

**CMOS 8-bit Single Chip Microcomputer**

**Piggyback/  
evaluator type**

**Description**

The CXP84100 is a CMOS 8-bit single chip micro-computer of piggyback/evaluator combined type, which is developed for evaluating the function of the CXP84120/84124.

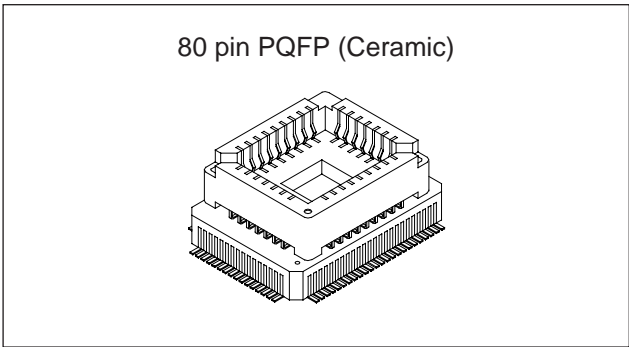
**Features**

- 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  
   122μs at 32kHz operation
- Applicable EPROM                LCC type 27C128, LCC type 27C256  
   (Maximum 24K bytes are available.)
- Incorporated RAM capacity      624 bytes
- Peripheral functions
  - A/D converter                      8-bit, 8-channel, successive approximation method  
   (Conversion time of 32μs/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  
   32kHz timer/counter
  - Remote control reception circuit 8-bit pulse measurement counter with on-chip 6-stage FIFO
  - PWM output                        14 bits, 1 channel
- Interruption                        15 factors, 15 vectors, multi-interruption possible
- Standby mode                      Sleep/stop
- Package                              80-pin ceramic QFP

**Note)** Mask option depends on the type of the CXP84100. Refer to the Products List for details.

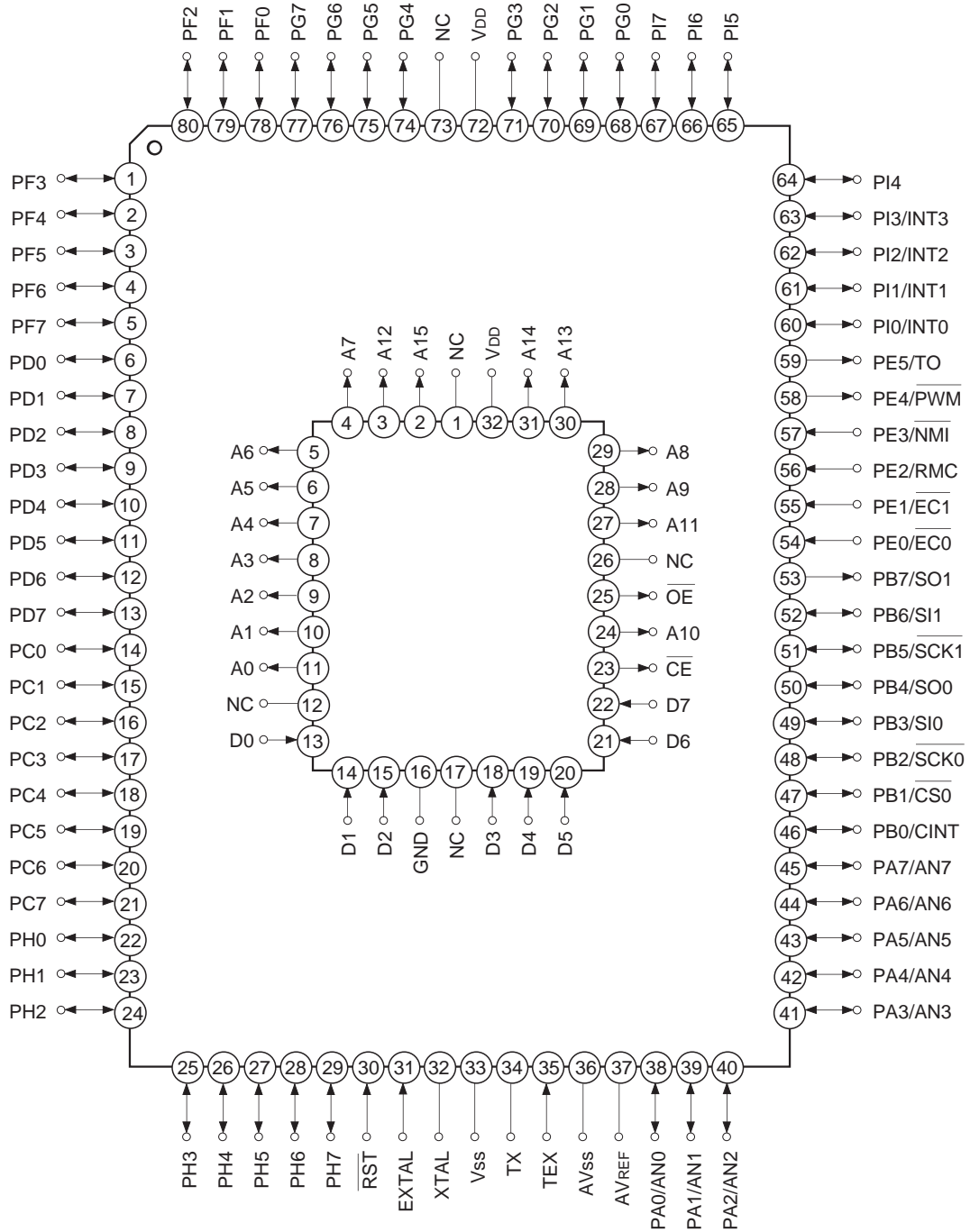
**Structure**

Silicon gate CMOS IC



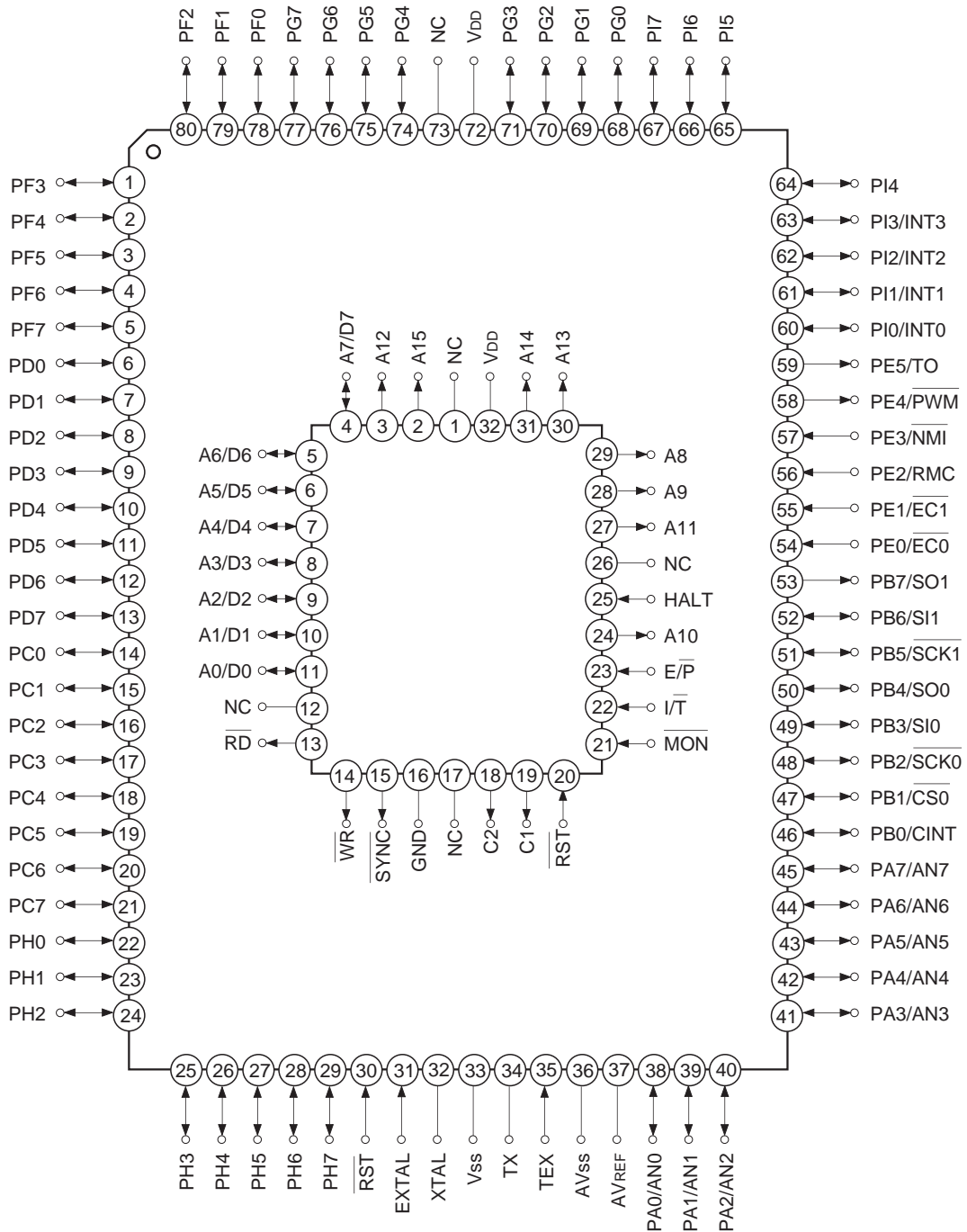
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Pin Configuration in Piggyback Mode



**Note** NC (Pin 73) is always connected to V<sub>DD</sub>.

Pin Configuration in Evaluator Mode

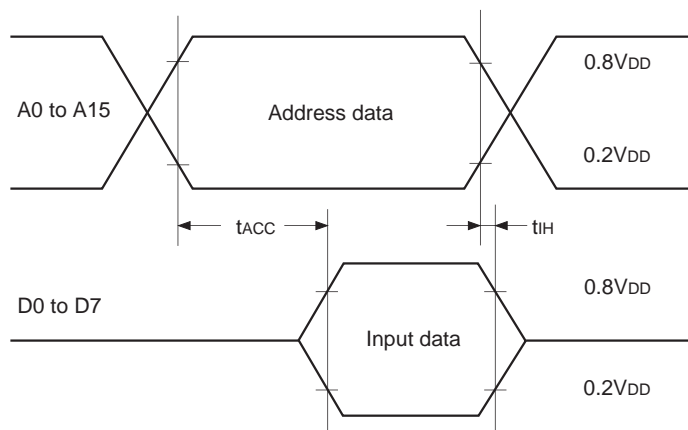


**Note)** NC (Pin 73) is always connected to V<sub>DD</sub>.

**EPROM Read Timing**

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

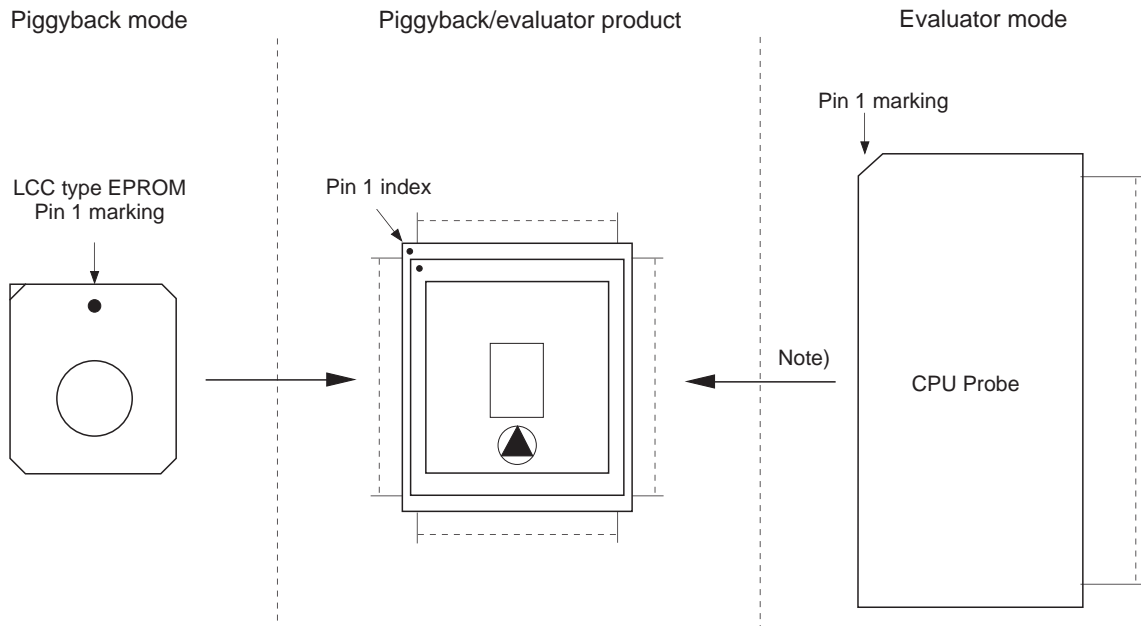
Item	Symbol	Pins	Min.	Max.	Unit
Address → Data Input delay time	$t_{ACC}$	A0 to A15 D0 to D7		120	ns
Address → Data Hold time	$t_{IH}$	A0 to A15 D0 to D7	0		ns



**Products List**

Option item	Products		
	Mask		Piggyback/evaluator
	CXP84120	CXP84124	CXP84100-U01Q
Package	80-pin plastic QFP		80-pin ceramic PQFP
ROM capacitance	20K bytes	24K bytes	24K bytes
Pull-up resistance for reset pin	Existent/Non-existent		Existent
Power-on reset circuit	Non-existent		Non-existent

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



Note) Evaluation cap should be connected to CPU probe.

Package Outline Unit: mm

