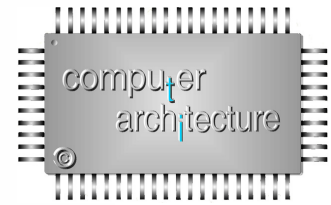


HT3

HTX3-Board and HT3-Core



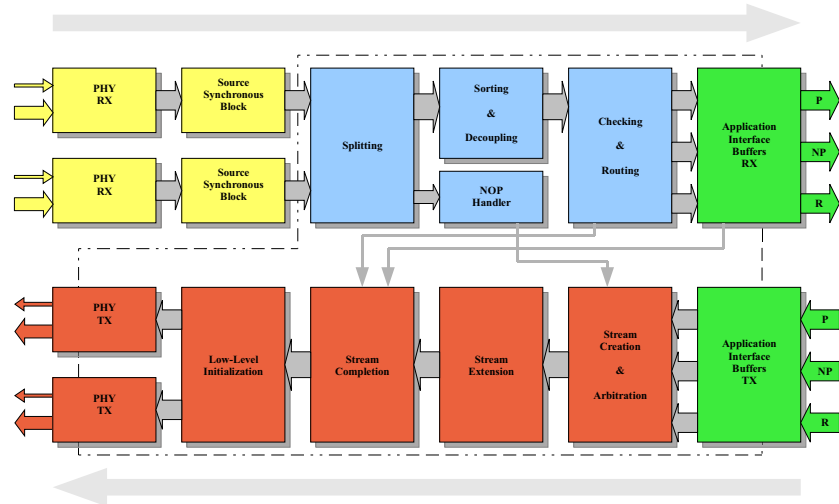
Description

The **HT3-Core** together with the **HTX3-Board** provides an efficient way to evaluate user specific devices by mapping the core and device modules to a programmable logic device connected to a HyperTransport™ Link. The HTX3-Board with the 16bit wide bidirectional HTX3 Interface can be plugged into any AMD Opteron™ processor node with an HTX connector.

The **HT3-Core** is a HyperTransport™ cave device. A cave is an end point device in a HyperTransport chain. The core is a high bandwidth device with a queue based application interface. The 2 GHz HT interface can deliver up to 8 GByte/s bidirectional bandwidth in 8 bit mode (qualified up to 1.6 GHz).

Features:

- Compliant with the HT 3.0c I/O Link Specification
- Suitable to connect a device to any AMD Opteron™ processor node via an HTX connector
- Up to 8GByte/s bidirectional bandwidth via a 2 GHz interface
- 8 bit wide HT interface
- Max. internal HT3 core clock frequency of 250MHz
- Internal data path width of 8 times the link width (64 bits)
- Convenient device interface
- HT interface implemented for transceivers
- Programmable core logic for the Altera Stratix IV FPGA series
- Fully synchronous design
- Efficient pipelined structure
- Synthesizable Verilog HDL code

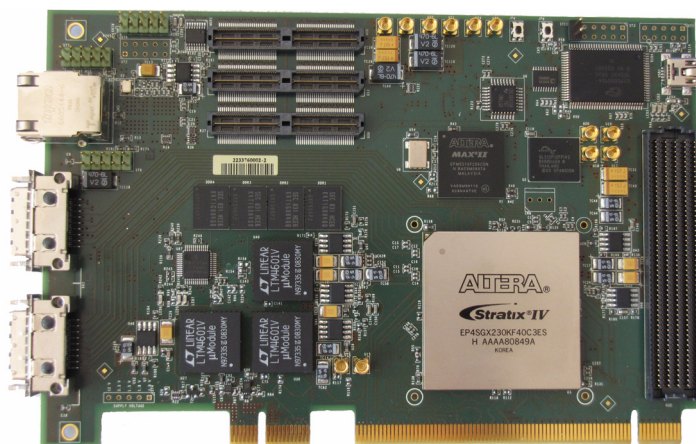


HT3-Core block diagram

The **HTX3-Board** combines the following items: a Stratix IV FPGA with 228k logic elements, several high speed serial links (to the HyperTransport interface and to two CX4 connectors), 256 MB onboard memory, Ethernet interface and USB2 connectivity via Mini-USB connector. Additional standard interfaces can be added to the board by using either the three Samtec QTH connectors or adding an extension board by using the Samtec SEAF connector. The board also provides a JTAG interface for programming.

Technical Specification:

- HTX3 Connector with 16bit bidirectional interface
- Stratix IV GX230
- 256 MB onboard DDR3-1066
- Marvell 88E1111 Ethernet
- USB2 via Cypress CY7C68013A
- 3 Samtec QTH connectors
- Samtec SEAF connector
- Two CX4 connectors
- Power supply with only 12V and 3.3V from HTX3 connector



HTX3-Board with Stratix IV FPGA