

	Part Number	XC3SD1800A	XC3SD3400A
Logic Resources	System Gates ⁽¹⁾	1800K	3400K
	Slices ⁽²⁾	16,640	23,872
	Logic Cells	37,440	53,712
	CLB Flip-Flops	33,280	47,744
Memory Resources	Maximum Distributed RAM (Kbits)	260	373
	Block RAM Blocks	84	126
	Total Block RAM (Kbits)	1,512	2,268
Non-Volatile Capability	Single Chip Option	No	No
	User Flash (Kbits) ^(3,6)	—	—
Clock Resources	Digital Clock Managers (DCMs)	8	8
I/O Resources	Maximum Single Ended I/Os	519	469
	Maximum Differential I/O Pairs	227	213
	I/O Standards Supported	LVTTTL, 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, PCI 3.3V 64bit/66MHz, PCI-X 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, TMDS33, PPDS25 & 33	
Embedded Hard IP Resources	Multipliers/DSP48A Blocks	0/84 ⁽⁴⁾	0/126 ⁽⁴⁾
	Device DNA Security	Yes	Yes
Speed Grades	Commercial	-4, -5	-4, -5
	Industrial	-4 ⁽⁵⁾	-4 ⁽⁵⁾
Configuration	Configuration Memory Bits (Kbits)	8.2	11.7
	Package ⁽⁷⁾	Size	Maximum User I/Os
	VQFP Packages (VQ): very thin QFP (0.5 mm lead spacing)		
	VQ100	16 x 16 mm	
	TQFP Packages (TQ): thin QFP (0.5 mm lead spacing)		
	TQ144	22 x 22 mm	
	FGA Packages (FT): wire-bond fine-pitch thin BGA (1.0 mm ball spacing)		
	FT256	17 x 17 mm	
	Chip Scale Packages (CS): wire-bond chip-scale BGA (0.8 mm ball spacing)		
	CS484	19 x 19 mm	309 ⁽⁵⁾ 309 ⁽⁵⁾
	FGA Packages (FG): wire-bond fine-pitch BGA (1.0 mm ball spacing)		
	FG320	19 x 19 mm	
	FG400	21 x 21 mm	
	FG484	23 x 23 mm	
	FG676	27 x 27 mm	519 469

- 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. User Flash is the space left in the on-chip Flash after a portion is used to store configuration bitstream 4. Integrated in the DSP48A slices (Advanced Multiply Accumulate element) 5. The L low-power option is exclusively available in CS(G)484 package and Industrial temperature range 6. Spartan-3AN only 7. All products available Pb-free and RoHS-Compliant, check datasheet for Pb package availability 8. Single chip non-volatile option available for this package