



DA332 25G Holoscan MIPI Adapter

For Robotics, Defense, and Edge AI Applications

Key Features

- ▶ 8x MIPI CSI-2 interfaces
- ▶ Lattice Avant-X™ 70 FPGA
- ▶ 25GbE SFP28 transceiver
- ▶ 2x 20-pin FFC I/O interfaces
- ▶ PTP per IEEE 1588-2019
- ▶ Low power consumption

Applications

- ▶ Signal Processing
- ▶ Autonomous Systems
- ▶ Industrial Inspection
- ▶ Healthcare Imaging
- ▶ Robotics
- ▶ Radar/Lidar Integration

Overview

The DA332 25G Holoscan MIPI Adapter provides a sensor-to-compute interface for systems that require multiple MIPI CSI-2 inputs and high-bandwidth Ethernet connectivity. It is intended for applications such as robotics, autonomous systems, industrial inspection, healthcare imaging, signal processing, and defense, where several sensors must be acquired and transferred to a host platform for real-time processing.

The DA332 is built around the Lattice Avant-X™ 70 FPGA and integrates 8x MIPI CSI-2 interfaces, each with 4x D-PHY lanes supporting up to 1.8Gbps per lane. Each sensor interface uses a 22-pin FFC connector. Data received from the eight MIPI ports is handled by the FPGA and transmitted to the host through a 25GbE SFP28 interface. The board also includes 2x 20-Pin FFC interfaces providing in total 32 DIO signals, together with an I2C EEPROM used for MAC address storage.

For synchronized multi-sensor operation, the DA332 supports Precision Time Protocol per IEEE 1588-2019, providing accurate timestamping and synchronization across multiple boards connected within the same network. This allows sensor data from separate interfaces or adapters to be aligned for host-side processing. The combination of eight MIPI CSI-2 inputs, 25GbE connectivity, FPGA-based sensor aggregation, and dedicated DIO makes the DA332 25G Holoscan MIPI Adapter suitable for multi-camera and multi-sensor Holoscan systems requiring synchronized real-time data transfer.

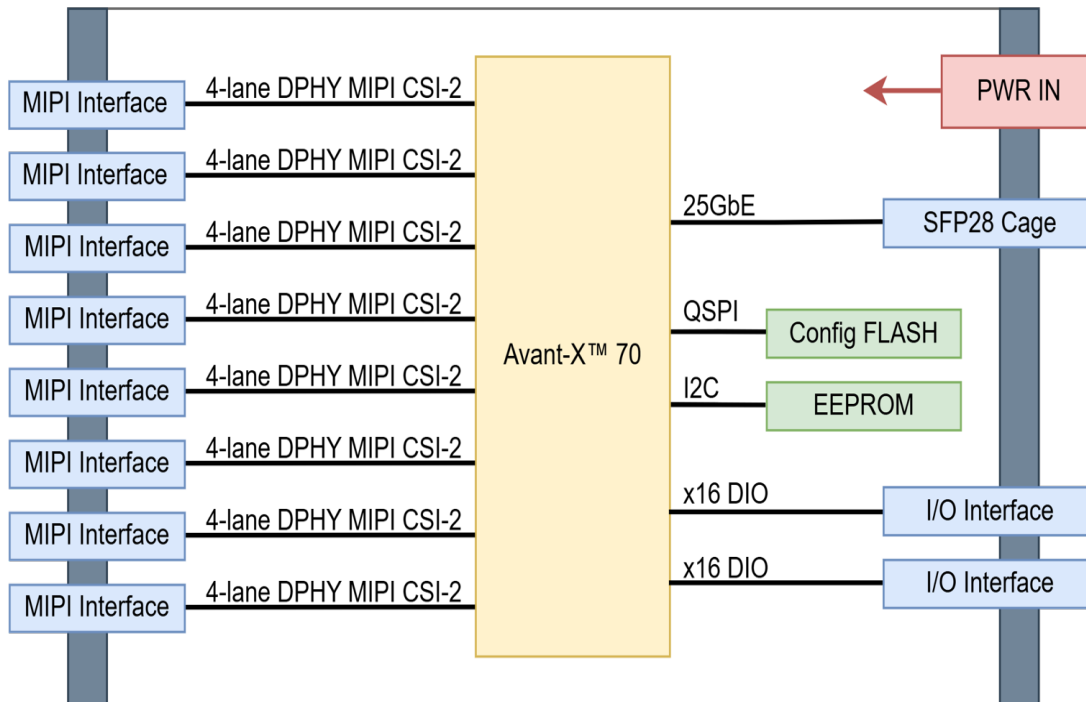
Key Advantages

- ▶ Production-ready - easy to integrate into a wide range of applications
- ▶ 8x MIPI CSI-2 (D-PHY x4) 1.8Gbps/lane for multi-sensor input
- ▶ SFP28 transceiver with 25 Gbps connectivity
- ▶ 2x 20-pin FFC I/O interface with total of 32 DIO
- ▶ Lattice Avant-X™ 70 FPGA with 25 Gbps SERDES
- ▶ Precision Time Protocol (PTP) per IEEE 1588-2019

PRODUCT IMAGE COMING SOON

DA332 25G Holoscan MIPI Adapter

Block Diagram



Specifications

FPGA	Lattice Avant-X™ 70 FPGA
SENSOR INTERFACE	8x MIPI CSI-2 interfaces with x4 D-PHY, 1.8Gbps/lane
	22-pin FFC connector per interface
ETHERNET INTERFACE	25G Ethernet SFP28 transceiver
I/O INTERFACE	2x 20-pin FFC interface with total x32 DIO
POWER	+12V DC input
	TBD consumption
DIMENSIONS	TBD



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DA332 25G Holoscan MIPI Adapter

Ordering Options

DA332-A00-000-000		
A = PACKAGING		
0 = RESERVED		
1 = TBD		

The system can be customized for specific customer requirements, contact Tauro Technologies sales for details.



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