

CMOS 8-bit Single Chip Microcomputer

Piggyback/
evaluator type

Description

The CXP82500 is a CMOS 8-bit single chip micro-computer of piggyback/evaluator combined type, which is developed for evaluating the function of the CXP82532/82540.

Features

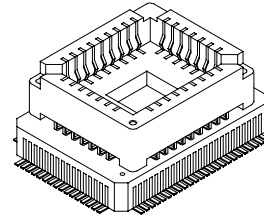
- Wide-range instruction system (213 instructions) to cover various types of data
 - 16-bit operation/multiplication and division/
Boolean bit operation instructions
- Minimum instruction cycle 400ns at 10MHz operation
- Applicable EPROM LCC type 27C512 (Maximum 40K bytes are available.)
- Incorporated RAM capacity 1120 bytes (Including fluorescent display data area)
- Peripheral functions
 - A/D converter 8-bit, 8-channel, successive approximation method
(Conversion time of 32 μ s/10MHz)
 - Serial interface Incorporated 8-bit, 8-stage FIFO (Auto transfer for 1 to 8 bytes), 1 channel
8-bit clock sync type, 1 channel
 - Timer 8-bit timer
8-bit timer/counter
19-bit time base timer
16-bit capture timer/counter
 - Fluorescent display panel controller/driver
Maximum 336 segment display possible
1 to 16-digit dynamic display
Dimmer function
High voltage drive output (40V)
On-chip pull-down resistor (Mask option)
Hardware key scan function (Maximum 16 \times 8 key matrix compatible)
 - Remote control reception circuit 8-bit pulse measurement counter with on-chip 6-stage FIFO
- Interruption 14 factors, 14 vectors, multi-interruption possible
- Standby mode Sleep/stop
- Package 80-pin ceramic QFP

Note) Mask option depends on the type of the CXP82500. Refer to the Products List for details.

Structure

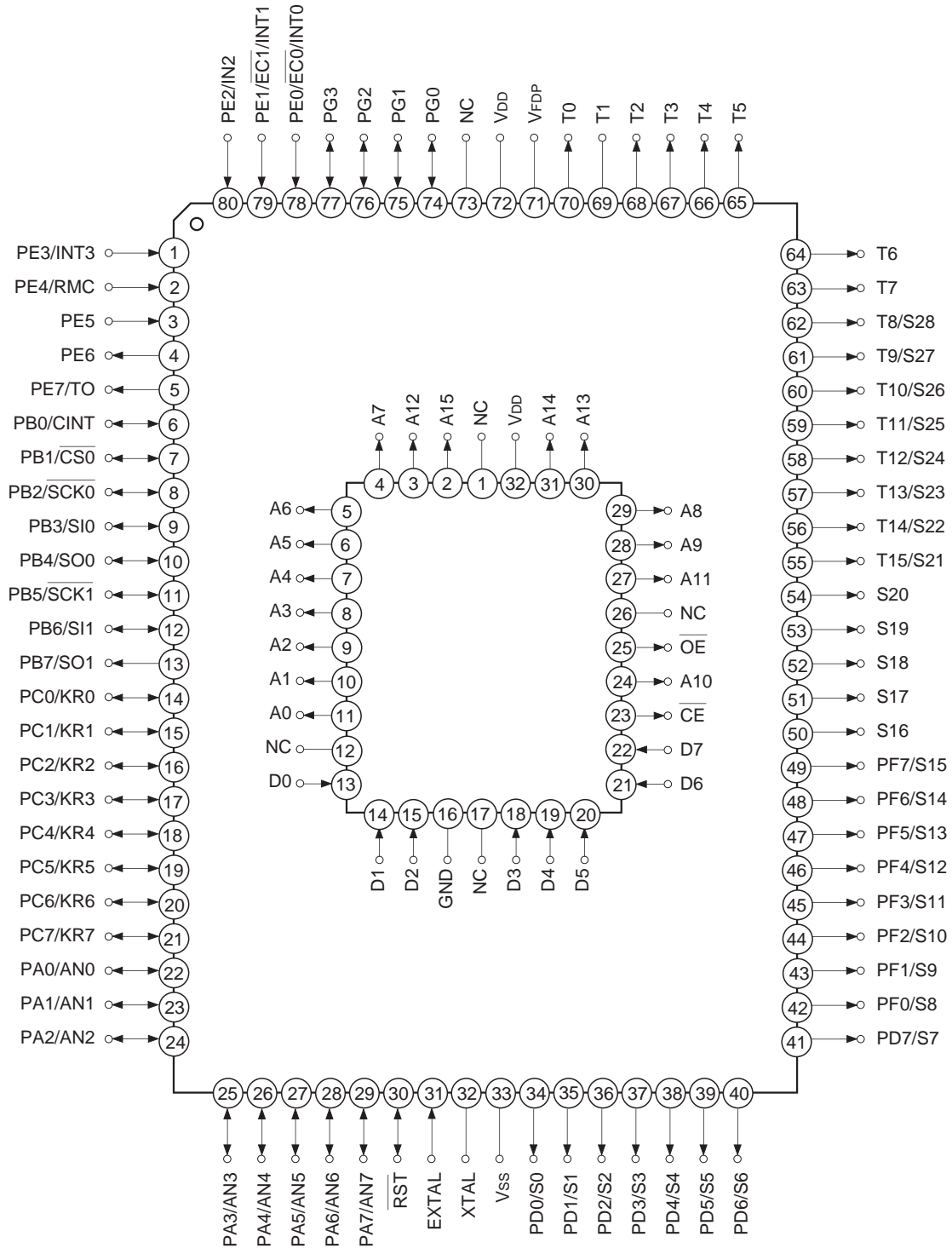
Silicon gate CMOS IC

80 pin PQFP (Ceramic)



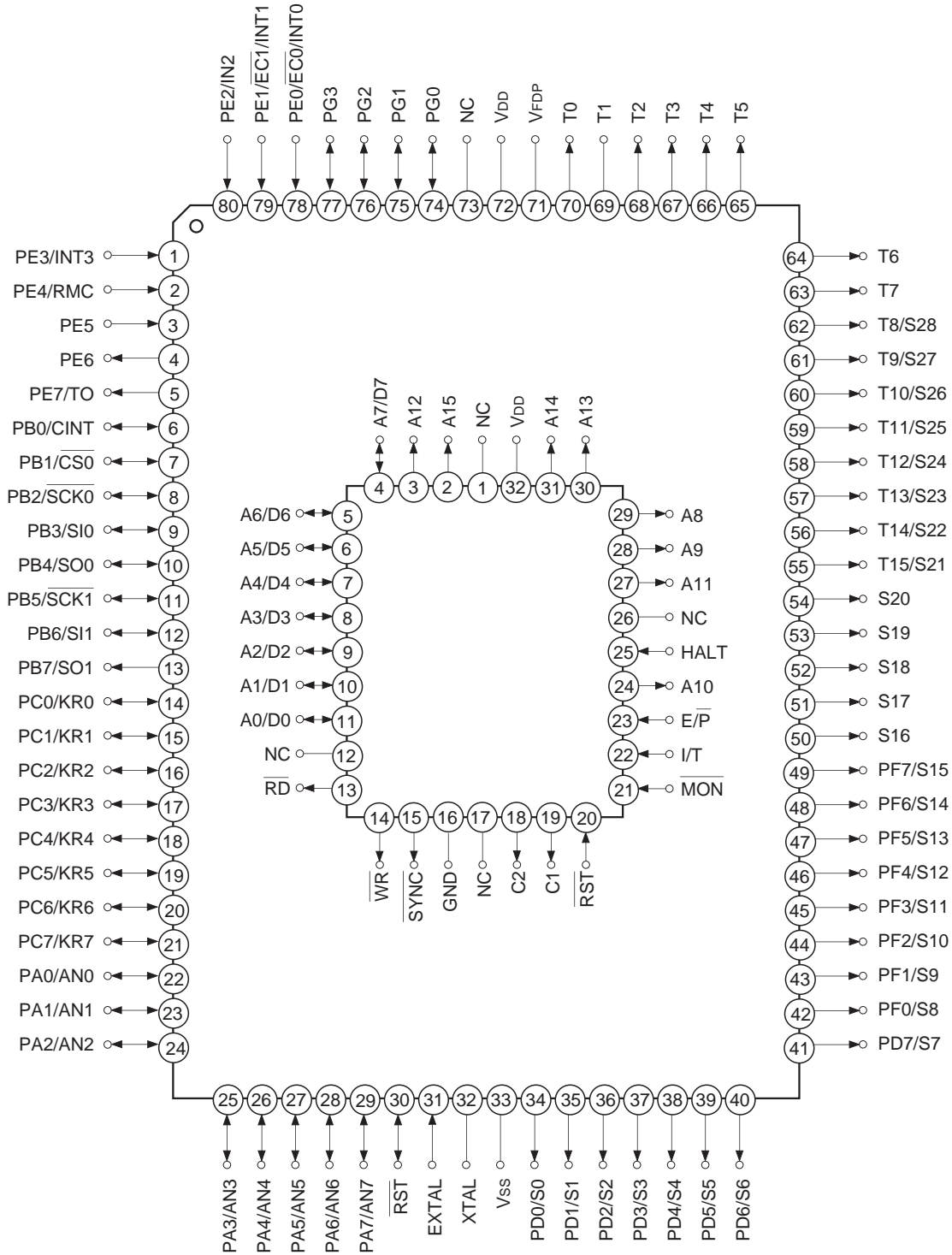
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Pin Assignment in Piggyback Mode



Note NC (Pin 73) is always connected to VDD.

Pin Assignment in Evaluator Mode

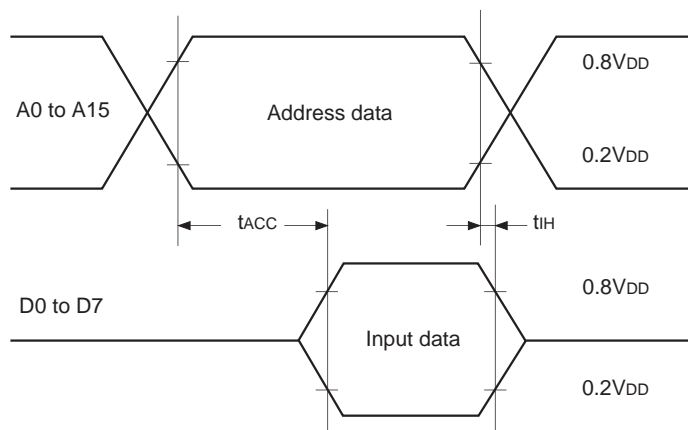


Note NC (Pin 73) is always connected to V_{DD}.

EPROM Read Timing

($T_a = -20$ to $+75^\circ\text{C}$, $V_{cc} = 4.5$ to 5.5V , $V_{ss} = 0\text{V}$ reference)

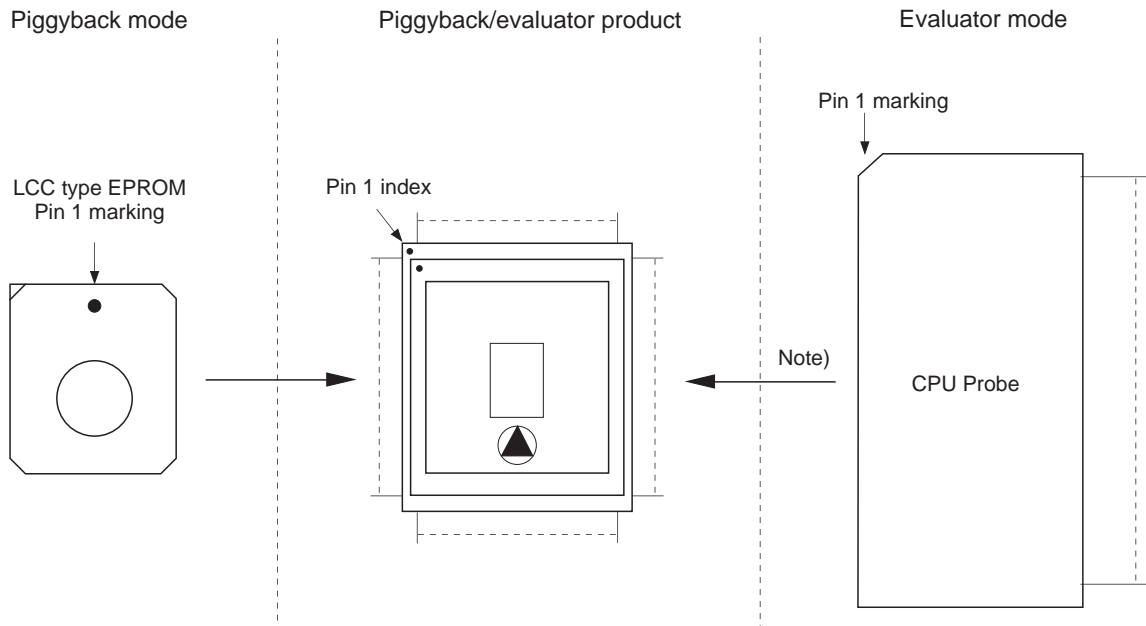
Item	Symbol	Pins	Min.	Max.	Unit
Address → Data Input delay time	t_{ACC}	A0 to A15 D0 to D7		120	ns
Address → Data Hold time	t_{IH}	A0 to A15 D0 to D7	0		ns



Products List

Option item	Products		
	Mask		Piggyback/evaluator
	CXP82532	CXP82540	CXP82500-U01Q
Package	80-pin plastic QFP		80-pin ceramic PQFP
ROM capacitance	32K bytes	40K bytes	40K bytes
Pull-up resistance for reset pin	Existent/Non-existent		Existent
Power-on reset circuit	Existent/Non-existent		Existent
Pull-down resistance for high voltage drive pin	Existent/Non-existent		Only port for display

Piggyback mode/evaluator mode can be switched as shown below.



Note) Evaluation cap should be connected to CPU probe.

Package Outline Unit: mm

