





## Product Selection Matrix

	System Gates	Macrocells	Product terms per Macrocell	Input Voltage Compatible	Output Voltage Compatible	I/O Features		Speed				Clocking		
						Maximum I/O	I/O Banking	Min. Pin-to-pin Logic Delay (ns)	Commercial Speed Grades (fastest to slowest)	Industrial Speed Grades (fastest to slowest)	IQ Speed Grade	Global Clocks	Product Term Clocks per Function Block	
<b>CoolRunner-II Family – 1.8 Volt</b>														
	XC2C32	750	32	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	33	1	3	-3 -4 -6	-6	-6	3	17
	XC2C64	1500	64	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	64	1	4	-4 -5 -7	-7	-7	3	17
	XC2C128	3000	128	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	100	2	4.5	-4 -6 -7	-7	-7	3	17
	XC2C256	6000	256	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	184	2	5	-5 -6 -7	-7	-7	3	17
	XC2C384	9000	384	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	240	4	6	-6 -7 -10	-10	-10	3	17
	XC2C512	12000	512	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	270	4	6	-6 -7 -10	-10	-10	3	17
<b>CoolRunner XPLA3 Family – 3.3 Volt</b>														
	XCR3032XL	750	32	48	3.3/5	3.3	36		5	-5 -7 -10	-7 -10	-10	4	16
	XCR3064XL	1500	64	48	3.3/5	3.3	68		6	-6 -7 -10	-7 -10	-10	4	16
	XCR3128XL	3000	128	40	3.3/5	3.3	108		6	-6 -7 -10	-7 -10	-10	4	16
	XCR3256XL	6000	256	48	3.3/5	3.3	164		7.5	-7 -10 -12	-10 -12	-12	4	16
	XCR3384XL	9000	384	48	3.3/5	3.3	220		7.5	-7 -10 -12	-10 -12	-12	4	16
	XCR3512XL	12000	512	48	3.3/5	3.3	260		7.5	-7 -10 -12	-10 -12	-12	4	16
<b>XC9500XV Family – 2.5 Volt</b>														
	XC9536XV	800	36	90	2.5/3.3	1.8/2.5/3.3	36	1	5	-5 -7	-7	NA	3	18
	XC9572XV	1600	72	90	2.5/3.3	1.8/2.5/3.3	72	1	5	-5 -7	-7	NA	3	18
	XC95144XV	3200	144	90	2.5/3.3	1.8/2.5/3.3	117	2	5	-5 -7	-7	NA	3	18
	XC95288XV	6400	288	90	2.5/3.3	1.8/2.5/3.3	192	4	6	-6 -7 -10	-7 -10	NA	3	18
<b>XC9500XL Family – 3.3 Volt</b>														
	XC9536XL	800	36	90	2.5/3.3/5	2.5/3.3	36		5	-5 -7 -10	-7 -10	-10	3	18
	XC9572XL	1600	72	90	2.5/3.3/5	2.5/3.3	72		5	-5 -7 -10	-7 -10	-10	3	18
	XC95144XL	3200	144	90	2.5/3.3/5	2.5/3.3	117		5	-5 -7 -10	-7 -10	NA	3	18
	XC95288XL	6400	288	90	2.5/3.3/5	2.5/3.3	192		6	-6 -7 -10	-7 -10	NA	3	18

## Package Options and User I/O

Pins	Body Size	CoolRunner-II					CoolRunner XPLA3					XC9500XV				XC9500XL				
		XC2C32	XC2C64	XC2C128	XC2C256	XC2C384	XC2C512	XCR3032XL	XCR3064XL	XCR3128XL	XCR3256XL	XCR3384XL	XCR3512XL	XC9536XV	XC9572XV	XC95144XV	XC95288XV	XC9536XL	XC9572XL	XC95144XL
<b>PLCC Packages (PC) – wire-bond plastic chip carrier (1.27mm lead spacing)</b>																				
44	16.5 x 16.5 mm	33	33				36	36					34	34				34	34	
<b>PQFP Packages (PQ) – wire-bond plastic QFP (0.5mm lead spacing)</b>																				
208	28 x 28 mm				173	173	173						164	172	180		168			168
<b>VQFP Packages (VQ) – very thin TQFP (0.5mm lead spacing)</b>																				
44	10 x 10 mm	33	33				36	36					34	34				34	34	
64	10 x 10 mm																	36	52	
100	14 x 14 mm		64	80	80				68	84										
<b>TQFP Packages (TQ) – thin QFP (0.5mm lead spacing)</b>																				
100	14 x 14 mm															72	81		72	81
144	20 x 20 mm			100	118	118					108	120	118*			117	117		117	117
<b>Chip Scale Packages (CP) – wire-bond chip-scale BGA (0.5 mm ball spacing)</b>																				
56	6 x 6 mm	33	45								48									
132	8 x 8 mm			100	106															
<b>Chip Scale Packages (CS) – wire-bond chip-scale BGA (0.8 mm ball spacing)</b>																				
48	7 x 7 mm						36	40					36	38				36	38	
144	12 x 12 mm										108					117				117
280	16 x 16 mm												164				192			192
<b>BGA Packages (BG) – wire-bond standard BGA (1.27 mm ball spacing)</b>																				
256	27 x 27 mm																			192
<b>FGA Packages (FT) – wire-bond fine-pitch thin BGA (1.0 mm ball spacing)</b>																				
256	17 x 17 mm												184	212	212			164	212	212
<b>FBGA Packages (FG) – wire-bond Fine-line BGA (1.0 mm ball spacing)</b>																				
256	17 x 17 mm																			192
324	23 x 23 mm																			240

\* JTAG pins and port enable are not pin compatible in this package for this member of the family  
Important: Verify all data in this document with the device data sheet at: <http://www.xilinx.com/partinfo/databook.htm>.

Automotive products are highlighted: -40C to +125C ambient temperature for CPLDs

