

CXP81300

CMOS 8-bit Single Chip Microcomputer

**Piggyback/
evaluator type**

Description

The CXP81300 is a CMOS 8-bit single chip microcomputer of piggyback/evaluator combined type, which is developed for evaluating the function of the CXP81312/81316/81312L/81316L.

Features

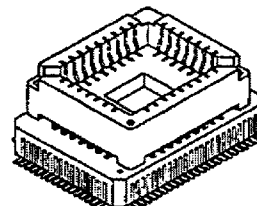
- A wide instruction set (213 instructions) which cover various types of data
 - 16-bit operation/multiplication and division/boolean bit operation instructions
- Minimum instruction cycle 500ns at 8MHz operation
- Applicable EPROM LCC type 27C128, LCC type 27C256
 (Maximum 16Kbytes are available)
- Incorporated RAM capacity 352bytes
- Peripheral functions
 - A/D converter 8-bit, 8-channel, successive approximation method
 (Conversion time of 20 μ s/8MHz)
 - Serial interface Incorporated 8-bit, 8-stage FIFO
 (auto transfer for 1 to 8bytes), 2-channel
 - Timer 8-bit timer
 8-bit timer/counter
 19-bit time base timer
 - PWM/DA gate output PWM output 12-bit, 2-channel
 (repetitive frequency 15.6kHz/8MHz)
 DA gate pulse output 12-bit, 4-channel
 - FRC capture unit Incorporated 18-bit and 6-stage FIFO
 - High precision timing pattern generator PPG 19-bit 6-stage FIFO
 RTG 5-pin, 2-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 CXP81300. Refer to the Products List for details.

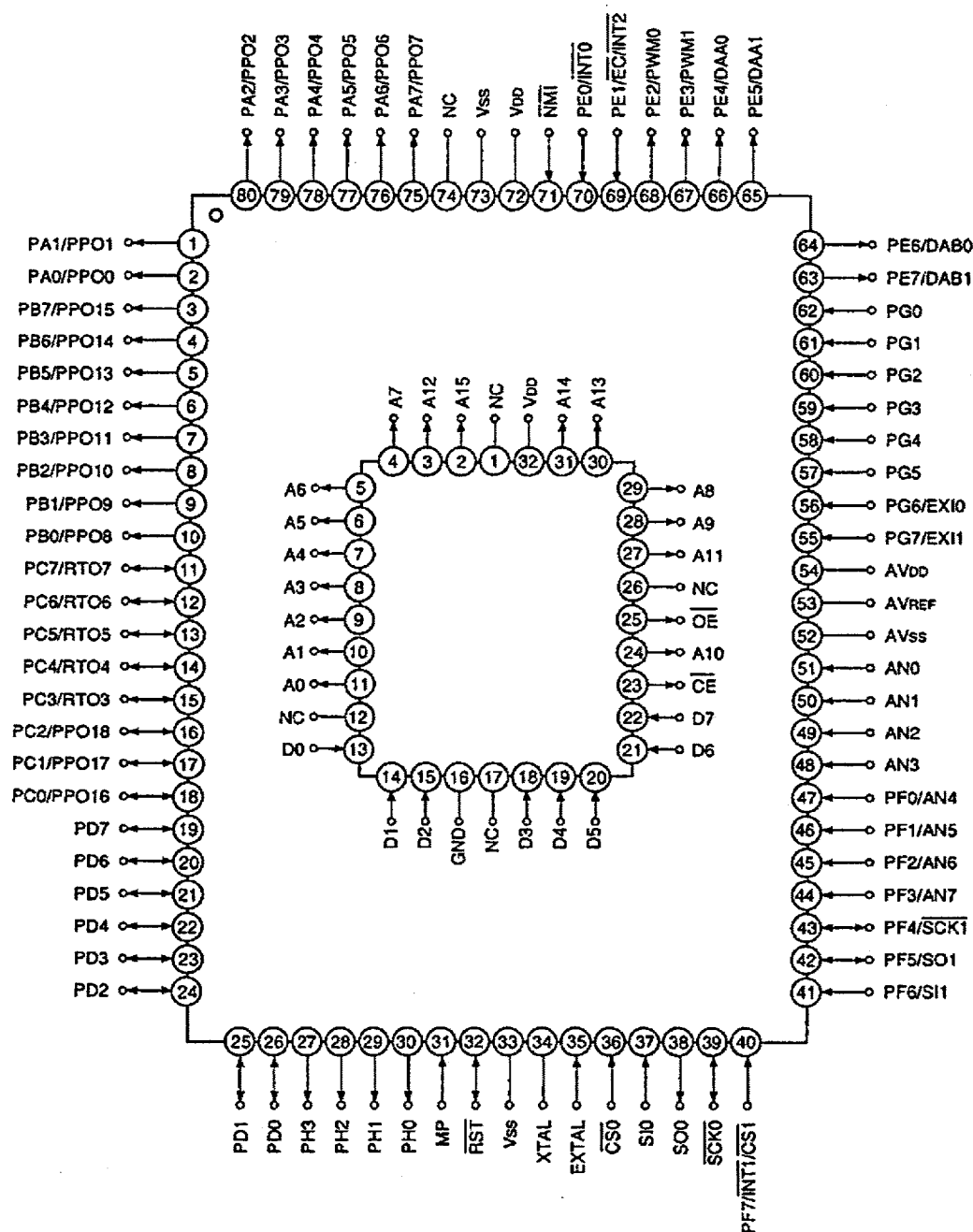
Structure

Silicon gate CMOS IC

80 pin PQFP (Ceramic)

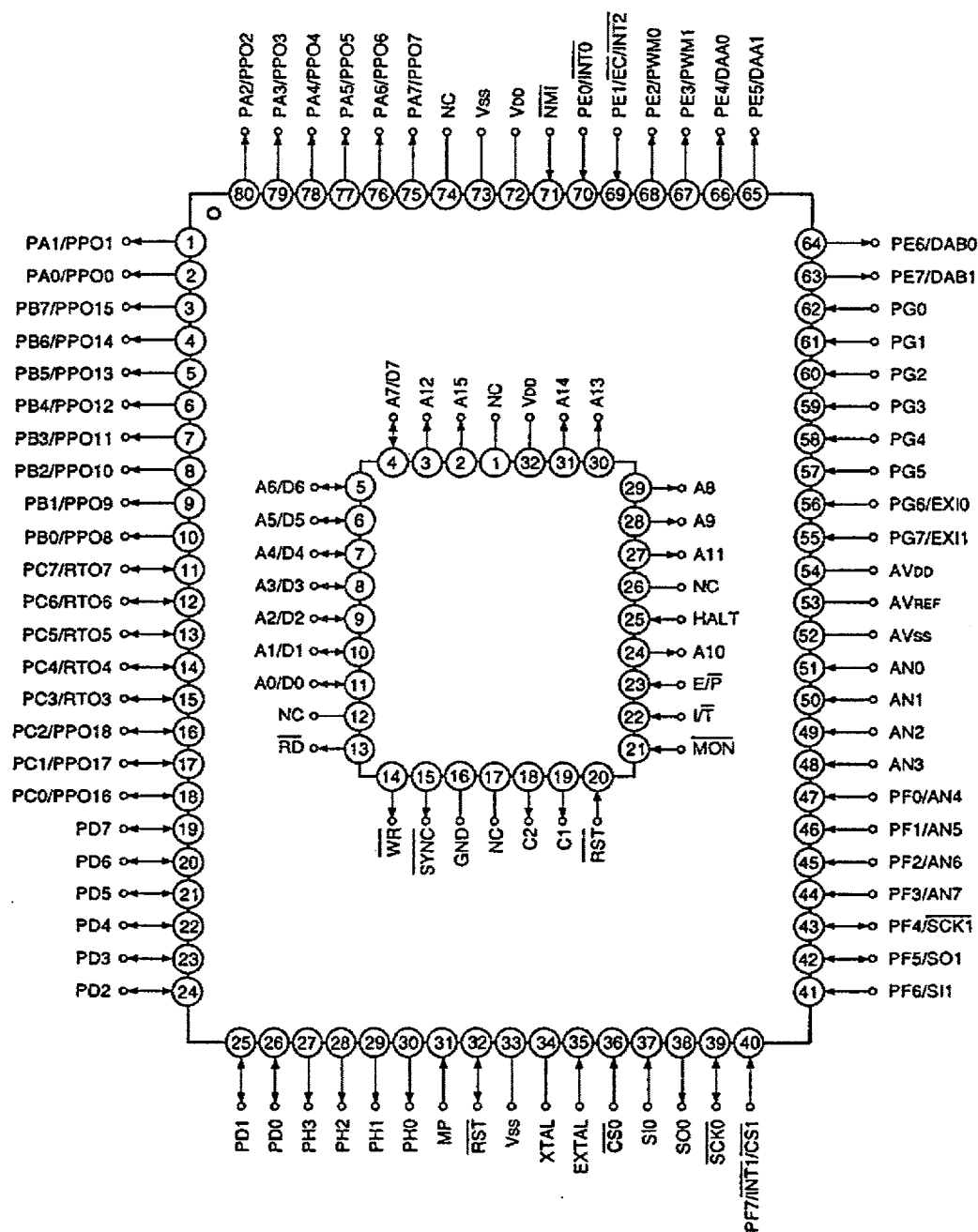


Pin Configuration in Piggyback Mode



- Note)**
1. NC (Pin 74) is always connected to VDD.
 2. Vss (Pins 33 and 73) are both connected to GND.
 3. MP (Pin 31) is always connected to GND.

Pin Configuration in Evaluator Mode

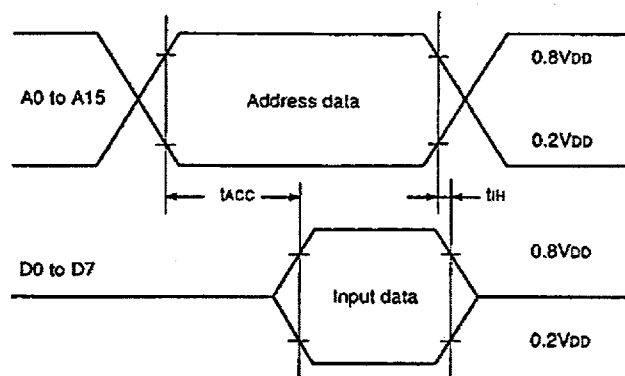


- Note) 1. NC (Pin 74) is always connected to VDD.
 2. Vss (Pins 33 and 73) are both connected to GND.
 3. MP (Pin 31) is always connected to GND.

EPROM Read Timing

(Ta=-20 to +75°C, VDD=4.5 to 5.5V, VSS=0V)

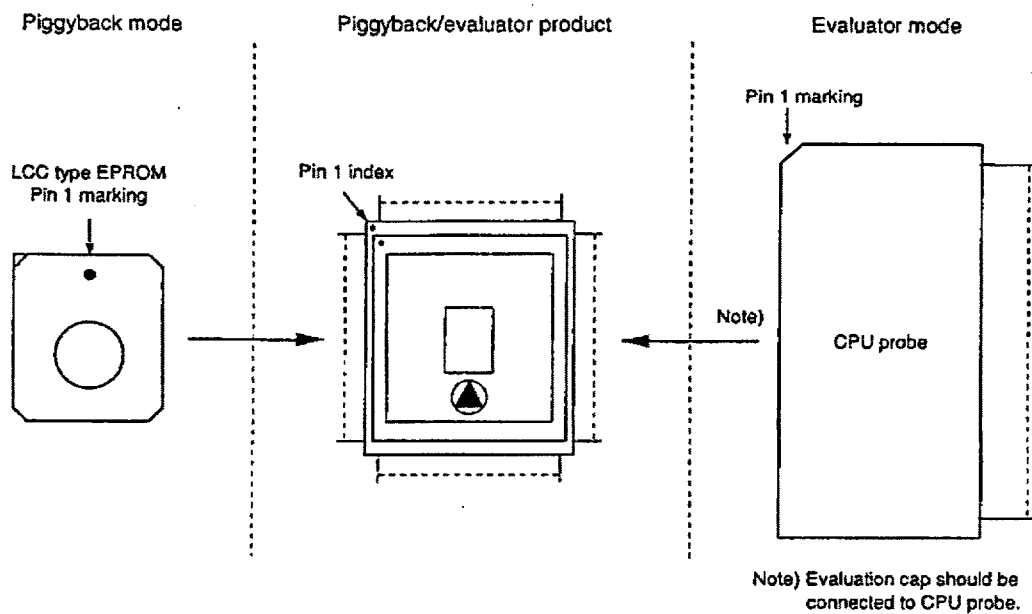
Item	Symbol	Pin	Min.	Max.	Unit
Address→data input delay time	t_{acc}	A0 to A15 D0 to D7		150	ns
Address→data hold time	t_{ih}	A0 to A15 D0 to D7	0		ns



Products List

Option item	Products		
	Mask product		Piggyback/evaluator product
	CXP81312 CXP81312L	CXP81316 CXP81316L	CXP81300-U02Q
Package	80-pin plastic QFP		80-pin ceramic PQFP
ROM capacitance	12Kbytes	16Kbytes	EPROM 16Kbytes
Pull-up resistance for reset pin	Existent/Non-existent		Existent
Power on reset circuit	Existent/Non-existent		Existent

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



Package Outline

Unit : mm

