Figure 1 Channel Transient Test Circuit with 9-bit differential PRBS

Figure 2 Input 9-bit differential PRBS measured at Test+ and Test-
Figure 3 Waveforms at IN+ and IN- using peters_01_0605_T20_thru.s4p

Figure 4 Waveforms at IN+ and IN- using peters_01_0605_B1_thru.s4p

Figure 5 Waveforms at IN+ and IN- using Case4_FM_13SI_20_T_D13_L6.s4p
Channel Transient Simulation Test

Figure 6 Waveforms at IN+ and IN- using peters_01_0605_B12_thru.s4p

Figure 7 Problem Waveforms at IN+ and IN- using peters_01_0605_T20_thru.s4p in Cadence 6
T20 Channel Issue in Cadence 6

If Cadence 6 is used during the simulation, the DC offset of the waveforms are shifted incorrectly when using T20 channel. There is no DC offset issue when simulating other channels.

Figure 2 **Problem** waveforms at IN+ and IN- using peters_01_0605_T20_thru.s4p in Cadence 6
Figure 3 **Correct** waveforms at IN+ and IN- using peters_01_0605_T20_thru.s4p in Cadence 5

The NOT So elegant solution is to add a DC voltage offset as shown in Figure 4 which brings back to normal DC offset.

Figure 4 DC offset to reset the DC bias for T20 in Cadence 6