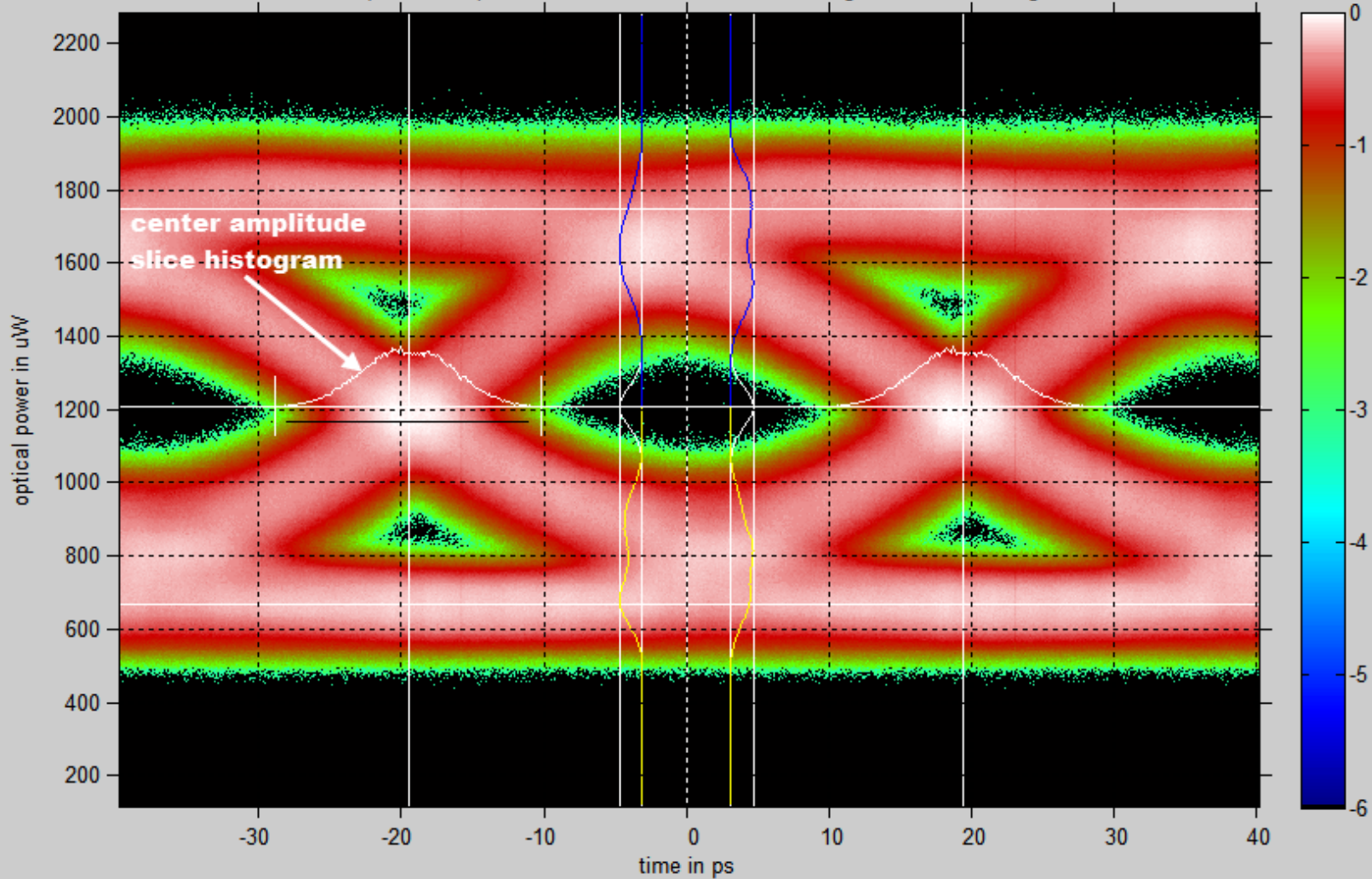# Stressed Rx Input Signal Observations

John Petrilla: Avago Technologies
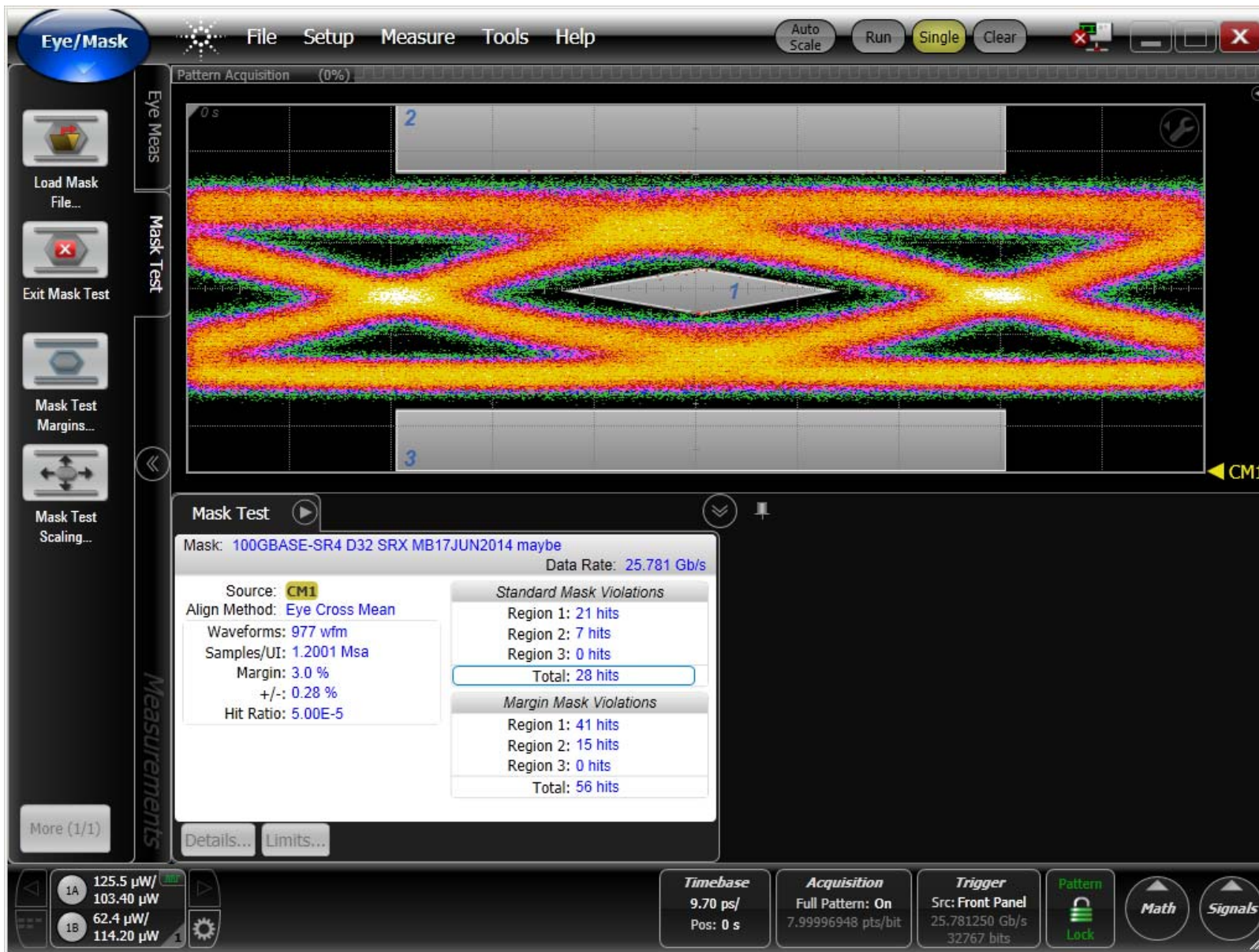
October 2014

Day 1 ~ 2 Mega samples, SEC Calculation

SEC extraction, Input file=srx120m.cgsx
SEC = 4.892 dBo R= 45.0 uW   N= 52.4 uW   S= 14.0 uW   M= 30.3 uW +/-0.10/0.04 UI histo offset/Width
OMA=1080.0 uW (0.334 dBm) EH=178.6 uW Pave=1208.0 uW Logic0=667.2 uW Logic1=1747.2 uW

center amplitude slice histogram

Day 1 ~ 2 Mega samples, SRS Mask Check

Day 1 ~ 2 Mega samples, SRS Recipe Fit

- Conditions:
- SEC: 4.9dB   (target 4.9)
- SECnoJitter: 4.5dB   (target >2.5)
- mask margin: 3%   (target >0% to {0.28, 0.5, 0.5, 0.33, 0.33, 0.4})
- J2:   0.35UI   (target 0.39)
- J4:   0.51UI   (target 0.53)
- SJ: 0.05UI pp 10MHz   (<0.05UI @10MHz, <5UI @1MHz)) Set to 10 MHz since no CRU
- RJ: 0.5ps rms   (no specific target)
- SAI1 : 0   (no specific target)
- SAI2: 0   (no specific target)
- GNG: 0   (no specific target)
- IBS: ?   (target < 0.1UI)
- ER: 3.3dB   (target 2dB)
- CRU: no   (target = yes)
- LPF type: k1*sqrt(f)+k2*f from transmission lines   (target = BT4)
- aggressor OMA: none   (target +3)
- OMAcalPattern: PRBS31 (target=8x1,8x0)
- StressPattern: PRBS31 (target=PRBS31 or RSFEC_ESI or valid traffic)

Day 2 ~ 127 Mega samples

Avago Technologies: Stressed Rx Input Signal Observations
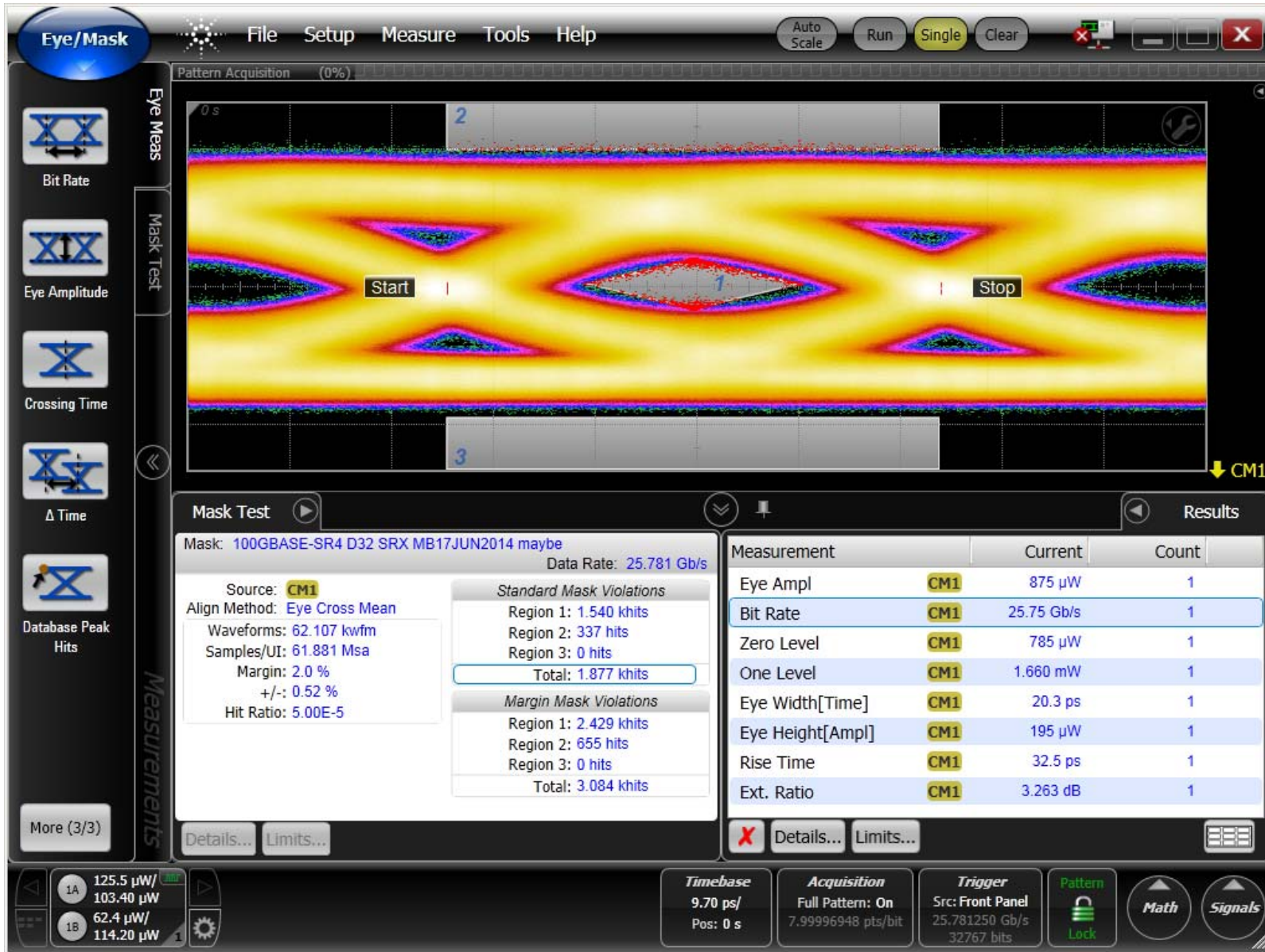
Day 2 ~ 127 Mega samples, J2 & J4 Observations
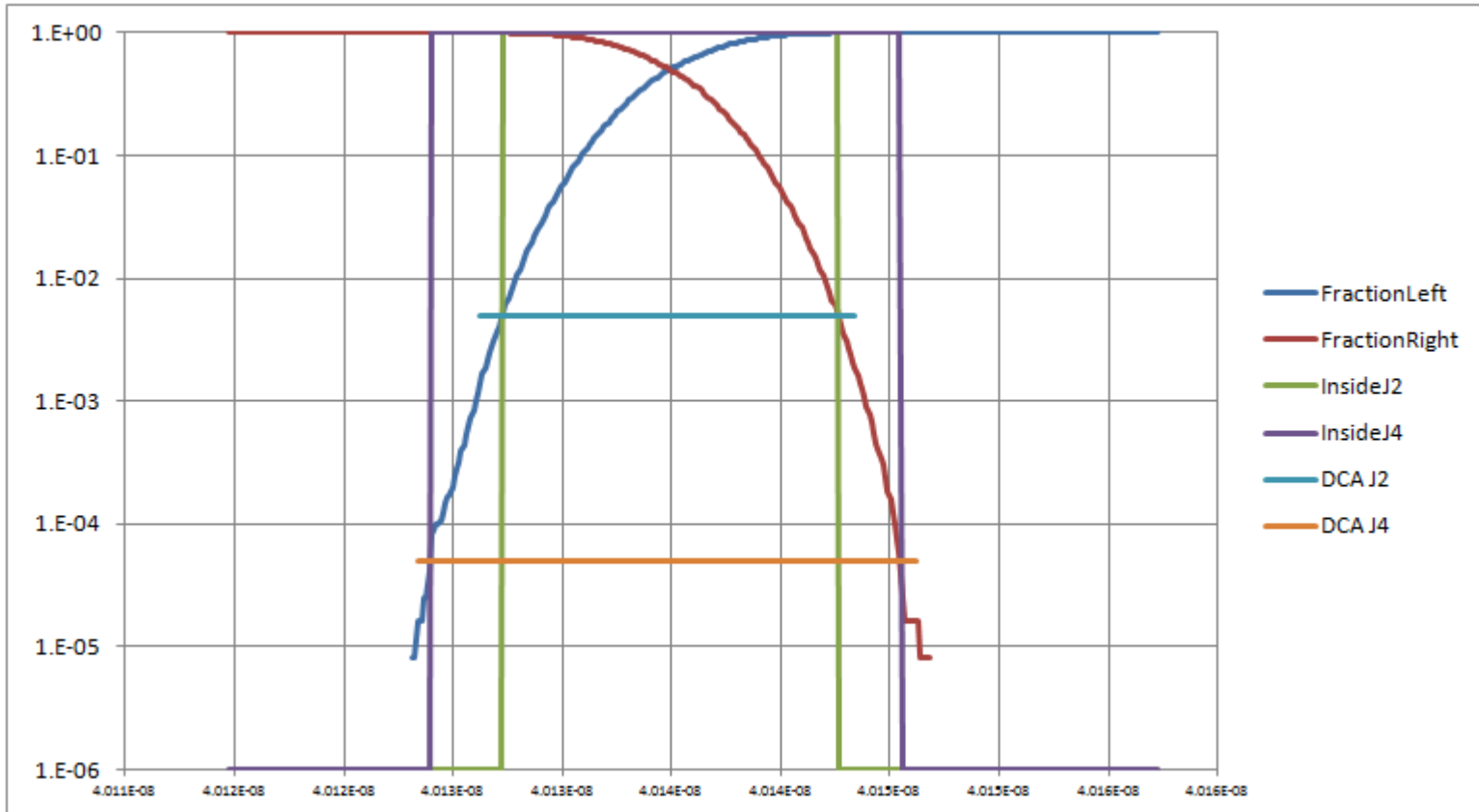
	J2 (seconds)	J2(UI)	J4 (seconds)	J4(UI)
Histo	1.536E-11	0.3960	2.155E-11	0.5555
DCA	1.713E-11	0.4416	2.278E-11	0.5872

Legend:
- FractionLeft
- FractionRight
- InsideJ2
- InsideJ4
- DCA J2
- DCA J4

Observations

Differences are seen for J2 & J4 values between results reported from the DCA and taken from SEC histogram and between results from Day1 and Day 2.