

# Device Selection Guide

	Usable Gates (K)	Logic Gates	System Gates (see note 1)	Logic Cells (see note 2)	Total CLBs	Total Flip-Flops	Max. I/O Package	Max. RAM Bits	Config. Memory (K Bits)	XC1700 Serial PROM Req.
<b>XC4000XV Family - 2.5 Volt</b>										
<b>.25µm Five Layer Metal Process</b>										
XC40110XV	75-200	110K	220K	9,728	4,096	8,704	432	131.1K	2,488	XC1704L
XC40150XV	100-300	150K	300K	12,312	5,184	11,520	448	165.9K	3,373	XC1704L
XC40200XV	130-400	200K	400K	16,758	7,056	15,456	432	225.8K	4,551	XC1704L & XC17512L
XC40250XV	160-500	250K	500K	20,102	8,464	18,400	448	270.9K	5,434	XC1704L & XC1702L
<b>Spartan Family - 5 Volt and 3.3 Volt (XL)</b>										
<b>Advanced .5µm &amp; .35µm (XL) Process</b>										
XCS05/XL	2-5	3K	5K	238	100	360	77	3.2K	54	XC17505 (XL)
XCS10/XL	3-10	5K	10K	466	196	616	112	6.3K	95	XC17510 (XL)
XCS20/XL	7-20	10K	20K	950	400	1,120	160	12.8K	179	XC17520 (XL)
XCS30/XL	10-30	13K	30K	1,368	576	1,536	192	18.4K	249	XC17530 (XL)
XCS40/XL	13-40	20K	40K	1,862	784	2,016	224	25.1K	330	XC17540 (XL)
<b>Virtex - 2.5 Volt</b>										
XCV50	20-50	20K	50K	1,728	384	1,536	180	57K	559	XC1701L
XCV100	30-100	30K	100K	2,700	600	2,400	196	79K	781	XC1701L
XCV150	45-150	45K	150K	3,888	864	3,456	260	104K	1,040	XC1701L
XCV200	60-200	60K	200K	5,292	1,176	4,704	284	133K	1,335	XC1702L
XCV300	80-300	80K	300K	6,912	1,536	6,144	324	164K	1,751	XC1702L
XCV400	130-400	130K	400K	10,800	2,400	9,600	404	236K	2,546	XC1704L
XCV600	185-600	185K	600K	15,552	3,456	13,824	500	319K	3,608	XC1704L
XCV800	250-800	250K	800K	21,168	4,704	18,816	510	416K	4,715	XC1704L & XC1701L
XCV1000	330-1M	330K	1M	27,648	6,144	24,576	510	524K	6,127	XC1704L & XC1702L

QPRO™ High-Reliability QML Products	Usable Gates (K)	Logic Gates	System Gates (see note 1)	Logic Cells (see note 2)	Total CLBs	Total Flip-Flops	Max. I/O Package	Max. RAM Bits (k)	Config. Memory (K Bits)	XC/QQ PROM Req.
<b>XC4000EX Family - 5 Volt</b>										
<b>.5µm Triple Layer Metal Process</b>										
XQ4005E	3-9	5	9	466	196	616	112	6.3	9.5	XC17256D
XQ4010E	7-20	10	20	950	400	1,120	160	12.8	178	XC17256D
XQ4013E	10-30	13	30	1,368	576	1,536	192	18.4	248	XC17256D
XQ4025E	15-45	25	45	2,432	1,024	2,560	256	32.7	422	XC17526Dx2
XQ4028EX	18-50	28	50	2,432	1,024	2,560	256	32.7	422	XC17256Dx2
<b>XC4000XL Family - 3.3 Volt</b>										
<b>Advanced .35µm Five Layer Metal Process</b>										
XQ4013XL	10-30	13	30	1,368	576	1,536	192	18.4	393	XQ1701L
XQ4036XL	22-65	36	65	3,078	1,296	3,168	288	41.5	833	XQ1701L
XQ4062XL	40-130	62	130	5,472	2,304	5,376	384	73.8	1,434	XQ1701Lx2
XQ4085XL	55-180	85	180	7,448	3,136	7,168	448	100.4	1,925	XQ1701Lx2
<b>XC4000XL Family - 3.3 Volt</b>										
<b>.25µm Five Layer Metal Process</b>										
XQV100	30-100	30	100	2,700	600	2,400	180	79	781	XQ1701L
XQV300	80-300	80	300	6,912	1,536	6,144	316	164	1,751	XQ1701Lx2 or XQ1704L
XQV600	185-600	185	600	15,552	3,456	13,824	500	319	3,608	
XQV1000	330-1M	330	1M	27,648	6,144	24,576	512	524	6,128	

Serial PROM Package Options										
	Density	Pd8	SO8	VO8	PC20	SO20	VQ44	3 Volt	5 Volt	
XC1736E	36K	Y	Y	Y	Y					Y
XC1765E (EL)	65K	Y	Y	Y	Y			Y (EL)		Y
XC17128E (EL)	128K	Y		Y	Y			Y (EL)		Y
XC17256E (EL)	256K	Y		Y	Y			Y (EL)		Y
XC17512L	512K	Y			Y	Y		Y		
XC1701	1M	Y			Y	Y				Y
XC1701L	1M	Y			Y	Y		Y		
XC1702L	2M						Y	Y		
XC1704L	4M						Y	Y		
XC17505	54K	Y		Y						Y
XC17505XL	55K	Y		Y				Y		
XC17510	95K	Y		Y						Y
XC17510XL	96K	Y		Y				Y		
XC17520	178K	Y		Y						Y
XC17520XL	179K	Y		Y				Y		
XC17530	248K	Y		Y						Y
XC17530XL	249K	Y		Y				Y		
XC17540	329K	Y					Y			Y
XC17540XL	331K	Y				Y		Y		

Speed Grade Options				
	Density	DD8	CC44	SO20
XQ17256D	256K	Y	-	-
XQ1701L	1M	-	Y	Y
XQ1704L	4M	-	Y	Y

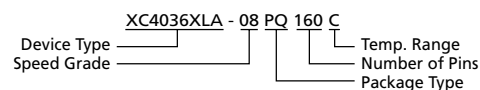
- Notes:**
- System Gates include 20-30% of CLBs used as RAM
  - A Logic Cell is defined as a 4 input LUT and a Register

	Macrocells	Max. I/O	Pin-to-Pin Delay (ns)
<b>XC9500XL Family - 3.3 Volt CPLDs</b>			
XC9536XL	36	36	4
XC9572XL	72	72	5
XC95144XL	144	117	5
XC95288XL	288	192	6
<b>XC9500XV Family - 2.5 Volt CPLDs</b>			
XC9536XV	36	36	3.5
XC9572XV	72	72	4
XC95144XV	144	117	4
XC95288XV	288	192	5

Speed Grade Options		
	Slowest	Fastest
XC4000XV	-09	-07
Virtex	-4	-6
SpartanXL	-4	-5
XQ4005X	-4	-4
XQ4000XL	-3	-3

### Ordering Information for FPGAs / CPLDs

Example:



# Device Selection Guide

## FPGA / CPLD Package Options and User I/O

XC4000XV (2.5 Volt) FPGAs				Spartan™ (5V, XL 3.3V) FPGAs					XC9500XL (3.3 Volt) CPLDs				Virtex™ (2.5 Volt)									
XC4010XV	XC40150XV	XC40200XV	XC40250XV	XCS05/XL	XCS10/XL	XCS20/XL	XCS30/XL	XCS40/XL	XC9536XL/XV	XC9572XL/XV	XC95144XL/XV	XC95288XL/XV	XCV50	XCV100	XCV150	XCV200	XCV300	XCV400	XCV600	XCV800	XCV1000	
448	448	448	448	80	112	160	192	224	36	72	117	192	192	240	288	336	384	480	576	672	768	
<b>PLCC Packages</b>																						
									34	34												
				61	61																	
<b>CSP Packages</b>																						
									36	38												
					112	113					117		98	98								
							192	224														
<b>PQFP / HQFP Packages</b>																						
						160	169	169				168										
193	193						192	192					166	166	166	166	166	166	166	166	166	166
<b>VQFP Packages</b>																						
									36	52												
				77	77	77	77															
<b>TQFP / HTFP Packages</b>																						
					112	113	113			72	81		98	98								
											117	117										
<b>CBFP Packages</b>																						
<b>BGA Packages</b>																						
							192	205					180	180	180	180						
289	289											192			260	260	260					
352	352	352	352														316	316	316	316		
432	432	432	432															404	404	404	404	
<b>PGA Packages</b>																						
		448	448																			
<b>FinePitch BGA</b>																						
													176	176	176	176						
															260	284	312					
																				404	444	444
																				512	512	512

Available Now  
 Available Q199

SpartanXL available Q4

Go to the Xilinx web site to get the latest product information:  
<http://www.xilinx.com/products/products.htm>