



# **SAS-2 Delivered Amplitude Calibration for Receiver Testing**

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**07-492r0**



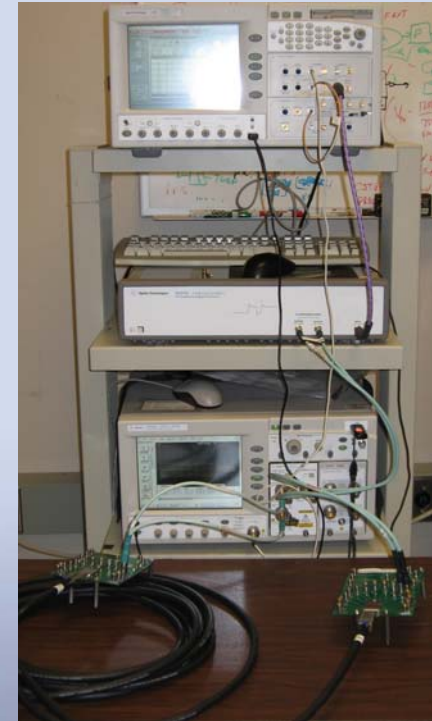
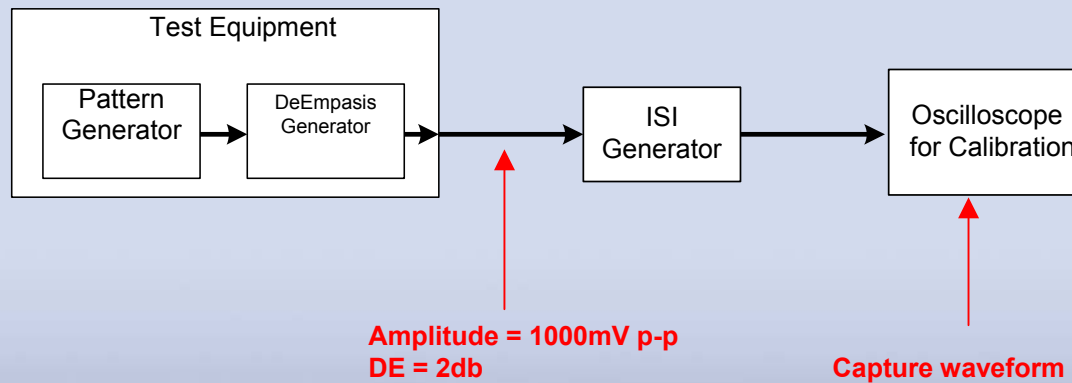
# Goals

- **Present measured Transmit Waveform Calibration signals at CT after a SAS-2 compliance channel based on various patterns**
- **Review methods for calibration**
- **Propose a pattern to measure signal amplitude at the receiver**
- **Propose an amplitude spec at the receiver**
- **References:**
  - T10/07-380r1 Comprehensive Stressed Receiver Sensitivity Test (Kevin Witt)
  - T10/07-365r0 Enhanced WDP for 6G SAS (Mike Jenkins)





# Transmit Waveform Calibration setup

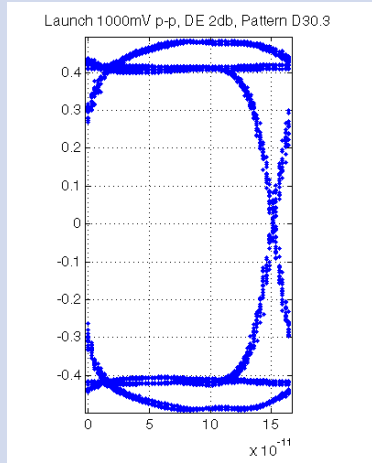




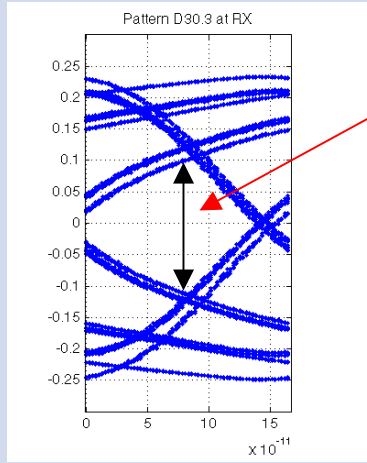
# Measured data

- Launch amplitude 1000mV p-p  
2db De-Emphasis

Tx D30.3

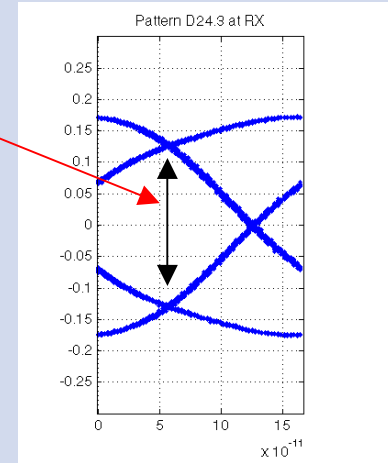


D30.3

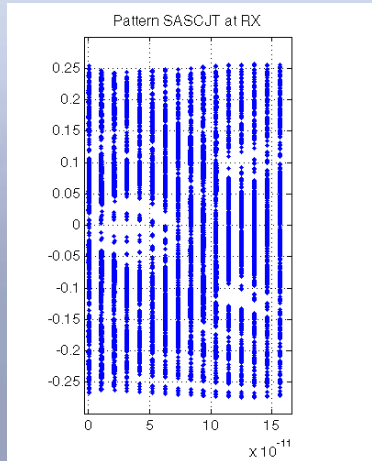


200mV vertical

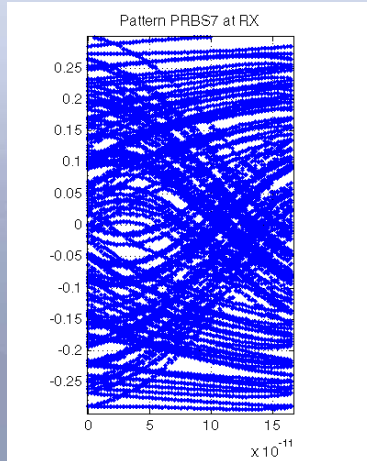
D24.3



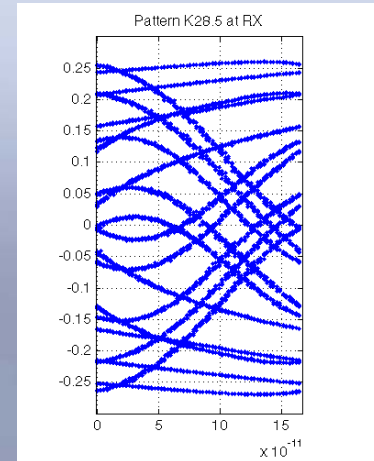
SASCJT



PRBS7



K28.5

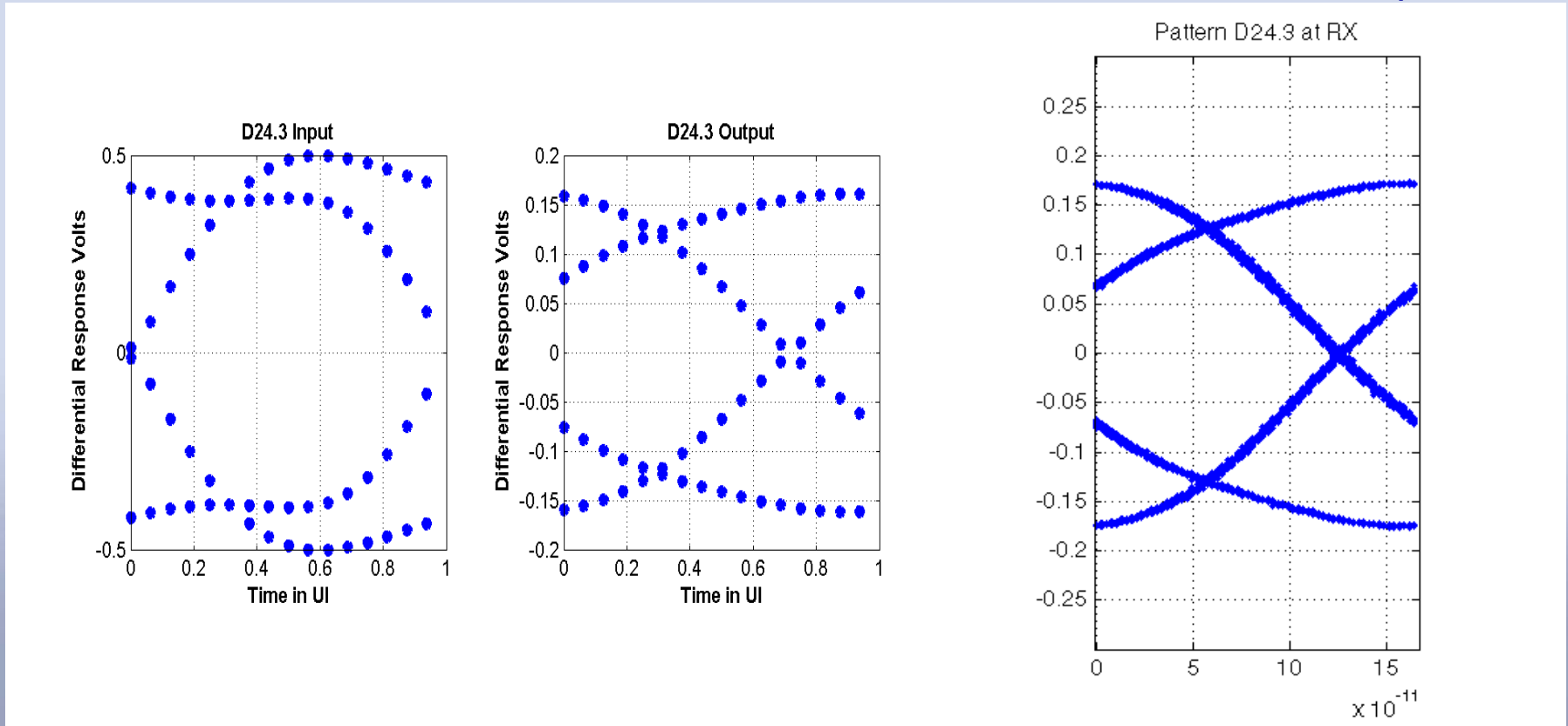


## Comparison to Simulation

- **Good Match to Reference Channel**

Simulated D24.3 Response

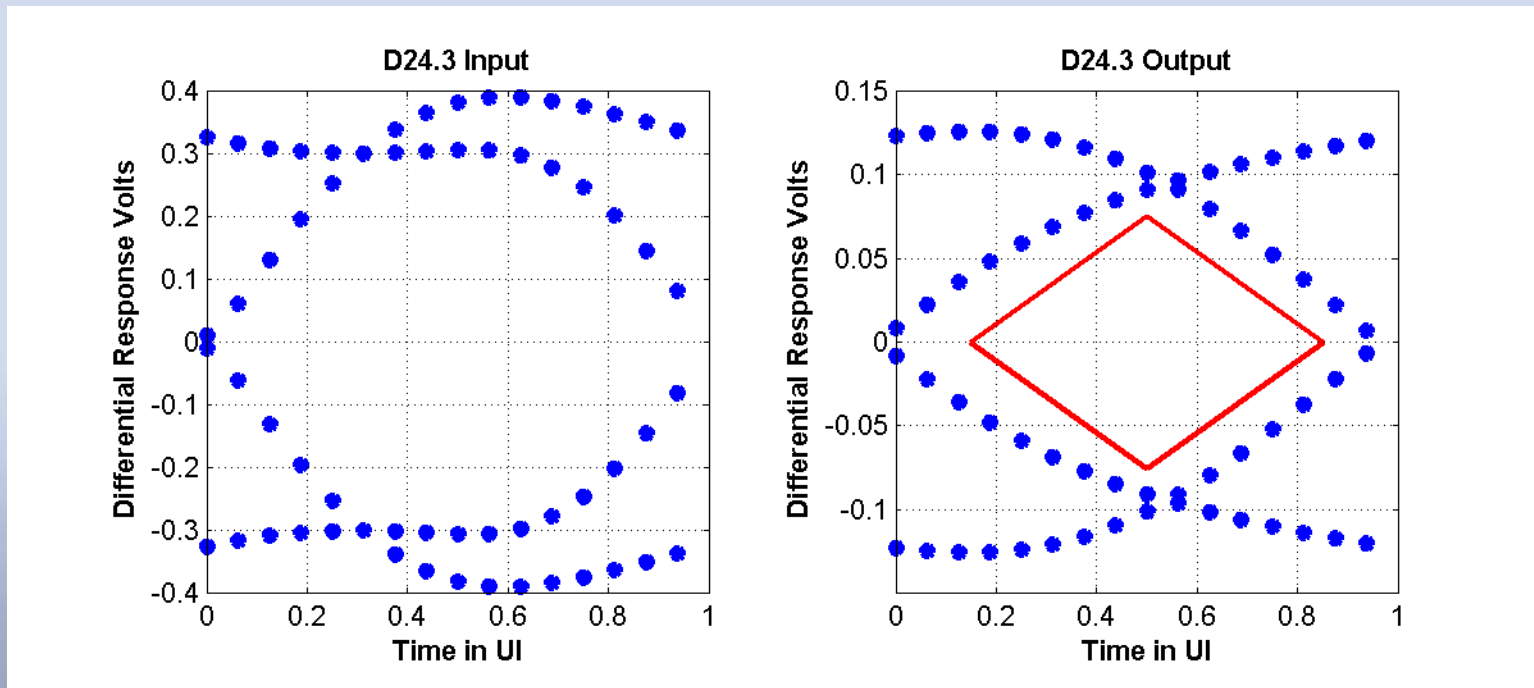
Measured D24.3 Response





## Simulated Reference Channel w/ 800mV Launch

- **Standard Eye Opening Measurement per section 5.3.5.1**
  - 150mV, 0.7 UI eye opening with D24.3



# Proposal/Discussion

- **Use a D24.3 pattern for an delivered signal calibration**
- **Standard Eye Opening Measurement at CT, IT**
  - **Z1= 0.075**
  - **X1 = 0.15**

