Where we Stand on Back Plane Channel Ad-hoc Recommendations

Status of majority agreed upon Channel Ad-hoc Mask Set: 09Sept04 Snap Shot.

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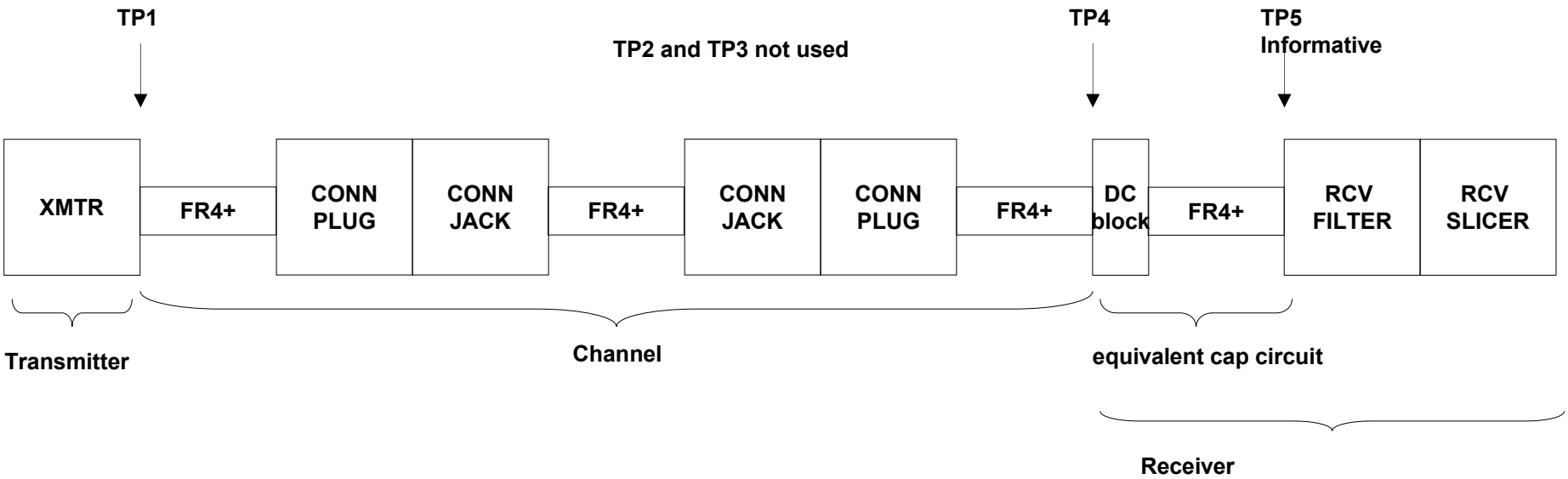
- Accomplished to Date:
  - Recommended VNA Set-up
  - Recommended Model for Simulation
  - Recommended SDD21 Mask
- Work to Complete:
  - SDD11/SDD22 Work Scope
  - NEXT / FEXT Work Scope
  - Group Delay Ripple Work Scope

Recommended VNA Set-up

- IF BW = 300Hz
- Leveled Output Power = -5dBm
- Averaging = 4
- Step Size = 10Mhz
  - F=15000Mhz, Step = 10Mhz, # points = (Fend-Fstart)/step+1 < 1600
  - Value chosen as Nwhole = Fstart/step to ease invFFT conversion
- Frequency Range = 50Mhz to 15000Mhz

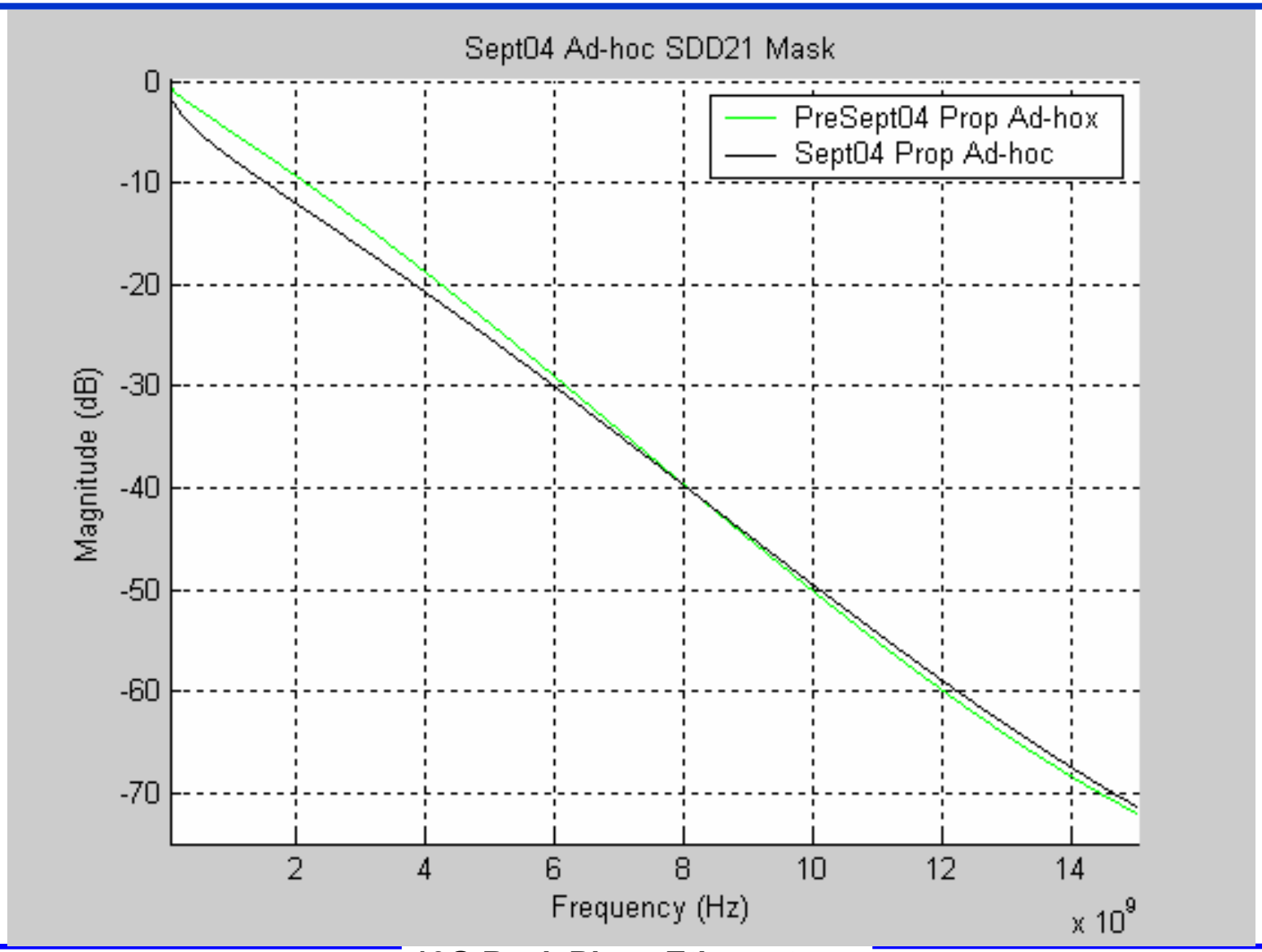
Recommended Model for Simulation



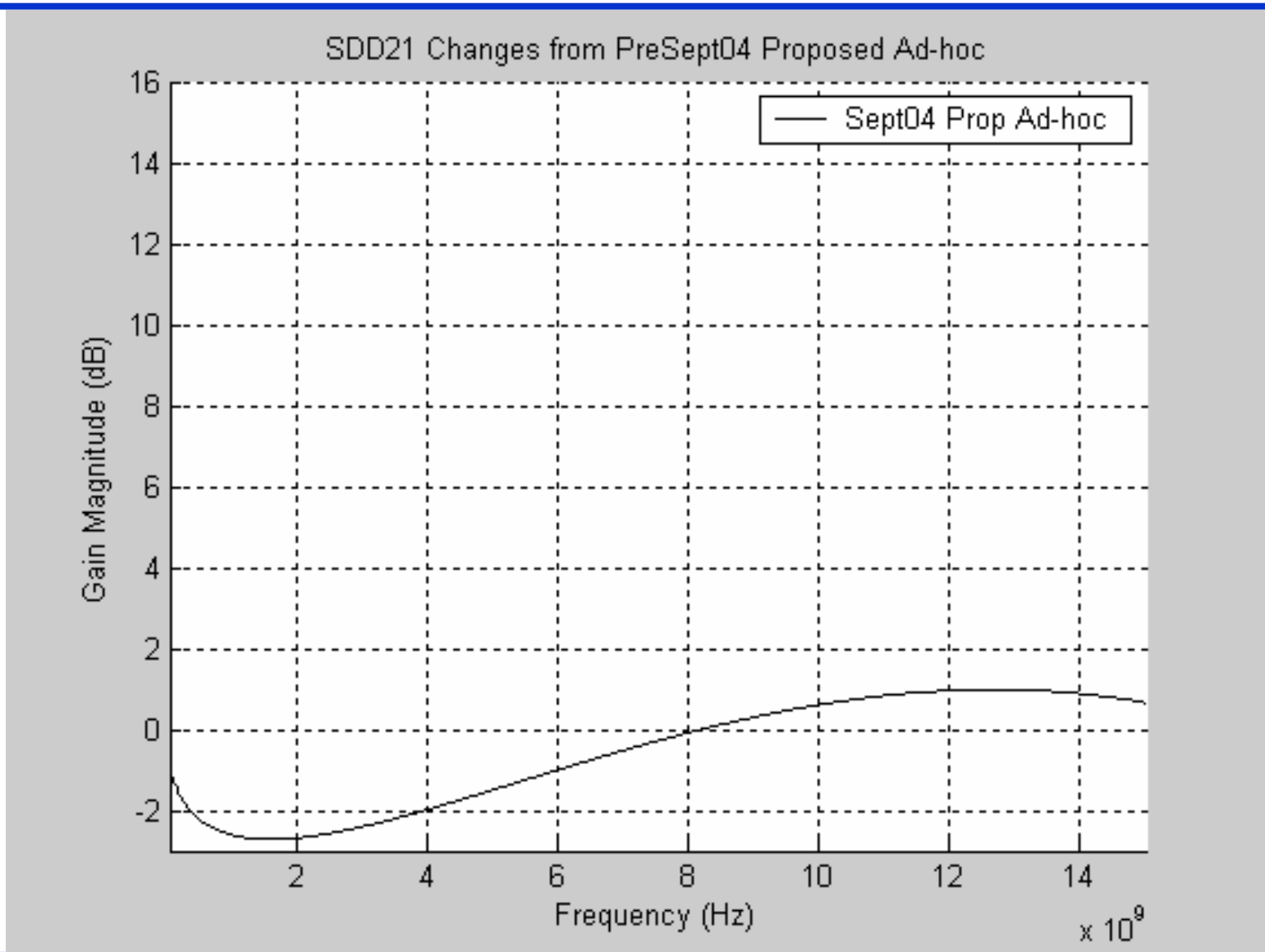
Recommended SDD21 Mask

- b1 = 2.25e-5
- b2 = 1.20e-10
- b3 = 3.50e-20
- b4 = 1.25e-30
- SDD21 = -20*log10(e)*(b1*sqrt(f) + b2*f + b3*f^2 - b4*f^3)
- f = 50Mhz to 15000Mhz

Recommended SDD21 Mask



Recommended SDD21 Mask



SDD11/SDD22 Work Scope

- SDD11/SDD22 changes bounded to adjusting only the -12dB limit line portion to the better of 1) Data defined by the average limit of goergen_02_0704, mccallum_01_0704, peters_01_0704, seeman_01_0704, brink_02_0704; or 2) Correction to SMA launch pads, VIA stubs, and layer registration on goergen_02_0704 and mccallum_01_0704.

NEXT / FEXT Work Scope

- NEXT/FEXT changes bounded to a max 6dB adjustment starting at the 50Mhz point, the equations in goergen_03-0704 staying intact, based on correction to SMA launch pads, VIA stubs, and layer registration on goergen_02_0704 and mccallum_01_0704.

Group Delay Ripple Work Scope

- Group Delay Variation changes bounded to a max change required to pass seeman_01_0504, +250ps/-450ps@10000Mhz, equations in goergen_03-0704 to stay intact, and verified by correction to SMA launch pads, VIA stubs, and layer registration on goergen_02_0704 and mccallum_01_0704.