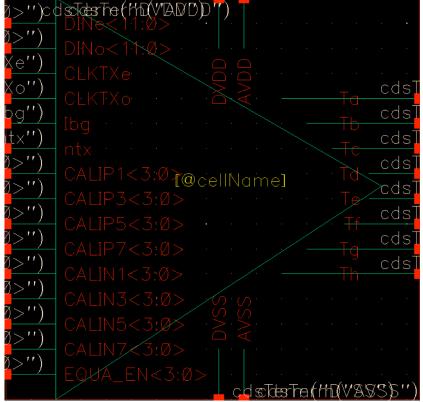
65nm 12-bit 8-wire 8-level Wireline Transmitter

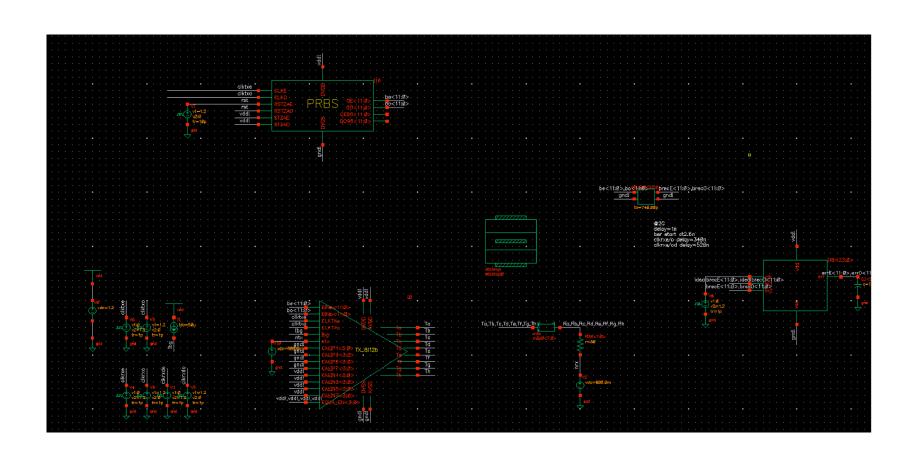
Simulation Results

Transmitter pin out definitions

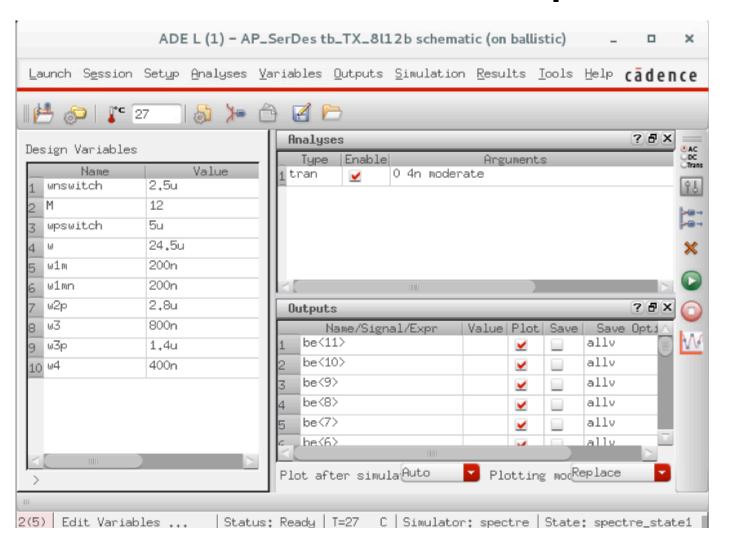


- DINe & DINo: parallel digital inputs;
- Ibg: bias current;
- CLKTXe & CLKTXo: clock input;
- ntx: common mode node of outputs;
- CALIP & CALIN: digital inputs for driver calibration;
- EQUA_EN: digital control signals for equalizer;
- Ta, Tb, ..., Th: outputs of the transmitter;
- DVDD, DVSS, AVDD, AVSS: power supply and ground.

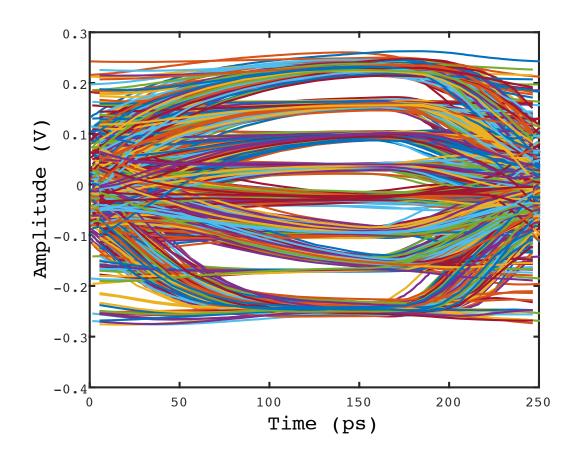
Testbench



Testbench setup



Top Level Test Result: Eye diagram



Eye diagram at 2GHz clock frequency, with a 8x6Gb/s/pin data rate