

## APIX Transmission Line Simulation

### Scope:

A typical APIX link features high-speed video and data transmission of several Gigabit per second. The APIX link from the transmitter to the receiver requires a thorough design of the PCB, connector and cable for the RF like high-speed connection, to achieve robust and error free data transmission. As part of its services Inova semiconductors offers to its customers, a simulation of their specific APIX design, and prior to prototype building. The objective is to optimize the design to achieve highest signal integrity and robustness as possible.

### Requirements:

The customer has to provide the following information about its design:

- Layer stack
  - Layout
- Acceptable formats: ODB++, Zuken, Altium etc.

### Effort:

- 2 man-days engineering
- 24h simulation tool run (CST Microwave)
- Evaluation of the transmission line design against APIX requirements

### Deliverables:

Microwave simulation to retrieve S-Parameter of the transmission lines to define

- Time domain reflection (TDR)
- Insertion loss
- Return loss
- Mode Conversion

Recommendations for improvements

Simulation report

### Order id/Cost:

APIX\_SIM      EUR 3.900,-