



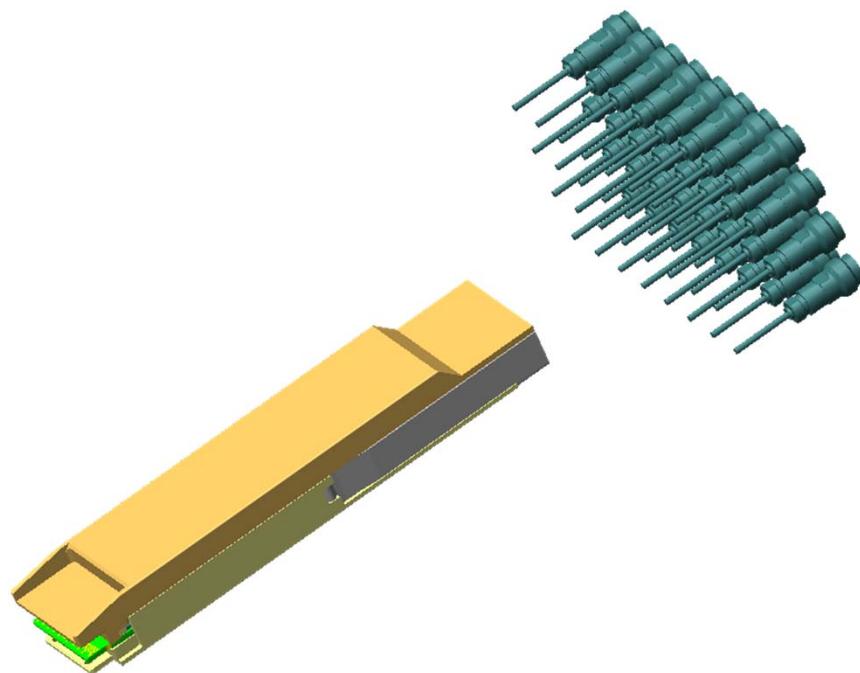
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Host Probing Adapter for OSFP

www.rosenberger.com

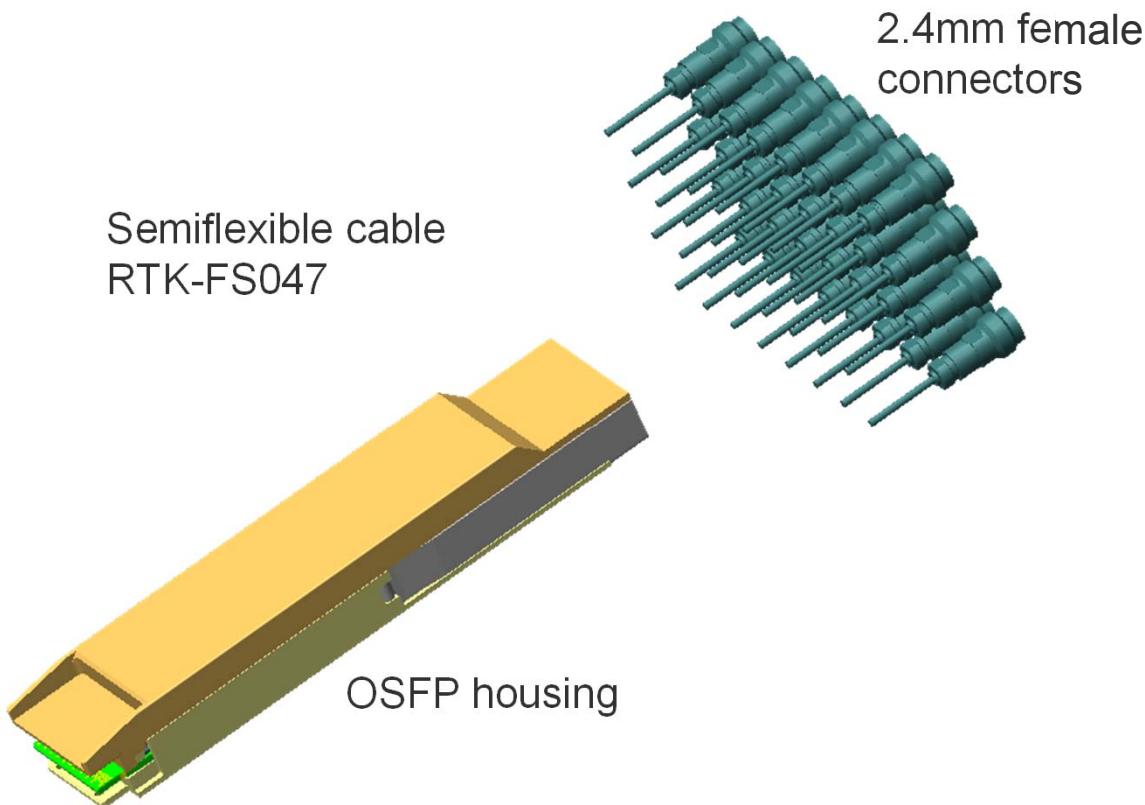
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- Design overview
- Definition of simulation details
- Simulation results
- Draft electrical specification



Single components

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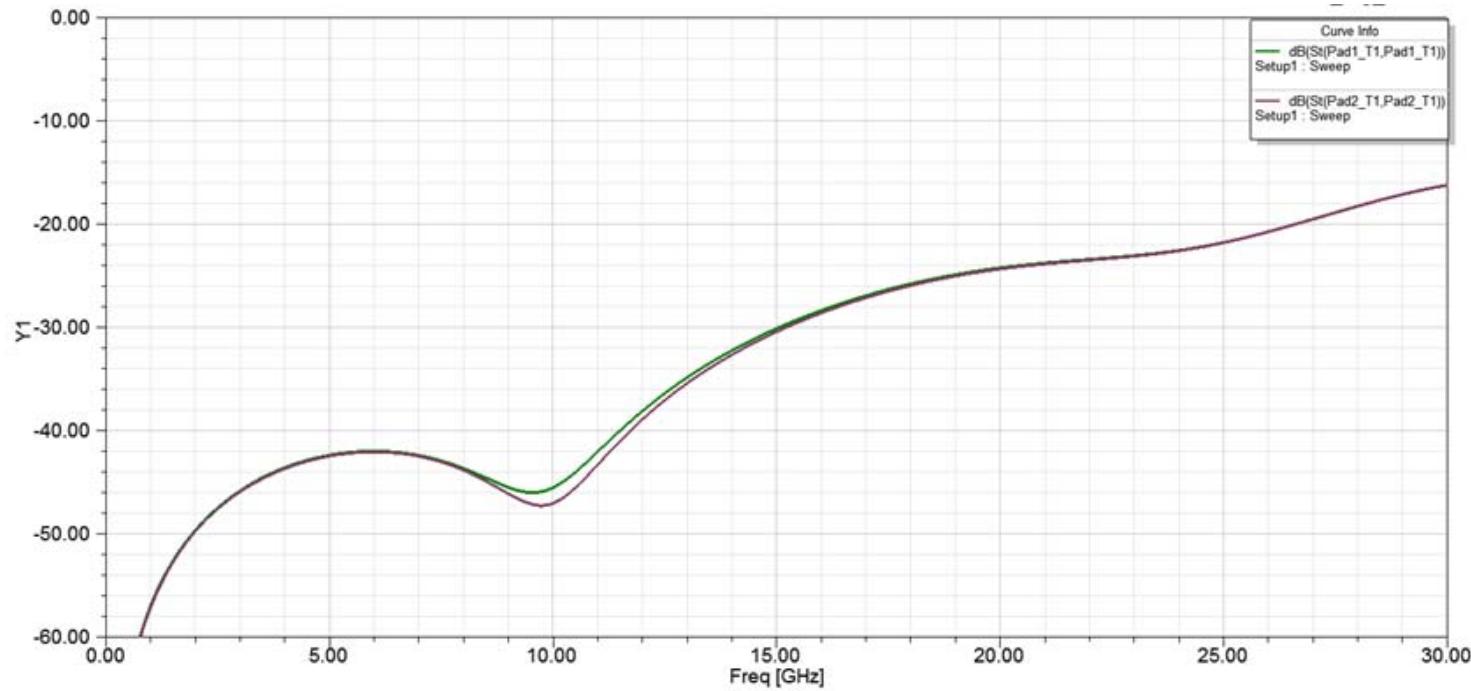
- Frequency range
 - DC-50GHz
- Return loss target
 - ~ 10dB@50GHz
- Impedance of signal traces: 95Ohm
(differential)

- Cable type RTK-FS047
- Flexscreen cable
- 50Ω impedance
 - Transition from 95Ω differential impedance is required
- Insertion loss spec
 - 30GHz: 0.85 dB/m

Simulation for PCB and Cable Transition

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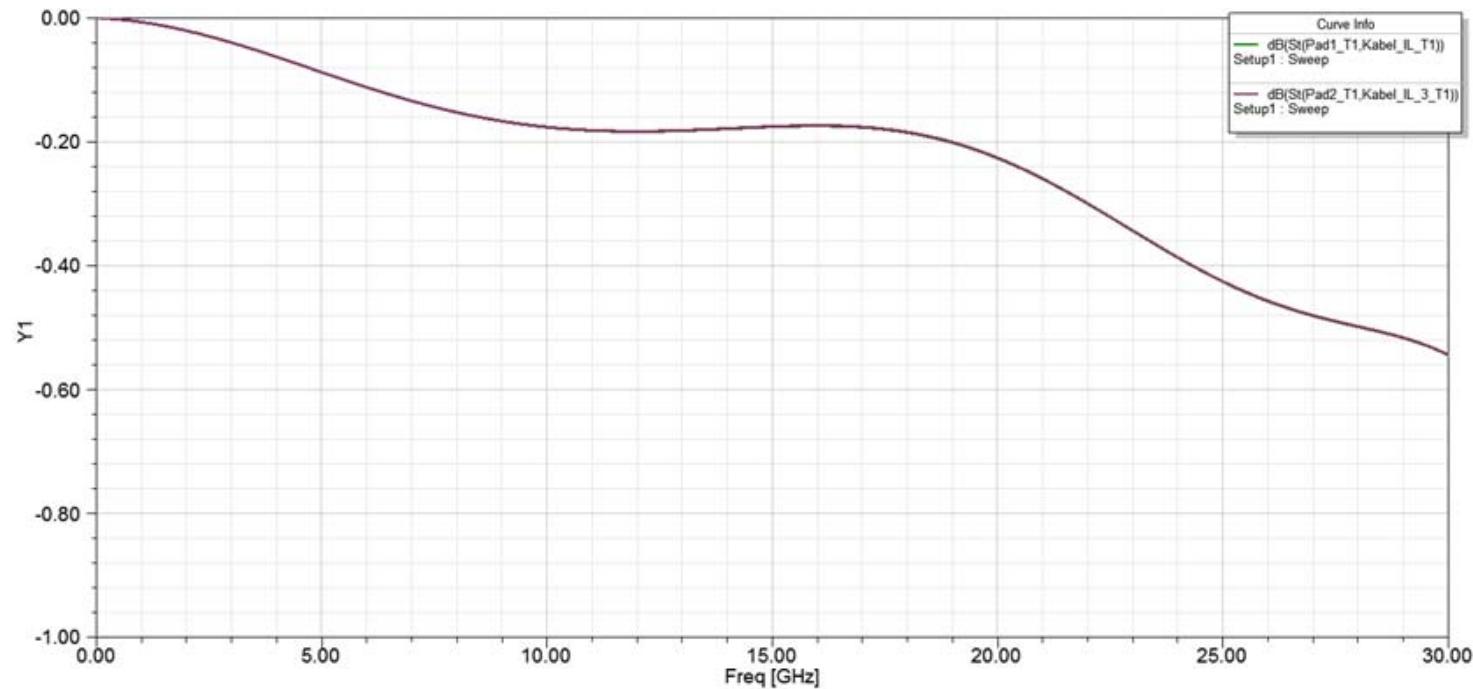
■ Return loss



Simulation for PCB and Cable Transition

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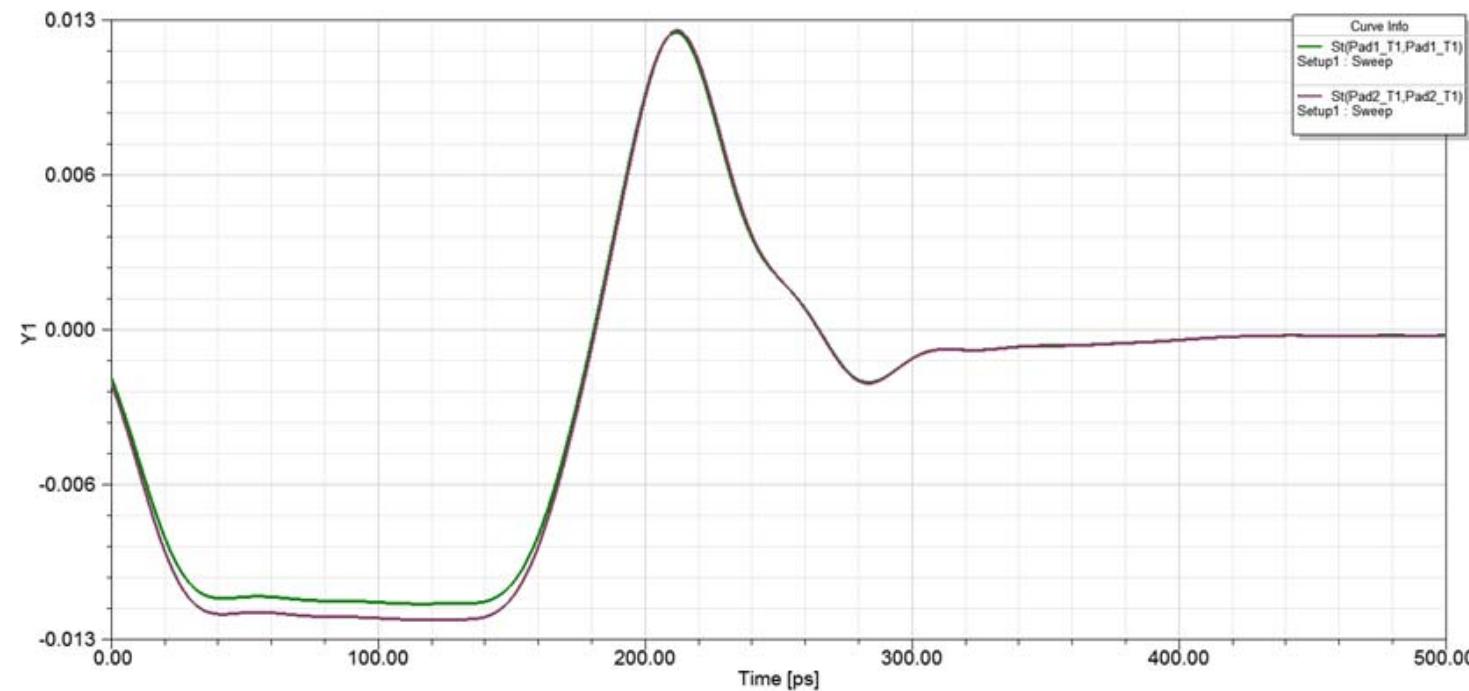
■ Insertion loss



Simulation for PCB and Cable Transition

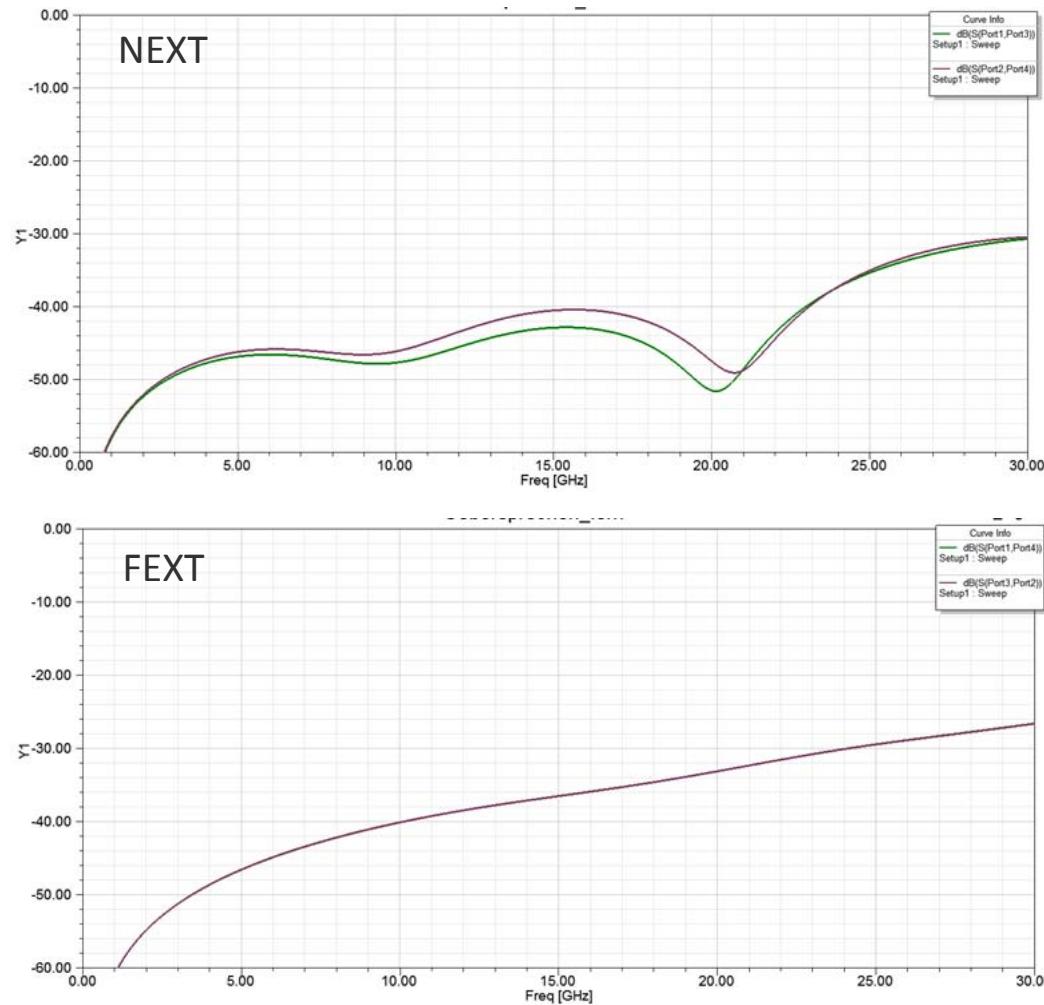
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- Time domain



X-talk: With Screening Shield

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- Frequency to 30 GHz
- Returnloss better 15dB @ 30GHz
- Insertion loss per channel < 2.3dB @ 30GHz (1.5dB @ 17GHz) including PCB, cable and connector.
- Skew pairwise < 2ps
- X-talk better 30dB