43.269	41.48	40.83	39.365 i	36.274	41.317 i	41.968 i	36.274
46.36 I	38.226 i	35.461 i	40.829 I	42.619 i	36.6 i	41.642 İ	42.13 i
48.638 I	33.672	36.763 i	44.083	32.045 I	33.51 i	40.341 i	36.762 i
35.624	40.992	32.046	34.648	42.944	34.811	35.299 i	40.992
33 997 i	36 112 1	42 131 1	33 835 i	41 318 1	43 432 1	38 227 i	36 275 1
40 992 1	32 208 1	41 155 1	50 101 1	39 528 1	35 461 1	41 154 1	35 298 1
35 95 1	41 318 1	32 046 1	36 112 1	40 341 1	36 112 1	45 709 1	40 341 1
39 853 1	19 613 1	12 13 1	/1 318 I	46 035 1	39 365 1	40 341 1	12 156 1
41 48 1	/1 317 I	/1 317 I	45 221 1	14 571 1	51 /03	11 6/2 1	39 853 1
49 613 1	43 107 1	41 643 1	41 48 1	32 534 1	33 51 1	42 944 1	32 859 1
3/1 323	13.107	32 696 1	38 878 1	12 156 1	3/1 16 1	34 323 1	/1 968
36 112 1	3/ 973	40 829 1	32 0/5 1	39 691 1	35 624 1	34 648 1	41.700
/1 968	19 151 1	46.025	37 088 1	35 136 1	18 637 1	35 624 1	35 0/0 1
41.500	2/ 01	34 323 1	41 005 1	36.61	2/ 16	10 627 1	/1 210
41.310	54.01	43 260 1	41.000	17 174	34.10 44 643	40.037	41.310
40.029	30.402	43.209	34.322 4E E47	4/.1/4	41.043	41.003	40.473
44.734	39.034	44.371	43.347	41.31/	46.033	41.40	40.473
52.866	46.36	49.451	39.04	48.15	46.36	48.312	43.432
46.198	40.992	44.896	46.198	38.8/8	35./8/	39.853	36.763
35./8/	48.149	3/./38	34.485	42.619	38./15	40.992	46.685
44./33	42.456	42.944	32.534	34.485	49.451	38.552	36.438
46.36	41.48	3/.251	43.92	45.54/	41.155	46.034	53.843
53.355	52.379	40.016	42.619	38.064	42.293	53.51/	53.192
40.016	43.432	43.595	44.733	43.269	45.384	53.029	54.005
51.403	40.666	42.944	42.13	38.227	44.083	39.365	39.854
45.222	46.848	42.13	43.757	39.528	41.48	43.595	39.203
39.04	42.619	37.901	36.6	43.92	37.739	47.498	40.992
36.275	49.451	35.624	40.666	46.685	35.787	35.136	40.992
34.973	35.949	49.45	43.432	41.155	46.848	35.786	42.782
46.686	43.757	39.528	46.523	42.781	45.546	46.848	40.992
45.384	42.294	43.758	45.384	45.872	35.299	36.112	47.824
37.25	35.95	40.016	35.786	41.48	33.021	35.461	40.829

41.155	37.739	42.456 I	33.509	36.275	43.107	32.696	34.648
40.504	36.112	37.901 i	42.293	38.878	41.317	43.92	36.6
			34.973	41.806		35.787	
36.762	42.131	31.72					
33.184	44.408	44.571	39.203	41.968		47.011	
42.294	39.04	42.618	42.781	41.643	42.131	37.902	39.691
44.408	40.829	40.179 i	42.131	32.045	34.323	44.896	32.208
33.998	45.71	42.293	40.667	45.059	38.714	40.829	49.776
37.739	44.082	48.312	47.01	47.173		42.13	33.835
43.758	45.384	40.667	50.427	32.858	40.667	43.432	33.184
40.178	37.088	34.323	44.896	38.552	34.811	48.963	41.642
42.619	49.776	41.968	40.016	48.15	41.968	42.456	48.149
40.829	44.571	50.915	47.011	41.642	47.987	35.136	43.595
	40.829	33.672	39.528	35.949			35.787
49.45						41.154	
40.179	44.57	38.064	35.461	40.178	35.624	43.107	
36.274	41.155	32.533	43.107	40.667			41.805
42.944	49.776	44.571	33.998	34.81	43.594	33.51	34.973
40.342	36.112	37.576	42.618	33.184	32.045	47.498	43.107
40.667	50.101	38.715	31.557	50.264			
			31.337	50.264			
40.504	33.834	49.776	45.222	51.403	48.962	48.312	51.728
39.04	41.48	44.734	41.805	40.829	38.877	32.696	34.16
48.312	33.021	35.624	38.552	31.558	36.112	34.648	i 43.92 i
33.346	39.203	35.462	43.595	39.202	39.202	40.504	40.341
40.016	34.648	38.878	35.299	35.624	54.818	34.81	37.576
40.016	37.738	42.619	34.648	40.992	42.781	35.299	
48.15	33.022	40.504	51.728	33.672	43.107	41.317	33.021
42.944	49.614	32.534	39.691	41.318	32.858	34.811	40.666
33.672	34.973	43.269	35.136	43.107	41.805	35.624	36.6
42.456	33.834	35.136 I	40.829	35.299	34.16	48.474	31.395 i
40.829	35.624	43.92	50.752	40.992	40.83	43.757	32.696
35.136	42.456	41.48	35.949	42.293	33.509	35.299	1 42.944 1
			35.949	42.293	33.509	35.299	
35.95	36.6	50.427	42.781	40.666		39.691	
50.914	34.973	41.806	43.432	41.643	40.179	49.288	45.384
40.992	50.101	38.389	35.461	43.106	31.557	40.016	34.648
34.323	42.294	36.763 i	34.974	42.618	43.595	36.437	41.48
40.992	50.264	50.589	44.245	34.811		42.944	
32.534	34.811	33.184	39.853	33.997			36.763
				33.997	33.024	44.003	
34.81	41.48	35.461	35.461	42.618	34.322	33.346	42.456
41.968	41.154	41.48	36.762	51.728	42.782	47.987	43.107
38.715	43.758	42.781	40.667	41.317	48.475	41.968	40.829
49.288	37.576	40.179	51.402	39.202	41.643	40.667	32.859 i
42.131	41.48	30.907	36.275	41.968		46.034	40.83
31.557	36.763	42.781	32.371	36.925			37.902
			36.925	37.088	42.456	33.672	
40.992	32.208	42.782					34.486
40.342	35.787	36.112	41.643	29.118	34.811	50.752	42.456
41.155	52.216	38.715	43.757	51.566			47.661
50.101	46.035	49.451 I	52.704	41.642	52.704	45.059	45.872
48.312	47.824	41.48	48.963	45.059	39.528	45.872	44.896
47.011	34.648	35.298	41.48	37.414	33.834	40.992	35.136
	40.992	35.290 35.786	35.949	40.992			40.504
33.834							
42.131	39.203	42.456	37.413	37.414		35.786	34.648
40.829	35.136	34.648	50.427	41.154	41.805	44.083	40.992
40.341	47.174	41.805	44.083	48.963	49.125	49.939	50.915
50.102	46.197	44.245	49.613	50.101	45.221	47.011	52.541
48.475	43.758	47.174	37.901				
10.113	10.700	7/.1/4	37.901	-U.000	13.709	1 12.544	33.130

max val(#33) = 66.20us min val(#940) = 29.12us peak-to-peak = 37.09us mean +- RMS = 41.22 +- 5.32 us

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

complete rx latency (i	ncludes driver lat	ency and stack lat	ency), us (wire ->	· app): packets 102	4:	69.054 64.39 98.039 64.801 76.539 62.835 75.449 77.729 60.657 75.401 83.558 63.12 65.052 65.076 74.947 60.877 70.822 76.951 72.446 72.915 61.289 63.88 82.952 69.4 72.035 77.524 76.818 63.669 64.124 87.922 85.976 69.444 65.832 71.711 64.845 63.22 73.039 87.058 73.117 62.96 66.527 75.411 68.07 74.857 75.442 71.117 62.165 65.637 71.297 78.688 68.321	
95.672	95.756	85.746	82.963	93.098	83.841	69.054	85.086
65.236	63.856	75.496	64.857	67.811	76.106	64.39	60.965
77.195	84.66	77.716	86.028	68.717	88.739	98.039	69.39
93.576	65.79	66.646	95.21	75.588	67.249	64.801	87.163
73.935	107.515	71.953	87.187	102.237	75.036	76.539	77.673
71.087	66.685	94.862	85.103	70.78	76.148	62.835	72.995
80.483	64.651	65.009	76.084	68.505	66.523	75.449	63.266
76.167	68.352	64.562	78.6	66.024	63.821	77.729	62.433
61.85	74.561	61.302	64.341	75.548	61.066	60.657	73.33
66.953	70.899	81.971	72.556	73.638	92.441	75.401	73.314
84.267	74.174	73.987	85.276	70.408	70.309	83.568	72.26
70.76	81.882	68.58	63.249	87.392	69.878	63.12	74.561
59.803	76.159	64.723	69.883	72.602	62.026	65.052	75.255
65.826	62.034	74.62	68.172	74.601	74.471	65.076	62.817
79.102	64.534	62.35	73.557	69.276	63.414	74.947	63.573
61.465	73.887	62.751	65.48	76.3	61.194	60.877	83.34
71.487	70.808	75.682	69.377	81.931	71.712	70.822	82.596
69.935	69.888	81.536	91.002	76.649	88.159	76.951	72.672
82.192	70.856	70.905	91.255	70.219	61.895	72.446	64.244
62.163	74.773	62.787	63.57	77.241	64.858	72.915	76.21
61.6	63.486	79.717	61.899	66.957	75.031	61.289	64.248
85.975	65.109	91.239	67.709	71.7	79.361	63.88	63.902
77.868	65.88	64.12	83.139	63.133	62.669	82.952	74.102
72.863	92.508	71.561	76.201	87.575	71.398	69.4	81.62
72.572	70.315	82.175	69.121	71.148	84.003	72.035	80.995
86.278	78.934	79.082	83.174	67.132	64.911	77.524	69.459
76.958	67.852	65.406	76.185	69.151	65.29	76.818	59.914
59.211	73.299	63.91	61.407	74.044	61.875	63.669	72.701
65.458	68.068	71.183	63.359	60.609	83.577	64.124	61.966
79.177	62.13	58.978	73.127	64.115	71.862	87.922	69.573
68.667	78.611	70.42	68.225	85.649	69.876	85.976	74.314
71.739	86.899	66.285	71.807	94.124	66.874	69.444	70.667
65.773	61.783	78.793	69.139	62.845	75.357	65.832	61.15
72.894	57.011	61.304	77.107	61.479	60.84	71.711	60.362
69.058	72.107	56.62	59.509	70.513	61.744	64.845	72.681
58.076	67.964	74.223	69.596	77.817	58.626	63.22	78.533
58.14	74.834	80.538	77.706	82.867	91.362	73.039	74.579
87.664	80.779	77.115	93.259	75.991	75.312	87.058	73
73.684	87.727	64.224	79.457	83.244	71.379	73.117	76.212
61.358	65.392	75.896	69.897	68.474	75.886	62.96	61.496
85.303	70.784	79.28	62.504	62.857	76.601	66.527	70.54
77.791	67.902	64.5	77.273	72.435	66.797	75.411	67.09
66.121	76.165	66.665	58.932	70.131	60.93	68.07	84.594
71.162	71.746	74.761	69.941	67.807	74.652	74.857	66.001 69.966
82.717	68.999	63.843	74.17	71.446	63.875	75.442	69.966
85.85	58.379	63.151	75.693	60.048	59.479	71.117	64.458
63.163	72.419	57.502	60.407	75.057	60.883	62.165	71.53
59.61	62.271	74.985	59.273	73.943	77.398	65.637	63.189
71.647	56.831	67.613	87.366	65.038	61.012	71.297	60.055
62.276	72.266	56.712	61.694	72.799	62.526	78.688	67.798
67.214	87.7	72.233	69.471	85.398	67.542	68.321	72.908

packet size: 512
number of packets: 1024
RATE = 4.10kbps, PPS = 1.0

3.3.2 AF_PACKET, 128 PPS

root@am57xx-evm:~# ./plget -i eth0 -t ptpl2 -m rx-lat -n 1024
Default address can be specified: 01:1B:19:00:00:00 or 01:80:C2:00:00:0E
SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12
SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 10 requested, got 12
setting ts_flags: 0x58
new ts_flags: 0x58

driver rx latency, r	24.834 26.301 32.341 24.032 24.036 23.958	24.89 23.869 26.719 23.821	23.915 23.643 23.924	29.177 23.784 28.641	26.509 24.234 24.583	23.837 23.589 26.34	26.104 23.462
23.969 23.705 26.138 25.958 23.817 23.977 24.422 23.662	32.341 24.032 24.036 23.958 29.448	26.719 23.821	23.924	28 641 I	24 583 I	26 34 1	22 752 1
26.138 23.833 25.958 23.817 23.977 24.422 23.662	24.036 23.958 29.448	23.021	23 767 1	23 711 1	23 824 1	26 855 1	23.753
23.833 25.958 23.817 23.977 24.422 23.662	23.958 29.448	26.048	24.745	25.514	23.788	23.662	23.82
23.817 23.977 24.422 23.662		24.1 24.016	26.638 23.521	24.394 26.026	26.22 24.13	28.815 24.058	23.595 26.249
24.422 23.662	26.416	24.762	26.231	25.926	23.689	24.134	23.65
23.662	25.852	23.78	23.929	24.018	24.114	23.912	23.619
23 582 I	36.888 23.593	24.012 24.035	23.59	28.56 23.757	24.824	26.012	24.075 25.937
26.073	24.009	23.755	24.459	25.521	24.088	23.597	23.759
24.336	23.849 24.127	23.882 23.939	23.556	25.871	24.096	23.726	29.134 24.015
23.897	26.028	24.371	26.079	26.363	23.874	24.078	23.654
24.574	25.72	23.926	23.622	23.92	23.961	23.712	33.206
24.339 23.872	25.855 23.738	25.975 23.985	23.596 24.162	27.53 23.845	25.987 23.838	24.791 25.899	23.706 24.586
25.676	23.657	25.434	24.278	25.874	24.327	23.67	23.879
26.27	23.726	24.012	23.498	25.472	23.964	23.774	26.348
23.429 24.022	25.904 23.732	24.62 23.916	25.962 23.822	25.9 27.549	23.489 26.205	24.073 23.831	23.978 26.052
24.499	25.692	23.756	23.613	23.89	24.16	23.793	29.251
23.866	23.869	23.008 23.943	23.728 23.841	23.71	23.862	26.374	24.502
26.051	23.311	26.086	24.059	25.283	23.818	23.737	23.995
23.926	23.868	23.857	23.6	25.642	24.133	24.036	24.292
23.688 23.713	26.095 23.185	24.446 23.979	26.164 24.055	25.729 25.511	23.627 26.391	23.554 23.842	23.923 26.015
24.142	25.729	23.754	23.47	23.636	23.955	23.87	33.986
23.727	24.200 24.345	23.491	23.546	23.89	24.1	24.046	26.266
25.99 23.827	23.829 23.611	26.199 23.685	24.662 24.104	26.832 26.681	25.077 32.036	24.025 26.649	23.934 23.789
26.484	23.715	24.004	23.348	25.655	24.459	24.391	23.906
23.633	23.817	24.527 24.002	26.338 24.242	25.349	23.969 26.387	23.665	23.891 25.935
24.918	26.294	23.554	23.623	24.018	29.718	24.569	23.502
23.789	24.076	24.141	23.818	23.789	23.76	24.317	26.227
25.815 23.901	24.104 23.852	26.253 23.761	24.587 23.753	25.496 24.155	24.283 29.712	24.162 24.577	24.019 23.85
23.873	23.638	23.985	23.73	25.444	24.164	24.18	24.014
23.785	23.586	23.814	23.846	25.587	26.753	24.266	26.042
24.649 23.902	25.978 24.116	23.647 26.299	24.116 23.687	23.754 27.893	29.64 26.162	24.323 24.645	23.827 25.883
23.871	24.051	23.757	23.842	23.546	23.949	26.213	23.957
23.402 23.885	23.79	24.069	23.632	26.445	31.863	26.547	23.572
26.268 23.339	23.663 26.45	23.689 24.586	23.478 26.072	25.431 25.842	23.581	23.873	23.746 23.557
23.75	23.426	23.924	24.091	25.802	24.1	23.598	26.632
24.515 23.366	26.071 23.698	23.795 26.665	24.134 23.632	23.945 27.758	29.454 26.213	24.163 24.584	23.539 23.844
23.821	23.882	23.8	23.822	23.703	23.508	24.053	26.647
23.962	23.711	23.541	23.728	30.796	24.493	23.897	23.579
23.737 23.424	23.63 25.012	23.551 23.213	23.58 24.159	25.413 24.342	24.282 22.017	24.102 22.027	27.894 21.667
21.522	21.799	21.937	21.657	23.43	25.111	21.633	24.218
21.703	21.837	24.692	21.539	25.496	24.567	22.674	24.403
21.498 24.141	21.831 21.333	21.714 24.089	21.57 22.713	21.671 26.221	21.811 22.032	21.789 21.458	24.206 21.783
21.296 24.44	21.907 22.514	21.242 21.825	21.888 21.45	35.247 23.17	26.03 22.113	24.393 21.649	21.609 21.551
21.899	21.966	24.407	24.013	23.97	21.76	21.515	21.575
21.537 22.678	21.682 24.053	21.37 21.965	21.883 21.331	23.261 27.211	24.718 23.959	21.775 22.267	24.16 22.088
21.948	21.588	24.716	21.831	26.017	24.779	22.491	22.059
21.17 24.208	21.866 21.81	21.71 24.685	21.709 23.069	24.786 25.913	23.013 22.056	22.298 22.108	24.491 21.808
21.492 21.912	21.71 22.166	21.617 21.513	21.726 21.642 24.269 21.865 22.08 21.785	28.542 23.321	24.007 21.762	22.007 22.144	21.697 22.024
22.088	24.851	21.599	24.269	24.198	21.872	22.099	21.874
22.08 23.033	21.966 24.318	21.598 21.775	21.865 22.08	23.059 27.999	22.11 24.195	21.674 22.284	24.573 21.944
21.855 21.632	21.718 21.471	24.811 22.868	21.785 21.688	25.945 21.559	24.6 21.672	22.601 22.008	24.498 24.636
24.341	21.856	24.908	22.507	25.562	25.872	22.075	22.971
22.053 23.974	24.23 22.614	28.406 21.853	26.866 21.814	22.647 24.106	24.498 22.128	24.661 22.172	21.629 22.179
21.686	24.576	22.611	21.748	24.481	21.894	24.188	21.681
21.582 22.676	21.607 24.124	21.744 32.644	22.066 23.558	23.26 21.958	24.888 22.274	21.725 22.113	24.162 21.271
21.846 21.78	21.749 21.233	24.651 21.557	21.971	25.946 21.66	24.957 21.664	22.516 21.618	22.146 24.698
24.558	21.997	24.332	21.971 21.686 22.582 24.119	25.329	22.11	21.616	21.253
21.529 21.599	21.55 21.8	27.846 21.792	21.722	22.234 23.078	22.087 22.428	22.095 22.323	21.803 21.828
21.635 21.492	24.892 21.468	22.981 21.926	24.139 21.454	26.052 22.912	21.935 24.919	24.491 21.833	21.859 24.162
22.402	24.166	27.7	24.088	22.076	21.806	22.106	21.579
21.513 21.555	21.97 21.71	24.626 21.613	21.749 21.291	25.598 21.603	24.544 21.768	22.927 21.505	23.901 24.616

24.16	21.837	24.234	22.892	25.468	21.758	21.981	21.597
21.496	21.516	27.478	23.644	25.119	24.374	24.437	21.93
23.862	22.473	21.591	21.686	23.282	22.155	21.892	21.658
21.777	24.665	22.608	24.065	23.947	21.883	21.917	21.729
21.661	21.457	21.586	21.253	22.731	24.625	21.823	24.368
22.437	24.15	32.201	25.75	21.886	21.885	21.842	21.602
21.958	21.449	24.318	21.511	25.445	24.237	22.677	24.21
21.784	21.755	21.604	21.654	25.957	23.196	22.275	24.976
24.134	21.661	23.869	22.355	26.127	22.276	21.892	21.785
27.263	23.735	21.979	21.704	21.928	21.453	21.661	21.541
21.397	21.811	21.736	21.723	23.525	22.186	21.768	21.212
21.252	24.095	22.524	24.066	23.852	21.279	24.247	21.862
21.6	21.819	21.554	21.568	22.869	24.476	21.961	24.026
33.72	26.036	21.439	24.076	21.433	21.766	21.897	21.323
21.885	21.757	24.408	21.444	23.223	24.417	22.469	23.656
21.252	21.708	21.358	21.425	21.255	22.137	21.951	24.147
24.071	21.731	23.804	22.162	25.426	21.982	21.771	21.071
31.084	23.375	21.691	21.841	21.863	24.761	24.286	21.649
23.869	22.829	21.916	21.874	22.967	21.566	21.633	21.436
21.406	21.827	24.567	23.797	23.715	21.33	24.119	21.379
21.731	21.588	21.126	21.326	22.77	21.847	21.658	24.352
27.873	25.991	21.516	24.335	21.291	21.756	21.9	21.491
21.615	21.385	21.374	21.179	25.652	24.276	22.536	24.04
21.603	21.788	21.454	21.612	21.884	21.85	21.871	21.366
24.46	21.515	24	22.182	25.29	24.141	21.654	21.714
27.362	23.55	21.448	21.707	21.63	21.506	21.324	20.947
21.445	21.416	21.804	21.948	24.528	21.987	21.477	21.42
21.1	21.504	24.795	24.28	21.627	21.72	24.455	21.621

max val(#81) = 36.89us min val(#1007) = 20.95us peak-to-peak = 15.94us mean +- RMS = 23.82 +- 2.04 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app): packets 1024:

in idealog, a	is (doesn't include	driver latency,	net subsystem -> app)	: packets 1024:			
54.168	38.226	37.088	net subsystem -> app) 39.04 35.298 36.275 35.461 35.461 35.461 35.461 34.408 34.973 36.6 46.848 37.413 34.486 35.787 49.776 34.648 35.786 46.36 35.786 46.36 35.786 48.36 35.786 48.37 34.648 35.796 46.36 35.624 35.796 46.36 35.624 35.796 46.36 35.462 34.464 35.799 34.468 35.799 34.468 35.462 34.464 35.462 34.465 36.274 35.462 36.274 36.487 27.003 28.894 22.286 22.286 22.285	51.89	37.088	36.112	49.
35.462	35.95	35.136	35.298	36.763	36.112	35.787	32.
35 461 i	44 408 1	48 312 i	36 275 i	35 624 i	47 174 i	35 298 i	3.4
47 173 I	35 298 1	3/ 811	35 /61	3/ 811	3/1 81	18 175	35
47.173	33.290	34.011	35.461	34.011	34.01	24 205 1	٥٥.
35.299	46.36	35.462	35.461	35.461	34.9/3	31.395	4
35.786	35.299	46.685	35.461	35.624	46.848	44.733	34.
47.987	43.432	35.786	44.408	37.088	35.624	36.437	35.
3/1 16 1	17 987 1	3/1 97/1	3/ 973	/18 15 i	3/1 8/1	3/1 8/1 1	17
25 040 1	24 074 1	47 024 1	31.575	25 707 1	47 400 1	24 640 1	2.
35.949	34.9/4	47.824	36.6	35./8/	47.499	34.648	35.
47.011	35.786	34.974	46.848	35.299	35.299	35.462	31.
35.298	51.403 I	36.925 I	37.413 I	48.8	35.299 I	34.648 I	33.
3/1 322	35 9/9 1	35 /61	3/1 /86	36 112 i	31 72 1	35 298 I	18
34.322	33.343 [33.401	25.400	25 126 1	24 072 1	33.230	70.
33.130	34.10	34.011	33.93	33.130	34.9/3	31.394	33.
48.637	35.624	34.323	46.848	35.787	34.485	34.973	39
35.624	35.624	35.136 I	35.136 I	48.8	35.299 I	35.299 I	35.
33 997 1	35 136 i	46 36 1	35 787 i	34 648 1	46 198 i	34 485 i	3.4
35.557	33.130	24 044 1	33.707	25.040	20.130	40 240	27.
33.624	34.483	34.811	49.776	33.787	35./8/	48.312	35.
35.298	46.523	34.81	34.648	47.173	35.624	35.624	46.
35 461 i	36 112 1	47 498 1	35 786	35 624 1	47 336 i	35 136 i	3.4
45 072	25 624	24 072 1	35.700	34.640	24 044	40 627 1	21.
45.872	33.624	34.9/3	35./86	34.648	34.811	48.63/	35.
35.461	46.035	35.624	35.461	36.275	35.462	31.069	35.
35 136 I	46 685 1	34 485 1	35 136 1	47 011 1	35 462 I	34 485 1	49
35 200 1	25 200	35 200 1	21 002 1	35 634	47 007 1	35 461 1	21
33.299	33.299	33.299	31.003	33.024	47.907	33.461	34.
45.872	35.462	34.323	46.686	35.136	34.323	47.336	35.
34.811	47.336	35.299 [35.786	47.987	34.974	33.997	47
25 161 1	24 072	24 222 1	2/ 01	25 200 1	25 461 1	25 200 1	2.0
33.401	34.973	34.323	24.01	33.233	33.401	33.230	33
34.323	34.486	47.174	35.624	35.787	46.848	36.112	34.
34.323 I	35.624	35.624 L	34.973	33.51 I	33.672 I	47.824	34.
3/1 8/11	16 197	3/1 973	36 437 1	35 136 i	35 624 1	31 395 i	35
34.011	40.137	34.373	30.437	33.130	33.024	31.333	55.
34.648	34.9/3	31.069	34.9/3	35.298	34.9/3	48.638	39.
35.624	48.312	35.786	35.624	48.15	35.136	34.973	34.
33 835 1	34 973 1	46 034 1	35 298 1	34 648 1	46 197 I	34 811 1	3.4
24 072 1	24 70 1	24 640 1	40.45	35 464	25 200 1	34 640 1	25
34.9/3	31./2	34.648	49.45	35.461	35.299	34.648	35.
34.648	47.011	33.835	35.95	47.661	35.461	34.648	49.
34.648 I	34.811 I	46.686 I	35.136 I	34.973	47.662 I	35.462 I	3.4
46 107 1	25 126	24 072 1	34 640 1	24 16 1	35 300 1	24 405 1	21
40.13/	33.130	34.973	34.040	24.10	33.230	34.403	34.
4/.661	34.486	34.486	48.4/5	131.598	35.299	46.034	32.
32.533	36.275	34.974	34.648	48.312	42.781	34.973	47.
34 973 1	34 485 1	35 136 1	35 786 1	35 299 1	47 987 I	34 973 1	3.4
46 025	24 (40)	22.130	46.26	35.233	24 222 1	46 500	21.
40.033	34.040	33.072	40.30	33.130	34.323	40.322	33.
35.136	46.197	35.299	35.624	35.461	34.973	33.998	47.
34.486 I	34.81 I	46.035 L	35.136 I	33.997	42.293 I	34.973	3.4
25 707 1	21 610 1	47 400 1	25 462 1	24 640 1	16 36 1	31 106 1	21
35.707	34.070	77.733	33.402	34.040	10.30	34.700	24.
45.709	34.9/3	34.16	34.10	34.485	34.16	34.323	34.
47.498	33.835	34.648	47.336	34.811	34.81	45.058	34.
34 811 i	34 648 i	33 835 i	34 81 i	34 16 i	42 131 i	46 848 i	3.4
34 011	25 462	24 074 1	35 463	47 660	25 126 1	24 222 1	25
34.011	33.402	34.974	33.402	47.002	33.130	34.322	33.
34.811	34.811	47.336	34.811	34.973	46.197	34.811	35.
34.648	33.997	33.998	47.662	35.624	34.811 I	45.872	34.
34 323 1	45 872 i	34 16 1	34 648 1	46 685 i	42 456 i	35 299 i	46
31.323	24 074	46.26	31.010	25 464	12.130	33.233	24
34.9/3	34.9/4	46.36	35.299	33.461	46.36	34.648	34.
45.872	34.811	34.811	34.485	34.323	33.184	38.064	34
45.058 I	31.395	32.046	45.872	35.787	35.624	46.685 I	35.
34 974 1	34 974 1	33 672 1	34 648	48 149 i	43 432 1	35 299 i	46
24 074	24 044	35.072	25.040	20.177	17 664	35.474	20
34.9/4	34.811	35.299	35.462	33.136	4/.661	35.461	35.
46.685	35.299	34.485	46.685	35.298	37.739	33.346	33.
32.208	44.571	35.136	36.274	35.786	34.648	34.16	47
3/1 /05	34 640	16 606	24 074	35 200 1	12 011	35 624 1	21
34.403	34.048	40.080	34.9/4	33.490	42.744	33.024	34.
34.974	35.136	47.336	35.462	34.973	46.36	35.624	35.
46.522	36.275 I	34.973 I	35.299	34.16	33.672	34.81	34.
47 499 1	33 997 1	34 16	47 824	40 179 i	35 299 i	47 173 i	35
2/ 011	24 072	24 46 1	24 405 1	10.175	25 126 1	3/ /05	4.0
34.811	34.9/3	34.16	34.483	44.240	33.130	34.483	46.
34.811	34.485	36.6	58.234	35.136	47.987	35.136	53.
31.72 i	25.05	23.587	28.141 i	24.237 i	21.797 i	25.864 i	2.0
26 515	20.00	20.307	27 002	23 262 1	23 261 1	20.001	23
20.010	20.021	20.496	27.003	23.202	43.401	20.141	23
23.098	27.816	22.611	25.864	20.17	20.333	19.357	25.
20.496 i	22.773 i	28.629 i	23.749	23.098	28.142	22.774	2.2.
31.232	20.171	19.358	20.658	19.358	18.87	27.003	25.
J1.434	20.1/1	19.338	20.000	19.330	10.0/	27.003	25.
28.629	22.774	22.448	28.954	23.424	23.75	26.84	19
20.008	20.008	19.194	22.286	23.424	23.587	22.448	27.
23.424	20.000	77.177	22.200	20.008	24.888	20 17	10
23.424	22.611	24.237	22.285	20.008	24.888	20.17	19.
24.075	23.424	23.424	28.304	23.261	21.31	25.376	20.
19.194	24.562	19.845	20.334 i	23.424	23.912	21.472	27.
23.098	22.936	27.166	26.026	19.52	20.334	19.357	18.
	22.611	28.63	24.075	22.286	27.979	22.773	22.
18.869				19.682	19.032 i	22.936	23.
	19.682	19.194	19.845	19.002			2
18.869 31.07 27.816	19.682 22.448	19.194 22.448	19.845 29.443	23.424	23.587	27.003	19

		05 504	00.404	0.5 0.50			40.045
20.171		25.701		26.352			
19.195	25.376	24.075					
22.611	23.587	23.587	23.261	28.141			
19.682	17.893	24.725	21.146	19.195	21.635	21.797	23.098
27.328	23.912	21.96	25.05	20.333			
19.52	22.936	22.936	22.773	29.117	22.936	22.448	
26.027	20.008	26.19	19.845	19.357			25.051
				19.35/	24.4		
28.141	21.797	22.448	28.954	23.261		27.002	20.008
19.846	22.448	21.96	24.237	28.142	23.75		
23.424	21.798	23.912	21.96	18.869	24.4	20.008	
27.653	24.237	23.099			21.472	27.328	24.237
20.821	24.726	19.358	20.984	23.262	23.424	21.96	27.654
22.936	22.448	21.634		20.171			
24.563	22.773	23.424	28.63	23.424	22.774		22.773
25.864	25.051	19.846		18.544	18.544	22.448	
				18.544	18.544	22.448	
23.098	21.797	27.653	24.075	22.123	23.749		19.52
19.845	19.845	25.376	25.864	24.4 25.213	20.496		18.382
19.032	24.888	24.563	22.773	25.213	19.845		
21.309	23.099	27.653			29.28	23.749	
20.008	i 18.382 i	19.195 i	26.027	23.099	23.262	27.654	23.75
22.936	28.142	20.334		29.768		19.195	
19.683	22.285	27.816					
25.376	20.496	19.195	20.17	19.195	18.381	27.328	25.376
	20.496	22.611	28.141	23.261	24.075	26.189	20.008
28.467							
19.845	19.52	18.381	23.261	28.142	22.611		27.491
23.424	21.797	24.237	22.123	19.683		20.008	22.61
27.653	23.586	22.448	28.304				24.237
20.821	24.4	19.52	21.147	23.099	22.448	21.798	27.491
22.936	21.96	21.96	22.773	23.912	19.683	19.195	18.544
23.587	22.773	22.773					
68.808	25.864	19.195			21.635		
	22.286	28.466	24.888	22.122	23.587	21.147	19.195
23.749	19.357	25.213		26.515	23.587	19.357	
19.846				26.515	20.008		
18.87	19.682	24.074	28.304	20.171	19.357	24.725	23.261
21.96	28.141	23.75	22.773	27.653		21.634	23.912
20.008	18.869	24.563		22.773	28.304		
22.285	23.261	21.797		23.424	20.821	19.845	
20.008	22.936	23.261	43.269	22.61	23.424	27.654	
21.635	29.768	20.984		19.032			
22.936		27.491					
19.194	20.171	18.544	24.888	22.773			21.96
		26.027	49.45	25.702	22.773		
22.611	27.165						
18.869	22.285	28.629	23.587	23.099			25.701
20.496	18.381	19.357	26.677	20.008		26.84	23.424
22.61	28.467	22.774	22.286	31.232			
19.846	19.032	22.773	22.611	23.098		22.448	
26.677	25.864	19.357 i		18.544	18.544	24.238	22.286
23.261	26.84	22.936					
19.194		25.376					
24.4	20.171	25.214	47.662	20.659		25.539	20.008
19.683	28.466	24.4	22.773	21.797	22.936	22.611	25.214

max val(#292) = 131.60us min val(#641) = 17.89us peak-to-peak = 113.71us mean +- RMS = 30.62 +- 9.31 us

complete rx latency	(includes driver	latency and stack	latency), us (wir	e -> app): packets	1024:	59,949 59,376 61,638 75,33 55,057 73,548 60,495 58,945 58,945 58,945 59,278 59,278 59,025 58,563 72,024 59,336 59,277 74,536 54,739 60,396 59,235 71,409 57,828 59,091 60,396 59,235 71,409 58,563 71,409 58,563 59,235 71,009 58,365 59,091 60,552 74,198 55,091 60,552 74,198 55,091 60,552 74,198 55,091 60,552 74,198 55,091 60,552 74,198 55,132 75,43 59,091 58,518 69,25 58,518 61,622 59,364 70,928 58,518 59,622 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,421 58,642 59,293 64,277 70,282 61,846	
90.345	63.06	61.978	62.955	81.067	63.597	59.949	75.392
60.144	62.251	59.005	58.941	60.547	60.346	59.376	55.507
59.43	76.749	75.031	60.199	64.265	71.757	61.638	58.075
70.878	59.33	58.632	59.228	58.522	58.634	75.33	59.567
61.437	70.396	61.51	60.206	60.975	58.761	55.057	72.62
59.619	59.257	70.785	62.099	60.018	73.068	73.548	58.243
73.945	72.88	59.802	67.929	63.114	59.754	60.495	61.71
57.977	74.403	59.736	61.204	74.076	58.499	58.945	71.149
59.926	58.852	71.727	60.397	63.596	73.85	58.744	61.148
71.433	61.638	58.754	70.777	59.317	59.413	59.374	55.013
58.96	88.291	60.937	61.003	77.36	60.123	60.66	58.073
57.904	59.542	59.496	58.111	59.869	55.198	59.278	74.086
61.209	58.169	58.566	60.409	60.657	59.061	54.991	59.383
72.239	59.473	58.205	72.686	60.459	58.331	59.114	68.824
59.96	59.751	59.075	58.692	/4.6/1	59.395	59.025	59.476
57.894	61.164	70.731	61.866	61.011	70.072	58.563	58.627
59.991	58.118	58.636	73.626	61.317	61.936	72.024	61.655
59.872	/2.243	58./36	58.27	/1.093	59.585	59.336	/9.403
59.8	61.967	/3.4/3	59.382	63.154	/3.323	59.92/	58.191
69.744	59.362	38.938 61.050	59.948	58.493	58.649	/4.536	39.883
61.13/	59.692	61.038	59.739	62.149	59.789	54./39	59.503
58.924	70.878	38.1/3 E0 311	6U.965	/1.3/8	01.044	00.396	82.914
60 301 1	61 366 1	29.311	72 640 1	61.096	71.931 57 012	71 400 1	50 114 1
50 022 1	71 060 1	50.343	72.040 50.600	75 526 1	61 170	1 1.405	72 062 1
50.033	/1.066 60 665	59.213	59.606	73.330 50 180	50 621	57.020 59.091	/3.062 68 291
58 619 1	60.003	70 182 1	50.423	63 408 1	73 269	1 60 552 1	58 944 1
58 189 1	59 /93	70.102 50.567	58 81/ 1	57 22 1	57 53 <i>1</i>	7/ 198	50 15 1
60.100	69 508 1	61 059 1	60 496 1	60 419 1	59 442	1 74.130 I	59 619 1
58 37 1	58 502 1	54 323 1	58 582	59 224 1	58 533	72 443 1	68 304 1
59 55 1	72 18 1	59 643 1	59 224 1	73 792	59 269	59 009 1	58 94 1
57.523	61.068	70.48	61.462	60.377	69.824	58.365	58.733
58.686 i	54.905	58.627 i	73.505 i	60.972	61.69	58.49	61.151 i
58.79 I	72.74	57.589 i	59.42	71.297 i	59.416	58.518	83.112
59.044	59.099	72.935 i	58.483	62.482	71.285	62.053	58.616
69.924	59.481	58.464	58.194	58.05	59.398	58.531	60.751
73.651	58.315	60.685	73.137	158.43	60.376	70.059	56.468
56.36	59.886	58.659	58.752	74.993	74.817	61.622	70.962
61.457	58.2	59.14	59.134	60.954	72.446	59.364	58.229
70.135	61.427	58.199	72.698	61.354	58.292	70.928	59.19
58.769	70.014	59.301	59.866	60.81	61.36	57.663	73.434
59.404	61.104	69.589	58.759	58.015	72.011	59.542	57.662
59.718	58.636	70.789	59.505	62.479	72.83	59.421	60.949
69.498	59.049	58.301	57.978	58.274	57.92	58.64	60.875
73.313	57.939	60.901	71.923	60.307	59.093	69.22	58.667
58.712	58.5	57.596	58.563	58.315	71.843	71.425	58.173
58.684	59.1	58.959	59.192	/3.106	59.3	58.502	59.15
38.60/	01.004	/1./1/	38.82/	01.402	69.846	38.725	58.84/
38.433 50.070	71.05	57.812	11.308	01.211	01.564	/U.138 50 600	60 060 I
50.972	/1.83 50 no i	72 650 1	50./64	/U.439 63 35/ I	72.096	39.622 50.000	60 604 1
60 743	50 060 1	72.039 50 E60	50 207 1	57 060 1	72.JZZ 57 133	J J J J Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	50 117 1
68 46 1	55 131	55 701 I	50.327 69.122	62 052 1	59 700	1 04.2// 70.282	50.11/ 50.277
58 850 I	58 764 1	57 7/1 I	58 28 I	74 504 1	75 295	1 70.202 1 61 946	59.677 I
30.039	30.704	37.741	30.20	/4.334	13.233	01.040	09.007

61.242 I	58.474	58.988	58.94	60.567	71.242	59.334	58.882
70.024	61.749	59.071		61.14			56.578
			72.757		63.584	57.457	
55.958	67.997	59.06	60.365	61.588	58.748	57.758	74.294
59	60.719	70.481	59.108	59.243	72.398	59.787	58.024
58.34	58.834	74.001	59.094	62.731	72.573	60.208	59.468
70.343	60.157	58.773	59.121	57.863	57.18	58.863	61.295
73.392 j	57.742	57.861	74.696	68.432	60.021	70.75	58.967 i
58.773	58.684	57.701	58.213	75.042	59.629	58.382	70.101
58.548	58.115	60.151	81.814	60.549	72.269	59.238	81.086
	50.062	46.8	52.3	48.579	43.814	47.891	
55.144			52.3		43.814	47.891	42.163
48.037	42.62	42.433	48.66	46.692	48.372	49.774	48.13
45.806	51.996	44.012	47.815	52.914	44.241	41.285	47.493
42.199	44.61	53.321	45.288	48.594	52.709	45.448	46.851
52.73	42.002	41.072	42.228	41.029	40.681	48.792	49.582
52.77	44.107	46.537	51.667	49.645	45.782	48.298	41.303
41.304	41.915	40.436	44.174	58.671	49.617	46.841	48.937
47.864 I	45.125	46.062	43.735	43.178	47.001	41.819	40.909
45 974 i	45.39	47.831	52.317	47.231	43.07	46.891	41.746
45.974 40.731	46.244	41.215	42.217	46.685	48.63	43.247	51.976
45.776	46.989	49.131	47.357	46.731	40.03	41.624	40.144
40.817	44.199	53.346	45.906	48.303	44.293 52.758	41.024	44.182
40.01/	41.548	40.904			42.045	45.264 45.234	
52.24		40.904	41.554	44.468	42.045	45.234	47.915
52.024	44.258	47.133	52.512	49.337	45.643	49.111	41.328
41.663	41.718	47.318	45.15	54.894	44.991	47.545	41.542
41.107	47.542	45.588	44.253	49.022	40.956	42.315	45.936
44.699	48.438	45.186	47.53	52.339	44.482	47.15 j	47.25
41.762	39.859	46.323	43.011	42.254	43.745	43.471	47.671 i
50.361	48.23	43.735	47.13	48.332	43.715	41.804	40.488
41.375	44.654	47.747	44.558	55.062	47.536	45.049	51.663
47.659	41.479	49.058	41.533	40.916	46.072	49.011	49.687
52.482	43.653	47.356	51.461	48.823	50.597	49.077	42.979
41.899	46.678	50.366	51.103	50.789		46.784	48.631
					48.248		
47.398	44.412	45.765	43.774	42.975	46.528	42.18	45.603
49.339	48.813	45.71	44.684	47.254	43.366	51.516	45.918
42.403	46.333	41.102	43.05	46.522	48.312	43.685	51.816
45.612	46.572	54.278	49.91	42.129	42.119	41.958	40.303
46.409	44.522	48.075	50.601	49.37	47.731 I	49.681	44.919
47.644 j	46.284	41.403	41.369	40.204	40.208	44.066	52.676
47.656	43.794	51.985	46.657	47.452	45.859	42.6	40.773
41.374	41.395	53.222	49.983	46.634	42.583	41.452	40.185
40.631	46.688	46.355	44.495	48.291	42.273	42.169	44.764
42.944	47.991	50.634	47.726	47.361	51.215	48.24	45.934
				47.301		40.24	
41.5	39.85	41.121	47.481	46.011	48.181	49.487	47.912
45.338	52.308	48.034	47.349	51.844	42.79	41.301	46.142
41.196	44.255	52.442	45.336	48.859	53.173	46.351	46.187
46.931	42.206	40.808	41.461	40.798	40.149	48.833	49.992
52.627	43.959	46.845	51.033	48.729	45.833	48.17	41.605
41.341	41.036	45.859	46.905	53.261	46.985	46.722	49.421
47.286	44.27	45.828	43.809	42.965	47.043	41.9	44.268
49.43	48.251 i	45.056 i	52.369 i	47.533	40.589 i	49.895	45.966 i
42.482	45.857	41.106	42.4	45.83	47 073 i	43.621	51.859
45.373	46.11	54.161	48.523	45.798	41.568	41.037	40.146
45.545	44.222	47.091	49.652	49.194	46.848	50.33	46.496
90.592	47.619	40.799	41.988	49.056	44.831	45.048	53.768
47.883	43.947	52.335	47.243	48.249	45.863	43.039	40.98
47.109	43.947	47.192		48.443	41.461	43.039 41.018	39.759
			50.658				
40.267	41.493	45.81	50.027	43.696	41.543	46.493	44.473
43.212	52.236	46.274	46.839	51.505	42.913	45.881	45.774
41.608	40.688	46.117	43.04	45.642	52.78	44.571	46.799
56.005	49.297	43.236	51.892	44.857	42.587	41.742	40.192
41.893	44.693	47.669	64.713	45.833	47.841	50.123	46.917
42.887	51.476	42.342	40.782	40.287	40.518	48.628	54.728
47.007	43.528	51.295	46.236	48.036	47.684	42.43	39.777
50.278	43.546	40.235	46.729	44.636	47.534	51.777	43.609
46.48	49.994	47.943	71.324	48.669	41.411	40.99	41.118
40.275	44.112	53.196	47.384	46.814	48.821	47.218	47.08
42.227	39.969	40.483	48.003	42.778	43.644	48.498	47.776
50.483	54.458	44.29	46.621	52.523	42.09	41.583	45.728
41.461	40.417	44.147	43.79	48.75	51.604	44.984	46
48.28	47.652	40.811	41.132	40.428	40.394	46.109	43.652
47.721	48.355	46.936	45.606	53.269	47.077	48.168	46.765
46.556	43.233	46.824	42.691	47.819	42.327	40.844	39.654
45.845	41.587	47.018	69.61	45.187	40.694	47.016	41.428
40.783 j	49.97	49.195	47.053	43.424	44.656	47.066	46.835
	· ·						

max val(#292) = 158.43us min val(#1007) = 39.65us peak-to-peak = 118.78us mean +- RMS = 54.44 +- 10.45 us

packet size: 512 number of packets: 1024 RATE = 524.29kbps, PPS = 128.0

3.4 AF_INET "socket(AF_INET, SOCK_DGRAM, IPPROTO_UDP)" 3.4.1 AF_INET, 1 PPS

root@am57xx-evm:~# ./plget -i eth0 -t ptp14 -m rx-lat -n 1024
Destination address is set to 224.0.1.129
joined mcast group: 224.0.1.129
SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12
SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 7 requested, got 12
setting ts_flags: 0x58
new ts_flags: 0x58

driver rx latency, us	(doesn't include s	stack latency, wire	-> net subsystem)	: packets 1024:			
37.663 31.578	29.429	33.268 29.488	38.93 35.044	27.924 27.193	32.322 27 901	30.247 30.675	28.567 26.017
32.372	31.864	26.313	26.712	31.167	27.379	28.468	33.242
40.653	30.039	32.866 30.004	25.945 33.068	30.886	27.45	28.908	29.232
39.974	28.744	29.888	34.647	28.122	28.367	40.921	27.434
30.255	26.856	32.911	26.786	26.083	28.889	37.303	28.83
36.385 26.137	27.195 32.439	29.602 26.409	34.203 26.588	28.268	26.476 26.366	33.955 31.111	29.032 27.841
29.556	32.732 28 931	28.466 38.881	27.024	32.167	28.661	30.293	32.121
46.5	31.136	29.843	40.446	30.078	28.391	41.698	30.423
29.424	25.628	25.371	28.614	40.562 33.5	25.415	26.26	30.633
24.959 34.197	26.99 26.587	31.632 28.272	31.258 34.481	29.983 26.117	32.322 26.607	27.698 31.772	28.553 26.097
28.009	32.375	26.958	26.794	31.153	29.778	30.586	40.059
25.773	30.163	43.226	28.821	31.34	40.199	27.878	28.324 28.406
42.29 26.424	29.239 33.971	27.776 26.497	32.873 28.012	29.022 32.843	27.006 26.335	34.399 26.023	29.267 31.993
30.579	26.627	32.865	26.994	26.972	33.276	26.582	31.359
36.171	29.588	26.596	31.934	32.4	26.909	39.179	29.774
28.655 31.605	41.543 28.811	30.814 39.013	28.916 30.536	38.917 29.768	30.419 38.782	30.044 33.658	31.375 30.462
37.102	27.936	28.209	31.579	28.416	29.383	32.299	26.98
27.467	30.972	26.315	26.555	33.212	25.606	26.714	31.636
28.257 31.224	27.253 25.542	32.06 30.168	25.497 42.786	31.103 30.923	34.089 29.952	29.331 40.246	27.278 29.546
33.372	40.209	28.695	30.774	39.128	29.532	30.77	39.802
31.383	29.153	39.924	28.591	29.497	34.062	26.165	26.4
32.693 29.831	30.225 33.505	26.354 26.435	33.071 28.015	26.319 37.531	26.691 27.612	34.117 26.961	25.941 33.106
27.118 36 715	26.907	33.056 43.524	25.965	26.288	35.669	25.903	25.164
39.5	29.272	28.177	38.916	29.911	29.742	37.956	30.163
28.097	26.679	28.376 31.669	29.288 28.433	26.544	31.153 32.193	27.259	34.099
39.27 31.44	28.093 26.436	26.095 27 994	30.998	27.086	36.293 28.062	26.239	27.275 28.415
29.274	32.093	26.878	27.257	37.685	26.546	29.94	34.336
36.648	29.555	30.847	28.792 37.15	29.284 28.771	26.862	32.012 31.374	26.117
28.958 29.817	31.557 34.407	28.69 28.665	26.388 26.305	25.293 32.425	25.943	36.763 25.974	27.427 34.775
26.76	25.899	33.224	30.057	29.659	33.656	26.221	26.15
26.933	33.695	27.045	28.766	33.234	28.126	29.991	40.953
32.834 26.661	26.864 31.666	29.283 44.536	28.608 29.942	38.614 28.845	29.947 38.587	30.303 31.275	40.036 28.926
35.012	29.806	26.498	31.135	28.014	25.971	32.746	28.189
31.202	27.279	36.21	27.623	26.624	30.847	27.346	25.74
31.479 33.934	27.383 26.449	32.086 28.459	25.79 31.437	26.466 41.206	35.167 29.878	26.279 39.545	27.434 31.807
31.196	41.161	29.598	27.811	42.06	26.101	29.662	39.319
40.692	28.405	28.073	34.701	26.41	27.015	28.29	26.277
34.483 25.79	27.115 32.381	25.97 27.766	32.521 26.569	26.418 37.202	27.649 26.85	38.323 27.854	26.407 32.919
27.846	26.156	31.901	26.748	31.82	36.64	27.024	27.301
30.714	34.974	29.45	27.853	26.775	25.749	37.623	27.282
30.399 28.278	39.409 26.044	28.274 39.221	26.227 30.078	32.085 26.975	28.631 32.419	29.445 27.997	32.849 30.512
32.591 26.418	27.873	26.003 29.022	31.373 27.438	27.637 31.748	26.371 27.787	34.628 27.777	27.938 31.95
27.311	26.218	26.206	29.258	31.683	25.671	31.146 30.541	30.257 30.325
33.903	28.149	30.597	33.936	29.257 29.101	29.567	41.373	31.249
27.037 26.416	31.419 28.47	26.072 31.627	27.591 26.948	35.868 27.006	27.342 32.057	27.083 30.308	31.985 30.718
27.057	32.975	29.143	30.122	27.089	33.544	30.308 26.331 37.188 28.461 33.264 28.466 33.763 25.942	26.506
27.288	33.879	28.695	26.715	33.175	28.654	28.461	26.9 37.689
29.281 38.282	26.024 29.729	35.792 30.157	28.888 39.795	29.479 27.87	40.064 25.884	33.264 28.466	26.888 28.141
34.28	27.57	29.029	34.454	28.139	26.105	33.763	27.44 31.271
27.52	25.949	32.499	28.517	28.189	37.378	25.942 31.933 31.513	20.740
33.538 25.804	27.172 33.106	26.127 28.187	31.322 26.292	28.567 25.521	26.254 26.66	31.513 39.844	26.077 26.553
29.459	33.964	28.413	28.308	33.76	28.429	28.175 29.365	37.81 27.829
31.496	26.798	29.483	28.092	31.136	27.888	31.278	27.675
28.141 25.73	31.108 26.703	26.649 26.082	26.849 25.754	38.578 37.13	26.173 26.095	29.363 31.278 28.996 26.656 29.059 36.789 30.689	31.039 31.749
32.896 37.132	27.504	35.124	29.807	27.123	32.808	29.059	26.591 26.534
28.898	36.582	30.217	28.81	39.95	27.726	30.689	36.73
28.996 27.753	29.289 34.974 39.409 26.044 27.873 33.2 26.218 30.909 28.149 31.419 28.47 32.975 26.877 33.879 26.024 29.729 27.57 31.84 25.949 27.172 33.106 33.964 29.047 26.798 31.108 26.703 27.504 28.194 36.582 30.403 30.327 32.333	32.294 33.401	26.894 27.368	29.6/ 26.14	32.855 31.216	32.066 31.328	28.512 28.158
34.814 28.334	30.327 32.333	26.705 26.542	35.223 27.02	26.854 30.653	27.431 28.072	31.987 29.275	27.482 31.621
20.001			-:•02				-1.021

26.909	27.121	33.215	26.761	31.072	34.415	31.414	31.687
34.95	29.811	28.485	32.021	31.08	26.176	31.187	30.52
34.441	30.977	30.887	38.743	29.197	30.044	35.401	27.343
27.384	31.739	26.395	27.328	31.403	25.718	29.257	31.823
28.428	26.963	31.461	31.13	27.908	36.145	26.882	27.691
36.667	26.423	28.044	35.562	26.72	26.828	34.294	30.36
27.927	36.913	26.568	26.717	27.833	26.442	32.2	26.187
26.876	34.817	27.476	26.252	32.401	30.421	32.714	33.233
28.532	33.847	38.02	32.362	28.839	38.998	29.515	28.991
40.323	26.363	29.316	35.007	28.617	27.642	44.206	26.114
29.179	36.476	30.095	26.942	33.359	26.918	26.168	32.193
26.826	26.234	27.8	26.75	32.751	26.719	28.937	31.655
34.23	30.033	46.018	35.027	43.856	53.853	27.66	27.504
32.225	27.926	27.856	34.544	27.701	26.014	35.442	27.895
29.129	32.345	30.267	28.685	34.378	31.257	28.7	33.932
30.264	29.233	36.128	29.654	28.894	27.235	48.863	31.857
39.849	28.887	40.351	29.944	30.066	40.293	29.904	30.319
32.323	27.808	28.917	33.318	27.499	28.509	38.036	27.564
27.685	33.028	27.047	28.654	32.787	27.682	31.194	32.628
27.247	27.229	32.141	27.066	33.4	42.457	32.09	28.928
32.802	27.51	28.579	34.859	28.193	27.664	33.248	29.337
37.306	30.039	29.218	36.043	30.924	30.931	44.778	31.133
30.304	31.452	36.664	30.541	40.357	30.147	31.703	41.825
29.709	29.077	43.794	34.168	30.151	33.063	29.892	29.2
34.516	30.314	26.65	34.565	27.665	28.165	34.655	27.303
26.71	33.403	27.815	28.399	32.843	27.159	34.911	28.596
27.805	31.852	27.369	27.312	33.482	27.787	27.517	32.466
31.365	31	33.871	29.098	27.738	32.835		30.22
42.36	27.365	29.475	36.885	30.411	30.149		30.871
31.099	40.35	30.169	30.284	35.494	30.721	32.371	40.015

max val(#885) = 53.85us min val(#120) = 24.96us peak-to-peak = 28.89us mean +- RMS = 30.69 +- 4.24 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app): packets 1024:

stack ix latency, t	us (doesn't include	e driver latency,	net subsystem -> ap	pp). packets 1024.			
0E 72E I	72 55 1	70 003 1	67 182 1	70 100 1	E7 000	EE 460	E 4 810 L
63.723	/2.33 40 4E1	/0.093 E/ 010	07.102	70.109	10 212	55.469	54.019
57.096	49.431	10 063 1	4E E46	21.303	40.312	50.933	51.077
50.752	57.096	48.963	45.546	56.282	48.149	50.264	53.029
43.757	48.963	56.445	49.451	46.197	55.957	47.824	48.637
70.76	57.746	55.795	52.541	56.446	47.987	48.149	50.589
61.325	54.168	52.053	55.144	49.451	52.053	62.79	51.728
53.843	63.765	52.541	54.656	63.766	43.107	45.058	52.541
53.355	44.083	54.005	43.594	44.408	50.752	61.488	55.794
59.048	45.059	52.053	54.656	44.083	43.92	55.306	48.8
51.891 i	54.494	43.269 i	49.125	48.475 I	46.36	51.24	50.915
45.547	54.656	50.264	45.384	51.403 I	50.101	54.981	52.378
54 981 i	51 566 i	51 728 i	53 355 1	51 077 i	63 115	56 934	53 192
63 603 1	59 374 1	56 446 1	55 47 1	58 397 1	53 029	58 23/	60.132
56 608 1	55 958 1	61 651 1	56 77	58 56 1	5/ 331	56 771	64 416
54 402 1	50 101	5/ 010 1	47 007 1	54 005 1	10 063	16 100	51 077 1
46 040 1	47 007 1	54.015	47.307	54.005	40.903	40.190	51.077
40.040	47.907	37.096	62.79	52.034	34.006	50.427	51.402
57.096	55.307	48.8	38.723	51.402	48.4/5	56.933	51.89
49.451	57.259	49.939	47.498	55.632	53.192	55.958	55.144
43.757	48.637	56.446	53.843	52.541	63.277	60.187	47.173
61.163	68.808	58.234	51.891	55.795	57.747	54.493	58.235
53.355	49.45	51.728	54.981	42.944	50.427	54.818	51.89
45.872	56.446	49.288	48.475	52.867	43.107	50.426	56.608
48.312	50.589	53.843	48.637	49.288	54.656	48.8	57.096
63.603	47.011	51.89	55.306	43.757	43.92	48.8	51.728
53.354	48.963	45.872	56.771	61	51.24	56.608	59.21
56.608	61	62.627 i	57.096	56.771 i	55.144	54.168	52.542
54.168 i	51.24	58.072 i	53.843	49.938 i	57.909	62.464	53.517
56.445	48.149	51.403 i	49.776	46.034 I	54.005	51.728	49.451
45 547 1	50 915 i	48 8 1	47 499 1	53 355 1	47 987	50 426	48 149
47 173 1	51 403 1	48 312 1	46 522	55 144	62 789	59 048	57 747
18 312	5/ 818	57 422 1	17 199	64 416 1	60 186	57 258	5/ 168
56 445 1	47 226 1	61 162 1	61 076 1	62 11 1	60.100	57.250	60 675
57 01 1	57 006 1	55 207 1	54 656 1	52 704 1	52 541	57.909	52 270 1
57.91	37.096	55.307	54.656	52.704	32.341	57.096	52.370
56.445	48.038	55.306	57.421	36.12	48.963	62.789	57.422
55.632	62.79	61.651	49.938	49.451	56.12	48.8	50.752
53.192	48.8	52.053	53.518	48.8	49.776	54.981	5/./4/
47.661	55.307	47.173	54.981	55.957	51.566	51.728	53.51/
47.824	50.752	54.494	48.475	50.752	55.307	44.245	52.054
52.704	58.56	56.445	55.307	51.078	51.565	55.307	55.306
53.03	53.518	50.915	52.542	54.006	52.053	59.048	58.072
52.216	54.981	50.427	50.427	50.915	53.355	48.8	51.89
46.686	45.221	51.566	48.963	45.384	50.915	45.709	57.746
60.186	48.475	44.896	50.264	45.872	58.072	46.523	47.987
53.192	52.704	61.651	57.91	43.757	50.102	51.24	49.776
47.499	52.378	48.474	51.89	63.277	49.776	47.661	51.891
45.058	50.102	54.819 i	43.432	48.312 i	62.301	52.216	51.24
52.541	43.595	49.613	58.234	51.24	48.15	53.192	45.384
49.451	52.379	43.594	47.011	41.643	46.035	57.259	52.541
46 198 1	56 12 1	49 45 1	46 685 1	54 168 1	43 595	43 595	55 957 1
42 456 1	43 594 1	52 704 1	54 656	50 589 1	54 493	50 264	47 173 1
61 651	47 661 1	47 336 1	54 656	46 848 1	44 571	57 096	47 173
46 522 1	54 818 1	43 594 1	48 475 1	54 819	49 45	51 89	57 584 1
55 632	45 384 1	52 379 1	50 752 1	58 072 1	55 632	56 933	58 397 1
53 68 1	53 843 1	66 856 1	62 79	56 12 1	56 77	61 163	59 536 1
57 /21	53.013	50.530	56 77 1	52 5/2 1	50 427	50 102	17 662 1
45 700 I	53 60 1	10.000	16 26 1	JZ.J4Z 51 24	70.427 77.336	10.102	1 000 1
51 24 1	11 006	49.200 50.272	40.30	51.24 50 750	11.330 51 566	50 067	10.230
51.24	44.096	59.3/3	47.024	30.732	J1.300	32.867	40.038
5/.584	50.59	52.216	42.456	46.523	57.421	43.757	50.101
53.192	51.078	56.//	55./95	52.379	59.699	55.958	60.837
61.163	56.933	54.656	52.053	60.024	49.125	60.349	57.584
57.91	55.469	52.867	48.15	52.704	50.589	65.229	52.053
59.373	61.488	56.282	58.397	49.614	49.776	54.819	51.24
55.958	49.126	51.078	52.541	47.499	45.709	59.698	44.246
50.102	55.144	48.312	57.91	53.842	56.933	51.565	54.331
54.981	52.216	54.33	44.571	55.795	56.12	44.082	51.077
55.47	48.312	53.355	55.307	49.126	53.029	58.56	46.848
47.498	56.77 i	44.896 I	47.987 i	48.474 i	46.523	58.234	47.661 i
53.029	60.186	47.336 I	50.752	54.33	55.795	50.752	56.283
53.355	51.728	66.043	58.886	53.192 i	56.77	50.915	50.752
52.704	47.661	44.896	50.59	48.312	47.824	51.728	46.686
52 053	54 818	57 258 1	46 035	52 704 1	47 824	48 637	52 216
47 174	44 896	42 619 1	48 475	51 891 1	44 734	47 173	49 776
64 004 1	50 600 1	57 01 1	10.173	18 062 1	50 225	17.173	17 662
51 001 1	45 222 I	10 0 1	56 115	51 N70 I	55 622	KU 2E	55 057 1
85.725 57.096 50.752 43.757 70.76 61.325 53.843 53.355 59.048 51.891 45.547 54.981 63.603 56.608 54.493 46.848 57.096 49.451 43.757 61.163 63.355 55.632 53.355 55.632 55.632 55.632 55.632 55.632 55.632 57.451 46.198 42.456 60.186 53.192 47.661 49.451 46.552 55.632 55.6	51 /02	10.0	16 60E I	55 632 I	77.03Z 71.673	47 226	51 00 1
47.001	21.403	42.010	40.000	JJ. 032	41.043	47.336	21.03

42.944	46.522	51.891	42.944	46.523	52.704	46.035	56.282
48.637	52.704	50.752	50.914	51.403	54.981	49.613	50.752
62.952 i	47.011 i	44.571 i	56.12 i	44.083 i	49.938 i	58.397 i	43.594 i
44.734	55.632	49.451	51.402	61.651	48.638	50.427	60.675
50.264	50.264	59.699	49.939	52.379	70.76	56.446	51.89
63.928	60.186	61	55.144	48.474	50.102	48.8	49.938
56.12	46.685	56.445	55.144	47.986	53.68	57.747	47.498
48.637 I	57.422	46.36 I	50.915 I	51.24 i	47.174 I	44.733	51.89 i
52.216 i	44.896 i	52.867 i	47.336 i	56.933 i	62.301 i	57.909 i	56.608 i
54.819	47.499	44.245	52.053	49.451	44.408	51.078	46.197
45.222	54.982	49.613	45.709	43.92	50.915	55.794	43.432
				52.704	43.269		
46.523	51.24	42.293	47.986			51.728	58.56
46.523	53.192	67.019	51.077	47.498	60.35	44.733	48.963
52.867	46.035	50.427	48.963	53.518	49.288	52.704	48.8
48.15	51.24	42.456	46.686	60.675	44.245	53.843	51.728
42.456 I	49.938	49.288	50.752	61	44.896	46.686	53.029
56.771 i	48.474	57.746 i	50.589 i	46.848	57.91 i	44.408	47.011
57.096	43.758	45.547	53.029	43.595	47.336	58.072	42.781
45.221	55.957	49.126	46.035	61.162	51.565	45.872	55.632
50.589	45.709	52.379		47.661	53.03	56.12	45.547
			45.546				
48.8	49.939	51.728	49.125	44.896	53.03	50.264	44.408
55.958	48.475	45.058	55.958	46.36	45.709	50.752	54.331
53.518	52.704	54.656	45.384	51.077	49.288	44.896	52.704
46.848 i	45.71 i	53.842	47.499 i	53.68 i	55.469	53.68	52.541
53.355 I	48.963	45.872	51.565 I	49.614	47.336 i	44.408	48.963 I
52.216	48.15	50.264	60.512	48.8	54.656	56.282	43.432
47.011	52.053	42.294	47.173	52.542	45.384	46.36	52.541
					56.933		
48.637	47.336	52.053	57.259	49.776		45.058	47.662
61.163	44.245	48.312	57.421	44.083	55.795	53.355	58.398
54.493	61.163	43.27	47.824	47.173	44.408	54.005	45.058
44.082	56.446	43.757	45.547	54.494	51.077	47.824	55.144
43.92	57.909	59.048	52.704	46.522 i	57.584 i	44.896 i	46.197 i
65.066 i	43.594	50.752	54.005 i	49.45	48.475	65.554	43.92
45.872	55.47	49.288	45.059	53.843	40.016	44.896	55.632
44.896	45.059	46.523	45.872	53.192	63.115	45.547	57.422
73.525	62.952	40.525 61	53.355	40.342	40.016	44.733	50.427
52.379	49.776	46.848	57.421	48.475	46.686	54.656	48.312
47.498	51.891	48.15	45.872	51.566	49.451	46.197	52.053
50.101	51.077	60.838	54.168	51.077	52.704	67.019	61.325
61.813	61.651	59.698	58.886	62.139	54.493	53.029	53.029
52.704	47.662	50.101 I	53.192	45.547 i	52.378	57.909 i	48.474 i
48.15 i	54.168	47.336 i	48.963 i	53.842	46.685 I	57.584 i	53.517
47.011	47.499	53.029	45.384	58.56	61	52.054	48.962
54.331	46.685	50.426	59.373	47.986	48.475	53.192	49.939
55.632	48.149	47.336	56.283	50.101	52.867	58.56	60.512
						38.36	
47.173	51.728	53.192	53.518	55.632	53.68	54.656	55.795
54.168	52.541	68.482	58.885	54.331	57.584	47.011	47.011
56.771	47.662	46.36	54.656	47.987	56.283	58.885	47.01
47.173	55.958	50.101	48.15	55.144	50.102	54.494	50.102
46.686	53.192	47.011 i	53.843	54.331	47.336	46.848	54.168
54.656	52.704	55.144	49.776	47.987	55.307	52.542	52.379
57.096	48.963	48.149	57.421	48.149	47.499	53.192	48.963
49.613	61.813	47.986	53.03	54.005	54.33	54.493	54.656
49.013	01.013	4/.900	33.03 [34.003	34.33	34.493	34.030

max val(#0) = 85.72us min val(#869) = 40.02us peak-to-peak = 45.71us mean +- RMS = 52.17 +- 5.51 us

complete rx latency (includes driver latency and stack latency), us (wire -> app): packets 1024:

complete rx latency	(includes driver	latency and stack	latency), us (wir	e -> app): packets	1024:		
123.388	101.979 I	112.161	106.112	98.033	90.231	85.716	83.386 77.094 86.271 75.933 79.821 79.162 85.294 84.624 77.832 78.756 84.499 78.873 90.447 106.119 81.71 79.955 77.987 95.203 75.497 86.641 81.157 88.601 88.455 81.65 83.984 83.917 76.398 89.383 81.446 90.221 92.18 92.053 77.152 83.688 86.623 77.152 83.688 86.623 77.152 83.688 84.904 88.235 83.989 87.857 75.262 78.191 86.227 81.469 71.501 79.968 90.732 73.323 73.323 73.589 98.537
88 674	75 344 1	84 307 i	96 044 1	78 758 1	76 213	87 608 1	77 094 1
83 124 1	98 96 1	75 276 1	72 258 1	87 449 1	75 528	78 732 1	86 271
70 006 1	76 720	00 211 1	72.230	72 204 1	73.320	70.732	75 022 1
70.000	70.720	09.311	75.590	73.204	07.010	73.733	75.955
111.413	87.785	85.799	85.609	87.332	/5.43/	//.05/	79.821
101.299	82.912	81.941	89.791	77.573	80.42	103.711	79.162
87.127	104.431	80.97	83.526	104.554	69.84	70.874	85.294
83.61	70.939	86.916	70.38	70.491	79.641	98.791	84.624
95.433	72.254	81.655	88.859	70.592	70.396	89.261	77.832
78.028	86.933	69.678	75.713	76.743	72.726	82.351	78.756
75.103	87.388	78.73	72.408	83.57	78.762	85.274	84.499
85.218	80.497 i	90.609 i	84.119	79.659 i	101.68	84.599	78.873
110 103 1	90 51 i	86 289 i	95 916 i	88 475 i	81 42	99 932	90 447 1
85 675 I	96 71 1	93 001 1	88 01/1	99 122 1	83 03	95 33 1	106 119
03.073	75 720 1	90 10 1	76 601 1	97 505 1	7/ 270	72 450 1	01 71 1
71 007 1	74 077 1	00.19	70.001	07.303	06 300	72.430	70 055 1
/1.00/	74.977	00.720	94.046	02.03/	00.320	70.123	79.933
91.293	81.894	77.072	93.204	//.519	/5.082	88./05	77.987
77.46	89.634	76.897	74.292	86.785	82.97	86.544	95.203
74.379	76.449	99.242	82.723	82.128	102.447	88.253	75.497
86.936	98.971	101.46	80.712	87.135	97.946	82.371	86.641
95.645	78.689	79.504	87.854	71.966	77.433	89.217	81.157
72.296	90.417	75.785	76.487	85.71	69.442	76.449	88.601
78.891	77.216	86.708	75.631	76.26	87.932	75.382	88.455
104.998	73.96	81.094	89.411	71.33	69.628	77.494	81.65
89.525 i	78.551 i	72.468	88.705 i	93.4 i	78.149	95.787	88.984 i
85.263	102.543	93.441 i	86.012	95.688	85.563	84.212	83.917
85 773 i	80 051 i	97 085 i	84 379 1	79 706 i	96 691	96 122	83 979
93 547 1	76 085 1	79 612 1	81 355 1	74 45 1	83 388	84 027	76 431
74 75 1	02 352 1	76 222	75 270 1	96 000 1	75 05	02.027	76 200 1
74.73	02.332	74 627 1	73.273	00.055	00 205	05.010	70.330
74.04	02.373	74.027	73.077	00.550	00.393	05.702	09.303
76.369	02.071	09.402	72.990	93.319	94.273	00.309	01.440
87.669	/2.8/8	91.33	104./62	94.363	90.789	98.155	90.221
91.282	97.305	84.002	85.43	91.832	82.073	87.866	92.18
84.66	75.359	86.211	86.375	96.731	74.41	90.922	92.053
87.015	91.943	101.575	78.529	78.948	90.182	74.965	77.152
85.885	79.025	78.407	86.589	75.119	76.467	89.098	83.688
77.492	88.812	73.608	82.996	93.488	79.178	78.689	86.623
74.942	77.659	87.55	74.44	77.04	90.976	70.148	77.218
89.419	87.396	99.969	85.634	79.849	91.115	85.92	84.904
92.53	82.79	79.092	91.458	83.917	81.795	97.004	88.235
84.252	88.678 i	78.803 i	79.715 i	82.84	84.508	78.376 i	85.989 i
74.783	71.9 i	83.235 I	77.396	71.928	83.108	72.968	87.857 I
99.456	76.568 i	70.991 i	81.262	72.958	94.365	72.762	75.262
84 632 1	79 14 1	89 645 1	92 309 1	70 144 1	78 164	83 142	78 191 1
76 773 1	8/ /71	75 352 1	79 147 1	100 962 1	76 322	77 601	86 227 1
7/1 126	8U 330 I	99 975 1	72 224	77 506 1	99 116	77.001	91 /60
00 100 1	72 15 1	00.975	05 204 1	00 011 1	75 010	04.220	71 [01]
09.189	/3.13	00.40	70.384	00.011	73.012	04.300	71.301
78.409	83.936	72.284	/3.399	00.936	/1.9/8	94.022	/9.968
/6.015	90.527	/8.115	/2.99	86.593	69.628	69.569	90./32
69.216	69.493	85.928	84.713	80.248	88.149	76.485	73.323
101.314	78.983	74.075	87.313	73.282	70.852	91.96	75.589
73.455	88.513	70.639	77.241	88.053	77.576	81.881	98.537

88.466 80.341 92.433 72.145 82.442 89.063 87.126 92.359 89.588 100.065 90.441 75.892 82.827 91.171 78.212 83.428 81.633 85.295 78.471 74.485 107.332 85.794 74.698 69.36 75.694 101.736 72.022 79.545 102.21 90.4 77.569 79.736 88.357 71.026 75.982 76.178 84.363 76.291 68.186 89.667	72.248 85.509 82.835 87.6 72.175 77.973 77.527 98.094 87.117 89.893 76.241 87.525 78.372 77.601 91.744 99.595 77.772 75.534 88.018 71.114 90.607 73.371 82.822 74.992 85.679 73.888 89.515 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.915 74.255 89.262 70.845 74.671 88.088 85.204 82.239 72.833 82.348 76.641 75.978 76.55 77.55	81.662 111.392 77.087 77.644 95.583 84.302 85.229 84.254 91.731 84.355 77.048 76.078 86.231 83.082 74.346 75.61 105.264 70.899 86.28 88.24 94.799 79.397 68.69 83.518 79.476 70.433 77.146 70.433 77.146 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.706 70.707 70.91 70.706 70.707 70.91 70.706 70.537 70.92 70.707 70.91 70.706 70.537 70.92 70.537 70.706 70.537 70.92 70.537 70.92 70.537 70.92 70.537 70.92 70.537 70.92 70.537	79.36 92.732 87.905 72.589 75.447 68.246 87.232 79.864 74.311 93.098 85.062 84.479 71.319 91.4 75.84 76.979 88.964 81.963 73.473 77.733 73.37 90.381 74.276 69.892 81.036 88.279 78.117 78.827 79.4939 89.598 76.523 75.853 83.375 72.001 76.294 80.536 77.055 73.535 76.506 80.396 80.396 80.396 80.396 80.396 80.396 80.396 80.396 80.396 80.396 80.296	96.686 84.965 80.497 77.376 77.376 77.376 77.989 93.585 102.084 82.21 76.024 73.917 91.044 87.615 77.472 75.249 86.415 80.167 75.949 84.452 83.574 78.219 80.179 91.5 73.529 78.492 71.032 94.826 81.858 76.344 76.125 81.905 85.122 78.018 69.441 86.464 74.35 84.654 99.253 98.13 73.971	85.579 95.357 76.398 74.928 82.413 92.588 89.577 75.226 85.346 76.791 73.358 83.783 92.76 81.488 72.272 84.426 89.189 74.195 75.611 70.405 93.905 85.985 84.761 85.525 77.508 77.292 110.824 75.986 77.7508 77.575 71.698 79.679 70.662 77.575 71.698 95.666 77.176 70.418 70.991 90.718 90.718 90	87. 236 92. 438 82. 848 76. 9 80. 213 70. 036 95. 503 99. 774 83. 109 98. 021 79. 419 71. 106 95. 898 95. 857 80. 197 78. 912 86. 356 76. 414 78. 319 74. 786 101. 723 74. 74. 91 76. 343 75. 944 95. 585 78. 888 89.71 77. 266 91. 51 70. 675 89. 842 82. 591 95. 638 79. 903 74. 098 83. 982 82. 839 73. 342 73. 346 74. 066 76. 666 73. 342	98.433 88.462 75.851 81.811 74.378 92.644 96.903 83.314 77.517 70.653 87.25 78.378 75.806 74.943 89.132 84.166 80.033 77.987 87.26 84.166 80.033 77.987 87.27 87.28 87.29 87.29 88.3875 87.29 87.29 88.3875 87.29 88.3875 87.20 88.3875 87.25 88.3875 87.29 88.3875 87.296 87.258 88.375 87.296 88.3875 87.258 87.268 88.3875 87.274 98.364 78.778 78.779 74.938 83.161 85.356 72.274 69.985 96.37 76.475 82.767 84.778 82.767 84.778 82.767 84.778 83.602 83.602
75.694	85.679	79.895	81.036	78.492	88.525	75.944	77.258
101.736	73.888	70.433	88.279	71.032	77.508	95.585	70.494
72.022	89.511	78.146	78.117	94.826	77.292	78.888	98.364
102.21 90.4 77.569 79.736 88.357	89.915 74.255 89.262 70.845 74.671	91.157 85.474 73.724 85.366	94.939 89.598 76.523 75.853 83.375	76.344 76.125 81.905 85.122 78.018	75.986 79.785 74.467 99.679 70.662	77.266 91.51 70.675 89.842 82.591	78.079 74.938 83.161 85.356 72.274
75.982	85.204	70.706	76.294	86.464 74.35 84.654 99.253 98.13	71.698	79.903	96.37
76.178	82.239	112.777	80.536		95.666	74.098	76.792
84.363	72.833	79.91	77.055		77.176	83.982	76.475
76.291	82.348	69.105	73.535		70.418	82.839	82.767
68.186	76.641	75.37	76.506		70.991	73.342	84.778
94.228	71.952	74.646	88.543	72.039	77.038	94.861	69.315
74.119	92.539	79.343	74.845	101.112	79.291	76.561	92.362
79.585	76.112	84.673	72.44	77.331	85.885	88.186	74.059
76.553	80.358	85.129	76.493	71.036	84.246	81.592	72.566
90.772	78.802	71.763	91.181	73.214	73.14	82.739	81.813
81.852	85.037	81.198	72.404	81.73	77.36	74.171	84.325
73.757	72.831	87.057	74.26	84.752	89.884	85.094	84.228
88.305	78.774	74.357	83.586	80.694	73.512	75.595	79.483
86.657	79.127	81.151	99.255	77.997	84.7	91.683	70.775
74.395	83.792	68.689	74.501	83.945	71.102	75.617	84.364
77.065	74.299	83.514	88.389	77.684	93.078	71.94	75.353
97.83 82.42 70.958 72.452 105.389 75.051	70.668 98.076 91.263 91.756 69.957 91.946	76.356 69.838 71.233 97.068 80.068	92.983 74.541 71.799 85.066 89.012 72.001	70.803 75.006 86.895 75.361 78.067 87.202	82.623 70.85 81.498 96.582 76.117 66.934	87.649 86.205 80.538 74.411 109.76 71.064	88.758 71.245 88.377 75.188 70.034 87.825
71.722 107.755 84.604 76.627 80.365 101.662	71.293 92.985 77.702 84.236 80.31 90.538	79.383 74.323 107.018 74.704 78.417 96.966 100.049	72.622 88.382 91.965 74.557 83.822 88.83	85.943 84.198 76.176 85.944 79.971 92.205	89.834 93.869 72.7 80.708 79.939 94.786	74.484 72.393 90.098 74.897 115.882 82.933	89.077 77.931 76.207 85.985 93.182 83.348
85.027	75.47	79.018	86.51	73.046	80.887	95.945	76.038
75.835	87.196	74.383	77.617	86.629	74.367	88.778	86.145
74.258	74.728	85.17	72.45	91.96	103.457	84.144	77.89
87.133	74.195	79.005	94.232	76.179	76.139	86.44	79.276
92.938	78.188	76.554	92.326	81.025	83.798	103.338	91.645
77.477 83.877 91.287 73.883 74.491 86.021	83.18 81.618 77.976 89.361 85.044 83.704	89.856 112.276 73.01 77.916 74.38 89.015 77.624 78.155	84.059 93.053 89.221 76.549 81.155 78.874	95.989 84.482 75.652 87.987 87.813 75.725	83.827 90.647 84.448 77.261 75.123 88.142	86.359 76.903 93.54 89.405 74.365 88.019 89.234 86.864	97.62 76.211 74.313 78.698 86.634 82.599
99.456	76.328	77.624	94.306	78.56	77.648	89.234	79.834
80.712	102.163	78.155	83.314	89.499	85.051	86.864	94.671

packet size: 512 number of packets: 1024 RATE = 4.10kbps, PPS = 1.0

3.4.2 AF_INET, 128 PPS

root@am57xx-evm:~# ./plget -i eth0 -t ptp14 -m rx-lat -n 1024
Destination address is set to 224.0.1.129
joined mcast group: 224.0.1.129
SIOCGHWTSTAMP: tx_type was 0; rx_filter was 12
SIOCSHWTSTAMP: tx_type 0 requested, got 0; rx_filter 7 requested, got 12
setting ts_flags: 0x58
new ts_flags: 0x58

driver r	k latency,	us	(doesn't	include	stack	latency,	wire -	> net	subsystem):	packets	1024:

driver rx latency,	us (doesn't inclu	ide stack latency,	wire -> net subsyst	tem): packets 1024:			
37 347 1	27 181 1	30 832	26 881 1	28 251 I	25 203 1	27 539 1	25 712
24.768	24.563	25.054	24.911	25.787	27.326	24.857	27.637
25.974	27.385	27.361	25.617	25.508	24.789	24.951	24.886
25.29	25.316	25.07	27.733	25.144	27.419	31.494	27.659
25.156	25.092	26.811	25.054	25.595	25.324	25.099	25.029
27.467	25.114	27.803	27.642	25.711	25.004	24.741	24.694
25.019	25.345	25.088	25.113	2/.821	25.796	27.737 30 178	24.861
24.991	27.555	29.395	25.767	27.455	24.837	27.488	23.847
25.355	24.419	24.788	25.318	25.16	25.027	24.629	24.956
27.454	29.782	25.154	27.195	25.322	25.024	24.997	25.011
24.935	25.163	27.332	27.788	24.621	37.194	26.136	24.937
24.785	27.051	25.094	25.07	25.032	24.788	24.91	25.04
27.211 24.811	25.248	27.453	27.446	27.783	20.298	24.754	24.97
25.107	27.173	25.341	24.903	24.783	30.767	26.607	25.372
24.914	29.323	24.916	27.944	27.555	25.168	27.497	25.136
25.081	24.481	25.218	25.652	25.612	27.776	24.676	25.457
27.636	28.972	24.957	27.561	25.152	24.868	25.521	25.009
25.391 25.063	25.28	27.804	27.408	31.038	2/./	25./59 25.121	27.817
27.365	25.133	27.348	25.397	27.75	24.983	25.121	24.903
25.054	27.06	25.284	25.468	25.013	27.437	27.419	25.033
27.247	27.373	25.029	25.205	30.601	25.029	25.016	24.367
24.67	27.09	27.789	26.243	27.743	25.089	27.214	24.995
25.3U2 25.508	24.83/	25.098	25.351	25.101	25.198 25.089	24.86/	27.362
24.849	24.936	25.162	27.204	34.838	27.482	24.856	27.307
25.059	26.948	25.222	24.854	25.099	24.839	25.1	25.09
27.209	24.955	27.475	27.407	25.483	25.037	24.591	25.003
24.786	27.358	25.116	25.272	23.915	25.056	24.662	24.244
21.628	27.492 25.174	24.981	29.659	24.89	24./66 24 800	23.132 27 109	24./36
24.816	24.934	24.737	24.631	24.683	24.549	24.593	27.003
27.307	25.16	24.826	27.356	24.736	24.538	24.613	24.471
24.668	24.929	24.9	30.156	24.967	25, 203 27, 326 24, 789 27, 419 25, 324 25, 004 25, 796 25, 027 25, 027 26, 298 24, 599 24, 588 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 868 27, 776 24, 869 27, 482 27, 66 24, 899 27, 482 28, 766	25.609	27.347
26.322	25.013	24.855	24.6	24.702	24.433	24.788	24.823
26.53 26.411	24.//1	27.094	1 24 84 1	25.113	27.206 24.694	24.821	24.745
24.508	25.176	24.904	30.224	24.793	24.611	24.672	24.86
26.386	26.256	24.934	24.264	24.489	24.486	23.937	25.12
24.521	24.468	25.046	24.656	25.218	24.537	24.474	24.619
29.092	27.658	25.005	27.75	24.548	24.96	24.605	24.598
24./12	30.805 25.084	23.283	27.467 23.232	24.926	27.329 23.846	26.162 26.335	25 88 1
34.127	25.393	27.513	27.566	25.593	27.032	24.894	24.77
26.973	26.864	25.004	24.586	25.15	24.506	25.351	24.673
27.453	27.132	25.626	24.858	24.495	24.989	25.203	24.967
27.121	25.289	27.282	25.719	27.349	24.588	27.237	24.691
27 328 1	27 358 1	25.032	24.679	24.933	25 207 1	24.021	24 608 1
24.842	24.986	25.122	27.425	24.264	25.205	27.291	27.168
26.568	24.912	25.057	24.734	24.785	24.363	25.296	24.627
33.48	25.403	27.324	27.251	25.684	27.105	24.909	24.963
26.661	25.095	24.739	24.746	24.818	24.796	27.526	24.917
26 541 1	27.10	27 295	25.093	24.039	24 823 1	27 775 1	24.300
30.195	25.041	24.98	24.849	24.852	24.682	24.656	27.324
27.423	27.64	24.74	25.063	25.491	24.94	25.144	24.738
25.054	25.257	25.307	29.282	25.009	27.631	25.649	27.612
20./11 33 317	25.//4	25.348	25.009	24.793	27.318	25.072	25.305
27.048	25.957	25.148	25.32	25.471	25.059	25.474	25.436
27.962	27.594	26.553	25.439	25.27	25.511	25.831	25.342
27.062	25.52	27.653	26.268	27.559	25.313	27.895	25.956
26.097	25.211	25.291	25.577	25.354	25.47	24.794	27.261
27.684 25.292	27.804 25.114	25.419	25.585	25.673 25.203	25.232 25.407	23.431 27 728	24.706
26.769	24.998	25.559	25.028	25.053	24.999	30.814	25.377
27.747	25.001	27.82	27.561	26.168	27.833	25.168 j	25.336
27.02	25.453	25.191	24.789	25.099	27.944	27.908	25.2
27.802	27.675 25.629	25.486	25.482	24.522	24.871 25.156	25.292 33.306	25.125 26.208
25.021	25.208	25.305	25.53	25.165	24.903	25.031	27.283
27.71	27.726	25.188	27.638	27.506	25.262	25.529	24.504
25.099	25.502	25.594	27.458	24.819	27.289	25.306	27.794
26.45	25.256	25.205	25.24	25.295	24.906	36.13	25.517 25.403
21.331 26 979	25.364 25.575	28.025 25.014	25 372	20.008 25 359	24.646	25.131	25.403 25.216
27.555	27.871	26.142	25.36	25.03	25.178	25.538	25.266
26.785	25.706	27.637	26.324	27.432	25.151	33.273	26.209
25.498	24.906	25.093	25.528	24.932	25.28	24.964	27.126
27.639	27.83	25.074	25.095	27.524	25.224	24.983 25.520	24.913 25.158
26.738	24.003	25.401	24.822	25.074	24.817 I	30.804	25.306
27.376	25.212	27.413	27.603	26.003	27.624	25.198	25.235
27.217	25.42	25.153	26.975	25.428	24.788	24.587	24.903
24.371	25.072	25.039	25.078	24.595	24.855	25.263	25.1
26.876	25.251 24.854	28.065 25.000	20.///	21.25/	24.//5 24.7/5	33.136 24 5 I	25.1 25.934 27.541
28.036	27.493	24.923	24.769	27.548	25.274	24.673	24.613
24.834	25.125	24.842	27.64	25.035	27.316	25.649	27.216
26.671	25.444	25.284	24.931	24.8	30.222	25.078	24.698
27.618	24.863	27.15	26.994	25.918	27.265	24.901	24.807
26.822 20.822	25.428	25.U42 25.760	25.017	24.8/3	25.082 25.082	24.905 25.273	24.827 24.995
26.12	25.355	27.735	25.838	27.303	30.88	27.306	25.734
25.108	24.984	25.107	24.893	24.884	25. 407 24. 999 27. 833 27. 944 24. 871 25. 156 24. 903 25. 262 27. 289 24. 906 27. 707 24. 646 25. 151 25. 28 25. 224 27. 501 24. 817 27. 624 24. 788 24. 775 24. 775 24. 775 24. 775 24. 779 25. 274 27. 316 30. 222 27. 265 25. 082 25. 004	27.728 30.814 25.168 27.908 25.292 33.306 25.031 25.529 25.306 36.13 25.151 25.091 25.538 33.273 24.964 24.983 25.528 30.804 25.198 24.587 25.263 33.156 24.587 25.263 24.673 25.649 25.078 24.901 24.901 24.905 25.273 27.306 24.69 24.874	27.33
27.176	27.552	25.139	25.016	27.346	25.004	24.69 24.874	24.589

24.883	25.625	25.185	27.733	24.876	27.26	25.565	27.216
26.673	27.379	24.762	24.948	24.686	29.899	25.009	25.11
27.824				25.867	27.032	24.798	25.014
26.39	25.198	24.8	24.896	25.103	27.509	27.244	24.737
27.184	27.46	26.003	24.897	24.705	24.909	25.065	24.87
26.604	24.869	27.608	25.778	25.136	30.096	27.688	25.761
24.811	24.9	24.447	24.614	24.459	24.885		27.56
27.542	27.529	27.267	24.69	27.487		24.986	24.77
25.033	24.763	25.137	27.555	24.535	27.307	25.709	27.581
26.612		24.872	25.065	24.97	35.223	24.97	24.902
27.534				25.612	27.279		
26.586				25.202			24.808
27.63	27.3			24.758	24.947	24.696	25.053
26.636							
24.707	24.961	24.992	24.719	24.608	24.966	24.745	24.92
29.204	27.548	24.94	24.614	27.042	25.499	24.804	24.388
25.125							26.904
26.737				28.727	24.575	24.88	25.001
24.633	24.386	27.499		27.123			
26.804							
24.57			27.53	25.037	24.933	25.036	24.845
26.19				24.879			
24.967							
29.586	27.48	24.606	24.64	27.095	24.748	25.112	24.789
24.619				24.742			
26.381					24.576		
24.953				25.521			
27.234					24.8		
25.009	25.038	25.143	27.41	24.622	24.667	24.932	25.083

max val(#0) = 37.35us min val(#355) = 23.23us peak-to-peak = 14.12us mean +- RMS = 25.95 +- 1.66 us

stack rx latency, us (doesn't include driver latency, net subsystem -> app); packets 1024:

Stack rx latency, us ((doesn't include dr	iver latency, net	subsystem -> app):	packets 1024:			
84.912	52.704	62.301	46.36	45.384	58.072	45.384	45.059
45.059	40.342	44.733	58.723	44.896	45.221	56.446	44.571
45.222	58.885 i	44.896 I	44.896	56.12	44.408	44.896 i	56.445 [
44 083 1	44 083 1	45 384 i	44 57 1	43 107 1	56 12 i	53 029 1	45 059 i
45 050 1	45 204 1	14 722 1	45 204 1	43 02 1	11 722 1	44 400 1	14 245 1
43.039	43.304	44.733	45.504	43.92	44.733	44.400	45.247
37.239	44.003	40.033	30.000	44./34	44.090	33.936	43.221
44./33	45./1	40.1/9	44.246	57.422	44./33	44./34	56.12
44.408	44.083	46.197	44.245	40.829	44.896	54.005	57.259
43.594	44.896	57.258	43.92	44.246	54.493	44.245	46.197
42.294	40.342	41.154	54.005	42.13	41.317	52.216	43.92
44.733	56.608	44.245	44.408	43.92	44.408	44.733	56.771
44.245 I	44.082	55.957 i	44.082 i	43.594 i	61.813 i	44.734 i	43.27 i
44.245	44.57	45.059 I	44.408	44.083	42.619 i	44.571 i	43.757 i
57 909 1	43 107 1	13 132 1	55 632 1	/3 595 i	13 269 1	56 12 1	11 108 1
45 384 1	18 171	10.132	44 571 1	57 421 1	11 733	11 215 1	52 5/11 1
40.504	40.474	42 505 1	44.571	20 520 1	52 255 1	14.245	14 400 1
44.400	44.240	43.393	44.400	59.520	33.333	44.400	44.400
44.083	43.92	44.245	44.408	57.584	42./81	43.595	55.95/
44./34	40.504	56.283	44.896	44.408	56.933	40.992	43.595
57.259	44.246	43.595	55.632	44.083	44.896	44.408	43.92
44.408	44.245	44.246	56.12	51.891	44.245	55.632	44.408
44.408	56.608	44.083	44.896	44.896	40.016	44.245	56.771
44.245	43.432	56.12	43.758	43.757	43.107	43.269	44.245
45.546	44.733	43.432	43.92	43.757	56.933	44.408	42.944
56.12	43.595 i	43.92 i	43.107 i	51.403 i	44.733 i	56.282	45.222 i
41.643	56.282 i	44.245 i	43.595 i	55.795 i	43.106 i	43.106 i	55.795
43 432 1	43.269	55.958 I	44.408	45.221	44.733	43.269	43 92 1
57 421	43 594 1	43 595 1	54 819 1	43 92 1	43 432	48 149 1	39 365 1
44 408 1	56 77	17 083 1	44 57 1	58 397 1	10.132	14 246	55 144 1
11.100	43 02 1	55 704 1	44.57	44 246 1	55 47 1	44 400 1	43 433 1
44.000	43.32	33.794	44.37	44.240	13 505 1	44.400	43.432
45 221	45.757	43.32	45 050 1	45.757	43.393	22.144	43.92
43.221	40.30	43.737	43.039	43.221	44.400	37.304	43.730
44.5/	33.469	44.083	52.379	56.771	44.408	44.246	45.222
40.341	44.245	57.421	43./58	44.246	54.818	44.245	44.083
43.595	43.757	44.082	57.422	44.245	44.083	55.632	45.384
44.245	43.594	43.107	44.245	43.432	43.92	43.92	54.331
44.082	43.92	44.734	51.89	43.758	56.77	44.083	44.733
55.957	44.408	43.757	44.734	43.757	43.269	57.584	43.432
44.245	55.144	43.757	43.757	55.957	44.082	42.781	57.421
45.058	43.92	48.149	43.107	41.642	42.293	41.643	40.992
54.005	44.571	44.571	54.331	43.432	44.733	57.746	46.36
40.666	60.024	42.782	41.318	43.432	40.342	41.155	41.968
42.13	40.667	56.933	44.733	44.896	44.57	40.504	45.222
59.048 i	44.408	43.595 i	55.957 i	43.92 i	45.221 i	45.222	40.016 i
44.408	52.704	45.221 i	57.746 İ	43.269	43.758 i	56.12 i	287.757 i
50.752 I	108.986 i	39.853 i	37.576 i	57.91 i	41.643 i	51.728	47.987 i
55 794 1	44 571	58 723 i	45 221 i	44 571 1	56 933 i	45 059 i	46 034 1
58 397 1	47 824 1	44 408 1	57 909 1	45 058 1	45 872 1	45 547 1	44 246 1
45 222 1	58 56 1	11.100	44 57 1	55 632 1	16 197	11 896 1	45 872 I
40.222	45 050 1	57 7/6	45 050 1	44 002 1	55 705 1	43 02 1	43.072
TO.023	43.033	42 00 1	45.050	44.005	43.757	TC (00 I	45.371
33.03	44.3/1	43.92	37.91	44.3/1	43.737	36.606	40.304
45.058	55./95	44.408	44.408	44.5/	43.92	44.896	40.178
44.3/	3/.421	44.0/	43.92	53.354	44./33	44.890	40.848
44.082	45.059	44.246	44.083	56.7/1	43.594	44.082	56.933
52.378	43.595	56.283	44.408	44.245	56.608	43.27	45.222
56.12	44.896	43.757	56.12	41.643	45.059	56.933	43.757
44.57	55.307	44.408	43.758	55.469	44.57	44.083	45.058
40.666	43.432	57.746	43.595	45.547	43.595	44.733	44.571
52.053	43.757	44.082	57.259	44.734	44.896	55.795	46.197
44.734	56.608	64.742	41.642	45.546	44.57	44.734	53.192
45.221	43.92	44.57	55.144	43.757	56.283	44.245	44.408 i
55.795	43.92	44.245	44.082	44.57	43.107	57.421	43.595 i
53.029	55.47	44.245	44.245	55.794	44.408	43.594	57.259 I
45.872	45.709	55.957 i	45.221	43.92	45.059	43.269	44.245
56.608	44.245	43.27	43.594	44.408	44.734	57.259	46.034
40 667 1	56 283 1	44 734 1	43 269 1	55 794 1	43 106 1	43 757 1	59 536 1
44 083	44 245	58 235 1	45 546	45 222	44 083	43 92 1	45 547 1
56 608 1	11.215	12 911	56 608 1	13 132	43 02 I	47 083 1	40.547
JU.000	11.210	42.244	J0.000	43.434	43.34	44.000	40.00/
43./3/	38.072	43.209	43.34/	43.100	44.245	43.393	44.896
43.594	44.083	43./58	44.896	5/.584	44.082	53.355	56.283
44./34	43./5/	20.608	44.082	44.408	55.632	42.944	44.5/
57.747	44.734	44.245	52.867	44.083	43.595	56.12	43.595
43.595	56.12	43.594	43.758	55.47	45.059	44.083	45.546
40.504	43.594	56.608	45.547	44.082	55.307	51.891	43.269
44.246	43.92	44.408	57.096	45.222	44.408	55.632	44.896
44.896	55.795	44.082	43.758	55.957	43.92	44.734	52.541
44.245	44.733	44.083	43.595	43.595	55.632	43.595	45.221

55.795 I	44.082	43.757 I	44.571 I	43.106 I	43.107 I	60.024	44.571 I
44.083	55.469	43.92	45.059	55.144	43.92	43.595	57.096
45.547	44.57	56.933	41.48	44.896	44.408	45.221	43.107
		43.757		43.432	44.571		45.872
56.771	43.757		43.594		44.5/1	57.259	
41.155	55.144	44.082	43.757	55.632	43.269	52.053	56.446
43.432	43.595	57.421	44.734	44.246	44.733	42.131	45.058
55.794	44.083	46.522	55.307	43.595	44.246	44.896	40.016
45.059 i	56.933 i	43.757 i	43.757 i	55.469 i	44.083 i	43.432	45.222
43.27	45.872	44.408	43.92	43.92	56.283	52.541	42.944
56.771	44.082	43.594	56.608	43.595	43.269	42.619	45.059
43.92	44.57	44.733	52.054	42.294	41.968	54.168	40.504
41.806	56.771	44.408	44.57	55.632	44.571	44.408	45.221
43.595	43.757	56.934	44.082	44.408	55.144	53.029	43.757
44.083	42.456	44.896	57.096	44.245	43.757	55.144	50.589
44.571	58.234	66.694	43.92	55.632	44.571	43.594	55.632
44.733 I	43.757 I	43.758 I	43.595 I	42.456 I	57.259	43.594	45.221 I
55.47 i	43.757	43.595 i	43.92	44.245	52.541	44.245	43.757 i
56.608	43.27	43.269	55.958	44.082	43.107 i	43.595	44.408
44.896	44.734	62.464	43.595	57.584	43.757	43.432	55.469
43.92	43.758	55.957	44.734	42.944	55.795	43.757	45.384
55.47	44.083	43.269	56.283	45.547	51.89	55.306	43.595
44.082	54.168	44.571	43.758	43.92	42.456	42.944	57.096
44.408	43.27	88.654	44.082	44.083	43.757	43.758	43.106
57.909	43.757	44.571	55.795	42.782	44.245	55.144	45.058
43.269	55.957	44.246	43.92	43.757	51.728	43.92	43.432
43.432	42.944	56.446	44.57	43.27	54.981	43.107	44.896
56.933	43.432	44.733	54.33	43.92	43.595	55.632	43.432
44.408	54.656	43.595	43.92	54.981	43.432	43.269	44.733
43.432	43.595	56.283	45.059	43.432	50.752	43.432	43.595
44.246	42.782	43.432	44.408	43.432	43.432	42.944	45.222
56.771 I	44.083	43.27	54.818 I	43.757	43.106 I	43.92	43.269
43.757 i	56.283 i	44.245 i	43.269 i	54.656 i	43.432 i	43.432 i	57.259 i
43.757	43.432	55.632	43.432	43.757 i	58.56 i	44.083	44.083
55.307	44.083	43.432	55.469	43.27	43.432	54.493	45.384
43.92	44.571	64.416	45.221	55.957	43.92	43.595	55.469
43.757	43.92	55.469	44.083	43.92	55.632	44.083	44.896
56.283	43.595	44.245	55.306	43.758	50.752	56.608	43.106
					44.083 I	42.294	
43.92	54.981	43.758	42.944	44.896			45.547
43.758	57.096	46.198	43.27	55.307	47.336	44.246	55.958
43.594	44.408	43.758	44.408	42.619	56.933	43.432	45.384
55.958	43.432	44.896	52.704	54.656	42.782	58.072	43.758
44.082	54.493	43.757	43.27	56.12	43.432	42.944	56.12
45.547 I	43.595	59.21	43.269	43.269	43.92 i	44.245	42.781 I
43.595 i	43.92	56.446 i	43.92	42.619 i	55.957 i	43.757 i	45.547 i
55.47	47.011	41.806	49.451	41.643	40.992	56.12	44.408
43.92	55.307	45.059	44.408	43.432	43.757	43.432	45.384
44.896	55.795	46.685	42.944	55.632	44.57	44.246	54.819
44.083	43.92	44.083	44.246	42.456	56.12 I	43.432	44.896
55.632	43.92	44.083	52.054	42.456 43.432	42.456	43.432 50.752	44.896
56.283	43.432	43.432	55.958	43.758	43.432	55.307	45.546
44.734	44.408	46.523	42.293	56.771	43.92	44.571	54.981
44.082	43.269	44.083	42.619	43.432	43.757	43.595	57.421

max val(#351) = 287.76us min val(#355) = 37.58us peak-to-peak = 250.18us mean +- RMS = 47.58 +- 9.66 us

complete rx latency (includes driver latency and stack latency), us (wire \rightarrow app): packets 1024:

			·				
122 259 I	79 885 1	93 133 1	73 241	73 635	83 275	72 923	70 771 1
69.827	64.905	69.787	83.634	70.683	72.547	81.303	72.208
71 196 1	86 27 1	72 257 1	70 513	81 628	69 197	69 847	81 331 1
69 373 1	69 399 1	70 454 1	72 303	68 251	83 539	84 523	72 718
70 215	70 476 1	71 544 1	70 438	69 515	70 057	69 507	69 274
84 726 1	69 197 1	73 838 1	84 25	70 445	69 9	80 699	69 915 1
69 752 1	71 055 1	66 867 1	69 361	85 243	70 529	72 471	80 981
72 182 1	69 913 1	71 679 1	70 032	65 673	69 93	84 183	82 053 1
68 585 1	72 451 1	86 653 1	69 889	71 701	79 33	71 733	70 044 1
67 649 1	64 761 1	65 942 1	79 323	67 29	66 344	76 845	68 876
72 187	86 39 1	69 399 1	71 603	69 242	69 432	69 73	81 782
69 18 1	69 245 1	83 289 1	71 87	68 215	99 007	70 87	68 207 1
69 03 1	71 621 1	70 153 1	69 478	69 115	67 407	69 481	68 797
85 12 1	68 355 1	70 885 1	83 078	69 378	68 567	80 874	69 378 1
70 195	75 933 1	65 605 1	69 897	82 272	69 332	69 147	77 435 1
69.515	71.419	68.936	69.311	64.311	84.122	71.015	69.78
68.997	73.243	69.161	72.352	85.139	67.949	71.092	81.093
69 815	64 985 1	81 501 i	70 548	70 02	84 709	65 668	69 052 1
84.895	73.218	68.552	83.193	69.235	69.764	69.929	68.929
69.799 i	69.525 I	72.05	83.528	82.929	71.945	81.391	72.225
69.471	83.367	69.536	70.294	69.827	64.799	69.366	84.453
71.61	68.565 I	83.468	69.155	71.507	68.09	68.462	69.148
70.6	71.793 i	68.716 i	69.388	68.77	84.37	71.827	67.977
83.367 i	70.968 i	68.949 I	68.312	82.004	69.762	81.298	69.589
66.313 i	83.372 i	72.034 i	69.838	83.538	68.195	70.32	80.79
68.734 I	68.106 i	81.056 i	69.759	70.322	69.931	68.136	71.282
83.019	72.749	68.777 i	82.023	68.86	68.521	77.14	64.092
69.257	81.706	69.149	71.974	93.235	71.565	69.102	82.451
69.142	70.868	81.016	69.424	69.345	80.309	69.508	68.522
82.841	68.712	71.395	82.877	69.24	68.632	79.735	68.923
70.007	73.718	68.873	70.331	69.136	69.464	82.246	68.002
72.198	82.961	69.064	82.038	81.661	69.174	69.378	69.958
66.734	69.419	84.801	69.249	71.672	79.627	71.353	68.749
68.411	68.691	68.819	82.053	68.928	68.632	80.225	72.387
71.552	68.754	67.933	71.601	68.168	68.458	68.533	78.802
68.75	68.849	69.634	82.046	68.725	83.839	69.692	72.08
82.279	69.421	68.612	69.334	68.459	67.702	82.372	68.255
70.775	79.915	70.851	70.757	81.07	71.288	67.602	82.166
71.469	68.571	75.516	67.947	66.472	66.987	66.31	65.502
78.513	69.747	69.475	84.555	68.225	69.344	82.418	71.22
67.052	86.28	67.716	65.582	67.921	64.828	65.092	[67.088
66.651	65.135	81.979	69.389	70.114	69.107	64.978	69.841
88.14	72.066	68.6	83.707	68.468	70.181	69.827	64.614
69.12	83.509	70.504	85.213	68.195	71.087	82.282	324.078
80.4	134.07	63.647	60.808	82.338	65.489	78.063	73.867
89.921	69.964	86.236	72.787	70.164	83.965	69.953	70.804
_85.37	74.688	69.412	82.495	70.208	70.378	70.898	68.919
72.675	85.692	69.871	69.428	80.127	71.186	70.099	70.839
67.95	70.348	85.028	70.777	71.432	80.383	71.157	69.262
84.05	69.699	68.952	82.789	69.524	68.52	81.429	72.671
72.386	83.153	69.525	71.478	69.339	69.127	69.68	64.786
69.412	82.407	69.692	71.345	//.618	69.938	72.187	74.016
122.259 69.827 71.196 69.373 70.215 84.726 69.752 72.182 68.585 67.649 72.187 69.18 69.03 85.12 70.195 68.997 69.815 84.895 69.799 69.471 71.61 70.6 83.367 66.313 68.734 83.019 69.257 69.142 82.841 70.007 72.198 66.734 83.019 69.257 69.142 82.841 70.007 72.198 66.734 88.14 69.12 82.279 78.5513 68.755 82.279 78.5513 68.751 88.14 69.12 80.4 89.921 85.37 88.14 69.12 80.4 89.921 85.37 72.675 67.955 84.055 72.386 69.412 70.65	69.971	69.303	68.817	81.556	67.957	69.378	81.56

	69.991 82.487	83.607 68.496 70.118	71.659 80.866 68.851	69.929 66.461 80.328	83.713 69.855 69.809	68.179 84.459 69.161	70.185 68.674 70.044
71.61 67.207	68.916	85.041	69.598	70.45	68.418	72.508	70.271
82.248	68.798	69.062	82.108	69.586	69.578	80.451	73.521
72.157 70.275	84.248 69.177	89.482 69.877	66.705 84.426	71.037 68.766	69.51 83.914	69.878 69.894	77.93 72.02
82.506	69.694	69.593	69.091	69.363	68.425	82.493	68.9
86.346	81.411	72.1	71.734	81.614	72.277	68.908	82.684
72.92 84.57	71.666 71.839	81.105 69.823	70.541 69.033	69.391 69.678	70.118 70.245	68.743 83.09	69.681 71.376
67.729	81.803	72.387	69.537	83.353	68.419	71.652	85.492
70.18	69.456	83.526	71.123	70.576	69.553	68.714	72.808
84.292 69.049	72.05 83.186	68.363 68.712	82.193 71.181	69.105 68.309	69.152 69.652	69.534 71.323	65.373 72.735
70.363	69.081	68.712 69.317	69.924	82.637	69.081	84.169	81.66
72.481	68.758	84.428	71.643	70.576	83.465	68.112	69.906
84.767 71.397	70.187 83.795	69.436 69.08	77.656 69.24	69.182 79.992	71.539 69.93	84.028 69.375	68.795 70.671
66.984	69.222	84.044	71.233	68.662	80.463	85.197	69.477
69.267	69.128	69.713 69.27	82.626	70.387	69.311	80.663	72.179
72.606 69.344	83.521 70.235	69.27 69.677	71.396 71.053	83.463 68.414	69.182 82.921	70.263 68.901	77.045 73.015
82.245	69.338	68.962	69.811	68.401	68.013	96.154	70.088
71.434	80.833	71.945	72.833	81.152	71.627	68.746	82.499
72.526	70.145	82.137 I	66.852 68.954	70.255 68.462	69.054 69.749	70.312 82.797	68.323
84.326 67.94	71.628 80.85	69.899 71.719	70.081	83.064	68.42	82.797 85.326	71.138 82.655
68.93	68.501	82.514	70.262	69.178 I	70.013	67.095	72.184
83.433	71.913	71.596 69.218	80.402	71.119 80.55	69.47 71.584	69.879 68.96	64.929 70.38
70.138 70.008	81.736 71.917	69.675 I	71.157 68.742	68.994	81.1	83.345	68.25
84.147	69.294	71.007 69.886	84.211	69.598 67.722	70.893	67.817	70.294
71.137	69.99	69.886	79.029	67.722	66.756	78.755	65.407
66.177 70.471	81.843 69.008	69.447 84.999	69.648 69.859	80.227 71.665	69.426 79.919	69.671 86.185	70.321 69.691
69.081	67.31	69.995	81.747	69.742	68.476	79.644	78.13
72.607	85.727	91.617	68.689	83.18	69.845	68.267	80.245
69.567 82.141	68.882 69.201	68.6 68.879	71.235 68.851	67.491 69.045	84.575 82.763	69.243 69.323	72.437 68.455
84.226	68.133	70.419	82.952	70 j	70.372	68.496	69.215
71.718	70.162	87.506 81.725	68.612	82.457	68.839	68.337	80.296 70.379
71.966 81.59	71.128 69.438	81.725 71.004	69.756 82.121	67.592 72.85	80.807 82.77	69.03 82.612	69.329
69.19	79.152	69.678 113.793	68.651	68.804	67.521	67.634	84.426
71.584	70.822	113.793	69.098 83.528	71.429	68.761	68.632 80.709	67.695
82.792 69.942	69.382 83.336	69.756 69.008	68.868	67.658 68.443	71.505 81.627	68.929	72.274 68.542
71.256	67.796	83 996 I	71.865	69.137	82.013	67.905	69.91
83.323	68.63	69.533 69.598 83.891	79.226	69.023	71.104	82.876	68.169
71.592 70.036	82.116 68.464	83 891	68.817 70.837	79.686 68.568	68.341 80.848	68.334 71.12	69.603 69.356
69.057	67.682	67.879	69.022	67.891	68.317	67.623	72.782
84.313	71.612	70.537 69.382	79.508	71.244	68.593	68.906	68.039
68.79 70.369	81.046 70.923	80.504 I	70.824 68.497	79.191 68.727	70.739 93.783	69.141 69.053	84.84 68.985
82.841	69.01	68.225 89.287	83.332	68.882	70.711	79.43	70.182
70.506 71.387	69.887 71.22	89.287 81.234	70.096	81.159 68.678	68.831	68.345 68.779	80.277
82.919	68.746	69.253	68.86 82.866	71.074	80.579 80.829	84.429	69.949 69.034
68.627	79.942	69.253 68.75	67.663	69.504	69.049	67.039	70.467
72.962	84.644	71.138 I	67.884	82.349	72.835	69.05 69.235	80.346
68.719 82.695	69.149 70.759	68.801 69.753	69.508 83.454	67.167 83.383	84.206 67.357	69.235 82.952	72.288 68.759
68.715	78.879	71.256	68.063	83.243	70.646	67.829	80.756
72.351	68.747	84.108	67.899	67.917	68.471	68.892	67.475
68.165 81.66	71.359 74.178	82.382 67.001	71.45 79.697	67.656 66.522	80.89 65.263	68.793 81.067	70.392 69.327
68.887			69.647			68.133	70.329
74.482	83.275	71.291	67.584	82.727	69.318	69.358	79.608 72.21 69.461 70.392
68.702 82.013	68.987 71.252	69.227 68.283	69.219 82.797	67.198 68.414	83.683 67.032	69.351 77.647	72.21 69.461
81.236	68.381	71.422	83.15	69.279	70.818	79.909	70.392
71.968 69.091	70.153	71.371	69.647 67.584 69.219 82.797 83.15 67.116 70.029	81.625	68.72	69.076	19.012
	68.307	69.226	70.029	68.054	68.424	68.527	82.504

packet size: 512
number of packets: 1024
RATE = 524.28kbps, PPS = 128.0