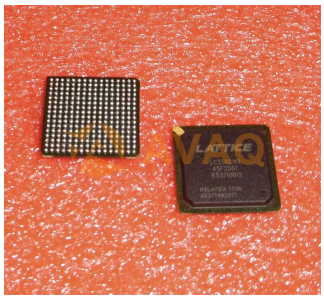
LC5512MV-45F256C

CPLD ispXPLD 5000MV Family 150K Gates 512 Macro Cells 275MHz 3.3V 256-Pin BGA



Images are for reference only

Inquiry

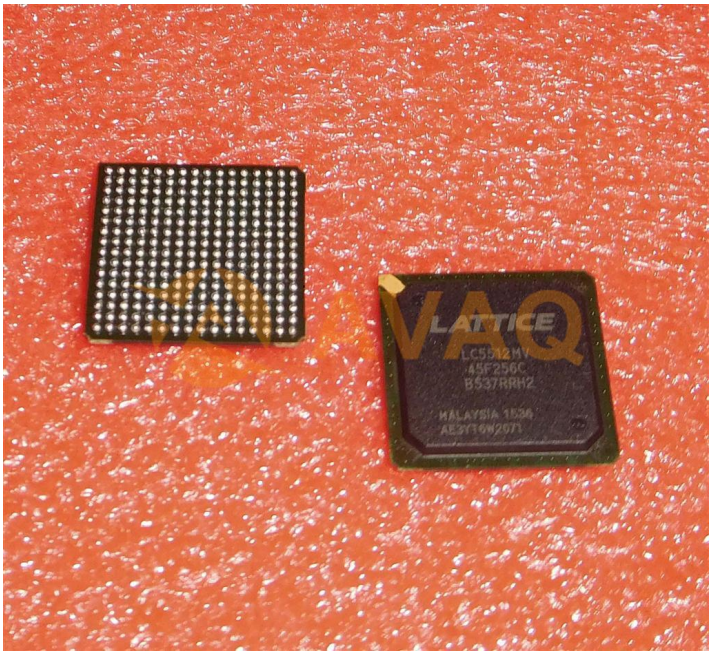
Manufacturer:	Lattice Semiconductor Corp
Package/Case:	BGA
Product Type:	Programmable Logic ICs
Lifecycle:	Obsolete

General Description

The ispXPLD 5000MX family represents a new class of device, referred to as the eXpanded Programmable Logic Devices (XPLDs). These devices extend the capability of Lattice's popular SuperWIDE ispMACH 5000 architecture by providing flexible memory capability. The family supports single- or dual-port SRAM, FIFO, and ternary CAM operation. Extra logic has also been included to allow efficient implementation of arithmetic functions. In addition, sysCLOCK PLLs and sysIO interfaces provide support for the system-level needs of designers.

The devices provide designers with a convenient one-chip solution that provides logic availability at boot-up, design security, and extreme reconfigurability. The use of advanced process technology provides industry-leading performance with combinatorial propagation delay as low as 4.0ns, 2.8ns clock-to-out delay, 2.2ns set-up time, and operating frequency up to 300MHz. This performance is coupled with low static and dynamic power consumption. The ispXPLD 5000MX architecture provides predictable deterministic timing.

The availability of 3.3, 2.5 and 1.8V versions of these devices along with the flexibility of the sysIO interface helps users meet the challenge of today's mixed voltage designs. Inputs can be safely driven up to 5.5V when an I/O bank is configured for 3.3V operation, making this family 5V tolerant. Boundary scan testability further eases integration into today's complex systems. A variety of density and package options increase the likelihood of a good fit for a particular application. Table 1 shows the members of the ispXPLD 5000MX family.



Recommended For You

PALCE22V10Q-25PC/4

Lattice Semiconductor Corp

DIP

LC4032V-75TN48I

Lattice Semiconductor Corp

QFP48

PALCE16V8H-15JC/4

Lattice Semiconductor Corp

PLCC20

PALCE22V10H-10JC/5

Lattice Semiconductor Corp

PLCC28

PALCE16V8H-7PC/5

Lattice Semiconductor Corp

DIP20

PALCE20V8H-15JC/4

Lattice Semiconductor Corp

PLCC

PALCE16V8H-5JC/5

Lattice Semiconductor Corp

PLCC20

PALCE22V10H-7PC/5

Lattice Semiconductor Corp

DIP

PALCE22V10H-15JC/4

Lattice Semiconductor Corp

PLCC28

LC4032V-75TN48C

Lattice Semiconductor Corp

QFP48

LCMXO2-1200HC-6SG32C

Lattice Semiconductor Corp

QFN32

LC4032V-75T48C

Lattice Semiconductor Corp

TQFP48

LC4512V-5FN256C

Lattice Semiconductor Corp

BGA

LCMXO640C-3T144C

Lattice Semiconductor Corp

QFP144

LCMXO2280C-3M132C

Lattice Semiconductor Corp

QFN16