Camera CoaXPress™ 6G interface module

Overview

KAYA Instrument's Camera CoaXPress 6G interface module is industry's first camera module capable of providing a high speed CoaXPress compliant communication interface. The CoaXPress interface module provides a gateway for high speed data transmission using coaxial cables and CoaXPress supporting frame-grabbers for up to 200m. This module supports data rates of up to 6.25Gbps for downlink and 20.83Mbps for uplink according to CoaXPress specification. Such downlink ensures real-time, high bandwidth, consistent video stream transfer with low and latency or jitters.

The uplink is used for camera controls and triggering while benefiting from low latency and real-time response. Furthermore, the module is capable of feeding power to camera imager engine through the CoaXPress (PoCXP) support.

Features

- A compact and efficient solution for high speed video stream transmission
- Various cameras compatibility
- Real-time video transfer with low, consistent latency
- Downlink/Uplink of 6.25Gbps and 20.83Mbps respectively
- Multiple video stream support

- Up to 200m distance
- Bidirectional CoaXPress communication
- Power over CoaXPress (PoCXP) support
- 37 x 37 mm
- -40°C to 85°C operating environment temperature (industrial grade)
- Generic and adoptable to OEM customers

About CoaXPress

CoaXPress is a new digital transmission standard that allows high speed data from a device, such as a camera, to be transferred to a host, such as a frame grabber. Each CoaXPress link supports up to 6.25 Gbps data rates, along with device power up to 13W and device control at 20 Mbps – all on a single coax cable. For very fast devices, the links can be aggregated to provide multiples of the single coax bandwidth. Long cable lengths are supported – up to 40 meters at 6.25 Gbps and over 100 meters at 3.125 Gbps.

Applications

- ✓ High speed cameras
- ✓ High definition cameras
- ✓ Panoramic cameras
- ✓ Existing coax systems upgrade
- ✓ Defense remote systems
- ✓ Slip Ring systems
- ✓ Automotive surround view system
- ✓ Surveillance
- ✓ Robotic Vision

Deliverables

- Camera CoaXPress 6G interface module
- Reference design
- Hardware user manual
- Power supply (optional)
- Coaxial cables (optional)