

Flash/NAES	Scrubbing	Grades	Part	Suffix	low price	min pkg size mm	user pin cnt	K LUTs	K Logic Cells	LC/\$	embed up	mults	PL/DLL	SERDES	I/Os	small RAM	med. RAM	large RAM	CLBs	highest volume pricing	LUTs per dollar	LC per Mult	I/Os per RAM	ram BITS	M config BITS	config BITS / LUT input			
Altera			APEX20K		(100+)			16bits		67									10x				9.7						
			EP20K30E	ETC144-3	\$20			1,200	1,200	60					128			128x16	120				10.7	24,576					
			EP20K60E	ETC144-3	\$37			2,560	2,560	69					204				256				12.8	32,768					
			EP20K100E	ETC144-3	\$50			4,160	4,160	83					252				416				9.7	53,248					
			EP20K160E	ETC144-3	\$118			6,400	6,400	54					316				640				7.9	81,920					
			EP20K200E	EQC208-3	\$120			8,320	8,320	69					382				832				7.3	106,496					
Altera			MAX II		180nm	(1+)	1.8, 1.5 - 3.3	16bits		45								flash	10x	(250,000+)				flash					
F	A		EPM240_-Z	ZM6813	\$6	5	80	0.24	0.24	40					80				24	1.50	160			8,192					
F	A		EPM570_-Z	GT100C5	\$13	6	76	0.57	0.57	43					160				57	2.30	248			8,192					
F	A		EPM1270	F256C5ES	\$30	11	212	1.27	1.27	42					212				127	4.25	299			8,192					
F	A		EPM2210	F256C5	\$41	17	204	2.21	2.21	54					272				221	7.00	316			8,192					
			Cyclone		(1+)			16bits		299								128x36	10x	(250,000+)				8.9					
			EP1C3	T100C8	\$11			2,910	2,910	272			1		104				291	4.00	728			8.0	59,904				
			EP1C4	F324C8	\$19			4,000	4,000	208			2		301				400	7.50	533			17.7	78,336				
			EP1C6	T144C8	\$18			5,980	5,980	342			2		185				598	7.50	797			9.3	92,160				
			EP1C12	Q240C8	\$36			12,060	12,060	340			2		249				1,206	12.00	1005			4.8	239,616				
			EP1C20	F324C8	\$60			20,060	20,060	334			2		301				2,006	20.00	1003			4.7	294,912				
Altera			Stratix		130nm	(1+)		16bits		103								18x18DSP	3.1875Ghz	32x18	128x36	4Kx14	10x		440	7.03			
			EP1S10	F484C7N	\$205	23	335	21.1	21.1	103			24	6	422			94	60	1	1057			440	7.03	0.920	4	35.3	
Altera			Cyclone II		90nm	(1+)		16bits		366								18x18		128x36				583	4.82	10^6 bits			
			EP2C5	T144C8	\$13			4,608	4,608	360			13	2	158				288					354	6.08	0.120			
			EP2C8	T144C8	\$19			8,256	8,256	430			18	2	182				516					459	5.06	0.166			
			EP2C15	F256C8	\$40	17	152	14,448	14,448	362			26	4	315				903					556	6.06	0.240			
			EP2C20	F256C8	\$43			18,752	18,752	439			26	4	315				1,172					721	6.06	0.240			
			EP2C35	F484C8N	\$91			33,216	33,216	366			35	4	475				2,076	22.00	1510			949	4.52	0.484			
			EP2C50	F484C8	\$160			50,528	50,528	316			86	4	450				3,158					588	3.49	0.594			
			EP2C70	F672C8N	\$235			68,416	68,416	291			150	4	622				4,276					456	2.49	1.152			
Altera			Stratix II		90nm	(1+)	1.2v core	16-32bits	1/2 ALM	82								18x18DSP	6.375Ghz	32x18	128x36	4Kx14	16x		163	4.68	10^6 bits		54.9
M			EP2S15	F484C5N	\$190	23	342	15.6	15.6	82			48	6	365			104	78	0	780			163	4.68	0.419	5	54.9	
Altera			Cyclone III		65nm	(1+)	1.2, 1.2 - 3.3	16bits		504								18x18DSP		256x36				332	3.84	10^6 bits		59.9	
			EP3C5	E144C8	\$13			8	106	5.14			23	2	182				46	321	4.00	1284			223	3.96	0.424	2.8	115.7
			EP3C10	E144C8	\$19			10,320	10,320	538			23	2	182				46	645	5.00	2064			449	3.96	0.424	2.8	57.6
			EP3C16	E144C8	\$27			15,416	15,416	577			56	4	346				56	963					275	6.18	0.516	3.9	54.9
			EP3C25	E144C8NES	\$40	14	156	24,624	24,624	623			66	4	215				1,539					373	3.26	0.608	5.5	49.7	
			EP3C40	F324C8	\$81	19	215	39,600	39,600	487			126	4	535				2,475					314	4.25	1.161	9.1	50.1	
			EP3C55	F484C8	\$142	19	195	55,866	55,866	395			156	4	377				3,491					358	4.45	2.396	14.2	52.8	
			EP3C80	F780C8	\$246	19	295	81,266	81,266	331			244	4	429				5,079					333	1.41	2,811	19.0	49.8	
			EP3C120	F484C7ES	\$387	23	283	119,009	119,009	308			288	4	531				4,432					414	1.23	3,981	27.2	48.7	
Altera			Arria		65nm	(1+)	1.2v core	16-32bits	1/2 ALM									18x18DSP	2.5Ghz	32x18	128x36	4Kx14	16x		208	2.17	10^6 bits		149.5
			EP1AGX20	CF484C6	\$84			8,632	17,264				40	4	341				166	118	1			216	2.89	1.229			
			EP1AGX35	CF484C6N	\$123			13,408	26,816				56	8	341				197	140	1			239	2.44	1.348			
			EP1AGX50					20,064	40,128				104	8	514				313	242	2			193	2.12	2.475			
			EP1AGX60					24,040	48,080				128	8	514				326	252	2			188	2.04	2.529			
			EP1AGX90					36,088	72,176				176	8	538				478	400	4			205	1.35	4.478			
Altera			Stratix III		65nm	(1+)	1.1v core	ALMs	1/2.65 AL	165								18x18DSP		32x20	256x36	2K*72	10x		150	3.82	10^6 bits		149.5
A	Y	MI	EP3SLSE50	F780C4	\$354	23	288	23.8	23.8	178			216	4	480			928	108	6	2375			146	4.44	2.474	22	176.9	
A	Y	MI	EP3SL70	F484C4N	\$586	23	288	33.8	89.4	153			288	4	480			1,318	150	6	3375			155	3.20	3.111	22	122.2	
Altera			Cyclone IV		40nm	(1+)	1.2, 1.2 - 3.3	16bits		516								18x18DSP	2.5-3.125Ghz	PCI ex	256x36		16x		374	4.64	10^6 bits		74.7
			EP4CE6	E22C8N	\$13	11	94	6.27	6.27	499			15	2	182				30	392	3.00	2091			418	6.07	0.276		
			EP4CE10	E22C8N	\$22	11	94	10,320	10,320	460			23	2	182				46	645					449	3.96	0.424		
			EP4CE15	E22C9LN	\$23	17	168	15,416	15,416	666			56	4	346				56	963					275	6.18	0.516	3.8	53.4
			EP4CE22	E22C7N	\$44	14	72	22,320	22,320	503			66	3	153				66	1,395					338	2.32	0.608	7.6	78.3
			EP4CE30	F23C8N	\$42	23	331	28,856	28,856	687			66	4	535				66	1,803					437	8.11	0.608	7.6	60.6
			EP4CE40	F29C7N	\$97	23	331	39,600	39,600	408			116	4	535				123	2,475					341	4.35	1.134		
			EP4CE55	F23C7N	\$144	23	327	55,866	55,866	387			154	4	377				254	3,491					363	1.48	2.341		
			EP4CE75	F23C7N	\$227	23	295	75,416	75,416	332			200	4	429				298	4,713					377	1.44	2.746	24.5	72.1
			EP4CE115	F23C8N	\$316	23	283	114,488	114,488	363			266	4	531				423	7,155					430	1.26	3,898	47.6	95.4
			EP4CGX15	BN11C8N	\$24	11	72	14,400	14,400	601			0	4	2	72	1		58	900	6.00	2400	#####		532	1.24	0.535	3.8	56.8
			EP4CGX22	F22C8N	\$51	14	72	21,280	21,280	418			40	3	150	1			82	1,330					532	1.83	0.756	7.6	80.4
			EP4CGX30	BF14C7N	\$79	14	72	29,440	29,440	373			80	4	150	1			117	1,840					368	1.28	1.078	7.6	55.4
			EP4CGX50	CF23C7N	\$162	23	290	49,896	49,896	309			140	4	8	310	1			272	3,118				356	1.14	2.507	24.5	110.2
			EP4CGX75	DF27C7N	\$199	23	290	73,920	73,920	372			198	8	8	310	1			451	4,620				373	0.69	4.156	24.5	68.8
			EP4CGX110	DF31C7N	\$279	23	270	109,420	109,420	393			280	8	8	475	1			596	6,839				391	0.80	5.493	47.6	96.2
			EP4CGX150	DF27C7N	\$370	23	270	149,760	149,760	405			360																

Flash/VRAM	Scrubbing	Grades	Part	Suffix	low price	pin pkg	size mm	user pin	K LUTs	K Logic Cells	LC/\$	embed UP	mults	PLUDLL	SERDES	I/Os	small RAM	med. RAM	large RAM	CLBs	highest volume pricing	LUTs per dollar	LC per Mult	I/Os per RAM	on-chip RAM	M config	config BITS	LUT input		
F			GW1NSR-2C	CS36		2,50	30		1728	1728		1		1+2		95		4	1Mb	216				23.8	0.074					
F			GW1NNR-4	MG81		4,50	68		4068	4068			16	2+2		70		10	256Kb	509			254	7.0	0.184					
F			GW1NSR-4C	MG81		4,50	68		4068	4068		1	16	2+2		70		10	256Kb	509			254	7.0	0.184					
F			GW1NR-9	QN88		10,0	70		8640	8640			20	2+4		120		26	608Kb	1,080			432	4.6	0.479					
F			GW1N-1	CS30		2,40	24		1152	1152				1+0		119		4	96Kb	144				29.8	0.074					
F			GW1N-2	CS72		3,60	57		2304	2304			16	2+2		207		10	256Kb	288			144	20.7	0.184					
F			GW1N-4	CS72		3,60	57		4606	4606			16	2+2		207		10	256Kb	576			288	20.7	0.184					
F			GW1NRF-LV4B	CS72		3,60	57		4606	4606		1	16	2+2		207		10	256Kb	576			288	20.7	0.184					
F			GW1N-6	CM64		4,10	55		6912	6912			26	2+4		273		26	608Kb	864			266	10.5	0.479					
F			GW1N-9	CM64		4,10	55		8640	8640			26	2+4		273		26	608Kb	1,080			332	10.5	0.479					
Lattice			MachXO		130nm	(1+)	1.2 - 3.3		16bits		90								256x36	flash	8X				151					
F		A	LCMX0256	3TN100C	\$5	8	78		256	256	49		0			78		0		32						0				
F		A	LCMX0640	3TN100C	\$9	8	101		640	640	69		0			159		0		80						0				
F		A	LCMX01200	3TN100C4	\$13	8	101		1,200	1,200	95		1			211		1		150	3.50	343		211	9.216					
F		A	LCMX02280	3FT324C	\$16	8	101		2,280	2,280	144		2			271		3		285	5.00	456		90.3	27.648					
Lattice			MachXO2		65nm	(1+)	1.2 - 3.3		16bits		146										8X				27.1	10^6 bits				
F		I	LCMX02-256	4SG32C	\$3	4,00	22		0,256	256	91		4	0		56		0	0	32	0.75	341								
F		I	LCMX02-640	4TG100C	\$6	8,00	79		0,640	640	109		4	0		80		2	24	80					40.0	0.018				
F		I	LCMX02-1200	1UW251TR	\$7	2,50	18		1,280	1,280	174		4	1		108		7	64	160	2.00	640			15.4	0.065				
F		I	LCMX02-2000	4TG100C	\$10	3,10	29		2,112	2,112	207		4	1		207		8	80	264					25.9	0.074				
F		I	LCMX02-4000	csBGA132	\$11	8,00	105		4,320	4,320	406		4	2		279		10	96	540					27.9	0.092				
F		I	LCMX02-7000	4TG144C	\$14	14,0	115		6,864	6,864	475		4	2		335		26	256	858					12.9	0.240				
Lattice			MachXO3		(1+)	1.2 - 3.3			16bits		551										8X				24.5	10^6 bits				
F		I	LCMX03L-640	5MG121I	\$3	6,00	100		0,640	640	188		5	1		100		7	64	80	1.00	640			14	0.065				
F		I	LCMX03L-1300	5UWG36C	\$3	2,50	25		1,300	1,300	500		5	1		206		7	64	163					29	0.065				
F		I	LCMX03L-2100	5BG324C	\$4	3,20	38		2,112	2,112	571		5	1		269		8	80	264					34	0.074				
F		I	LCMX03L-4300	5UWG81C	\$5	3,80	60		4,320	4,320	873		5	2		325		10	96	540					33	0.092				
F		I	LCMX03L-6900	5BG256C	\$11	9,00	206		6,864	6,864	626		5	2		325		26	256	858					13	0.240				
F		I	LCMX03L-9400	5BG256C	\$12	9,00	206		9,400	9,400	754		5	2		384		48	448	1,175					8	0.442				
Lattice			MachXO3D		(1+)	1.2 - 3.3			16bits		687										8X				21.9	10^6 bits				
F		I	LCMX03L-6900		\$11	10,0	58		6,864	6,864	621		5	2		206		10	1,122	858					21	0.092				
F		I	LCMX03L-9400		\$12	10,0	58		9,400	9,400	754		5	2		383		46	2,693	1,175					8	0.424				
Lattice			MachXO5-NX		(1+)	1.2 - 3.3			16bits		313										8X				22.3	10^6 bits				
F		I	LFMX05			14,0			25,00	25,00			20	2		206		80	0,590	3,125					3	2,064				
Lattice			LFCEC/EP/EC		(1+)	1.2 - 3.3			16bits		313										8X				653	16.6	10^6 bits			
A			LFCEC1E	3TN100C	\$7	14	67		1,536	1,536	216		0	2		112		2		192					56.0	0.018				
A			LFCEC3E	4TN100C	\$12	14	67		3,072	3,072	257		0	2		160		6		384					26.7	0.055				
A			LFCEC6E	3TN144C	\$18	17	195		6,144	6,144	343		0	2		224		10		768					22.4	0.092				
A			LFCECP6E	3TN144C	\$19	17	195		6,144	6,144	322		16	2		224		10		768			384		22.4	0.092				
A			LFCEC10E	3FN484C	\$32	17	195		10,240	10,240	324		0	4		288		30		1,280					9.6	0.276				
A			LFCECP10E	3FN484C	\$331	17	195		10,240	10,240	31		20	4		288		30		1,280			512		9.6	0.276				
A			LFCEC15E	3FN256C	\$40	17	195		15,360	15,360	384		0	4		352		38		1,920					9.3	0.350				
A			LFCEP15E	3FN484C	\$44	17	195		15,360	15,360	347		24	4		352		38		1,920			640		9.3	0.350				
A			LFCEC20E	3FN484C	\$53	23	360		19,712	19,712	374		0	4		400		46		2,464					8.7	0.424				
A			LFCECP20E	3FN484C	\$56	23	360		19,712	19,712	352		28	4		400		46		2,464			704		8.7	0.424				
A			LFCEC33E	3FN484C	\$80	23	360		32,768	32,768	410		0	4		496		58		4,096					8.6	0.535				
A			LFCECP33E	3FN484C	\$84	23	360		32,768	32,768	390		32	4		496		58		4,096			1024		8.6	0.535				
Lattice			LFCEC2P2		90nm	(1+)	1.2 - 3.3		16bits		507										8X				664	14.1	10^6 bits			
A	Y	I	LFCE2-6E	5TN144C	\$10	17	90		6,048	6,048	590		12	2		190		3		756					504	63.3	0.055			
A	Y	I	LFCE2-12E	5TN144C	\$21	17	93		12,096	12,096	590		24	2		297		12		1,512					504	24.8	0.221			
A	Y	I	LFCE2-20E	6FN256C	\$39	17	193		21,168	21,168	539		28	2		402		15		2,646					756	26.8	0.276			
A	Y	I	LFCE2-35E	5FN672CES	\$80	23	331		32,256	32,256	404		32	2		450		18		4,032			1008		25.0	0.332				
A	Y	I	LFCE2-50E	5FN484C	\$105	23	339		47,952	47,952	456		72	4		500		21		5,994	23.95	2002			666	23.8	0.387			
A	Y	I	LFCE2-70SE	5FN672C	\$147	27	500		68,112	68,112	463		88	6		588		60		8,514					774	9.8	1.106			
Lattice			LFCEC5P5		40nm	(1+)	1.2 - 3.3		16bits		2316										8X	25K+			636	3.03	10^6 bits			
			LFCE5U-12F	6BG381C	\$7	10	118		12,000	12,000	1,846		28	2		197		32		1,500	3.92	3065			429	6.16	0.590			
			LFCE5U-25F	6BG381C	\$9	10	118		24,288	24,288	2,640		28	2		197		56		3,036	7.51	3235			867	3.52	1.032			
			LFCE5U-45F	6BG381C	\$16	10	118		44,000	44,000	2,803		72	4		245		108		5,500	12.34	3566			611	2.27	1.991			
			LFCE5U-85F	6BG381C	\$30	10	118		84,000	84,000	2,770		156	4		365		208		10,500	23.63	3555			538	1.75	3.834			
			LFCE5UM-25F	6BG381C	\$13	10	118		24,000	24,000	1,879		28	2		197		56		3,000					857	3.52	1.032			
			LFCE5UM-45F	6BG381C	\$24	10	118		44,000	44,000	1,850		72	4		245		108		5,500					611	2.27	1.991			
			LFCE5UM-85F	8BG381I	\$35	10	118		84,000	84,000</																				

Flash/ESD	Scrubbing	Grades	Part	Suffix	Low price	min pkg size mm	user pin	K LUTs	K Logic Cells	LC/\$	embed up	mults	PL/DLL	SERDES	I/Os	small RAM	med. RAM	large RAM	CLBs	highest volume pricing	LUTs per dollar	LC per unit	I/Os per RAM	an. bits	man. bits	Config. bits	LUT input	
			XC3S1200E	4FG400C	\$52	17	190	17,344	19,512	373		28			304				2,168	9.00	1927	697	10.9	0.516	3.8	47.9		
			XC3S1400A/N	4FG484I	\$71	23	375	22,528	25,344	358		32	8		502			1,730	2,816	9.00	2503	792	15.7	0.590	4.8	46.2	Altium NB2: XC3S1400AN-4FGG676C	
			XC3S1500	4FG320C	\$62	19	221	26,624	29,952	487		32	4		487				3,328	18.00	1479	936	15.2	0.590	5.2	43.4	Altium NB2: XC3S1500-4FGG676C	
			XC3S1600E	4FG320C	\$64	19	250	29,504	33,192	523		36			376				3,688			922	10.4	0.664	6.0	45.0		
			XC3SD1800A	4CS484C	\$114	19	309	33,280	37,440	329		84	8		519				4,160	29.85	1115	446	6.2	1.548	8.2	50.0	Altium NB2: XC3SD1800-4FGG676C	
Xilinx			Vertex-II	130nm (br100+)	1.2v core			16bits	logic cell	43		18x18			16x1	512x36			8x			162	13.4	10.6	bits	92.2	840 Mbps LVDS	
			XC2V40	4FG256C	\$27			512	576	22		4	4		88				64	10.00	51	144	22.0	0.074	0.3	129.1		
			XC2V80	4CS144C	\$28			1,024	1,152	41		8	4		120				128			144	15.0	0.147	0.6	109.9		
			XC2V250	4FG256C	\$70			3,072	3,456	50		24	8		200				384			144	8.3	0.442	1.6	93.5		
			XC2V500	4FG256C	\$118			6,144	6,912	59		32	8		264				768			216	8.3	0.590	2.6	80.1		
Xilinx			Vertex-II Pro	130nm (25+)	1.2v core			16bits	logic cell	61	PP	18x18			3,125Ghz	16x1	512x36		8x			244	11.2	10.6	bits	92.2	622 to 3125 Mbps SERDES	
			XC2VP2	5FG256C	\$62			2,816	3,168	51	0	12	4		204				352			264	17.0	0.221	1.3	95.9		
			XC2VP4	5FG256CES	\$113			6,016	6,768	60	1	28	4		348				752			242	12.4	0.516	3.0	103.2		
			XC2VP7	5FG456CES	\$176			9,856	11,088	63	1	44	4		396				1,232			252	9.0	0.811	4.5	93.0		
			XC2VP20	5FG676CES	\$299			18,560	20,880	70	2	88	8		564				2,320			237	6.4	1.622	8.2	88.8		
			XC2VP30	5FG676C	\$508			27,392	30,816	61	2	136	8		644				3,424			227	4.7	2.507	11.3	80.3		
Xilinx			Vertex-4	90nm (100+)	1.2, 1.5 - 3.3			16bits	logic cell	110	PP	18x18DSP			11.1Ghz	16x1	512x36		8x	(25,000+)		393	6.07	10.6	bits	79.3	622 to 11100 Mbps SERDES	
A			XC4VLX15	10SF363C	\$105	17	240	12,288	13,824	131		32	4		320				1,536			432	6.67	0.885	4.8	79.7	450MHz PowerPC core(s)	
A	M		XC4VLX25	10SF363C	\$235	17	240	21,504	24,192	103		48	8		448				2,688	39.99	538	504	6.22	1.327	7.8	75.7	Altium NB2: XC4VLX25-10FF668C	
A			XC4VFX12	10SF363C	\$276	27	320	20,480	23,040	83		128	4		320				2,560	59.99	341	180	2.50	2.359	9.1	82.3		
			XC4VFX12	10SF363C	\$119	17	240	12,944	14,562	123	1	32	4		320				1,618	29.99	432	455	8.89	0.664	4.8	79.9		
Xilinx			Vertex-5	65nm (1+)	1.0, 1.2 - 3.3			64bits	logic cell	96	PP	25x18DSP			3G, FX&TX	PCI ext	(2)512x	10/100	8x	(1,000+)		816	8.9	10.6	bits	78.5	100 to 3200 Mbps SERDES	
A			XC5VLX20T	1FF323C	\$226	19	172	12.5	20.0	88		24	1		160	1		26	2	1,560		832	6.2	0.958	6.3	77.7		
A	Y	M	XC5VLX30T	1FFG324C	\$250	19	220	19.2	30.7	123		32	2		8	400	1	32	4	2,400	159.00	121	960	12.5	1.180	8.4	67.8	
A			XC5VLX50T	1FFG676C	\$453	19	440	28.8	46.1	102		48	6		12	500	1	48	4	3,600	149.00	193	960	11.7	1.769	12.6	67.8	
A			XC5VFX30T	1FF665CES	\$473	27	360	20.5	32.8	69	1	64	2		8	360	1	68	4	2,560		512	5.3	2.507	13.6	100.5	6.5 Gbps SERDES	
Xilinx			Vertex-6	40nm (1+)	1.0, 1.2 - 2.5			2x32,64b	logic cell	140		25x18DSP			GTx/GTH	PCI ext	(2)512x	10/100	4x	(10K+)		259	2.31	10.6	bits	73.3		
A			XC6VLX75T	1FF484C	\$531	23	240	46.6	74.5	140		288	6	12/0	360	1	156	4	11,640	50.00	931	259	2.31	5.751	26.2	73.3	4.0Gbps PCI express	
Xilinx			Spartan-6	45nm (1+)	1.0, 1.2 - 3.3			2x32,64b	logic cell	734		18x18DSP			3G, FX&TX	PCI ext	(2)256x	36	4x	(10K+)		664	4.3	10.6	bits	67.0	622 to 3125 Mbps SERDES	
A			XC6SLX4	2CPG192C	\$11	8	100	2.4	3.8	355		4	1		120			8		3.00	800	960	15.0	0.147	2.7	177.3	2.0Gbps PCI express	
A			XC6SLX9	2TQG144C	\$15	8	100	5.7	9.2	620		16	2		200			32				672	6.3	0.590	2.7	61.5	1.05Gbps per differential pair	
A			XC6SLX16	2CPG196C	\$21	8	180	9.1	14.6	696		32	2		232			32				456	7.3	0.590	3.7	56.9		
A			XC6SLX25	2FTG256C	\$32	15	180	15.0	24.0	746		38	2		264			52				632	5.1	0.958	6.4	60.5		
A			XC6SLX45	2CSG324C	\$49	15	354	27.5	44.0	901		58	4		370			116				759	3.2	2.138	11.9	59.1		
A	Y	M	XC6SLX75	2CSG484C	\$89	19	290	46.6	74.6	840		132	6		348			172				565	2.0	3.170	19.6	58.7		
A			XC6SLX100	2FG484C	\$111	19	354	63.5	101.6	918		182	6		498			268				558	1.9	4.940	26.5	56.6		
A	Y	M	XC6SLX150	2FG484C	\$159	19	345	92.2	147.4	929		182	6		498			268				810	1.9	4.940	33.8	52.2		
A			XC6SLX25T	2CSG324C	\$45	15	174	15.0	24.0	528		38	2		264	1		52				632	5.1	0.958	6.4	60.5		
A			XC6SLX45T	2CSG324C	\$63	15	174	27.3	43.7	696		58	4		370	1		116				753	3.2	2.138	11.9	59.6		
A	Y	M	XC6SLX75T	2CSG484C	\$106	19	290	46.6	74.6	701		132	6		348	1		172				565	2.0	3.170	19.6	58.7		
A			XC6SLX100T	2FG484C	\$129	19	268	63.3	101.3	786		182	6		396	1		268				556	1.5	4.940	26.5	56.8		
A	Y	M	XC6SLX150T	2FG484C	\$180	19	296	92.2	147.4	819		182	6		396	1		268				810	1.5	4.940	33.8	52.2		
Xilinx			Spartan-7	28nm (1+)	1.0, 1.2 - 3.3			2x32,64b	logic cell	954		25x18CMT			G1 PCI	(2)512x	XADC	8x	(10K+)		526	7.4	10.6	bits	132.6		automotive grades: XA7SddT-xxxx	
A	Y		XC7S56	1FTGB196C	\$15	8	86	3.8	6.0	408		10	2		100			5				600	20.0	0.184			DSP E1: ALU & Booleans	
A	Y		XC7S15	1FTGB196C	\$19	8	86	8.0	12.8	682		20	2		100			10		1,000		640	10.0	0.369	7.4	146.5	block RAM ECC logic	
A	Y		XC7S25	1FTGB196C	\$25	13	150	14.6	23.4	920		80	3		150	1		45		1,825		292	3.3	1.659	17.5	181.2	XADC: (2) 12-bit A2D, 17 inputs	
A	Y		XC7S50	1CSGA324C	\$41	15	210	32.6	52.2	1265		120	5		250	1		75		1,407		435	3.3	2.765			hdw FIFOs	
A	Y		XC7S75	1FGGA484C	\$62	23	338	48.0	76.8	1235		140	8		400	1		90		6,000		549	4.4	3.318				
A	Y		XC7S100	1FGGA484C	\$84	23	338	64.0	102.4	1215		160	8		400	1		120		8,000		640	3.3	4.424	31.3	70.0		
Xilinx			Artix-7	28nm (1+)	1.0, 1.2 - 3.3			2x32,64b	logic cell	893		25x18CMT			GDP 3.75G	G1 PCI	(2)512x	XADC	8x	(10K+)		365	4.5	10.6	bits	87.9	GDP 3.75 Gbps SERDES	
A	Y		XC7A12T	1CPG236C	\$22	10	106	8.0	12.8	593		40	3		2	150	1		20		1,000		320	7.5	0.737			block RAM ECC logic
A	Y		XC7A15T	1FTG256C	\$26	10	106	10.4	16.6	648		45	5		4	250	1		25		1,300		370	10.0	0.922	7.4	103.8	XADC: (2) 12-bit A2D, 17 inputs
A	Y		XC7A25T	1CPG236C	\$25	10	106	14.6	23.4	916		80	3		4	150	1		45		1,825		292	3.3	1.659	7.4	85.5	hdw FIFOs
A	Y		XC7A35T	1FTG256C	\$31	10	106	20.8	33.3	1084		90	5		4	250	1		50		2,600		370	5.0	1.843	17.5	125.7	DSP E1: ALU & Booleans
A	Y	M	XC7A50T	1FTG256C	\$52	10	106	32.6	52.2	1011		120	5		4	250	1		75		4,075		435	3.3	2.765			
A	Y		XC7A75T	1FGGA484C	\$89	15	170	47.2	75.5	850		180	6		8	300	1		105		5,900		420	2.9	3.871			
A	Y	M	XC7A100T	1CSG324C	\$109	15	210	63.4	101.4	929		240	6		8	300	1		135		7,925		423	2.2	4.977	31.3	69.2	
A	Y	M	XC7A200T	1FBGA484C	\$194	19	285	134.6	215.4	1112		740	10		16	500	1		365		16,825		291	1.4	13.455	74.2	75.2	
Xilinx			Kintex-7	28nm (1+)	1.0, 1.2 - 3.3																							

Flash/AES	Scrubbing	Grades	Part	suffix	low price	min pkg size mm	user pin cnt	K LUTs	K Logic Cells	LC/\$	embed up	mults	PL/DLL	SERDES	I/Os	small RAM	med. RAM	large RAM	CLBs	highest volume pricing	LUTs per dollar	LC per Mult	I/Os per RAM	an bits	M config BITS	config BITS / LUT input		
F			AGLE600	V5FFG256	\$80	17	165	13,824	5,530	69	1+		6		270		24	1					11.3	0.111				
F			AGL1000	V5FFG144	\$51	13	97	24,576	9,830	193	1+		6		300		32	1					9.4	0.147				
Actel			IGLOO2 (flash)	65nm	(1+)	1.2, 1.2 - 3.3	4LUTs	4LUTs	823		18*18DSP	5Ghz			64x18	512x36	KB flash					696	10.3	10*6 bits	typ	82.3	4LUTs, SERDES, DSP	
F/A			M2GL005	TQ144	\$9	14	161	6,060	6,060	648		11	2	0	209	11	10	128			7.00	866	551	20.9	0.197	2.37	90.1	10/100/1000 ethernet, PCIe, 333Mhz D
F/A			M2GL010	TQ144	\$19	14	138	12,084	12,084	625		22	2	4	233	22	21	256					549	11.1	0.412	4.45	84.0	AES-256, rand num gen, SEI immune
F/A			M2GL025	1FG484	\$40	11	180	27,696	27,696	693		34	6	4	267	34	31	256					815	8.6	0.611	9.56	81.1	64KB ECC SRAM
F/A			M2GL050	1FG484i	\$52	11	200	56,340	56,340	1,073		72	6	8	377	72	69	256					783	5.5	1.355	18.9	78.2	SPI, 2 DMA
F/A			M2GL060	1FCS325i	\$52	11	200	56,520	56,520	1,077		72	6	4	387	72	69	256					785	5.6	1.355	18.9	78.0	config for fabric only
Actel			Fusion (flash)	130nm	(1+)	1.5, 1.5 - 3.3	tiles			58	AR	12bit A2D	analog quat	analog	256x18	256KB flash							11.9	10*6 bits				
F	M		A2F060	TQG144	\$20	17	70	1,536	614	31	1	1	1		102	10	8	64KB/16KBR					12.8	0.037			100Mhz Cortex M3	
F			AFS090	FQNG108	\$30	8	37	2,304	922	31		1		5	93	20	8	1			5.00	461		11.6	0.037			100Mhz Cortex M3
F	M		A2F200	PQG208	\$30	11	117	4,608	1,843	61	1	2			161	24	8	256KB/64KBR					20.1	0.037			100Mhz Cortex M3	
F			AFS250	FQNG180	\$60	10	65	6,144	2,458	41	1	1		6	134	24	8	1			3.95	1555		16.8	0.037			100Mhz Cortex M3
F	M		A2F500	FGG256	\$47	11	117	11,520	4,608	97	1	3			204	32	24	512KB/64KBR					8.5	0.111			100Mhz Cortex M3	
F	M		AFS600	FFG256	\$90	17	119	13,824	5,530	61	1+	1	1	10	212	40	24	2					8.8	0.111				
F	M		AFS1500	FFG256	\$270	17	119	38,400	15,360	57	1+	1	1	10	318	40	60	4					5.3	0.276				
Actel			SmartFusion2	65nm	(1+)	1.2, 1.2 - 3.3	4LUTs	4LUTs	601	AR	18*18DSP	5Ghz			64x18	512x36	KB flash					696	10.3	10*6 bits	typ	82.3	166Mhz Cortex M3, 4LUTs, SERDES, I	
F/A			M2S005	TQ144	\$11	14	161	6,060	6,060	539	1	11	2	0	209	11	10	128					551	20.9	0.197	2.37	90.1	10/100/1000 ethernet, PCIe, 333Mhz D
F/A			M2S010	TQ144	\$22	14	138	12,084	12,084	554	1	22	2	16	233	22	21	256					549	11.1	0.412	4.45	84.0	AES-256, rand num gen, SEI immune
F/A			M2S025	VFG400	\$49	11	180	27,696	27,696	561	1	34	6	16	267	34	31	256					815	8.6	0.611	9.56	81.1	up ECC 64KB SRAM
F/A			M2S050	VFG400	\$90	11	200	56,340	56,340	628	1	72	6	32	377	72	69	256					783	5.5	1.355	18.9	78.2	2 UART, 2 SPI, 2 I2C, 1 CAN, 1 USB, 2
F/A			M2S060	1FCS325i	\$78	11	200	56,520	56,520	725		72	6	4	387	72	69	256					785	5.6	1.355	18.9	78.0	one or two DDR controllers
Cypress			PSoC 3				1.8-5	MC	logic cell		18051							up RAM	up flash								50-67MHz 8051, ALUs	
F			CY8C32xx	QFN48	\$6	7	25		96	192	31	1		Y		62		2KB	16KB									
F			CY8C38xx	TQFP100	\$21	16	72	192	384	18	1			Y		62		16KB	64KB									USB, CAN, FIR/IIR
Cypress			PSoC 4				1.8-5	MC	logic cell						ARM Cortex M0			up RAM	up flash									16-48MHz Cortex M0, FIR/IIR, ALUs, 8X12-bit ATD
F			CY8C40xx	QFN40	\$1.00	8	34					1		Y		36		2KB	16KB									I2C, no FIR/IIR, 16MHz
F			CY8C41xx	QFN40	\$1.76	8	34					1		Y		51		32KB	256KB									I2C, IrDA, LIN, SPI, UART, no FIR/IIR, 24MHz
F			CY8C42xx	QFN40	\$2.52	8	34	64	128	51	1		Y		98			32KB	256KB									I2C, IrDA, LIN, SPI, UART
F			CY8C4xx7_BLE	QFN56	\$4.62	3.65	36	32	64	14	1		Y		36			32KB	256KB									I2C, IrDA, LIN, SPI, UART, BlueToothLE
Cypress			PSoC 5LP				1.8-5	MC	logic cell		M3							up RAM	up flash									40-80MHz Cortex M3, FIR/IIR, LCDio, USB, 12-bit AT
F			CY8C526x	QFN68	\$4.86	8	36	192	384	79	1		Y		62			64KB	256KB									I2C, IrDA, LIN, SPI, UART, no FIR/IIR
F			CY8C546x	QFN68	\$8.49	8	36	192	384	45	1		Y		62			64KB	256KB									I2C, IrDA, LIN, SPI, UART
F			CY8C566x,586x	QFN68	\$11	16	72	192	384	35	1		Y		62			64KB	256KB									I2C, IrDA, LIN, SPI, UART
F			CY8C588x	QFN68	\$17	16	72	192	384	22	1		Y		62			64KB	256KB									I2C, IrDA, LIN, SPI, UART, CAN, 20-bit ATD, 0.1% vr
Cypress			PSoC 6				1.7-3.3	MC	logic cell		M4 & M0							up RAM	up flash									150Hz Cortex M4, 100MHz Cortex M0, FIR/IIR, LCDio
F			CY8C60xx						96	192	1		Y					128KB	512KB									no Cortex M0, no USB
F			CY8C61xx				3.70	78	96	192	1		Y		104			288KB	1MB									Crypto, no Cortex M0, USB
F			CY8C62xx				5.00	78	96	192	2		Y		104			288KB	1MB									Crypto, USB
F			CY8C63xx				5.00	78	96	192	2		Y		78			512KB	2MB									Crypto, BLE, USB, TRNG, QSPI, I2S
Quicklog			EOS-S3				1.8, 1.8 - 3.3	wide tile			M4	32x32		12bitA2D			512x18	up RAM		1K+				4.5			512K RAM, SPI, I2S, I2C, A2D, DMA	
			EOS3FLF512	WRN42	\$5.63	2.50	27	1,200	2,40	426	1	2			36		8	512KB			3.24	741		4.5	73,728			DSP engine: 5KB prog ram, 16KB data