

		CoolRunner-II Family					
		Part Number	XA2C32A	XA2C64A	XA2C128	XA2C256	XA2C384
Logic Resources	System Gates	750	1,500	3,000	6,000	9,000	
	Macrocells	32	64	128	256	384	
	Product terms per Macrocell	56	56	56	56	56	
Clock Resources	Global Clocks	3	3	3	3	3	
	Product Term Clocks per Function Block	16	16	16	16	16	
I/O Resources	Maximum I/O	33	64	100	118	118	
	Input Voltage Compatible (V)	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	
	Output Voltage Compatible (V)	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	1.5/1.8/2.5/3.3	
Speed Grades	Min. pin-to-pin Logic Delay (ns)	5.5	6.7	7.0	7.0	9.2	
	Automotive I Speed Grades	-6	-7	-7	-7	-10	
	Automotive Q Speed Grades	-7	-8	-8	-8	-11	
Miscellaneous	Temperature Grades ⁽¹⁾	I, Q	I, Q	I, Q	I, Q	I, Q	
	RoHS (Pb-free)	Yes	Yes	Yes	Yes	Yes	
	XA Released	Yes	Yes	Yes	Yes	Yes	

Package	Area ⁽²⁾	Maximum User I/Os				
VQFP Packages (VQ): very thin QFP (VQG44: 0.8 mm lead spacing, VQG64 and VQG100: 0.5 mm lead spacing)						
VQG44	12 x 12 mm	33	33			
VQG64	12 x 12 mm					
VQG100	16 x 16 mm		64	80	80	
TQFP Packages (TQ): thin QFP (0.5 mm lead spacing)						
TQG100	16 x 16 mm					
TQG144	22 x 22 mm				118	118
Chip Scale Packages (CP): wire-bond chip-scale BGA (0.5 mm ball spacing)						
CPG132	8 x 8 mm			100		
Chip Scale Packages (CS): wire-bond chip-scale BGA (0.8 mm ball spacing)						
CSG144	12 x 12 mm					

Notes: 1. Temp Grade XA CPLD Automotive I (T_a = -40°C to +85°C); Automotive Q (T_a = -40°C to +105°C with T_j maximum = +125°C).

2. Area dimensions for lead-frame products are inclusive of the leads.