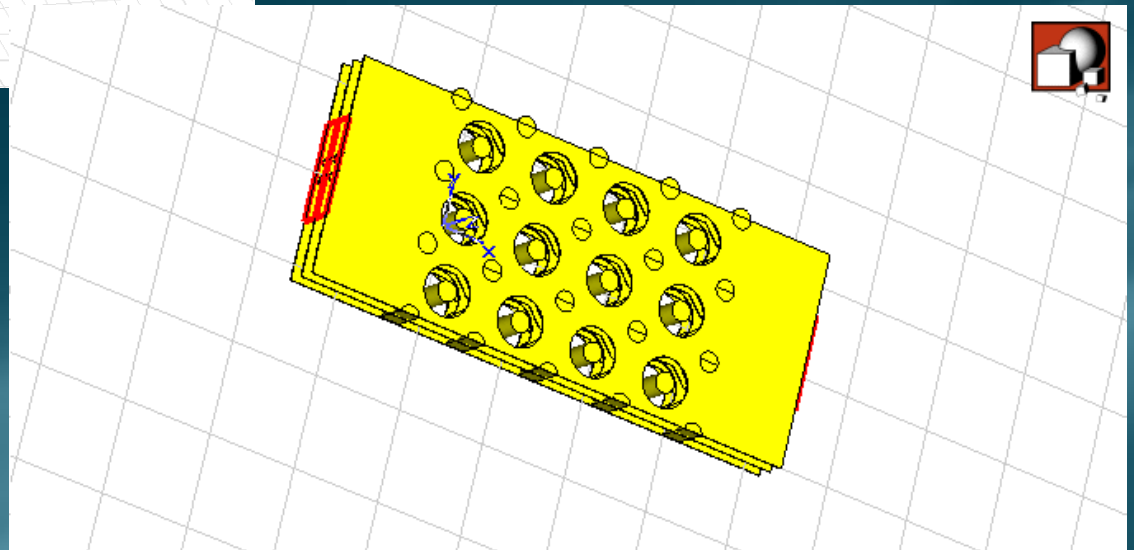
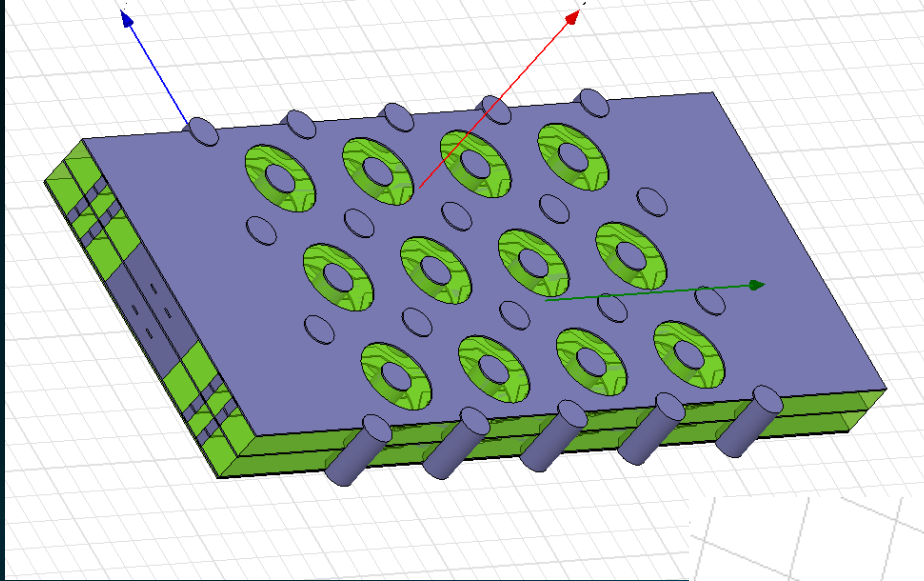


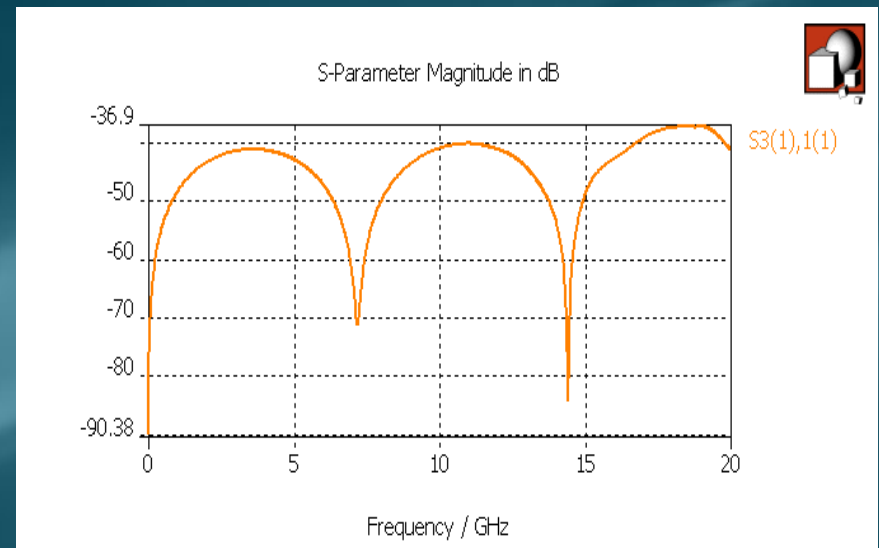
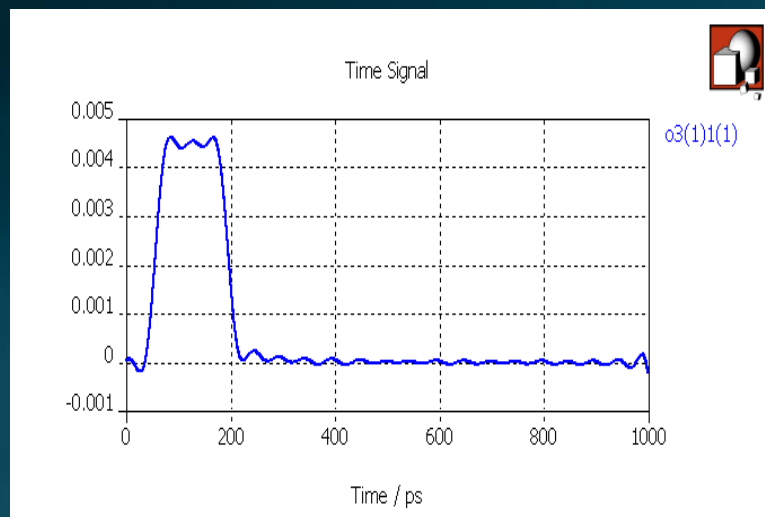
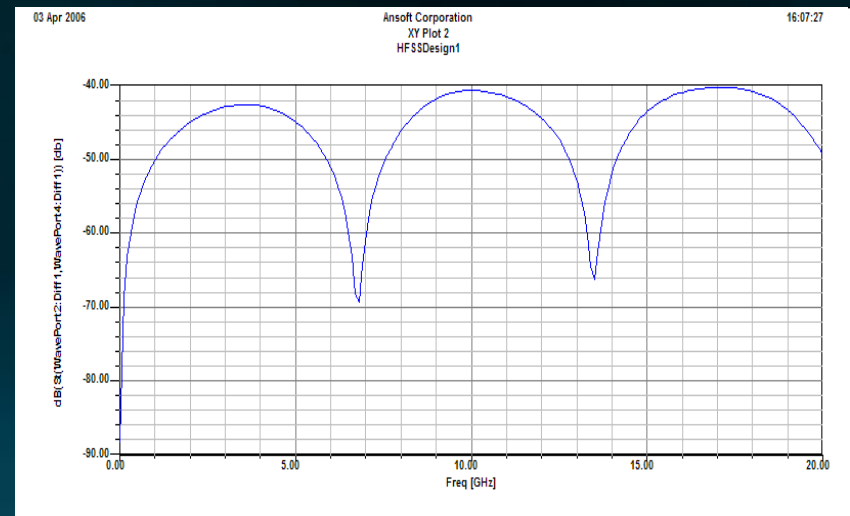
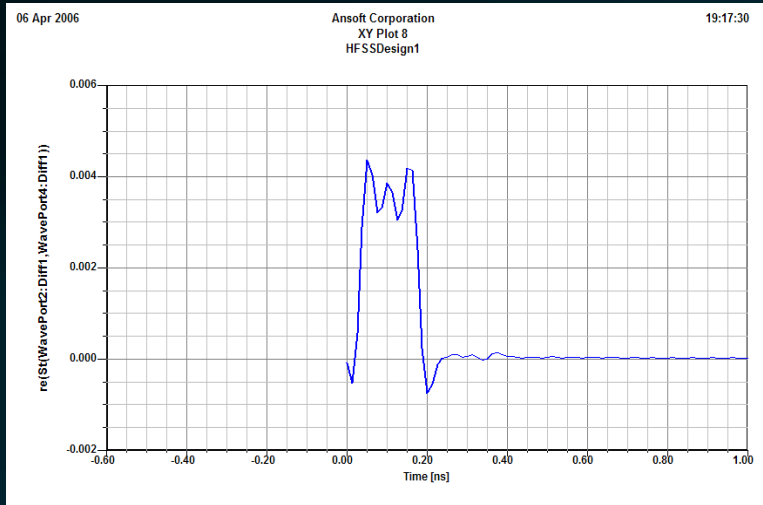
HFSS/CST Correlation

Crosstalk/Trace/Via

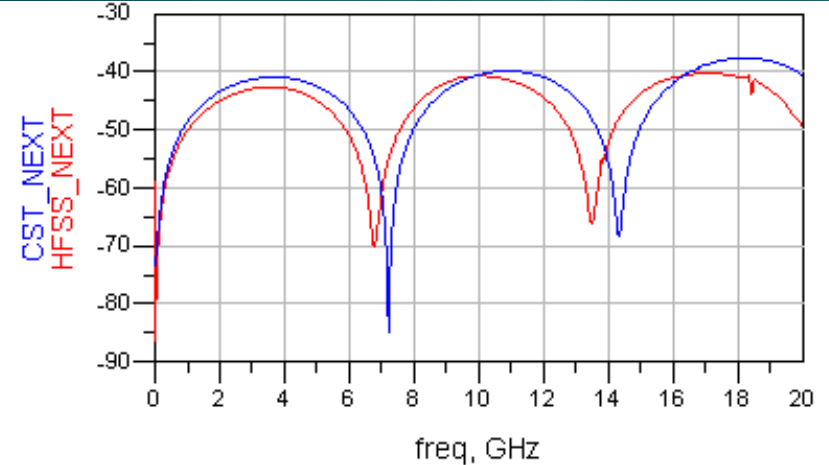
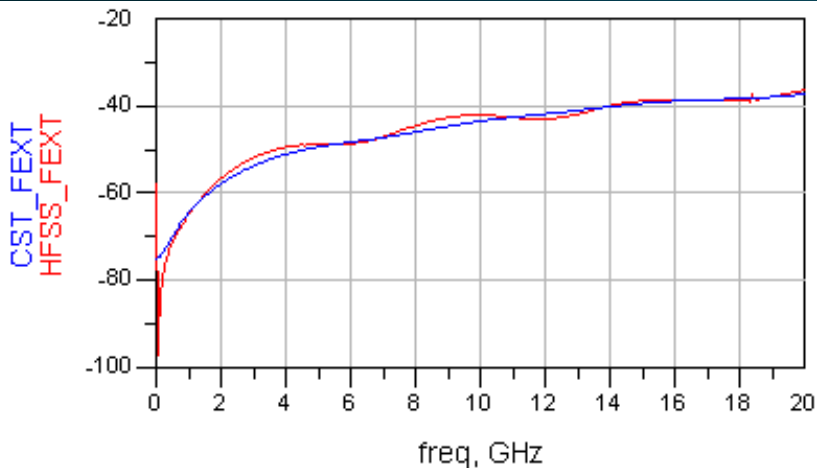
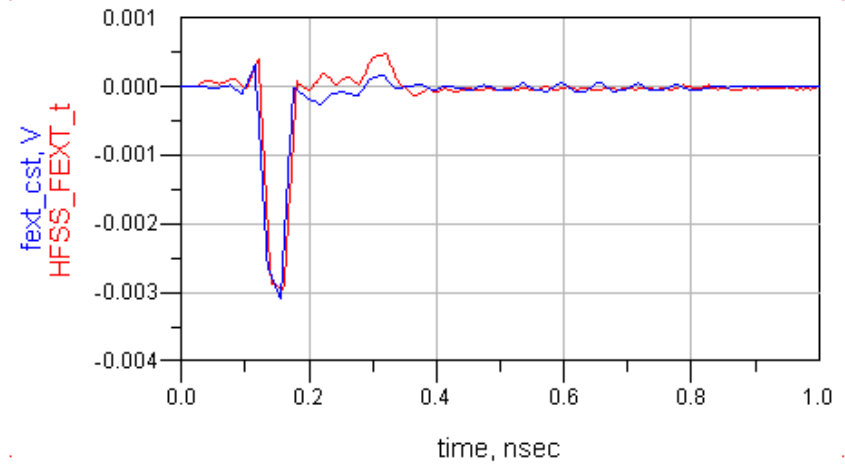
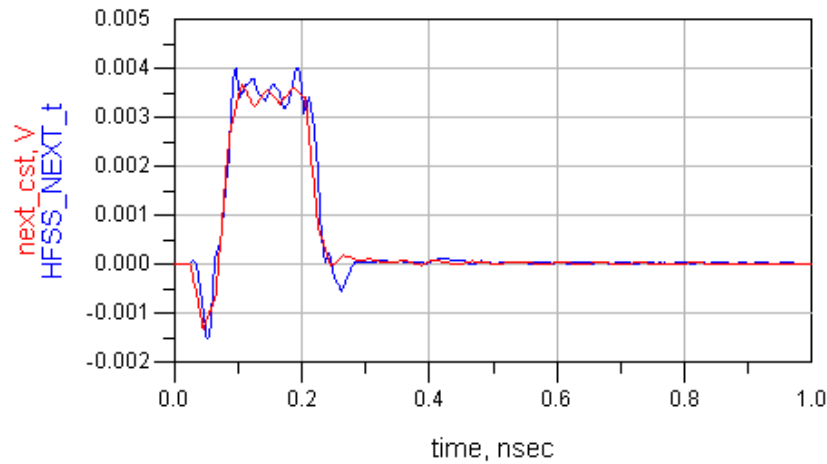
HFSS/CST NEXT Comparison



HFSS/CST Vertical NEXT Comparison



HFSS/CST Vertical NEXT Comparison

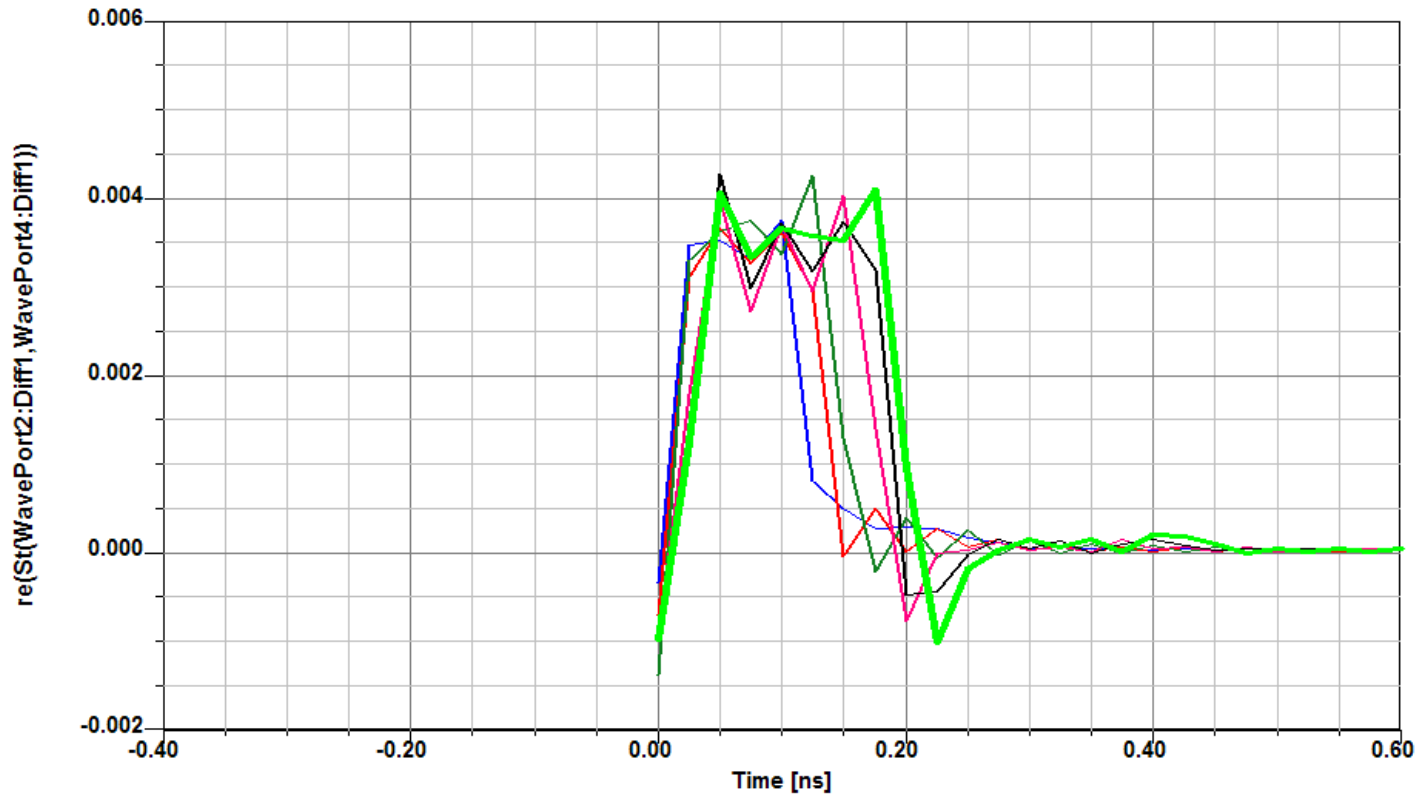


HFSS NEXT with different dielectrics

05 Apr 2006

Ansoft Corporation
XY Plot 6
HFSSDesign1

15:22:55



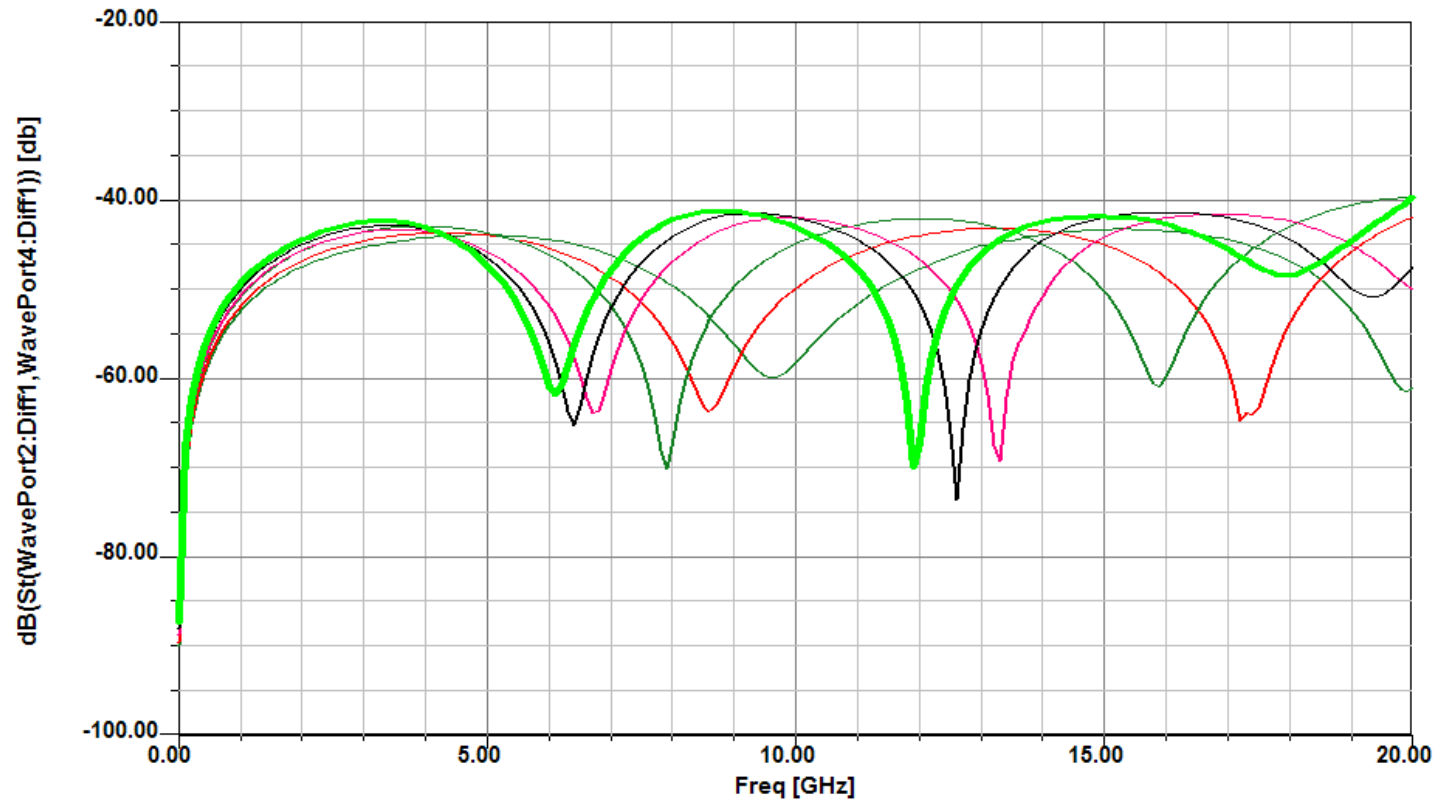
Y1	—○—
re(St(WavePort2:Diff1))	
\$Fr4x=2	
Setup1 : Sweep1	
Y1	—+—
re(St(WavePort2:Diff1))	
\$Fr4x=2.5	
Setup1 : Sweep1	
Y1	—□—
re(St(WavePort2:Diff1))	
\$Fr4x=3	
Setup1 : Sweep1	
Y1	—*—
re(St(WavePort2:Diff1))	
\$Fr4x=4	
Setup1 : Sweep1	
Y1	—▽—
re(St(WavePort2:Diff1))	
\$Fr4x=4.5	
Setup1 : Sweep1	
Y1	—◇—
re(St(WavePort2:Diff1))	
\$Fr4x=5	
Setup1 : Sweep1	

HFSS NEXT with different dielectrics

05 Apr 2006

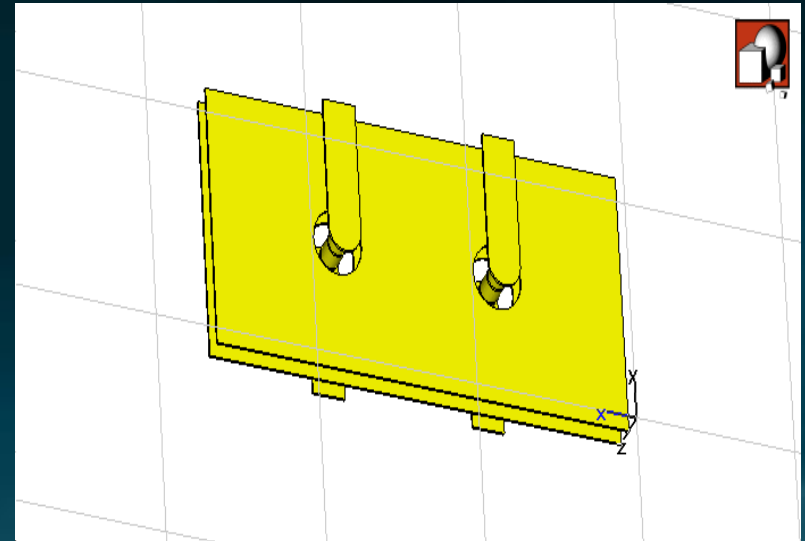
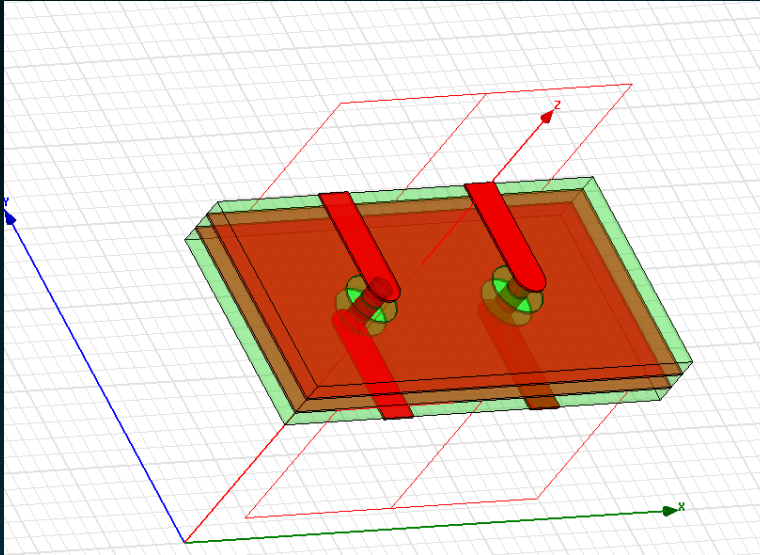
Ansoft Corporation
XY Plot 6
HFSSDesign1

15:19:00



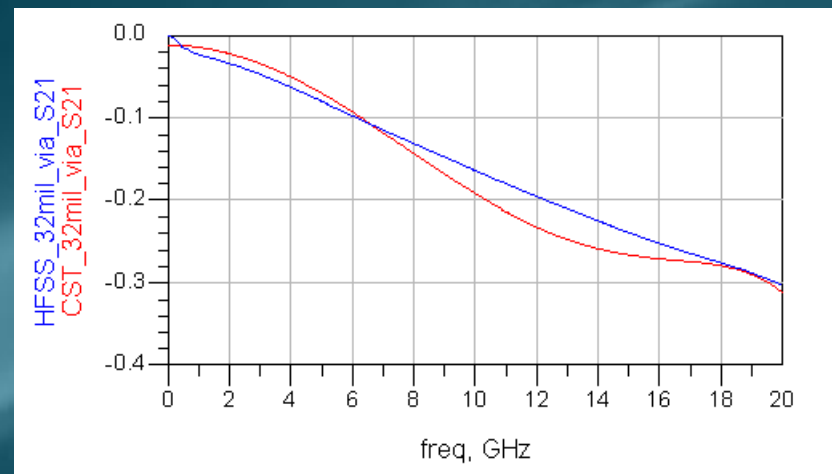
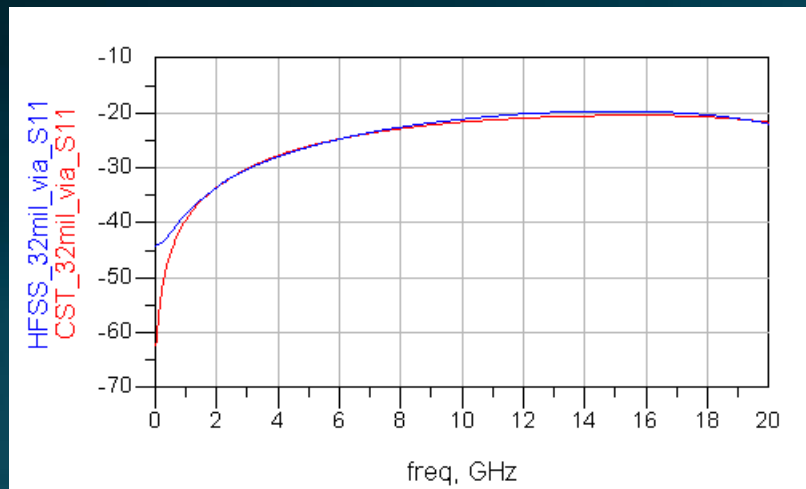
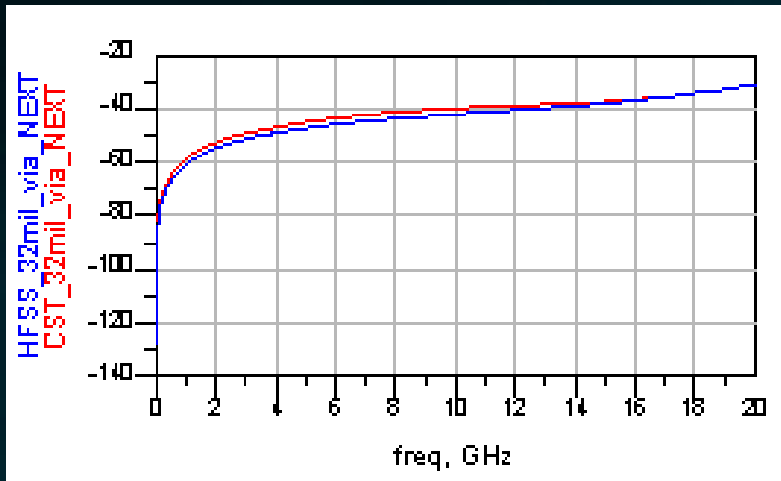
Y1 (Green line with diamond markers)	dB(St(WavePort2:Di \$Fr4x=3 Setup1 : Sweep1
Y1 (Red line with plus markers)	dB(St(WavePort2:Di \$Fr4x=2.5 Setup1 : Sweep1
Y1 (Green line with square markers)	dB(St(WavePort2:Di \$Fr4x=3 Setup1 : Sweep1
Y1 (Magenta line with asterisk markers)	dB(St(WavePort2:Di \$Fr4x=4 Setup1 : Sweep1
Y1 (Black line with inverted triangle markers)	dB(St(WavePort2:Di \$Fr4x=4.5 Setup1 : Sweep1
Y1 (Green line with diamond markers)	dB(St(WavePort2:Di \$Fr4x=5 Setup1 : Sweep1

HFSS vs CST Correlation - via

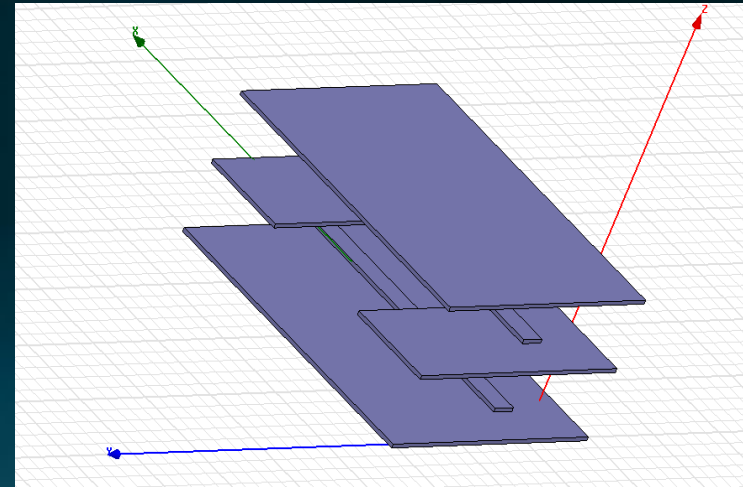
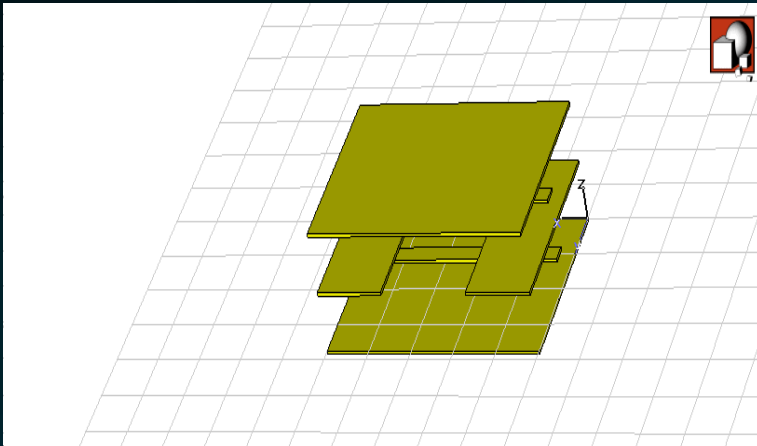


Number of Ground Plane : 2
Via spacing : 100 mil
Via length : 32 mil
Via drill : 12 mil
Antipad : 30mil
Plane Spacing : 10 mil

HFSS vs CST Correlation - via



HFSS vs CST Correlation - Trace



7 mil wide
20 mil spacing between two traces
40 mil wide ground slot
 $\epsilon_r=4$ $T_{and}=0.02$ (CST @3GHz)

HFSS vs CST Correlation - Trace

