CoaXPress 1.1 Device IP Package

can transmit data at 6.25Gbps via coaxial cable

Overview

CoaXPress is defined by JIIA (Japan Industrial Imaging Association) for high speed image data transmission and intended mainly for Machine Vision applications. CoaXPress uses 75Ω coaxial cable as a physical medium and supports transfer rate up to 6.25Gbps/cable.Utilizing this IP and reference design involved makes you easily accomplish a device compliant with CoaXPress.
Macnica has got much experience about GenICam through GigE Vision IP and USB3 Vision IP.
CoaXPress IP package also includes software library to help you support GenICam.

Features

- Compliant with CoaXPress Version 1.1.1
- Data rate up to 6.25Gbps/lane
- Supports up to 4 Connections
- Supports up to 4 Streams
- Supports GenICam
- Tested under "Inter Operability Test" by JIIA

Specifications

Function	Description
CoaXPress Version	Ver 1.1.1
Maximum data rate	6.25Gbps
Maximum Connection	4
Maximum Stream	4
GenApi Schema Version	1.1
GenICam Standard Features Naming Convention (SFNC) Version	2.3

Supported Devices

- Cyclone 10 GX
- Arria 10 GX

(* Please contact Macnica sales department about other devices.)

Deliverables

- Encrypted RTL (Verilog HDL)
- Reference design
- Firmware for CoaXPress/GenICam including XML generator
- Documents

Device Resource Utilization

- Please contact Macnica sales department.

Demo Environment

Image stream from pattern generator implemented in Arria 10 GX is transferred to PC via CoaXPress of 6.25Gbps x4 Connection.

Tested frame grabber board
- BitFlow Cyton-CXP (CYT-PC2-CXP4)
- AVAL DATA APX-3664
・Euresys Coaxlink Quad G3

PC with grabber board

Mpression
CoaXPress FMC
Card

6.25Gbps x 4

Intel Arria 10 GX Dev Kit

Arria 10 GX