



# Flexible prototyping system for rapid embedded vision development

The Video Interface Platform (VIP) is a highly flexible, modular solution for rapid prototyping of embedded vision systems. It allows an easy interchange of a variety of different input and output interface boards through a simple snap-on concept. The platform simplifies the use of mobile influenced technologies and allows reuse of existing hardware to shorten time-to-market, all within a highly beneficial, modular system.

#### Features:

- Wide range of input and output boards for flexible connectivity:
  - HDMI, DisplayPort & embedded DisplayPort, USB 3.0, Gigabit Ethernet, Dual Image Sensor
- Two unified 60-pin connectors to eliminate wiring
- ECP5-85K for maximum processing performance
- · Complimentary Lattice Diamond design software

# 3rd Party VIP Ecosystem

The Video Interface Platform is complemented by a growing 3rd party VIP ecosystem, which includes commercial grade IPs such as Image Signal Processing (ISP), networking stacks, and additional hardware modules. Partners include:

**Helion Vision** provides a comprehensive solution, which includes a selection of ISPs, ranging from basic to advanced High Dynamic Range Imaging (HDRI) color pipelines.

**Bitec** provides the DisplayPort 1.4a compliant IP Core (with eDP 1.4 support) to low-power, production-priced ECP5 devices.



#### **Embedded Vision Development Kit**

Starter kit for VIP prototyping environment for embedded system design. All-inclusive development kit with on-board video sources.

It includes three boards:

- CrossLink VIP Input Bridge Board with two Sony IMX 214 image sensors
- ECP5 VIP Processor with ECP5-85 FPGA
- HDMI VIP Output Bridge Board

Ordering Part Number

LF-EVDK1-EVN



# VIP Boards



## **HDMI VIP Input Bridge Board**

The HDMI VIP Input Bridge Board is a flexible, dual-input board that complements the VIP by providing two selectable HDMI input signals to the ECP5 VIP Processor Board. The board converts two unencrypted non-HDCP HDMI input video signals into parallel RGB video.

Ordering Part Number

HDMI-VIP-IB-EVN

# **DisplayPort VIP Input Board**

The DisplayPort VIP Input Board complements the VIP by providing DisplayPort RX and embedded DisplayPort RX connectivity to the ECP5 VIP Processor Board.



**Ordering Part Number** 

DP-VIP-I-EVN



### **DisplayPort VIP Output Board**

The DisplayPort VIP Input Board complements the VIP by providing DisplayPort TX and embedded DisplayPort TX connectivity to the ECP5 VIP Processor Board.

**Ordering Part Number** 

DP-VIP-O-EVN

#### **USB3-GbE VIP IO Board**

The USB3-GbE VIP IO Board complements the VIP by providing USB 3.1 and Gigabit Ethernet networking connectivity on a single board.



Ordering Part Number

USB3-VIP EVN



#### **MicroSD Card Adapter**

The MicroSD Card Adapter complements the VIP by providing mass storage capability to the ECP5 VIP Processor Board.

**Ordering Part Number** 

MICROSD-ADP-EVN



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