## 

## WE KNOW HOW TO TEST!

# **KT LVDS Support for Camera Test**

to Receive, Send and Analyze MIPI Data

### Key Benefits

- Off-the-shelf test solution
- Flexible, scalable and modular design
- Test coverage for both camera and ECU
- Record and playback from single vendor
- Qualified test grade solutions
- Customizable and configurable



### Overview

The Konrad Technologies (KT) LVDS Support for Camera Test Solution incorporates modular test equipment modules that can receive, transmit and analyze high speed data on LVDS interfaces. The LVDS modules are available in a choice of two test platforms: Konrad Technologies ABex (Analog Bus Extension) for PXI and PCI eXtensions for Instrumentation (PXI). In each case, the LVDS solution consists of:

- 1. LVDS module baseboard
- 2. Up to 6 modular daughterboards (hosted on baseboard).
- 3. National Instruments PXIe FlexRIO FPGA module

(interfacing with baseboard)

Daughterboard designs are available featuring various chipset SerDes combinations common to the automotive market. This presents a variety of module configuration options for transmit and receive. It also provides the possibility for specific or customised SerDes OEM combinations or module connectors.

### Features

- 6 device interfacing for reduced test times for multi-DUT test
- 3 channel streaming performance for concurrent test
- Powerful FPGA based approach
- Software API for test integration

## Applications and Technology

The Konrad Technologies (KT) LVDS Support for Camera Test Solution enables ADAS sensor manufacturers who require LVDS test capability to analyze data and evaluate the performance of the sensors in a variety of use cases.

The modules support six channels for deserialising or serialising MIPI CSI-2 conformant data enabling six devices to be run and analyzed at the same time. Of the six devices, three can be streamed concurrently.

Modules support 3 major use-cases:

- 1. Recording (receive data)
- 2. Playback (transmit data)
- 3. Passthrough (in-line monitoring)

The combined LVDS functionality for record and playback allows full solutions for ADAS In-Vehicle Recording (test drive) and Playback (laboratory). In all cases I2C backchannel information can be configured.

- Modules support 2 test platforms
- High backplane bandwidths of up to 24 Gbps
- Each card supports up to 6 Gbps bandwidth total or 1.5 Gbps per lane
- Ability to integrate with variety of third party test equipment





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