

PACKAGE OPTIONS AND USER I/O

PRODUCT SELECTION MATRIX

Body Size		CoolRunner-II					CoolRunner XPLA3					XC9500XV				XC9500XL					
		XC2C32	XC2C64	XC2C128	XC2C256	XC2C384	XC2C512	XC3R3032XL	XC3R3064XL	XC3R3128XL	XC3R3256XL	XC3R3384XL	XC3R3512XL	XC9536XV	XC9572XV	XC95144XV	XC95288XV	XC9536XL	XC9572XL	XC95144XL	XC95288XL
PLCC Packages (PC)																					
44	16.5 x 16.5 mm	33	33					36	36				34	34			34	34			
PQFP Packages (PQ)																					
208	28 x 28 mm			173	173	173				164	172	180				168				168	
VQFP Packages (VQ)																					
44	12 x 12 mm	33	33					36	36				34	34			34	34			
64	12 x 12 mm																36	52			
100	16 x 16 mm		64	80	80			68	84												
TQFP Packages (TQ)																					
100	14 x 14 mm												72	81			72	81			
144	20 x 20 mm			100	118	118			108	120	118*			117	117			117	117		
Chip Scale Packages (CP) — wire-bond chip-scale BGA (0.5 mm ball spacing)																					
56	6 X 6 mm	33	45					48													
132	8 X 8 mm			100	106																
Chip Scale Packages (CS) — wire-bond chip-scale BGA (0.8 mm ball spacing)																					
48	7 x 7mm						36	40					36	38			36	38			
144	12 x 12 mm							108						117				117			
280	16 x 16 mm								164						192					192	
BGA Packages (BG) — wire-bond standard BGA (1.27 mm ball spacing)																					
256	27 x 27 mm																			192	
FGA Packages (FT) — wire-bond fine-pitch thin BGA (1.0 mm ball spacing)																					
256	17 x 17 mm			184	212	212			164	212	212										
FBGA Packages (FG) — wire-bond Finline BGA (1.0 mm ball spacing)																					
256	17 x 17 mm													192						192	
324	23 x 23 mm				240	270					220	260									

	System Gates	Macrocells	Product terms per Macrocell	Input Voltage Compatible	Output Voltage Compatible	I/O Features		Speed			Clocking	
						Max. I/O	I/O Banking	Min. Pin-to-Pin Logic Delay (ns)	Commercial Speed Grades (fastest to slowest)	Industrial Speed Grades (fastest to slowest)	Global Clocks	Product Term Clocks per Function Block
CoolRunner-II Family — 1.8 Volt												
<i>CoolRunner-II</i>	XC2C32	750	32	40	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	33	1	3.5	-3 -4 -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	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	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	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	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	3 17
CoolRunner XPLA3 Family — 3.3 Volt												
<i>CoolRunner XPLA3</i>	XC3R3032XL	750	32	48	3.3/5	3.3	36	5	5	-5 -7 -10	-7 -10	4 16
	XC3R3064XL	1500	64	48	3.3/5	3.3	68	6	6	-6 -7 -10	-7 -10	4 16
	XC3R3128XL	3000	128	48	3.3/5	3.3	108	6	6	-6 -7 -10	-7 -10	4 16
	XC3R3256XL	6000	256	48	3.3/5	3.3	164	7.5	7.5	-7 -10 -12	-10 -12	4 16
	XC3R3384XL	9000	384	48	3.3/5	3.3	220	7.5	7.5	-7 -10 -12	-10 -12	4 16
	XC3R3512XL	12000	512	48	3.3/5	3.3	260	7.5	7.5	-7 -10 -12	-10 -12	4 16
XC9500XV Family — 2.5 Volt												
<i>XC9500XV</i>	XC9536XV	800	36	90	2.5/3.3	1.8/2.5/3.3	36	1	5	-5 -7	-7	3 18
	XC9572XV	1600	72	90	2.5/3.3	1.8/2.5/3.3	72	1	5	-5 -7	-7	3 18
	XC95144XV	3200	144	90	2.5/3.3	1.8/2.5/3.3	117	2	5	-5 -7	-7	3 18
	XC95288XV	6400	288	90	2.5/3.3	1.8/2.5/3.3	192	4	6	-6 -7 -10	-7 -10	3 18
XC9500XL Family — 3.3 Volt												
<i>XC9500XL</i>	XC9536XL	800	36	90	2.5/3.3/5	2.5/3.3	36	5	5	-5 -7 -10	-7 -10	3 18
	XC9572XL	1600	72	90	2.5/3.3/5	2.5/3.3	72	5	5	-5 -7 -10	-7 -10	3 18
	XC95144XL	3200	144	90	2.5/3.3/5	2.5/3.3	117	5	5	-5 -7 -10	-7 -10	3 18
	XC95288XL	6400	288	90	2.5/3.3/5	2.5/3.3	192	6	6	-6 -7 -10	-7 -10	3 18

*JTAG pins and port enable are not pin compatible in this package for this member of the family.
Important: Verify all Data with Device Data Sheet and Product Availability with your local Xilinx Rep

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

