





# HyperLink Analyzer Kit for HyperLink IP

- ✓ General Purpose IO to control custom logic
- ✓ Real-time monitoring of Application performance
- ✓ Real-time monitoring of core performance/Individual transaction performance
- ✓ Local configuration registers
- ✓ Report link status
- ✓ Real time plotting of HyperLink transactions

The HyperLink Analyzer Kit is an evaluation solution providing enhanced debug and diagnostic capabilities for HyperLink system development. The HyperLink Analyzer Kit provides the ability to read local HyperLink configuration registers and monitor HyperLink application performance in real-time. The HyperLink Analyzer Kit consists of a HyperLink evaluation core, HyperLink Analyzer Hardware Module, and PC software application which includes a graphical user interface.

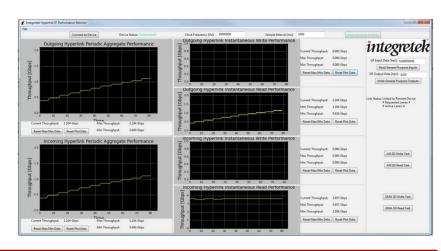
## **Evaluation Core and Sample Design**

The HyperLink evaluation core and sample design includes the following features:

- Hyperlink master state machine which configures the HyperLink core and User Front End (AXI/DMA) registers
- Write/Read data transfers mastered from the Hyperlink IP core via the User Front End (AXI/DMA) engine either:
  - With 950-PLUG-LB loop-back plug connected
  - With TI C667X DSP connected
- Core speed = 3.125Gbps/lane (quad = 12.5Gbps)
- · Mechanism to reconfigure DMA engine via HyperLink Analyzer general-purpose outputs
  - Allows reconfiguration of the number of chains
  - Allows reconfiguration of the length of each chain (all enabled chains equal in length)
- Sample design maximizes HyperLink throughput
- Coupled with the HyperLink Analyzer software, provides a mechanism to measure maximum core performance at any given DMA engine configuration

# HyperLink Analyzer Kit Software

The HyperLink Analyzer Kit is bundled with a PC software application which extends an easy to use graphical user interface. The GUI provides six real-time plots, as well as controls for specifying the desired periodic sample interval, system clock frequency, querying all HyperLink registers, and controlling the general purpose outputs and inputs.







# **HyperLink Analyzer Kit Hardware**

The HyperLink Analyzer Kit includes a HyperLink Analyzer Hardware Module which plugs onto the Integretek HyperLink Connectivity Cards (FMC-950/951 or HSMC-950/951). The Module provides a USB connection between a Windows based PC and the HyperLink evaluation platform.

#### **DELIVERABLES**

The HyperLink Analyzer Kit includes the following:

- •HyperLink Analyzer Module
- •HyperLink Evaluation Core
- •PC Application with GUI
- User Guide Documentation
- •Compilation, simulation, and programming ready example project

## **WARRANTY and SUPPORT**

The HyperLink Analyzer Kit includes a HyperLink Analyzer USB Module which is warranted against defect for one year from purchase delivery date. Optional product support agreements are available for support of your HyperLink development program.

## SUPPORTED DEVICES

The HyperLink Analyzer Kit is available for the following devices:

ALTERA: Arria 10 GX, Stratix V GX. Arria V GX,GT,GZ, Cyclone V GX XILINX: Kintex-7 GTX, Virtex-7 GTH, Artix-7 GTP

Additional device families are being added, please check the Integre website for the latest device list.

#### **COMPANION PRODUCTS**

Integre offers the following products to assist with your HyperLink development:

FMC-950/951 HyperLink Connectivity Card With LVDS for FMC Platforms HSMC-950/951 HyperLink Connectivity Card With LVDS for HSMC Platforms

950-PLUG-LB HyperLink Loopback Plug

#### **NOTES**

All trademarks are property of their respective owners.

<sup>\*</sup>Supported rates vary depending on FPGA family and device. Future products slated for 50Gbps performance.