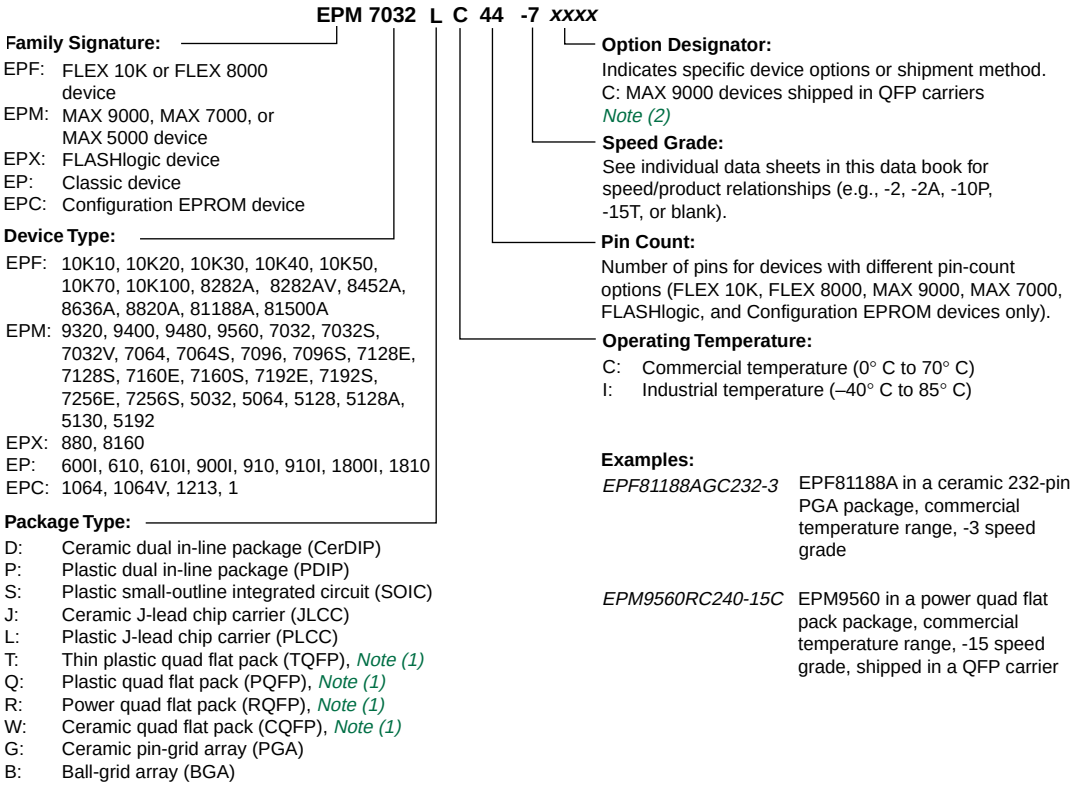
Ordering Information

June 1996, ver. 8

Altera Devices

Figure 1 explains the ordering codes for Altera devices. Devices that have multiple pin counts for the same package include the pin count in their ordering codes. Some codes use relative numbers (e.g., -1, -2) to designate speed grades; others use actual propagation delay times (e.g., -15, -20). For information on specific package, speed grade, and operating temperature combinations, refer to the device family data sheets in this data book, or contact Altera Customer Marketing at (408) 894-7104.

Figure 1. Device Package Ordering Codes



Notes:

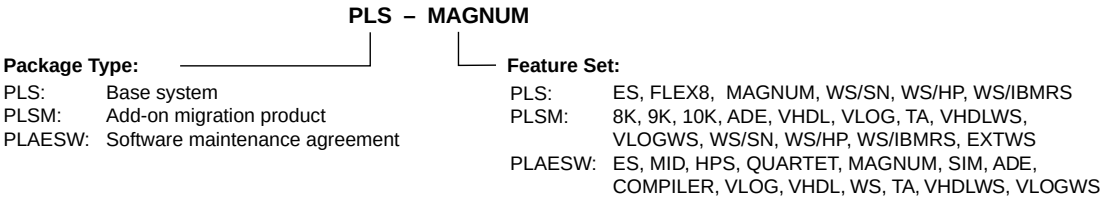
(1) MAX 9000, MAX 7000, and MAX 5000 devices in QFP packages with 100 or more pins can be ordered in QFP carriers. For more information on QFP carriers, see the *QFP Carrier & Development Socket Data Sheet* in this data book; for information on Altera shipment methods, contact Altera Customer Marketing.

(2) Contact Altera Customer Marketing for more information.

Development Tools

Figure 2 explains the ordering codes for Altera development systems. For information on specific packages, refer to the *MAX+PLUS II Programmable Logic Development System Data Sheet* in this data book, or contact Altera Customer Marketing at (408) 894-7104.

Figure 2. Development System Ordering Codes



Programming Hardware

This section provides the ordering codes for Altera programming hardware and adapters. Table 1 lists the ordering codes for the programming cards, cables, and units.

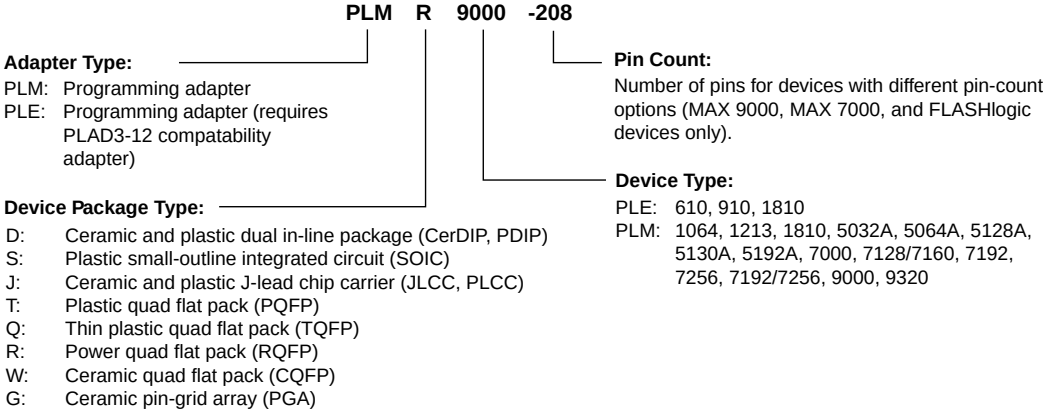
Table 1. Programming Hardware

Product	Ordering Code	Description
Altera Stand-Alone Programmer	PL-ASAP2	Includes programming software, a Logic Programmer card, and the MPU.
LP6 Logic Programmer Card	PLP6	Interfaces with IBM PC-AT and compatible computers.
Master Programming Unit (MPU)	PL-MPU	With the appropriate adapters, programs all Altera devices.
Compatibility Adapter	PLAD3-12	Interfaces PLE-prefix adapters to the MPU. Together with the MPU, directly programs 20-pin Classic devices.
BitBlaster Serial Download Cable	PL-BITBLASTER	Interfaces with IBM-compatible computers and workstations.

Figure 3 explains the ordering codes for Altera programming adapters. Two types of adapters plug directly into the Master Programming Unit (MPU): PLM-prefix and PLAD3-12 adapters. Multiple pin-compatible devices use the same device type code shown in Figure 3.

Figure 3. Programming Adapter Ordering Codes

See the Altera Programming Hardware Data Sheet for specific information on each device and package combination.



QFP Carrier & Development Sockets

Table 2 shows the ordering codes for QFP device device sockets. All MAX 9000, MAX 7000, and MAX 5000 QFP devices with 100 or more pins may be ordered in QFP carriers. QFP carriers and development sockets are rated from –65° C to 155° C and are qualified to handle commercial (C) and industrial (I) operating temperatures.

Table 2. QFP Device Sockets

Product	Ordering Code
100-pin development socket (includes removal tool)	PL-SKT/Q100
160-pin development socket (includes removal tool)	PL-SKT/Q160
208-pin development socket (includes removal tool)	PL-SKT/Q208
240-pin development socket (includes removal tool)	PL-SKT/Q240
304-pin development socket (includes removal tool)	PL-SKT/Q304

Table 3 shows the ordering codes for QFP carrier extraction tools.

Table 3. QFP Carrier Extraction Tools

Product	Ordering Code
100-pin QFP carrier extraction tool	PL-EXT1
160- and 208-pin QFP carrier extraction tool	PL-EXT2
240-pin QFP carrier extraction tool	PL-EXT4
304-pin QFP carrier extraction tool	PL-EXT5

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