PRODUCT BRIEF

SmartLynq+ Module

OVERVIEW

The SmartLynq+ module is built for high-speed debug and trace, primarily targeting designs using the Versal™ platform. Providing up to 28X faster configuration time via a high-speed debug port (HSDP), the SmartLynq+ module has much-improved configuration throughput performance to accelerate the development cycle. It supports both serial and parallel trace with up to 14GB of trace memory to capture a design execution history.

The SmartLynq+ module is compatible with Versal ACAP evaluation boards. Users have full visibility to the Versal™ architecture, including AI Engines, programmable network on chip (NoC), DDR memory controller, and 100G multirate Ethernet cores. Smart filtering with a software customizable built-in debugger enables remote access and sharing, making the SmartLynq+ module the most flexible debug product in the portfolio.

The SmartLynq+ module is an ideal debug and trace platform, enabling fast configuration, extensive trace capture, high visibility, and flexibility.

HIGHLIGHTS

Super-Fast Configuration Time

- 28X faster download speed vs. SmartLynq Data Cable
- Iterations reduced from minutes to seconds for the shorter debug cycle

High-Speed Trace with Enhanced Visibility

- 100X faster egress data capture vs. JTAG
- Industry's largest trace memory (up to 14GB)
- Continuous debug & trace visibility during boot

Full Visibility for Heterogeneous Architecture

- In-depth debug and trace for Versal architecture, including AI Engines, programmable NoC, DDR memory controller, and 100G multirate Ethernet cores
- Cohesive and time-correlated debug of all subsystems
- Daisy-chain mode to debug multiple devices on a single board

Flexible and Smart Debug Platform

- Smart filtering with software programmable built-in debugger for remote access and sharing
- A range of host and target connectivity options, including Ethernet, USB 3.0, HSDP (USB Type-C), GPIO, JTAG, and Mictor

TARGET USE CASES

- High-speed Versal ACAP programming
- High-speed flash memory programming
- Hardware debug
- Software debug
- Performance analysis
- Serial and parallel trace data capture

WHAT'S INSIDE

01	SmartLynq+ Debug & Trace Module
02	JTAG Ribbon Boot
03	USB Cable
04	JTAG Flying Wire Adapter Cable
05	GPIO Flying Lead Cable
06	Ethernet Cable
07	Power Supply
08	USB Type-C Cable
09	Micro SD Card

TAKE THE NEXT STEP

To learn more or purchase the SmartLynq+ module, visit www.xilinx.com/smartlynq-plus.

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Printed in the U.S.A. AC11-8-21