

## 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

01



02



03



- 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

04



05



06



07



08



09



TAKE THE NEXT STEP

To learn more or purchase the SmartLynq+ module, visit [www.xilinx.com/smartlynq-plus](http://www.xilinx.com/smartlynq-plus).

Corporate Headquarters

Xilinx, Inc.  
2100 Logic Drive  
San Jose, CA 95124  
USA  
Tel: 408-559-7778  
[www.xilinx.com](http://www.xilinx.com)

Xilinx Europe

Xilinx Europe  
Bianconi Avenue  
Citywest Business Campus  
Saggart, County Dublin  
Ireland  
Tel: +353-1-464-0311  
[www.xilinx.com](http://www.xilinx.com)

Japan

Xilinx K.K.  
Art Village Osaki Central Tower 4F  
1-2-2 Osaki, Shinagawa-ku  
Tokyo 141-0032 Japan  
Tel: +81-3-6744-7777  
[japan.xilinx.com](http://japan.xilinx.com)

Asia Pacific Pte. Ltd.

Xilinx, Asia Pacific  
5 Changi Business Park  
Singapore 486040  
Tel: +65-6407-3000  
[www.xilinx.com](http://www.xilinx.com)

India

Xilinx India Technology Services Pvt. Ltd.  
Block A, B, C, 8th & 13th floors,  
Meenakshi Tech Park, Survey No. 39  
Gachibowli(V), Seri Lingampally (M),  
Hyderabad -500 084  
Tel: +91-40-6721-4747  
[www.xilinx.com](http://www.xilinx.com)

