

**08-227r1 SAS-2 Stateye v5.080111 1.5 and 3 Gbps results**

by Rob Elliott

Results at slower physical link rates (1.5 and 3 Gbps) with 0-3 DFE taps.

All channels with: tx 850 mV, deemp 2, random data. 8b10b usually yields larger eyes.

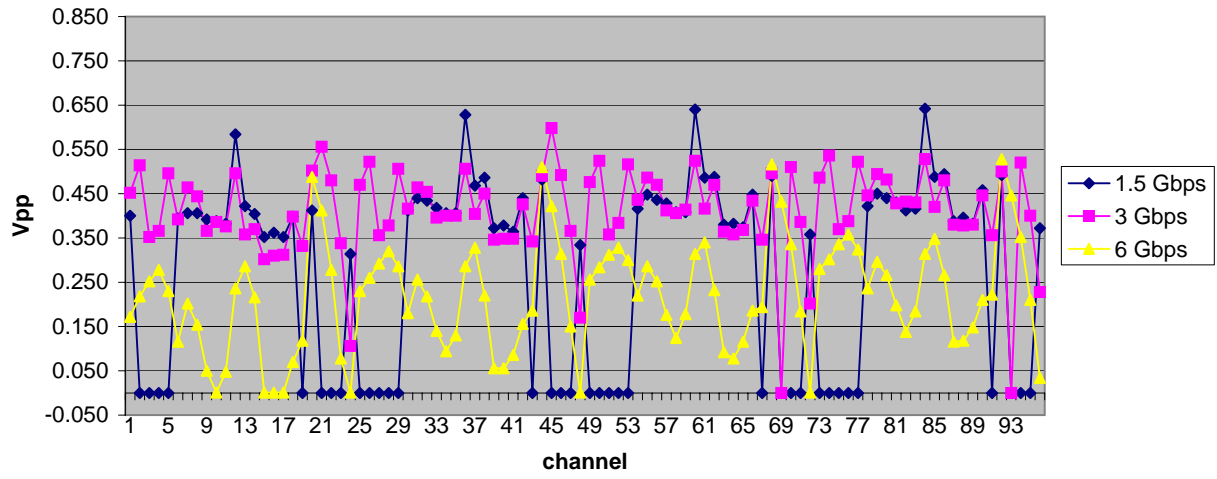
Results of "0,1" mean StatEye crashed (usually because the eye is larger than expected)

(added in r1) SAS2\_transmittertestload also run with 8b10b, to provide numbers for stressed receiver sensitivity test.

Channel	1.5 Gbps			3 Gbps			6 Gbps		
	dfe	amp	jitter	dfe	amp	jitter	dfe	amp	jitter
HP01_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.400	0.330	0	0.452	0.300	0	0.172	0.510
HP02_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.514	0.360	0	0.218	0.450
HP03_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.352	0.400	0	0.252	0.390
HP04_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.366	0.390	0	0.278	0.390
HP05_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.496	0.350	0	0.230	0.460
HP06_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.394	0.350	0	0.392	0.310	0	0.116	0.600
HP07_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.406	0.330	0	0.464	0.280	0	0.202	0.450
HP08_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.406	0.330	0	0.444	0.290	0	0.154	0.500
HP09_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.392	0.360	0	0.366	0.340	0	0.050	0.730
HP10_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.388	0.380	0	0.386	0.350	0	0.001	0.990
HP11_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.382	0.360	0	0.376	0.330	0	0.048	0.770
HP12_Brd_1mCable_Bp_Drive.s4p_amp0.850_deemp2_dfe0_rand	0	0.584	0.260	0	0.496	0.270	0	0.236	0.420
HP13_Brd_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe0_rand	0	0.422	0.290	0	0.358	0.390	0	0.286	0.380
HP14_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe0_rand	0	0.404	0.290	0	0.370	0.360	0	0.216	0.430
HP24_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.352	0.400	0	0.302	0.410	0	0.001	0.990
HP25_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.362	0.380	0	0.310	0.370	0	0.001	0.990
HP26_BtoB_4Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.352	0.390	0	0.312	0.380	0	0.001	0.990
HP27_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.398	0.350	0	0.398	0.310	0	0.070	0.680
HP28_BtoB_3Connector.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.332	0.450	0	0.118	0.540
MiniSAS_0.5meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe0_rand	0	0.412	0.990	0	0.502	0.320	0	0.488	0.330
MiniSAS_1meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.556	0.260	0	0.412	0.360
MiniSAS_3meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.480	0.290	0	0.278	0.470
MiniSAS_6meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe0_rand	0	0.000	1.000	0	0.338	0.350	0	0.078	0.680
SAS2_transmittertestload.s4p_amp0.850_deemp2_dfe0_rand	0	0.314	0.380	0	0.106	0.660	0	0.001	0.990
HP01_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.470	0.290	1	0.230	0.480
HP02_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.522	0.350	1	0.260	0.440
HP03_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.356	0.390	1	0.292	0.380
HP04_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.378	0.390	1	0.320	0.370
HP05_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.506	0.340	1	0.286	0.420
HP06_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.412	0.350	1	0.416	0.310	1	0.180	0.530
HP07_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.440	0.310	1	0.464	0.280	1	0.256	0.430
HP08_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.434	0.320	1	0.454	0.290	1	0.218	0.480
HP09_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.418	0.350	1	0.396	0.330	1	0.140	0.590
HP10_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.406	0.380	1	0.400	0.350	1	0.094	0.640
HP11_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.406	0.340	1	0.400	0.320	1	0.130	0.570
HP12_Brd_1mCable_Bp_Drive.s4p_amp0.850_deemp2_dfe1_rand	1	0.628	0.250	1	0.506	0.270	1	0.286	0.410
HP13_Brd_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe1_rand	1	0.468	0.290	1	0.404	0.360	1	0.328	0.380
HP14_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe1_rand	1	0.486	0.280	1	0.450	0.330	1	0.220	0.420
HP24_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.372	0.390	1	0.346	0.380	1	0.056	0.760
HP25_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.378	0.380	1	0.348	0.350	1	0.056	0.750
HP26_BtoB_4Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.364	0.380	1	0.348	0.360	1	0.086	0.690
HP27_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.440	0.330	1	0.426	0.300	1	0.156	0.550
HP28_BtoB_3Connector.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.342	0.450	1	0.186	0.470
MiniSAS_0.5meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe1_rand	1	0.482	0.990	1	0.490	0.300	1	0.510	0.320
MiniSAS_1meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.598	0.250	1	0.422	0.350
MiniSAS_3meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.492	0.280	1	0.314	0.430
MiniSAS_6meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe1_rand	1	0.000	1.000	1	0.366	0.330	1	0.150	0.570
SAS2_transmittertestload.s4p_amp0.850_deemp2_dfe1_rand	1	0.334	0.350	1	0.170	0.500	1	0.001	0.990
HP01_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.476	0.290	2	0.256	0.430
HP02_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.524	0.350	2	0.284	0.400
HP03_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.358	0.390	2	0.312	0.370
HP04_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.384	0.390	2	0.328	0.370
HP05_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.516	0.350	2	0.300	0.400
HP06_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.416	0.340	2	0.436	0.310	2	0.220	0.440
HP07_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.448	0.310	2	0.486	0.280	2	0.286	0.400
HP08_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.436	0.320	2	0.470	0.280	2	0.252	0.410
HP09_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.428	0.350	2	0.412	0.310	2	0.176	0.510

HP10_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.408	0.380	2	0.406	0.340	2	0.124	0.550
HP11_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.408	0.350	2	0.414	0.320	2	0.178	0.500
HP12_Brd_1mCable_Bp_Drive.s4p_amp0.850_deemp2_dfe2_rand	2	0.640	0.250	2	0.524	0.270	2	0.314	0.390
HP13_Brd_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe2_rand	2	0.486	0.280	2	0.416	0.360	2	0.340	0.350
HP14_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe2_rand	2	0.488	0.280	2	0.470	0.330	2	0.232	0.420
HP24_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.380	0.370	2	0.364	0.340	2	0.092	0.660
HP25_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.382	0.370	2	0.358	0.350	2	0.078	0.670
HP26_BtoB_4Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.374	0.370	2	0.368	0.340	2	0.116	0.620
HP27_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.448	0.330	2	0.434	0.300	2	0.186	0.490
HP28_BtoB_3Connector.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.346	0.430	2	0.194	0.450
MiniSAS_0.5meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe2_rand	2	0.490	0.990	2	0.496	0.300	2	0.516	0.300
MiniSAS_1meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000		0.000	1.000	2	0.432	0.340
MiniSAS_3meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.510	0.270	2	0.336	0.390
MiniSAS_6meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe2_rand	2	0.000	1.000	2	0.386	0.320	2	0.184	0.500
SAS2_transmittertestload.s4p_amp0.850_deemp2_dfe2_rand	2	0.358	0.330	2	0.202	0.430	2	0.001	0.990
HP01_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.486	0.290	3	0.280	0.390
HP02_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.536	0.340	3	0.302	0.380
HP03_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.370	0.390	3	0.336	0.340
HP04_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.388	0.390	3	0.358	0.350
HP05_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.522	0.340	3	0.324	0.370
HP06_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.422	0.340	3	0.446	0.290	3	0.236	0.410
HP07_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.450	0.320	3	0.494	0.280	3	0.296	0.380
HP08_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.440	0.320	3	0.482	0.290	3	0.266	0.390
HP09_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.430	0.350	3	0.428	0.300	3	0.198	0.470
HP10_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.412	0.370	3	0.432	0.330	3	0.138	0.530
HP11_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.416	0.340	3	0.430	0.300	3	0.184	0.480
HP12_Brd_1mCable_Bp_Drive.s4p_amp0.850_deemp2_dfe3_rand	3	0.642	0.250	3	0.528	0.270	3	0.314	0.390
HP13_Brd_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe3_rand	3	0.488	0.280	3	0.420	0.350	3	0.348	0.350
HP14_6inCable_Bp_Drive.s4p_amp0.850_deemp2_dfe3_rand	3	0.494	0.280	3	0.480	0.320	3	0.266	0.380
HP24_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.388	0.370	3	0.380	0.330	3	0.116	0.580
HP25_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.396	0.370	3	0.378	0.330	3	0.118	0.550
HP26_BtoB_4Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.382	0.370	3	0.380	0.330	3	0.148	0.550
HP27_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.458	0.330	3	0.446	0.290	3	0.210	0.440
HP28_BtoB_3Connector.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.356	0.430	3	0.222	0.400
MiniSAS_0.5meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe3_rand	3	0.492	0.990	3	0.500	0.290	3	0.528	0.300
MiniSAS_1meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.000	1.000	3	0.446	0.330
MiniSAS_3meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.520	0.280	3	0.352	0.370
MiniSAS_6meter_A5A6B5B6.s4p_amp0.850_deemp2_dfe3_rand	3	0.000	1.000	3	0.400	0.310	3	0.210	0.450
SAS2_transmittertestload.s4p_amp0.850_deemp2_dfe3_rand	3	0.372	0.320	3	0.228	0.400	3	0.034	0.740
SAS2_transmittertestload.s4p_amp0.850_deemp2_dfe3_8b10b	3	0.398	0.300	3	0.266	0.360	3	0.084	0.590

dfc0, 1, 2, 3 amplitude (0=closed, goal is 0.1 V or more)



dfc0, 1, 2, 3 jitter (1=no eye, goal is 0.60 UI or less)

