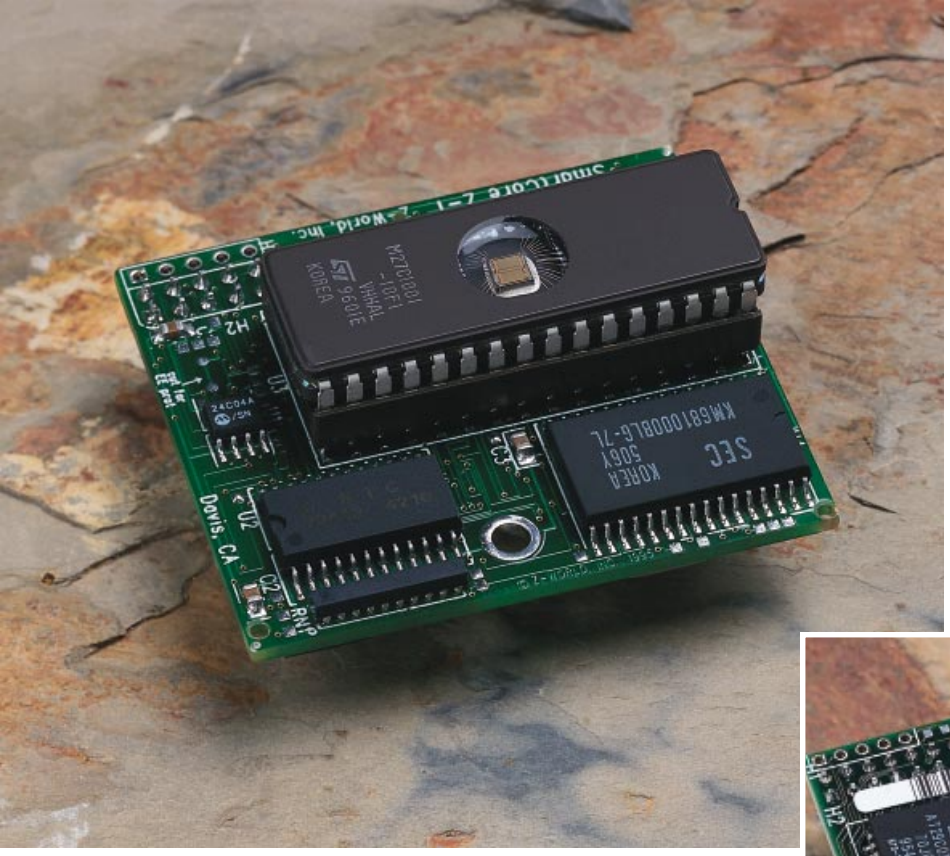


CM7100

CE *pending*

Design your own custom controller using the 3.7 sq. in. CM7100 or CM7200 microprocessor core module.

Core Modules

CE *pending*

CM7200

- *"Microprocessor core modules" you can use as the engine of a product or controller you design*
- *Speeds development for fast time-to-market*
- *Reduces engineering effort and risk*
- *Integrated software and hardware. No need for third-party emulators or debuggers*
- *Least costly approach for your high-volume production requirements*

Production licenses are available for core modules. Call Z-World for details if your application is high-volume.

The CM7100 and CM7200 are designed to be the heart of custom-designed microprocessor-based products. These compact and powerful core modules include all the components that will jump-start your custom design: memory, power control, I/O strobes, time-date clock, and EEPROM.

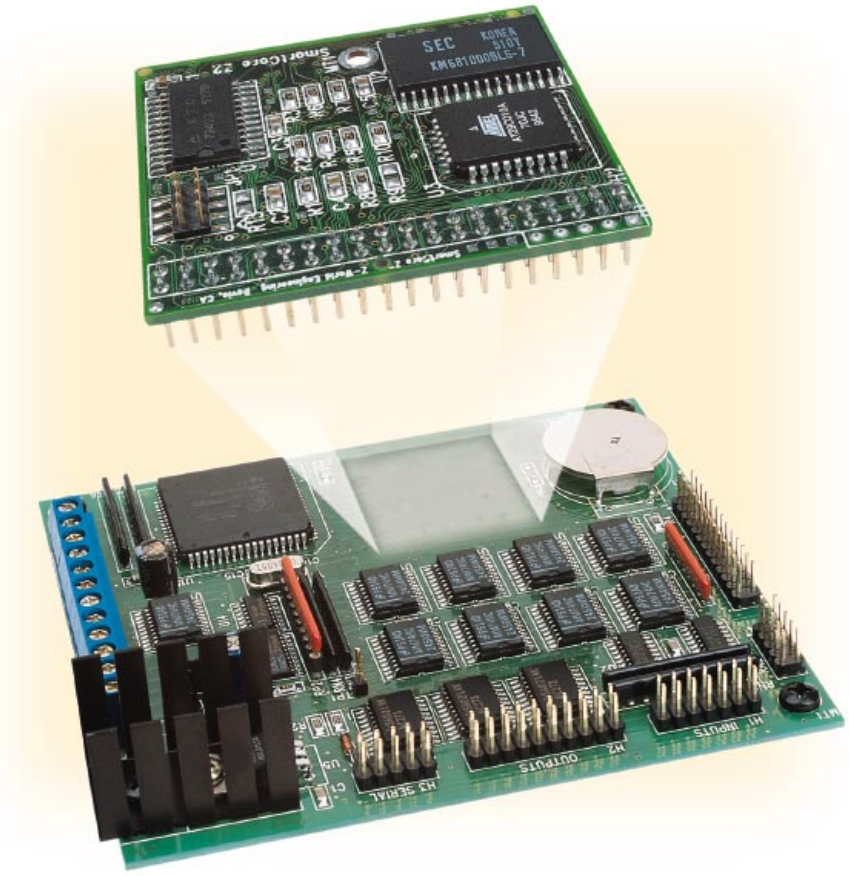
Applications using the CM7100 or the CM7200 are developed using Z-World's Dynamic C® software development system, described on page 50. Software and hardware integration is immediate. With Dynamic C,® no emulators or debuggers are needed. When using a CM7100 or a CM7200, hardware and software are under the developer's total control.

Using the CM7100 or the CM7200 is easy. A motherboard is designed to accept either core module. Peripheral control circuitry specific to the application is added, and software is developed using the integrated Dynamic C® development system.

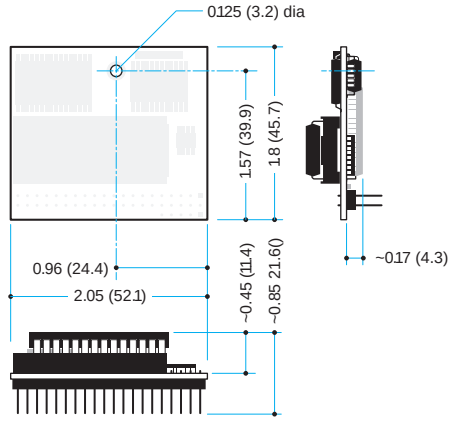
A connector on the CM7100 and CM7200 provides all the necessary signals for an interface to a motherboard. The CPU interface comprises 8 data lines, 6 address lines, and 5 control lines. Six strobes select groups of 64 I/O addresses, yielding up to 384 addresses for single-level addressing. Additional lines support two full-duplex serial channels, DMA, interrupts, and an external backup battery.

The modules are available in two versions. The CM7100 version uses standard EPROM and the CM7200 version uses flash EPROM. There are four configurations of each version.

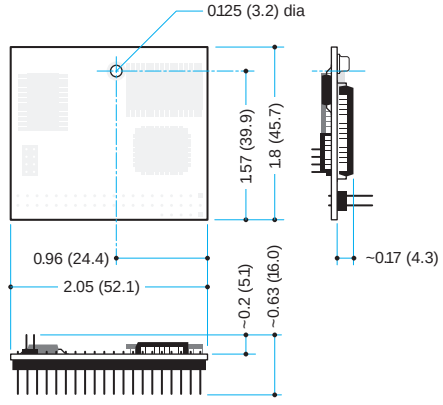
In addition to the Dynamic C® software development system, Z-World offers several hardware aids.



The CM7100 or CM7200 core modules plug directly into a circuit board. The interface is a single 40-pin header.



CM7100 Dimensions



CM7200 Dimensions

Prototyping Board

The Prototyping Board provides a means for immediately prototyping a core-based system. Included are LEDs, pushbuttons, a power supply, an interface for adding an LCD and keypad and a substantial area for adding custom circuitry.

Application programs are developed by simply plugging the core module into the Prototyping Board and connecting the Prototyping Board to a PC. Many sample programs are available in Dynamic C®.

Developer's Kits

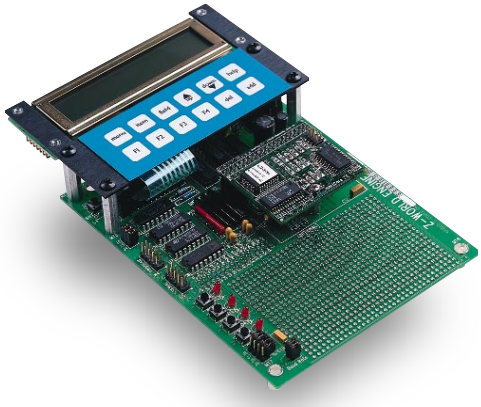
Each developer's kit provides manuals with schematics, and all the accessories needed to begin developing a system using a CM7100 or CM7200 core module.

The CM7100 Developer's Kit (EPROM)

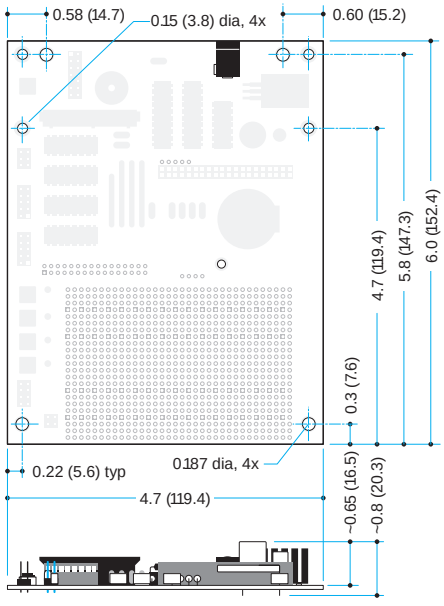
The CM7100 Developer's Kit includes a development board, a prototyping board, and all accessories needed for system development using any EPROM-based CM7100 core module.

The CM7200 Developer's Kit (Flash)

The CM7200 Developer's Kit includes a Serial Interface Board for programming, a prototyping board, and all accessories needed for system development using any flash-based CM7200 core module.



Prototyping Board showing optional LCD and keypad module



Prototyping Board Dimensions

Core Modules...

Evaluation Kit

Z-World offers an Evaluation Kit that provides a simple, inexpensive way to become acquainted with the CM7100 core module.

The kit includes a Prototyping Board, a CM7110, and a trial version of Dynamic C.® The Evaluation Kit's special EPROM has several built-in sample programs. Also included are accessories and documentation—everything needed to write and test programs.

Once the CM7110 is evaluated, you can purchase a production version of Dynamic C® and a CM7100 development board to upgrade the evaluation kit to become a complete development kit. Our sales staff and customer support staff will be pleased to give assistance.

CM7100 and CM7200 Specifications

Board size	CM7100 1.80″×2.05″×0.85″ CM7200 1.80″×2.05″×0.63″
Enclosure size	N/A
Operating temp.	–40°C to +70°C
Humidity	5% to 95%, non-condensing
Input voltage, current	5 VDC at 100 mA (9.216 MHz) or 5 VDC at 130 mA (18.432 MHz)
Configurable I/O	Six groups of 64 I/O addresses support your custom design
Digital inputs	See configurable I/O above
Digital outputs	See configurable I/O above
Analog inputs	No
Analog outputs	No
Resistance meas. input	No
Processor	Z180
Clock	18.432 MHz
SRAM	128K, surface mount
EPROM	(CM7100) Optional, up to 512K bytes
Flash	(CM7200) 128K bytes
EEPROM	(CM7100) 512 bytes
Counters	Two, using DMA channels
Serial ports	Two TTL-level UARTs
Serial rate	Up to 57,600 bps
Watchdog/supervisor	Yes
Time/date clock	Yes
Backup battery	Connections on header H2 for user-supplied battery
Keypad and LCD	No
Expansion port	No

Versions

CM7100	Full-featured core module with standard EPROM
CM7110	CM7100 with 9.216 MHz clock
CM7120	CM7100 with 32K SRAM and 9.216 MHz clock
CM7130	CM7120 without a 691 supervisor, real-time clock, or EEPROM
CM7200	Full-featured core module with flash EPROM
CM7210	CM7200 with 9.216 MHz clock
CM7220	CM7210 with 32K SRAM
CM7230	CM7220 without a 691 supervisor or a real-time clock

Options and Upgrades

LCD & keypad module. 2×20 LCD & 2×6 keypad for the CM7100 Developer's Kit. For use only with the CM7110, CM7120, or CM7130

LCD & keypad module. 2×20 LCD & 2×6 keypad for the CM7200 Developer's Kit. For use only with the CM7210, CM7220, or CM7230

Flash Programmer. A fast method for restoring or duplicating CM7200 flash contents. Great for mass production

128K EPROM. For use with the CM7100.

H2: 40-Pin Header

GND	1	□	□	2	+5V (regulated)
VBAT	3	□	□	4	/PFI
D1	5	□	□	6	/RESET
D2	7	□	□	8	/CS5
D3	9	□	□	10	/CS6
D4	11	□	□	12	/CS1
D5	13	□	□	14	/CS2
D6	15	□	□	16	D0
/CS4	17	□	□	18	A0
A1	19	□	□	20	/CS3
/INT1	21	□	□	22	/INT0
A3	23	□	□	24	A2
/WAIT	25	□	□	26	A4
D7	27	□	□	28	A5
/WR	29	□	□	30	/IORQ
/DREQ0	31	□	□	32	/RD
/DREQ1	33	□	□	34	TXA1
/CTS0	35	□	□	36	RXA0
TXA0	37	□	□	38	RXA1
E	39	□	□	40	GND

H1: 5-Pin Extension

1 ○	GND
2 ○	VRAM
3 ○	/TEND0
4 ○	/TEND1
5 ○	/RTS0

"/" denotes signals that are active low.