



Spartan™-3AN Non-volatile FPGA Starter Kit



ROHS Compliant

Device Evaluation: The Challenges in Getting Started

- High volume applications require efficient and accurate FPGA evaluation with rapid access to the device features, and easy-to-use development tools
- Reference designs that lower design risk, and save costs by reducing development time
- A quick, out-of-the-box set-up to get up-and-running immediately

Get a Jumpstart with the Spartan-3AN Starter Kit

- The Spartan-3AN Starter Kit is a complete, low-cost solution for quick evaluation
- The Starter Kit comes complete with an evaluation board, power supply, design tools, reference designs, and accessories to get you up and running in minutes

Xilinx helps you implement your Spartan-3AN FPGA designs in the shortest possible time with an evaluation board, free design tools and reference designs all in one starter kit.

Spartan-3AN FPGA: Delivering The Best of Both Worlds

The non-volatile Spartan-3AN platform brings together the low-cost, versatile functions of an SRAM-based FPGA with the security and ease-of-configuration characteristics of non-volatile FPGAs. Highly advanced on-chip security features help prevent reverse-engineering, cloning and overbuilding while reducing maintenance costs.

Harness the Spartan-3AN Advantages

The Spartan-3AN FPGA is a highly integrated, solution-optimized device with features that include: on-chip user Flash of up to 11Mb with 100K read/write cycles; Device DNA for IP-secure mechanisms; multiboot capabilities; 26 differential and single-ended I/O standards such as LVDS, RSDS, TMDS; connectivity IP solutions such as PCI™, PCI Express®, USB, and SPI; flexible power management, and much more.

Get Started Quickly with the Spartan-3AN Starter Kit!

The Spartan-3AN Starter Kit provides out-of-the-box functionality to quickly evaluate device features and implement your design. The Spartan-3AN Starter Kit includes an evaluation board with 10/100 Ethernet PHY, 64 Mbytes of DDR2 SDRAM, 4 Mbit Platform Flash, two 16Mbit SPI serial Flash, ADC and DAC circuitry, a 2x16 LCD display, connectors supporting high-speed I/O standards, and more.

No Cost, Versatile Design Tools

Spartan-3AN Starter Kit includes ISE™ WebPACK™ DVD, a free software development system for easy FPGA design that offers HDL synthesis and simulation, implementation, place-and-route, and JTAG programming. Users can go online to get updates with error-free downloading and single file installation.

Spartan-3AN Starter Kit Contents

Spartan-3AN Evaluation Board
USB download cable
Power supply
Quick Start Guide
ISE™ Design Tools Software DVD
Example Designs:
• Device DNA Reader - A unique production-stamped identifier for robust security
• Fractal display generator - Illustrates complex polynomial mathematical capabilities
• On-chip flash program - A program that illustrates how the internal flash is accessed



Evaluation Board Specification

Parameter	Description
Xilinx FPGA Device	
On-board Memory	4MBit Xilinx Platform Flash configuration PROM 4MByte parallel NOR Flash (2) 16 Mbit SPI Serial Flash
DDR2 Support	64MByte (512Mbit), 32M x 16 data interface.
I/O Connectors	High-speed differential I/O • Receiver: 6 data channels or five data channels plus clock • Transmitter: 6 data channels or five data channels plus clock Supports multiple differential I/O standards (eg. LVDS, RSDS, TMDS, PPDS, mini-LVDS) Supports 24 single-ended I/O
Additional Connectors	2, six-pin expansion connectors for Peripheral Modules (sold separately) 100-pin Hirose FX2 expansion connector with up to 43 FPGA user I/O SMA connector for clock inputs and outputs
USB Connector	For programming using supplied USB cable
ADC / DAC	2 channel SPI-based ADC with programmable gain 4 channel SPI-based DAC
Serial Ports	2, nine-pin RS232 (DTE and DCE-style)
User Interface	PS/2 port for mouse or keyboard
Display Interface	VGA display port, 12-bit color Two-line, 16 character LCD display
Ethernet	10/100 Ethernet PHY (requires Ethernet MAC in FPGA)
External Oscillator	133MHz socketed external oscillator
Audio Interface	Stereo audio jack using digital I/O pins
Switches / Knobs	Rotary-encoder knob with push-button shaft Four slide switches Four push button switches
LED	Eight discrete LEDs
Power	5.0 V DC, 1A
RoHS Compliance	Yes
Board Size	6.7" x 7.3" x 1.2" (170mm x 185mm 30mm)
Starter Kit Part Number	HW-SPAR3AN-SK-UNI-G

Finish Faster With Pre-verified Reference Designs

A set of reference designs are pre-loaded on the evaluation board to access device capabilities immediately on start-up. Easy and intuitive prompts let you seamlessly multiboot from one configuration to another.

Take the Next Step

Order online today to get your low-cost Spartan-3AN Starter Kit!

www.xilinx.com/S3ANstarter.



Corporate Headquarters

Xilinx, Inc.
2100 Logic Drive
San Jose, CA 95124
USA
Tel: 408-559-7778
Web: www.xilinx.com

Europe

Xilinx Europe
One Logic Drive
Citywest Business Campus
Saggart, County Dublin
Ireland
Tel: +353-1-464-0311
Web: 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
Web: japan.xilinx.com

Asia Pacific Pte. Ltd.

Xilinx, Asia Pacific
No. 3 Changi Business Park Vista, #04-01
Singapore 486051
Tel: +65-6544-8999
Web: www.xilinx.com



www.xilinx.com