Silicon Photonics PSM4 Chipset Transmitter Measurements

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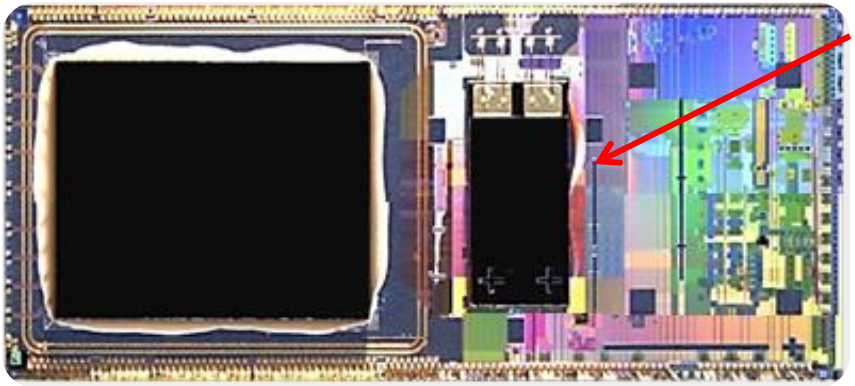
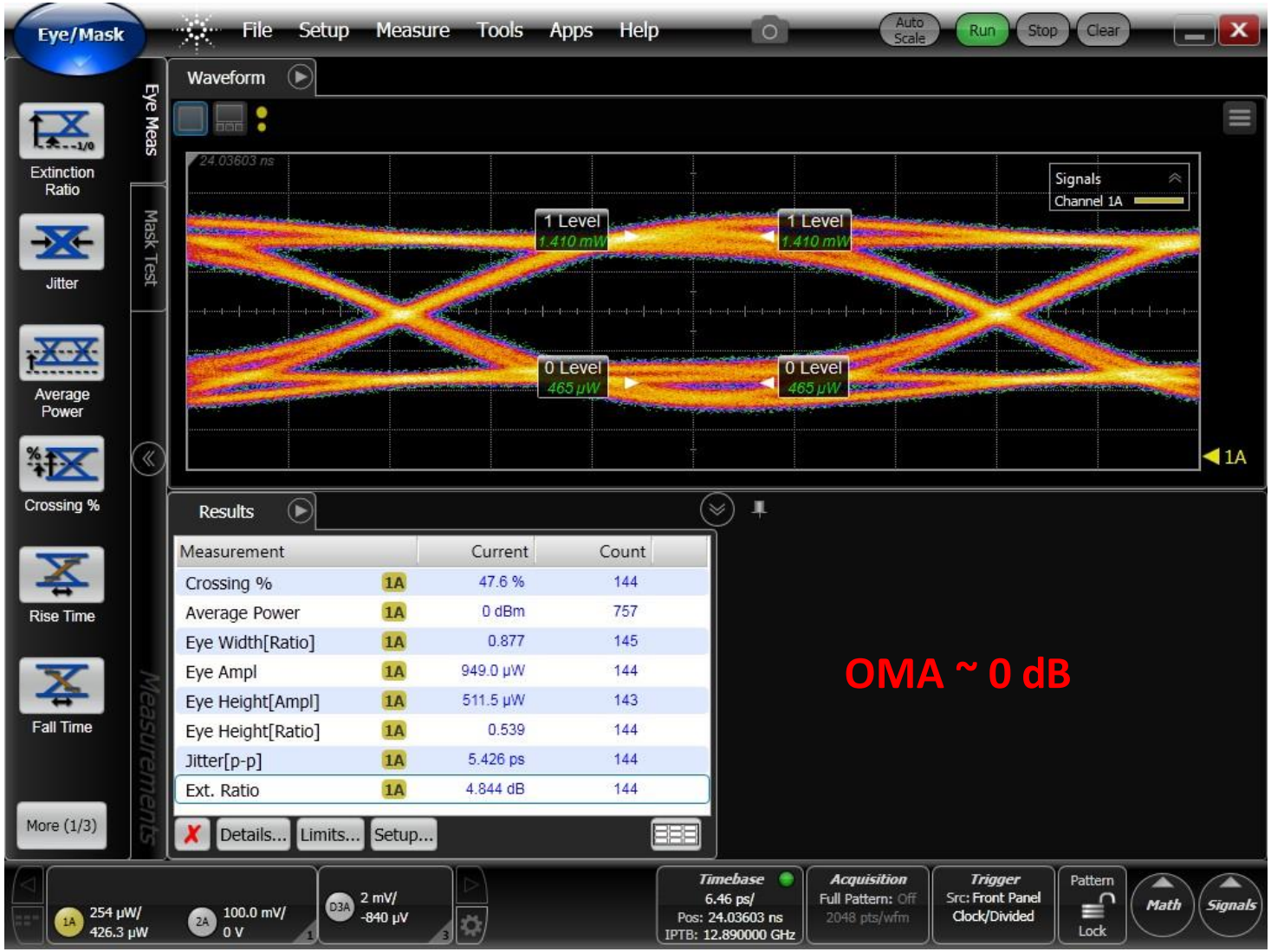
Silicon Photonics PSM4 Chipset Transmitter Measurements

- There have been questions as to achievable OMA levels in Silicon Photonics Solutions
- Enclosed are measurements of a PSM4 chipset with four transmitters illuminated from a single light source
- OMA > -0.5 in all cases



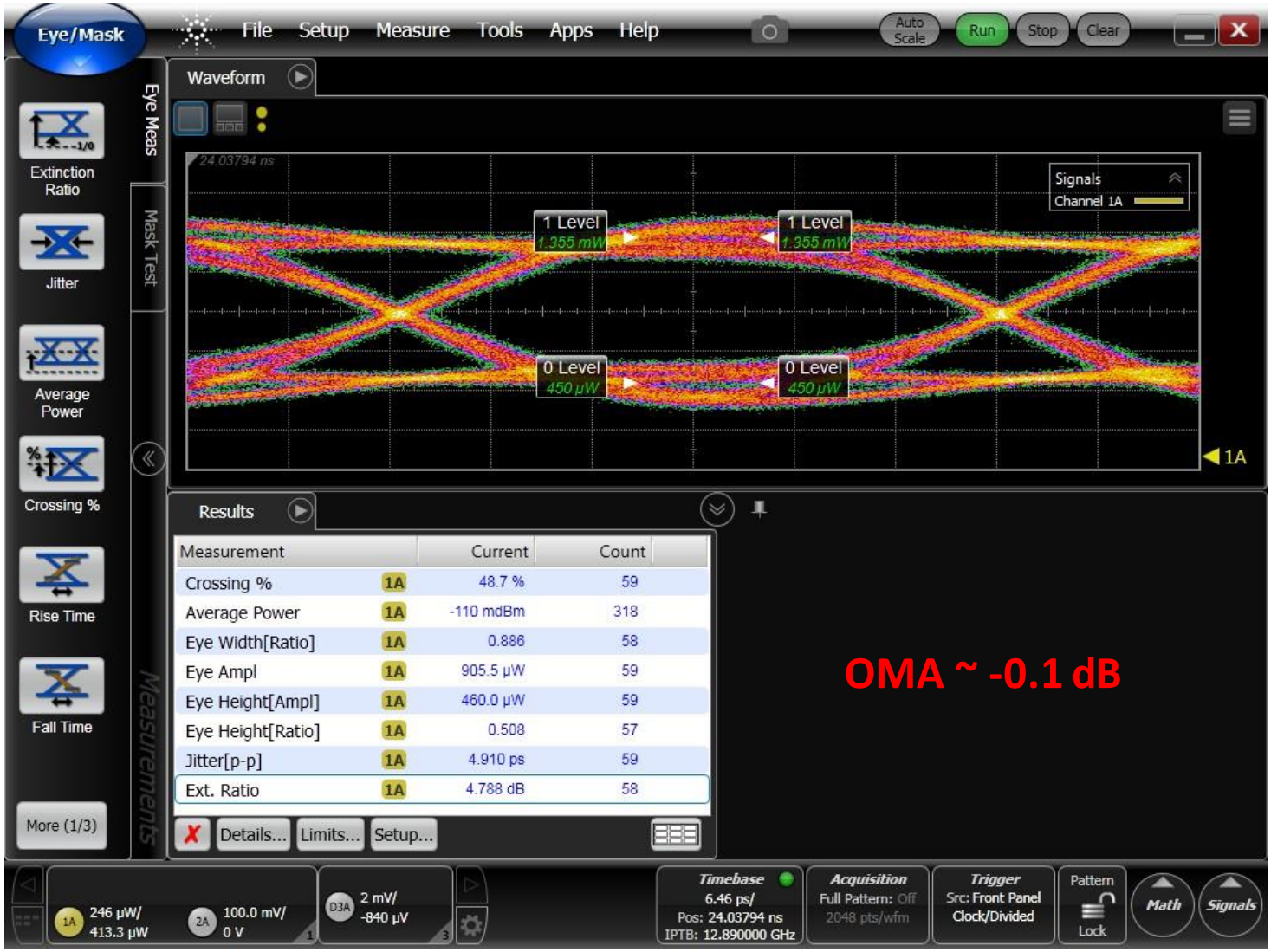
4x25 Gbps PSM4 Chipset

TX OMA - Channel 0



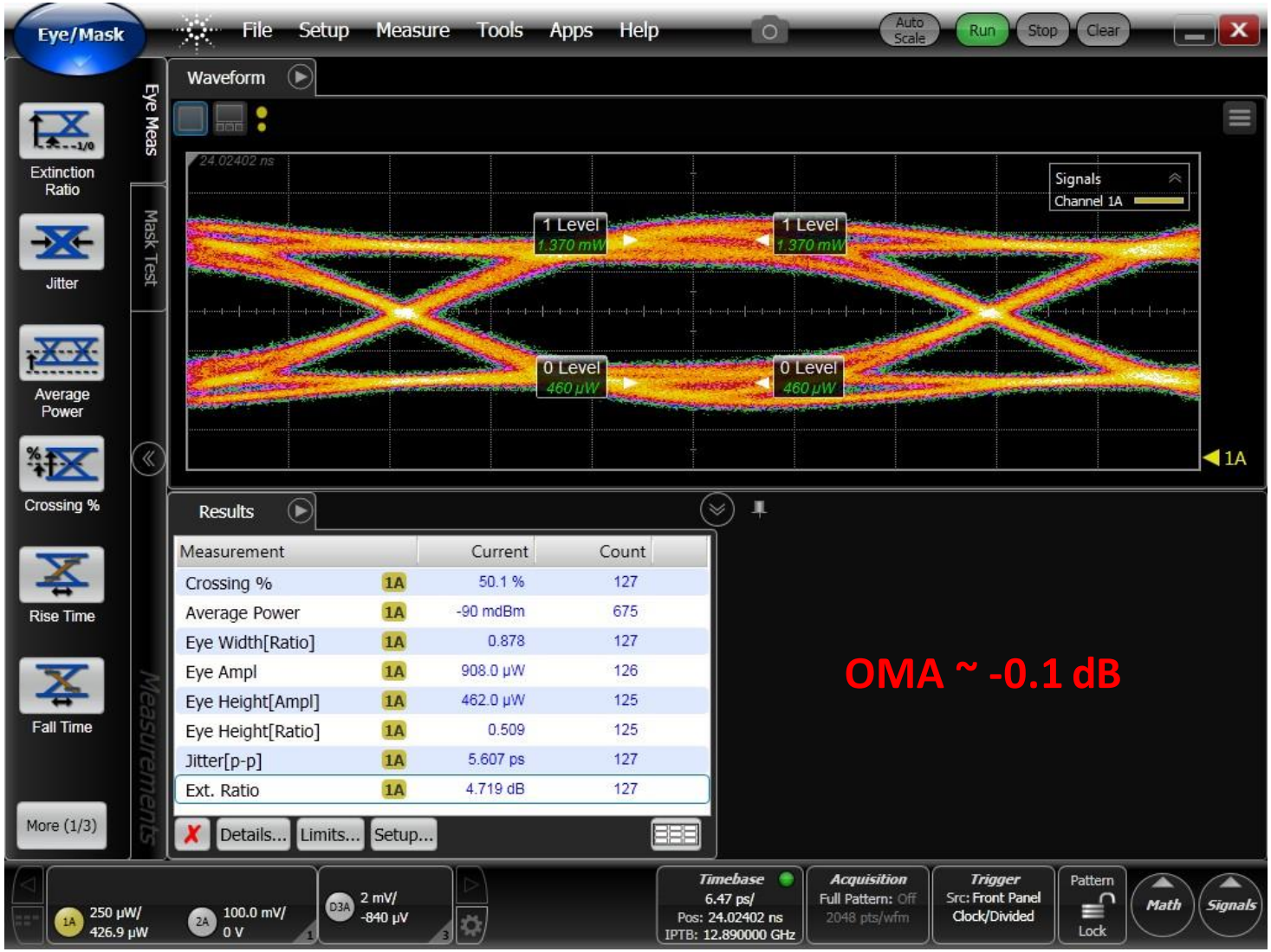
OMA ~ 0 dB

TX OMA - Channel 1

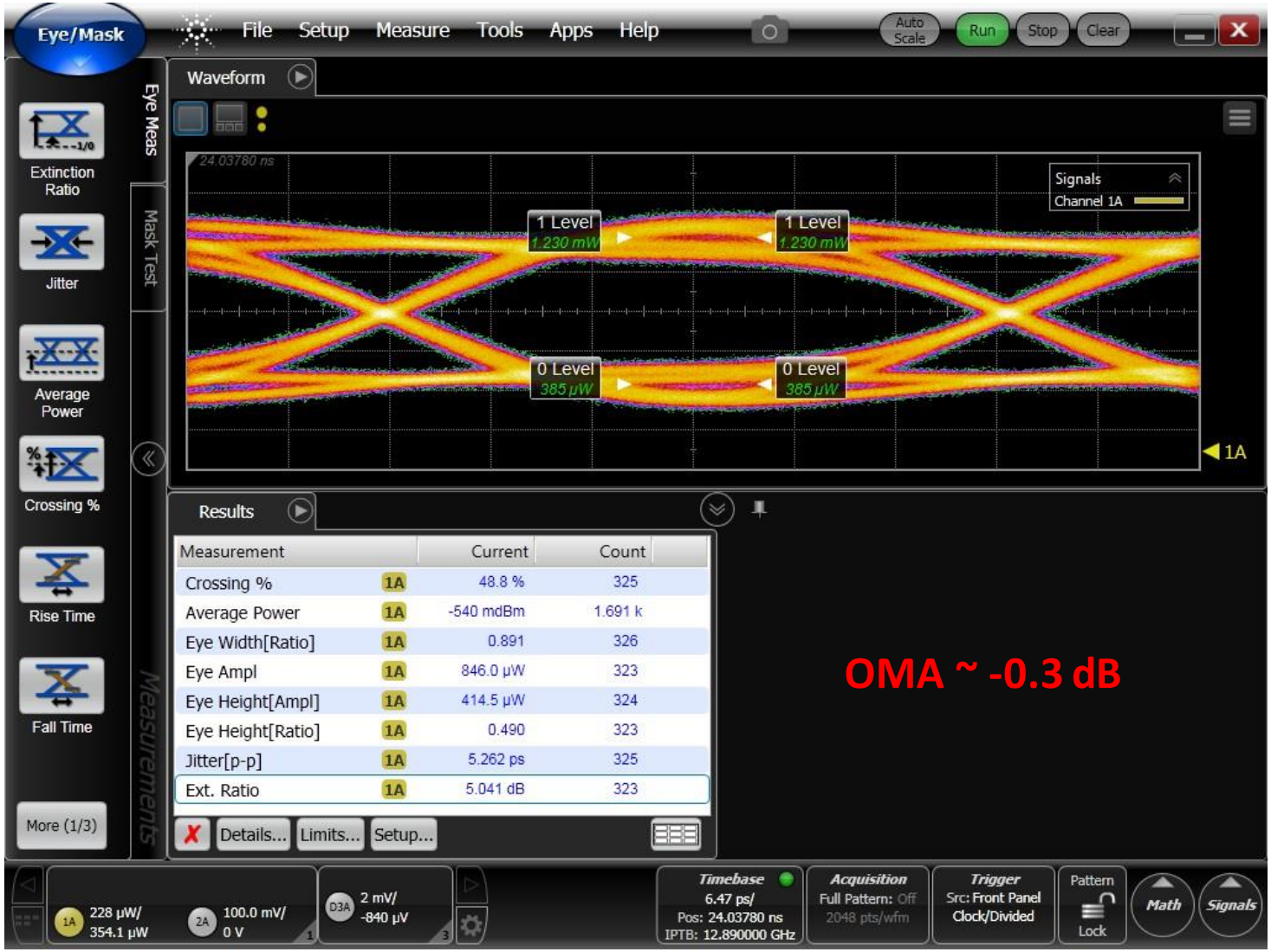


OMA ~ -0.1 dB

TX OMA - Channel 2



TX OMA - Channel 3



OMA ~ -0.3 dB

Summary

- OMA values > -0.5 dBm are attainable in PSM4 systems
  - Based on a single light source
- Solutions without laser splitting can achieve higher transmitter OMA values
  - At least 6 dB higher OMA values available for WDM solutions, using 1 light source per lane
    - No 4x laser splitting
    - Pre MUX value
  - Assuming 2dB MUX loss, allows for a WDM transmitter OMA of approximately 3.5 dB per channel

Thank You

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