

EasyPath FPGAs FAQ

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What are EasyPath FPGAs?

Xilinx EasyPath FPGAs are the industry's only design-specific FPGA solution that offers a simple cost reduction path for complex platform FPGA designs. Xilinx EasyPath FPGAs offer a seamless, low NRE, risk free way to easily migrate your designs without ASIC conversion, re-qualification or other engineering effort. The EasyPath FPGA enables a 12 week lead time from design completion to volume production with the flexibility to revert back to the standard FPGA if system changes are required. The unique two-bitstream option (additional costs apply) allows customers to run two applications on a single device.

What devices are supported by the EasyPath program?

With the addition of Virtex-5 LX, LXT and SXT FPGA families, Xilinx now offers the widest selection of silicon platforms in the industry that also includes the Virtex 4 (LX, SX and FX), and Virtex-II Pro platforms.

Shown below, Xilinx EasyPath FPGAs are available in a wide offering of platforms. They come with the most robust design ecosystem in the industry, including a portfolio of industry-leading soft and hard IP, easy-to-use design tools, services and support. Moreover, EasyPath FPGAs offer the same silicon, packages, resources, IOs, timing, as their standard FPGA counterparts.

Virtex-5			Virtex-4			Virtex-II Pro
LX	LXT	SXT	LX	SX	FX	
XC5VLX85	XC5VLX85T	XC5VVSX50T	XC4VLX40	XC4VSX35	XC4FX40	XC2VP30
XC5VLX110	XC5VLX110T	XC5VVSX95T	XC4VLX80	XC4VSX55	XC4FX60	XC2VP40
XC5VLX155	XC5VLX155T		XC4VLX100		XC4FX100	XC2VP50
XC5VLX220	XC5VLX220T		XC4VLX100		XC4FX140	XC2VP70
XC5VLX330	XC5VLX330T		XC4VLX160			XC2VP100
			XC4VLX200			

What flexibility features are available with EasyPath FPGAs?

For Virtex-5 and Virtex-4 EasyPath FPGAs only, designers can deploy EasyPath FPGAs that support two designs. Xilinx will test EasyPath FPGAs to both designs so that the single device can be configured and used in production with two bitstreams. The customer must provide both bitstreams (which must share the same pin-out) at design submittal.

What cost advantages do EasyPath FPGAs offer?

Xilinx EasyPath FPGAs provide a 30-70% unit cost advantage over standard Xilinx FPGAs. Because EasyPath FPGAs do not require the production of new custom mask sets, EasyPath FPGAs provide much lower NRE charges than ASIC devices.

The only NRE expense for EasyPath FPGAs is that which is required to create the design-specific test program using Xilinx's patented automated test vector generation process.

Freed from the burden of ASIC conversion, designs that begin with an FPGA prototype can migrate to volume production without the costs associated with logic and IP conversion, system re-qualification, engineering time, and re-spin risk. EasyPath FPGAs use the exact same silicon and packaging as standard FPGAs.

Cost Drivers	EasyPath	S-ASIC	ASIC
Unit Price	Low	Lower	Lowest
NRE	< \$100K	< \$500K	\$500K – \$1M+
Time to Volume	< 1 Qtr	2 – 4 Qtr	> 4 Qtr
Qualification Cost	None	High	High
Respin Probability	None	Often	Very Often

When would designers use EasyPath FPGAs versus another solution from Xilinx?

EasyPath FPGAs are a natural extension of Xilinx traditional FPGA products. Customers use EasyPath FPGAs to achieve lower unit costs for volume production once they know their design is complete and no longer requires the full programmability of a standard FPGA.

Is this a configurable device?

Yes. EasyPath FPGAs, having identical silicon as standard FPGAs, still need to be configured at power-up with their tested, design-specific bitstreams. In addition, capabilities such as “In-System ECOs” (Virtex 4 only) and “Two Designs per Device” (Virtex 4 and 5) leverage FPGA configurability that is not feasible in ASIC devices.

Is Xilinx ready to take EasyPath FPGA orders today?

Yes, EasyPath FPGAs are in production today with lead times from design submission to volume production shipments in just 12 weeks. Virtex-4, and Virtex-II Pro EasyPath FPGAs are available in production now. Customers can also begin their Virtex-5 FPGA designs today and migrate to EasyPath FPGA devices in the second half of 2008.

What is the lead-time today between order and delivery for EasyPath FPGAs?

Because no custom masks are created, EasyPath FPGAs deliver volume production in half the time of other approaches. EasyPath FPGAs enable customers to move from design completion to volume production - not just prototypes - in just 12 weeks.