

This is part of the standard specification

(ask us for details)

Dynamic Specifications

The quality of signal via our Elastomer connector depends on the mechanical outline of the PCB layout of the connector. Best results we reach with the layout shown below.

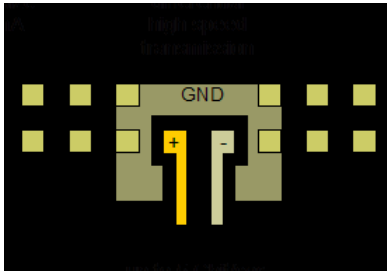
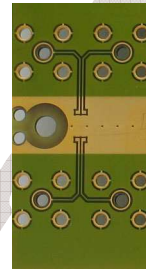


Figure 10



Theoretical example for a LVDS high speed layout

...and the practical solution

Results

As you can see in the following diagrams, the connector can be used for

data transfers up to

5 Gbit/s

The eye diagrams below show the signal quality of a differential transmission via the elastomer connector. The first two eye diagrams were taken with a data rate of 2.5 Gbps and the two others with a data rate of 5.0 Gbps. The measurements were acquired with a 7 GHz real-time oscilloscope. This oscilloscope can accurately measure up to 1.25 GHz. (2.5 Gbps). Thus for the acquisition of 1.25 GHz the 5th harmonic (6.25 GHz) is also included. For frequencies greater than 1.25 GHz the accuracy of the results decreases. You can compare the eye diagrams of the reference measurement and the test measurement of the elastomer connector. For the 2.5 Gbps signal the eye height decreases from 874.22 mV (ref) to 726.59 mV and the eye width decreases from 0.9093 UI (ref) to 0.8957 UI. For the 5.0 Gbps signal the eye height decreases from 689.98 mV (ref) to 432.43 mV and the eye width decreases from 0.7495 UI to 0.7211 UI.

Eye diagrams for 2,5 Gbit/s

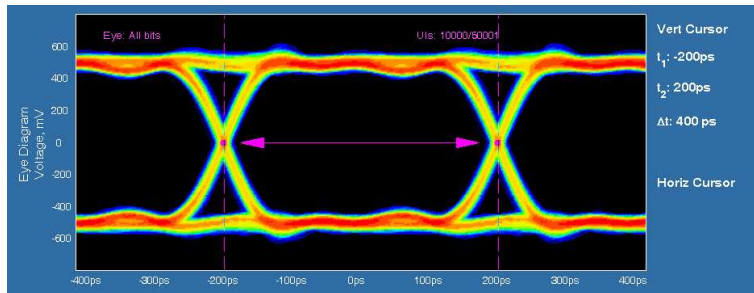


Figure 11 Reference measurement of the 2.5 Gbit/s input signal

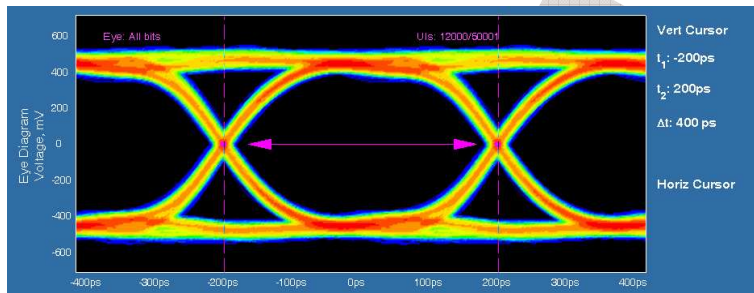


Figure 12 Measurement of the output signal after the Elastomer connector

Eye diagrams for 5 Gbit/s

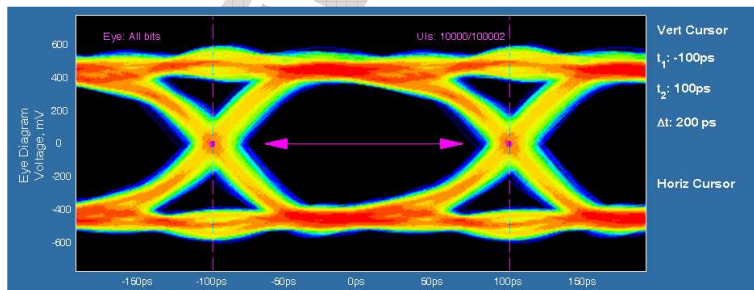


Figure 13 Reference measurement of the 5.0 Gbps input signal

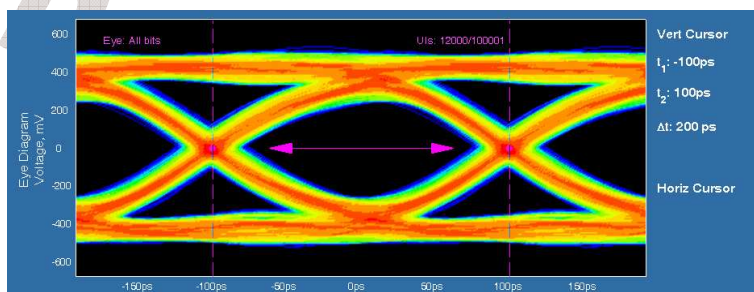


Figure 14 Measurement of the output signal after the Elastomer connector