



Say hello to a new level of performance; the Spartan-II family now includes devices with over 200,000 system gates, and you get 100,000 system gates for under \$10, at speeds of 200Mhz and beyond, giving you design flexibility that's hard to beat. These low-powered, 2.5-V devices feature I/Os that operate at up to 3.3V with full 5-V tolerance. Spartan-II devices also feature multiple Delay Locked Loops, on-chip RAM (block and distributed), and versatile I/O technology that supports over 16 high-performance interface standards. You get all this in an FPGA that offers unlimited programmability, and can even be upgraded in the field, remotely, over any network.

### Robust Feature Set

- Flexible on-chip distributed and block memory.
- Four digital Delay Locked Loops for efficient chip-level/board-level clock management.
- Select I/O Technology for interfacing with all major bus standards such as HSTL, GTL, SSTL, and so on.
- Full PCI compliance.
- System speeds over 200 MHz.
- Power management.

### Extensive Design Support

- Complete suite of design tools.
- Extensive core support.
- Compile designs in minutes.

### Advantages Over ASICs

- No costly NRE charges.
- No time consuming vector generation needed.
- All devices are 100% tested by Xilinx.
- Field upgradeable (remotely upgradeable, using Xilinx Online technology).
- No lengthy prototype or production lead times.
- Priced aggressively against comparable ASICs.

*For more information see [www.xilinx.com/products/spartan2](http://www.xilinx.com/products/spartan2)*

FPGA Product Selection Matrix															
FPGA Product Selection Matrix	KEY FEATURES	DENSITY							FEATURES						
		Logic Cells	Maximum Logic Gates	Typical System Gate Range	Max. RAM Bits	CLB Matrix	CLBs	Flip-Flops	Max. I/O	Output Drive (mA)	PCI Compliant	1.8 Volt	2.5 Volt	3.3 Volt	5.0 Volt
XCS05	Spartan Family: High Volume ASIC Replacement/ High Performance/ SelectRAM Memory	238	3K	2K-5K	3K	10x10	100	360	77	12	Y	-	-	-	X
XCS10		466	5K	3K-10K	6K	14x14	196	616	112	12	Y	-	-	-	X
XCS20		950	10K	7K-20K	13K	20x20	400	1120	160	12	Y	-	-	-	X
XCS30		1368	13K	10K-30K	18K	24x24	576	1536	192	12	Y	-	-	-	X
XCS40		1862	20K	13K-40K	25K	28x28	784	2016	205	12	Y	-	-	-	X
XCS05XL	Spartan-XL Family: High Volume ASIC Replacement/ High Performance/ SelectRAM Memory	238	3K	2K-5K	3K	10x10	100	360	77	12/24	Y	-	-	X	*
XCS10XL		466	5K	3K-10K	6K	14x14	196	616	112	12/24	Y	-	-	X	*
XCS20XL		950	10K	7K-20K	13K	20x20	400	1120	160	12/24	Y	-	-	X	*
XCS30XL		1368	13K	10K-30K	18K	24x24	576	1536	192	12/24	Y	-	-	X	*
XCS40XL		1862	20K	13K-40K	25K	28x28	784	2016	224	12/24	Y	-	-	X	*
XC2S15	Spartan-II Family: High Volume BlockRAM Distributed RAM Select/O 4 DLLs	432	8K	6K-15K	22K	8x12	96	384	86	2/24	Y	-	X	I/O	*
XC2S30		972	17K	13K-30K	36K	12x18	216	864	132	2/24	Y	-	X	I/O	*
XC2S50		1728	30K	23K-50K	56K	16x24	384	1536	176	2/24	Y	-	X	I/O	*
XC2S100		2700	53K	37K-100K	78K	20x30	600	2400	196	2/24	Y	-	X	I/O	*
XC2S150		3888	77K	52K-150K	102K	24x36	864	3456	260	2/24	Y	-	X	I/O	*
XC2S200		5292	103K	71K-200K	130K	28x42	1,176	4704	284	2/24	Y	-	X	I/O	*

\* I/Os are tolerant  
X = Core and I/O voltage  
I/Os = I/O voltage supported