XAUI Agenda

08:30 – lunch : XAUI Compliance Channel

- Assessment and discussion of current results
- Conclusion of data eye results for jitter discussion

13:30 – 16:30 : Jitter Telco

- Current Jitter Parameters
  - How much to we loose in the channel
  - How much can we tolerate at the receiver
    - Maximum DJ at receiver i.e DJ+SJ
    - Upper Break frequency
  - How much can we expect from additional effects
    - Crosstalk from connectors
    - Crosstalk from PCB
  - How much can we generate at the transmitter
- Patterns
  - How does the PSD of the pattern effect jitter
  - What is effect of pattern on adjacent channel
  - What patterns do we need for channel testing
- Summary of Jitter Issue List Action Items

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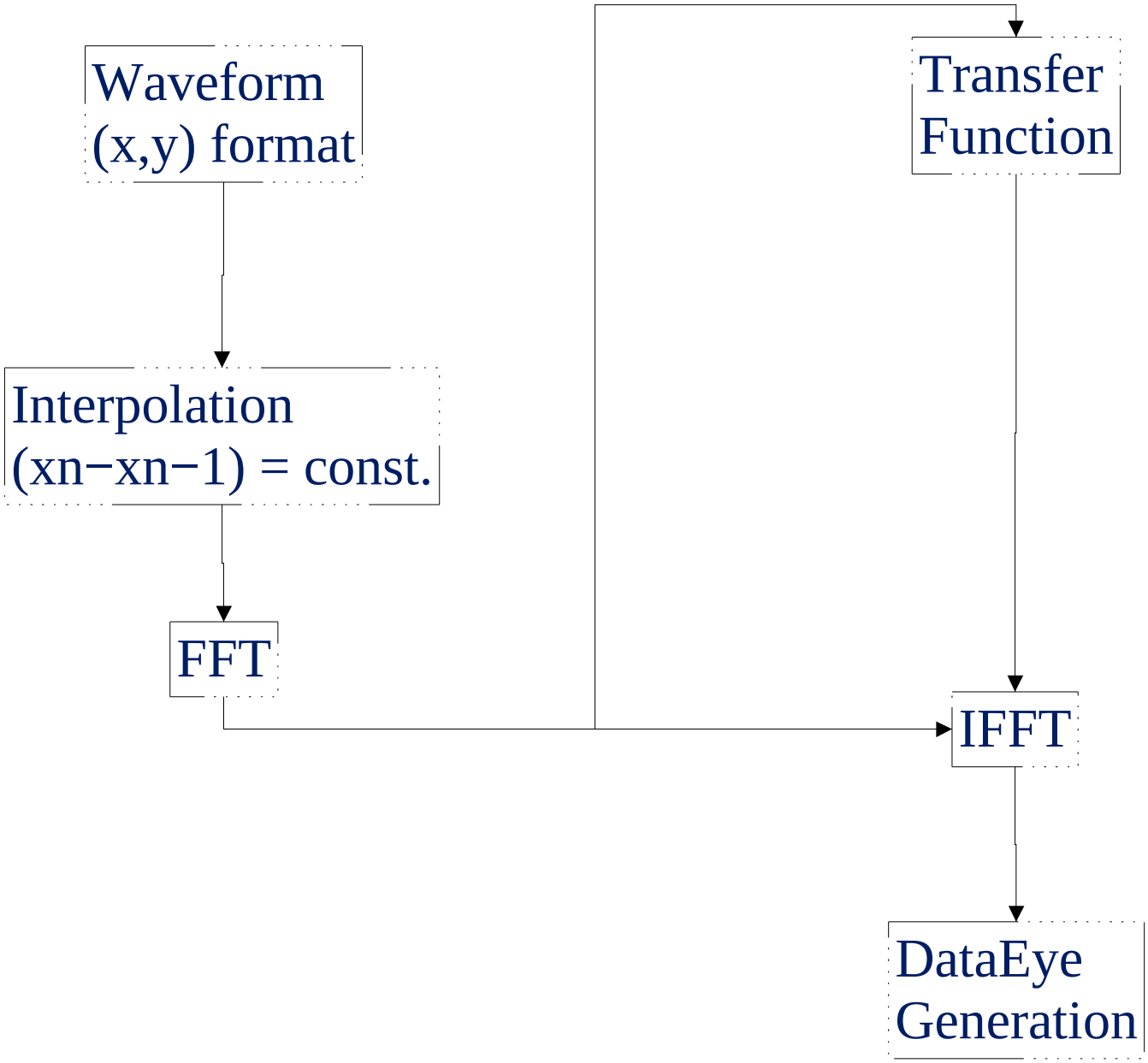
Simulation Flow



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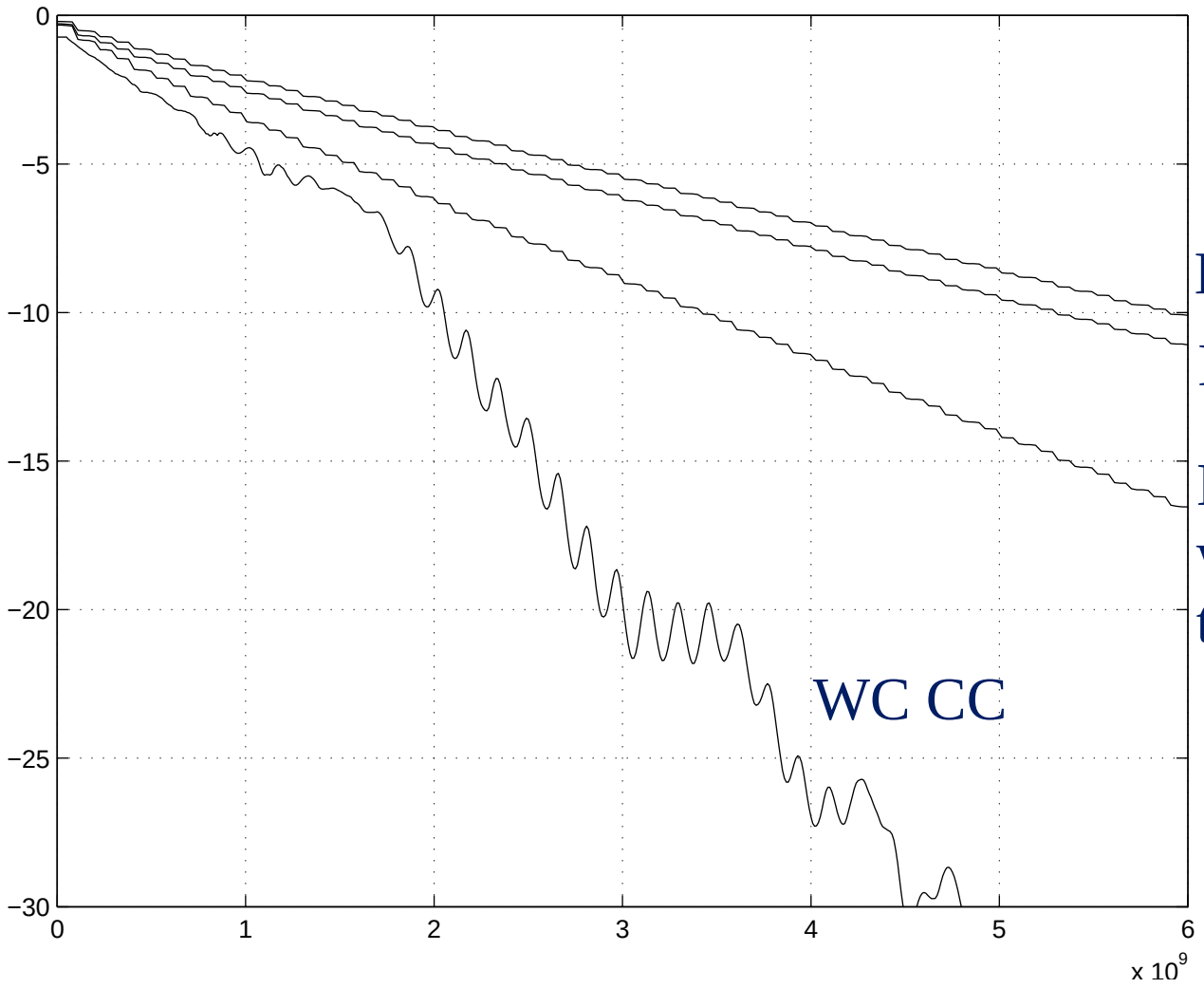
S21 Transfer Functions



IFX Closely Coupled

IFX Loosely Coupled

IFX Loosely Coupled, with high tangent loss to fit to BC CC

WC = Worstcase, BC = Bestcase, CC = Channel Compliance, IFX = Infineon Theoritical Channel

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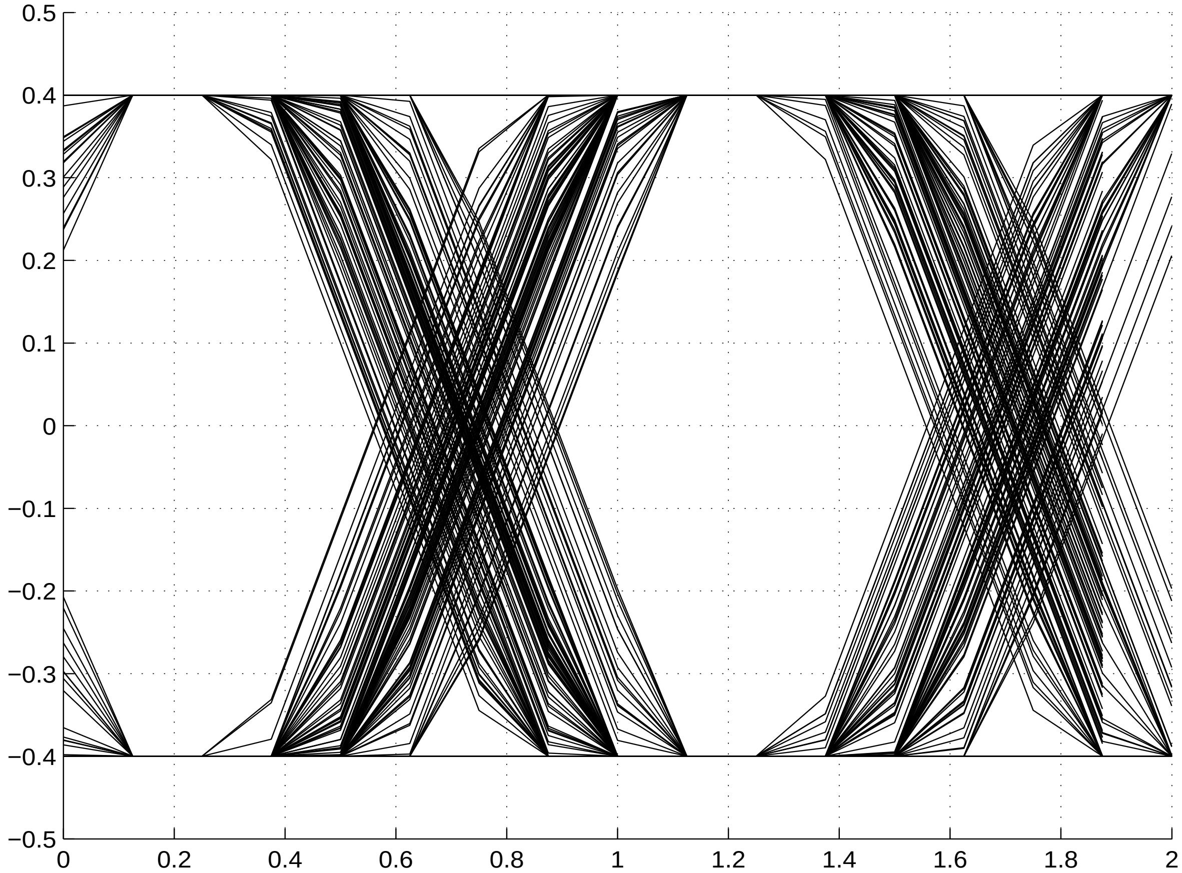
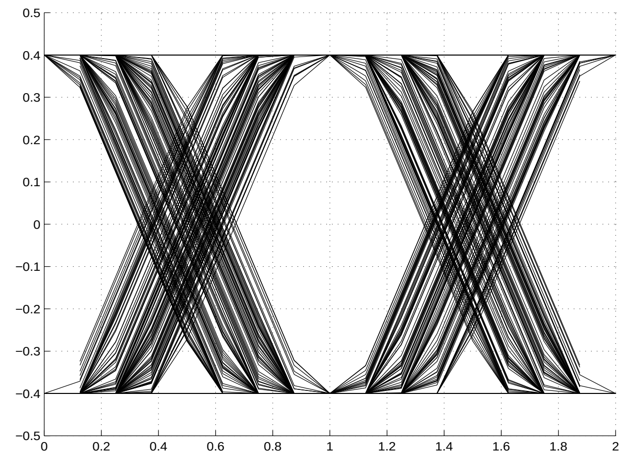
Transmit Eye





Transmit

DJ = 0.17UI, TJ = 0.35UI, V=800mV

Receive

DJ = 0.41UI, TJ = 0.65UI, SJ = 0.1UI, V=200mV

Two input waveforms

1) Agilent PWL waveform

2) Synthesised IFX with identical in terms of rise/fall and pk−pk jitter (but definately different frequeny content, exact difference still to be analysised)

Waveforms are 0.25us long, with 400ps interpolation

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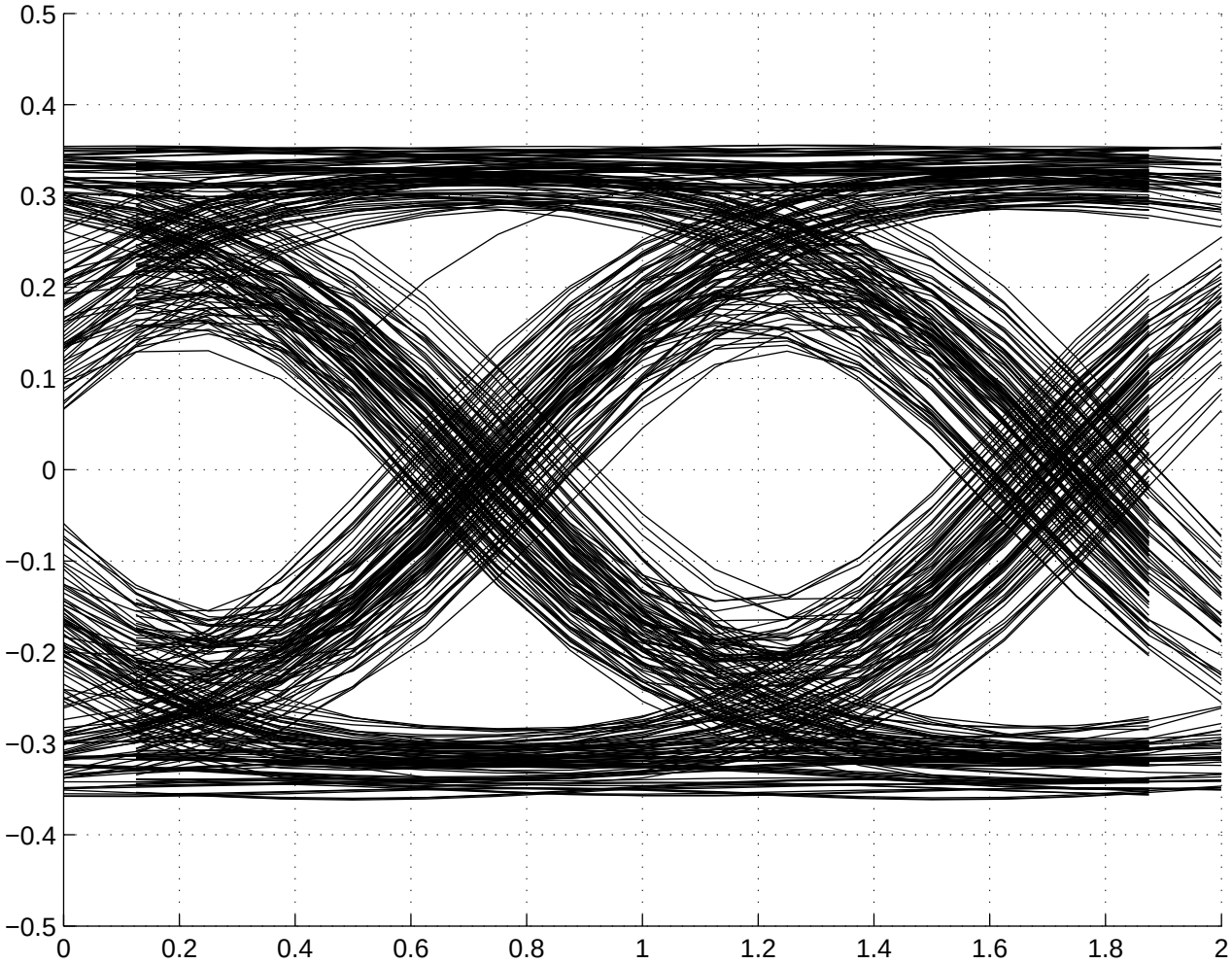
Synthesisd IFX with WC CC



Simulation is best case as it does not include mismatch at transmitter and receiver, additional crosstalk, or group delay.
Time Jitter is being upheld, amplitude not.

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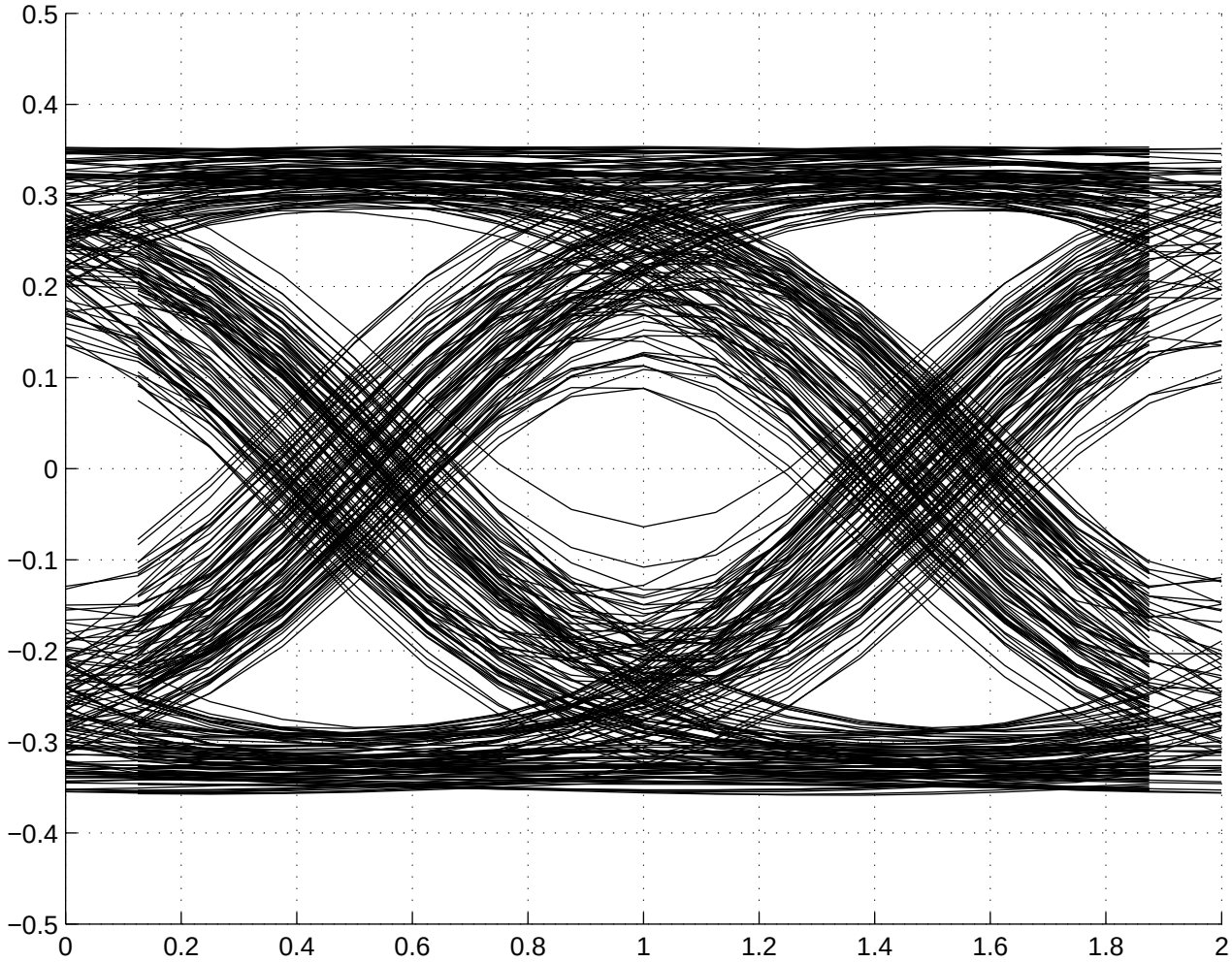
Agilent PWL with WC CC



Simulation is best case as it does not include mismatch at transmitter and receiver

Time Jitter is being upheld, amplitude not.

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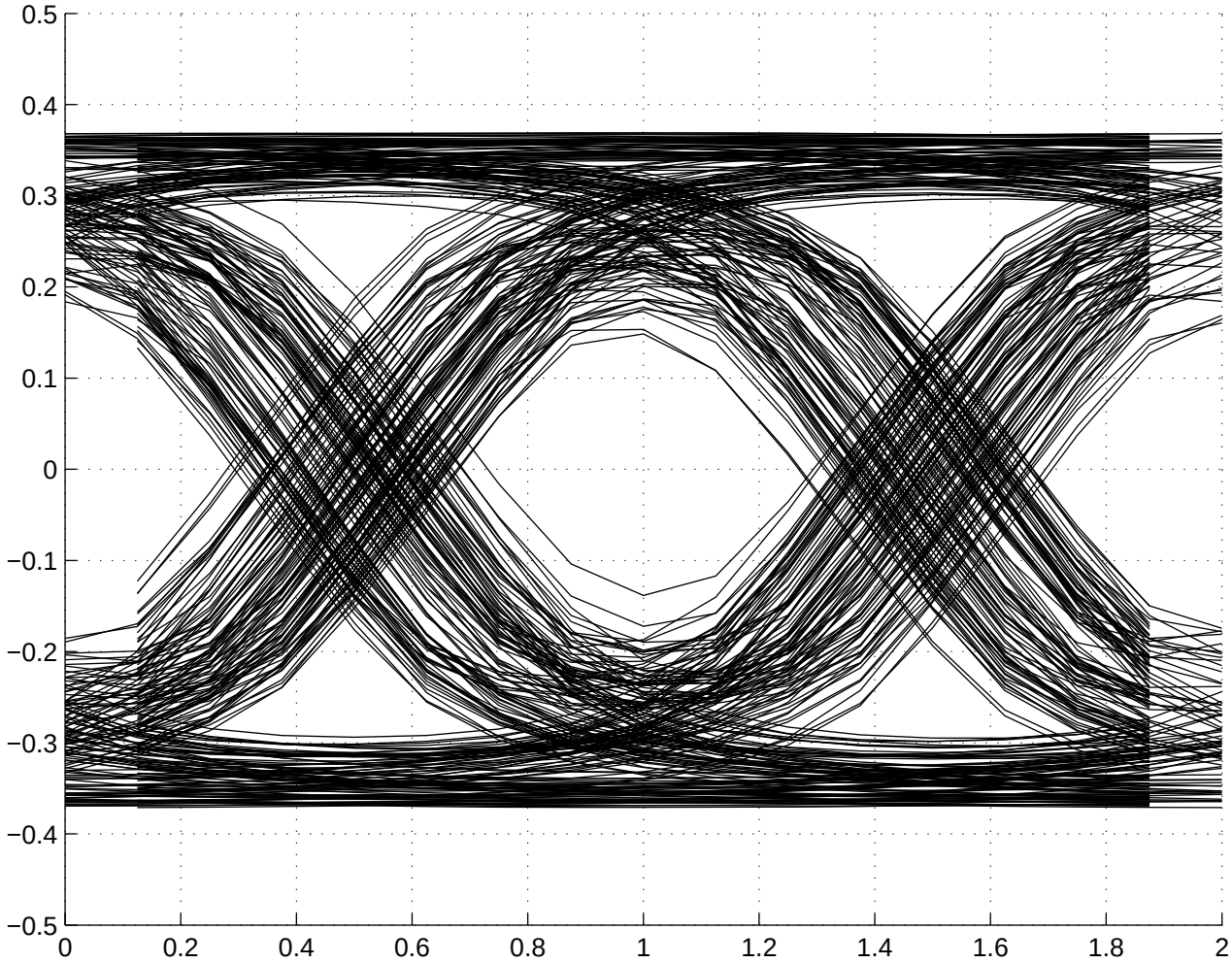
Agilent PWL with IFX Adjust Loosely Coupled



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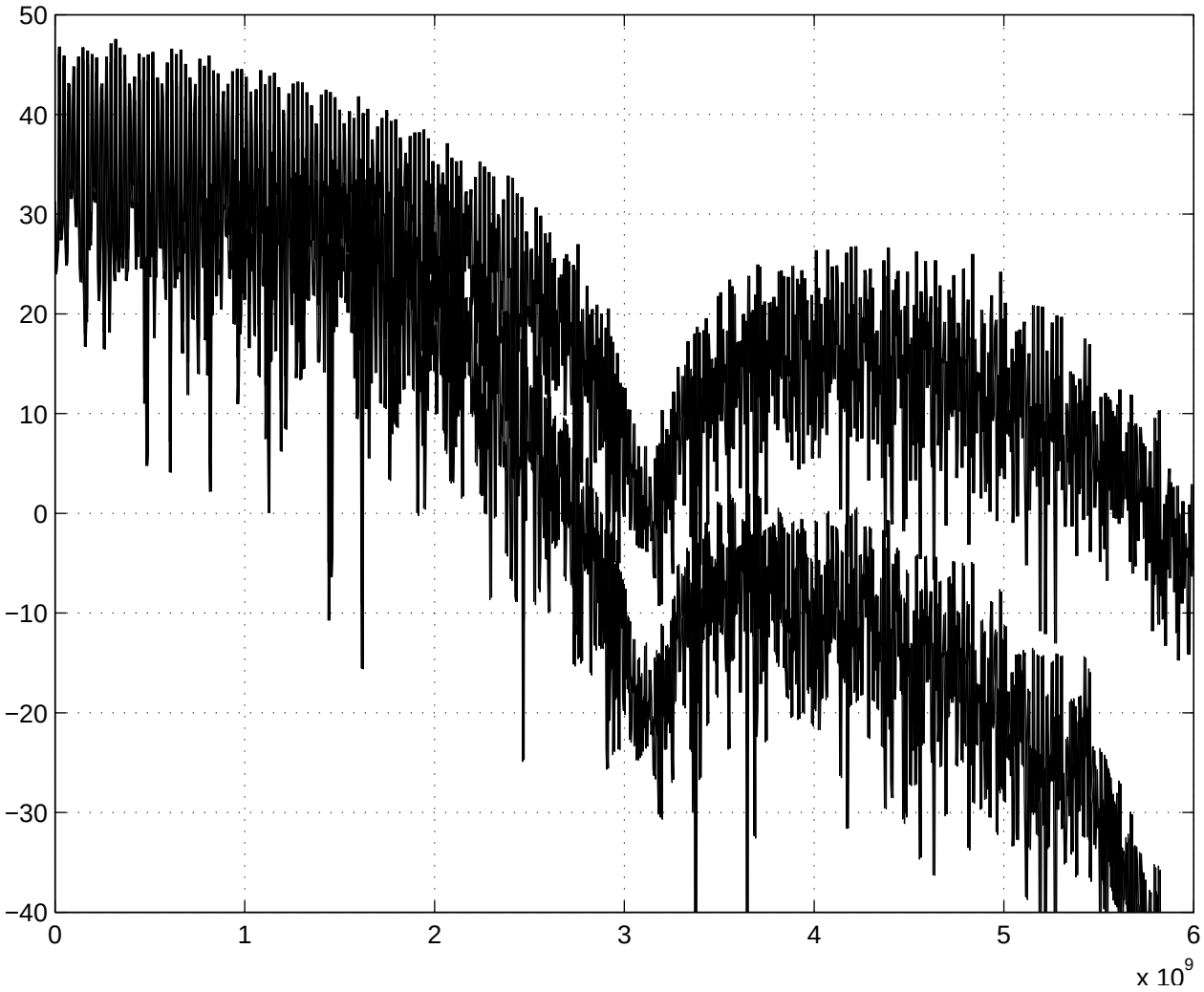
Synthesisd IFX with WC CC



Remember : Transfer functions are only accurate to 6GHz,
also phase information not used due to inaccuracy, group delay needed

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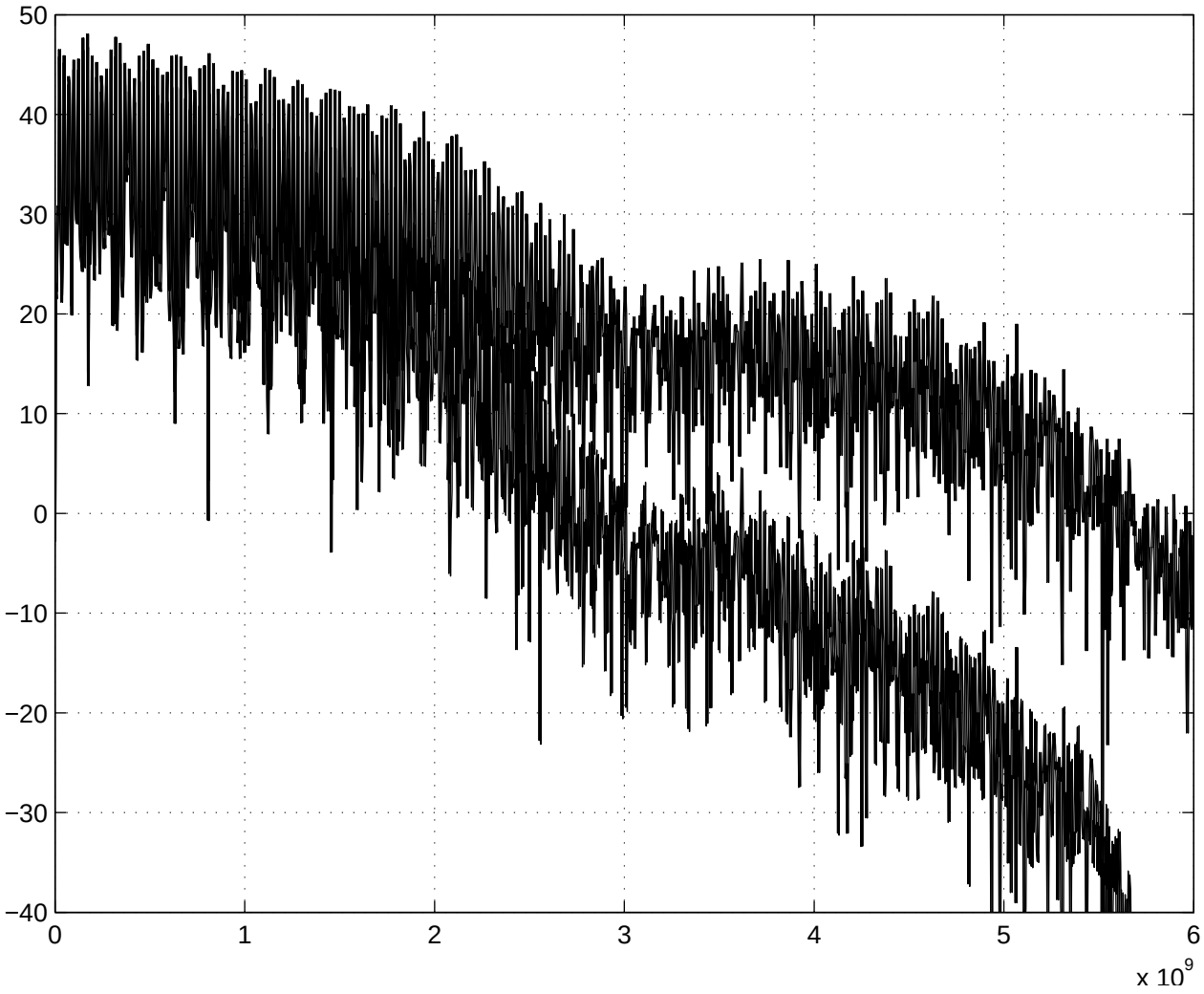
Agilent PWL with WC CC



Large difference in PSD cannot be seen. Perhaps differences in Jitter PSD account for difference in Rx data eye

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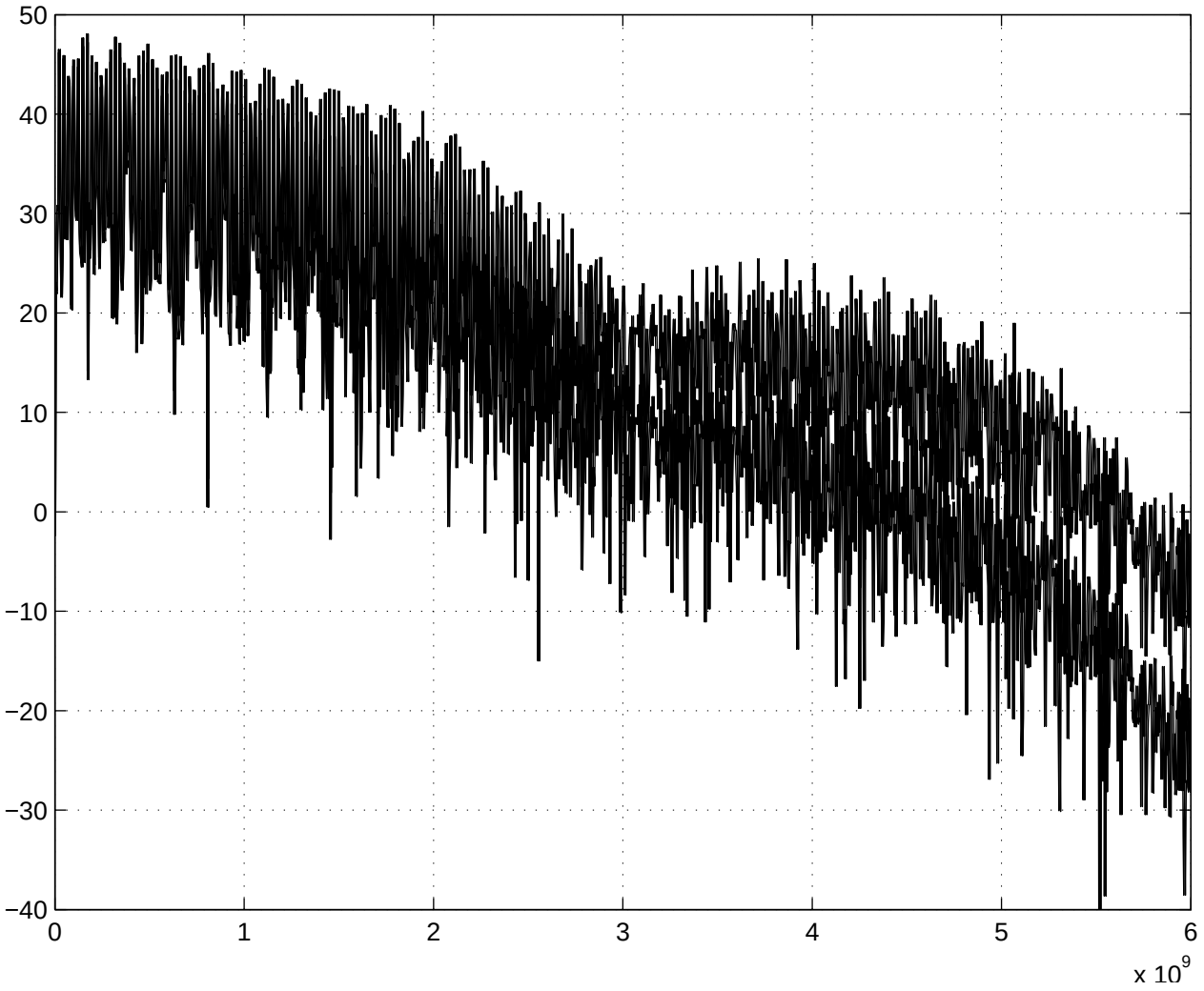
Agilent PWL with IFX Adjust Loosely Coupled



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