

		Spartan-3A				
		Part Number	XA3S200A	XA3S400A	XA3S700A	XA3S1400A
Logic Resources	System Gates ⁽¹⁾	200K	400K	700K	1400K	
	Slices ⁽²⁾	1,792	3,584	5,888	11,264	
	Logic Cells	4,032	8,064	13,248	25,344	
	CLB Flip-Flops	3,584	7,168	11,776	22,528	
Memory Resources	Maximum Distributed RAM (Kbits)	28	56	92	176	
	Block RAM Blocks	16	20	20	32	
	Total Block RAM (Kbits)	288	360	360	576	
Clock Resources	Digital Clock Managers (DCMs) – S3/DLLs – S1IE	4	4	8	8	
I/O Resources	Maximum Single Ended I/Os	195	311	372	375	
	Maximum Differential I/O Pairs	90	142	165	165	
	I/O Standards Supported	LVTTL, LVCMOS33, LVCMOS25, LVCMOS18, LVCMOS15, LVCMOS12, HSTL15 Class I, HSTL15 Class III, HSTL18 Class I, HSTL18 Class II, HSTL18 Class III, PCI 3.3V 32/64bit 33MHz, 3.3V, SSTL3 Class I, SSTL3 Class II, SSTL2 Class I, SSTL2 Class II, SSTL18 Class I, SSTL18 Class II, Bus LVDS, LVDS25 & 33, LVPECL25 & 33, Mini-LVDS25 & 33, RSDS25 & 33, TMDS25 & 33, PPDS25 & 33				
Embedded Hard IP Resources	DSP48A Slices	—	—	—	—	
	Dedicated Multipliers	16	20	20	32	
	Device DNA Security	Yes	Yes	Yes	Yes	
Miscellaneous	Temperature Range ⁽⁴⁾	I, Q	I, Q	I, Q	I, Q	
	Speed Grade	-4	-4	-4	-4	
	RoHS (Pb-free)	Yes	Yes	Yes	Yes	
	XA Released	Yes	Yes	Yes	Yes	
Configuration	Configuration Memory Bits (Mbits)	1.2	1.9	2.7	4.8	

Package	Area	Maximum User I/Os			
VQFP Packages (VQ): very thin QFP (0.5 mm lead spacing)					
VQG100	16 x 16 mm				
Chip Scale Packages (CP): wire-bond chip-scale BGA (0.5 mm ball spacing)					
CPG132	8 x 8 mm				
TQFP Packages (TQ): thin QFP (0.5 mm lead spacing)					
TQG144 ⁽⁵⁾	22 x 22 mm				
PQFP Packages (PQ): wire-bond plastic QFP (0.5 mm lead spacing)					
PQG208	30.6 x 30.6 mm				
FGA Packages (FT): wire-bond fine-pitch thin BGA (1.0 mm ball spacing)					
FTG256 ⁽⁵⁾	17 x 17 mm	195	195		
Chip Scale Packages (CS): wire-bond chip-scale BGA (0.8 mm ball spacing)					
CSG484	19 x 19 mm				
FGA Packages (FG): wire-bond fine-pitch BGA (1.0 mm ball spacing)					
FGG400	21 x 21 mm		311	311	
FGG456	23 x 23 mm				
FGG484	23 x 23 mm			372	375
FGG676	27 x 27 mm				

Notes: 1. System Gates include 20%-30% of CLBs used as RAMs. 2. Each slice comprises two 4-input logic function generators (LUTs), two storage elements, wide-function multiplexers, and carry logic. 3. Integrated in the DSP48A slices (Advanced Multiply Accumulate element). 4. Temperature Range Automotive I (T_j = -40°C to +100°C); Automotive Q (T_j = -40°C to +125°C). 5. Spartan-1IE is not offered in "G" (Pb-free) packages.