

LATTICE FPGAs



This product is RoHS compliant.

LATTICE FIELD PROGRAMMABLE GATE ARRAYS (FPGAs)

Lattice brings you a new generation of optimized low-cost FPGAs. For maximum performance and value, the LatticeECP™ (Economy Plus) FPGA concept combines an efficient FPGA fabric with high-speed dedicated functions. Lattice's first family to implement this approach is the LatticeECP-DSP (Economy Plus DSP) family, providing dedicated high-performance DSP blocks on-chip. The LatticeECP™ (Economy) family supports all the general-purpose features of LatticeECP devices without dedicated function blocks to achieve even lower cost solutions.



LatticeECP2 FPGAs

LatticeECP2 FPGA devices combine a low cost FPGA package with advanced features such as pre-engineered source synchronous support (including 400Mbps DDR2), high-performance embedded DSP blocks that provide up to 33GMACS of DSP bandwidth and enhanced configuration including bitstream encryption ("S-Series" Only), dual boot and TransFR I/O.

6K LUTs

* Available in Industrial Grade For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	Voltage (V)	I/O Combin.	DSP Blocks	Distributed RAM (Kbits)	# of GPLL	Speed Grade	Price Each	
									1	25
* 842-LFE2-6E-5FN256C	LFE2-6E-5FN256C	fpBGA-256	1.2	190	3	6	2	-5	15.10	13.45
* 842-LFE2-6E-6FN256C	LFE2-6E-6FN256C	fpBGA-256	1.2	190	3	6	2	-6	17.16	15.29
* 842-LFE2-6E-7FN256C	LFE2-6E-7FN256C	fpBGA-256	1.2	190	3	6	2	-7	20.38	18.15

12K LUTs

* Available in Industrial Grade For quantities of 100 and up, call for quote.

* 842-LFE212SE6QN208C	LFE2-12SE-6QN208C	PQFP-208	1.2	131	6	12	2	-6	33.33	29.69
* 842-LFE212E5FN256C	LFE2-12E-5FN256C	fpBGA-256	1.2	193	6	12	2	-5	30.20	26.90
* 842-LFE212SE6FN256C	LFE2-12SE-6FN256C	fpBGA-256	1.2	193	6	12	2	-6	34.73	30.94
* 842-LFE212SE7FN484C	LFE2-12SE-7FN484C	fpBGA-484	1.2	297	6	12	2	-7	55.44	49.39
* 842-LFE212E5TN144C	LFE2-12E-5TN144C	TQFP-144	1.2	93	6	12	2	-5	21.86	19.48

LatticeECP2M FPGAs

LatticeECP2M FPGA devices provide the same feature set as the LatticeECP2 family but have embedded 3.125Gbps SERDES and increase memory capacity to 5.3Mbits and DSP capability to 63GMACS.

* Available in Industrial Grade

12K LUTs

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	Voltage (V)	I/O Combin.	DSP Blocks	Distributed RAM (Kbits)	# of GPLL	Speed Grade	Price Each	
									1	25
* 842-LFE2M20E-5FN484C	LFE2M20E-5FN484C	fpBGA-484	1.2V	304	64	2	8	-5	58.25	51.89
* 842-LFE2M35E5FN484C	LFE2M35E-5FN484C	fpBGA-484	1.2V	303	64	8	2	-5	85.88	76.51
* 842-LFE2M35E6FN672C	LFE2M35E-6FN672C	fpBGA-672	1.2V	410	64	8	2	-6	111.54	99.37
* 842-LFE2M35E7FN672C	LFE2M35E-7FN672C	fpBGA-672	1.2V	410	64	8	2	-7	137.45	122.45
* 842-LFEC3E-3F484C	LFEC3E-3F484C	fpBGA-484	1.2V	1280	32	41	4	-5	31.60	28.15
* 842-LFEC3E5FN672C	LFEC3E-5FN672C	fpBGA-672	1.2V	4096	64	131	4	-3	109.97	97.98
* 842-LFEC3E-5TN100C	LFEC3E-5TN100C	TQFP-100	1.2V	384	16	12	2	-5	13.78	12.27
* 842-LFEC3E-5TN144C	LFEC3E-5TN144C	TQFP-144	1.2V	384	16	12	2	-5	14.77	13.16

LatticeSC (System Chip) FPGAs

LatticeSC (System Chip) FPGA couples the industry's fastest FPGA fabric with system level features like 2Gbps PURESPEED I/O, 32 channels of SERDES and pre-engineered embedded IP using on-chip structured ASIC blocks for best-in-class programmable connectivity solutions.

* Available in Industrial Grade

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	Voltage (V)	I/O Combin.	DSP Blocks	Distributed RAM (Kbits)	# of GPLL	Speed Grade	Price Each	
									1	25
* 842-LFS3GA25E7FN900C	LFS3GA25E-7FN900C	fpBGA-900	1.2V	378	8	104	8	-7	371.25	330.75
* 842-L3GA15EP16FN256C	LFS3GA15EP1-6FN256C	fpBGA-256	1.2V	139	4	56	8	-6	211.20	188.16
* 842-L3GA15EP16FN256I	LFS3GA15EP1-6FN256I	fpBGA-256	1.2V	139	4	56	8	-6	267.30	238.14
* 842-L3GA25EP17FN900C	LFS3GA25EP1-7FN900C	fpBGA-900	1.2V	378	8	104	8	-7	442.20	393.96

LATTICE ISPXPGA FAMILY

The ispXPGA of devices provides the ideal vehicle for the creation of high-performance logic designs that are both non-volatile and infinitely re-programmable. Other FPGA solution force a compromise, being either reprogrammable or non-volatile. This family couples this capability with a mainstream architecture containing with a mainstream architecture containing the features required for today's system-level design.

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Lattice Part No.	Package	Gates	Voltage (V)	Speed Grade	Balls/Pins	Price Each		
							1	25	100
842-LFX125EB03FN256C	LFX125EB-03FN256C	fpBGA	139K	2.5/3.3V	-3	256	44.55	39.69	38.34
842-LFX125EB04FN256C	LFX125EB-04FN256C	fpBGA	139K	2.5/3.3V	-4	256	53.63	47.78	46.15
842-X200EB04F256I	LFX200EB-04F256I	fpBGA	210K	2.5/3.3V	-4	256	117.56	104.74	101.18
842-X200EB04F256I	LFX200EB-04F256I	fpBGA	210K	2.5/3.3V	-4	256	117.56	104.74	101.18
842-LFX200EB05FN256C	LFX200EB-05FN256C	fpBGA	210K	2.5/3.3V	-5	256	117.56	104.74	101.18
842-LFXP10C3F388C	LFXP10C-3F388C	fpBGA	244K	1.8/2.5/3.3V	-3	388	35.48	31.61	30.53
842-LFXP10C3FN256I	LFXP10C-3FN256I	fpBGA	188K	1.8/2.5/3.3V	-3	256	38.36	34.18	33.02
842-LFXP10C4F256C	LFXP10C-4F256C	fpBGA	188K	1.8/2.5/3.3V	-4	256	38.36	34.18	33.02
842-LFXP10C5FN256C	LFXP10C-5FN256C	fpBGA	188K	1.8/2.5/3.3V	-5	256	44.14	39.32	37.99
842-LFXP10E3FN256I	LFXP10E-3FN256I	fpBGA	188K	1.2/3.3V	-3	256	38.36	34.18	33.02
842-LFXP15C3FN256C	LFXP15C-3FN256C	fpBGA	188K	1.8/2.5/3.3V	-3	256	50.82	45.28	43.74
842-LFXP20C3FN256C	LFXP20C-3FN256C	fpBGA	188K	1.8/2.5/3.3V	-3	256	60.72	54.10	52.26
842-LFXP3C3T100C	LFXP3C-3T100C	TQFP	62K	1.8/2.5/3.3V	-3	100	12.71	11.32	10.93
842-LFXP3C3TN100C	LFXP3C-3TN100C	TQFP	62K	1.8/2.5/3.3V	-3	100	12.71	11.32	10.93
842-LFXP3C3TN100I	LFXP3C-3TN100I	TQFP	62K	1.8/2.5/3.3V	-3	100	14.60	13.01	12.57
842-LFXP3C3TN144C	LFXP3C-3TN144C	TQFP	100K	1.8/2.5/3.3V	-3	144	13.78	12.27	11.86
842-LFXP3C3TN144I	LFXP3C-3TN144I	TQFP	100K	1.8/2.5/3.3V	-3	144	15.68	13.97	13.49
842-LFXP3C4T1144C	LFXP3C-4T1144C	TQFP	100K	1.8/2.5/3.3V	-4	144	15.68	13.97	13.49
842-LFXP3C4TN100C	LFXP3C-4TN100C	TQFP	62K	1.8/2.5/3.3V	-4	100	14.60	13.01	12.57
842-LFXP3C5TN100C	LFXP3C-5TN100C	TQFP	62K	1.8/2.5/3.3V	-5	100	16.75	14.92	14.41
842-LFXP6C3Q208C	LFXP6C-3Q208C	PQFP	142K	1.8/2.5/3.3V	-3	208	22.36	19.92	19.24
842-LFXP6C3QN208C	LFXP6C-3QN208C	PQFP	142K	1.8/2.5/3.3V	-3	208	22.36	19.92	19.24
842-LFXP6C3TN144C	LFXP6C-3TN144C	TQFP	100K	1.8/2.5/3.3V	-3	144	21.29	18.96	18.32
842-LFXP6C4QN208C	LFXP6C-4QN208C	PQFP	142K	1.8/2.5/3.3V	-4	208	25.58	22.79	22.01
842-LFXP6C4TN144I	LFXP6C-4TN144I	TQFP	100K	1.8/2.5/3.3V	-4	144	28.30	25.21	24.35
842-LFXP6C5TN144C	LFXP6C-5TN144C	TQFP	100K	1.8/2.5/3.3V	-5	144	28.30	25.21	24.35
842-LFXP40E-5FN484I	LFXP2-40E-5FN484I	fpBGA	40K	1.2/5V	-5	484	107.70	96.85	90.15
842-LFXP217E5FN484I	LFXP2-17E-5FN484I	fpBGA	17K	1.2/5V	-5	484	55.17	49.04	44.45
842-LFXP217E-5QN208C	LFXP2-17E-5QN208C	PQFP	17K	1.2/5V	-5	208	38.12	33.96	32.57
842-LFXP230E5FN484C	LFXP2-30E-5FN484C	fpBGA	30K	1.2/5V	-5	484	73.34	65.34	62.67
842-LFXP2-40E-7F484C	LFXP2-40E-7F484C	fpBGA	40K	1.2/5V	-7	484	143.06	127.45	122.25
842-LFXP28E5FTN256C	LFXP2-8E-5FTN256C	TQFP	8K	1.2/5V	-5	256	21.12	18.82	18.05
842-LFXP2-8E-5TN144C	LFXP2-8E-5TN144C	TQFP	8K	1.2/5V	-5	144	17.99	16.02	15.37
842-LFXP2-8E-7FT256C	LFXP2-8E-7FT256C	fpBGA	8K	1.2/5V	-7	256	30.11	26.83	25.73

