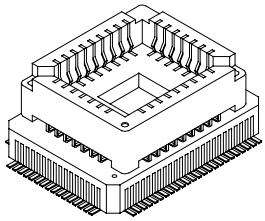
SONY

CXP82500

CMOS 8-bit Single Chip Microcomputer

Piggyback/ evaluator type

80 pin PQFP (Ceramic)



Description

The CXP82500 is a CMOS 8-bit single chip microcomputer 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 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
  - — 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 × 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

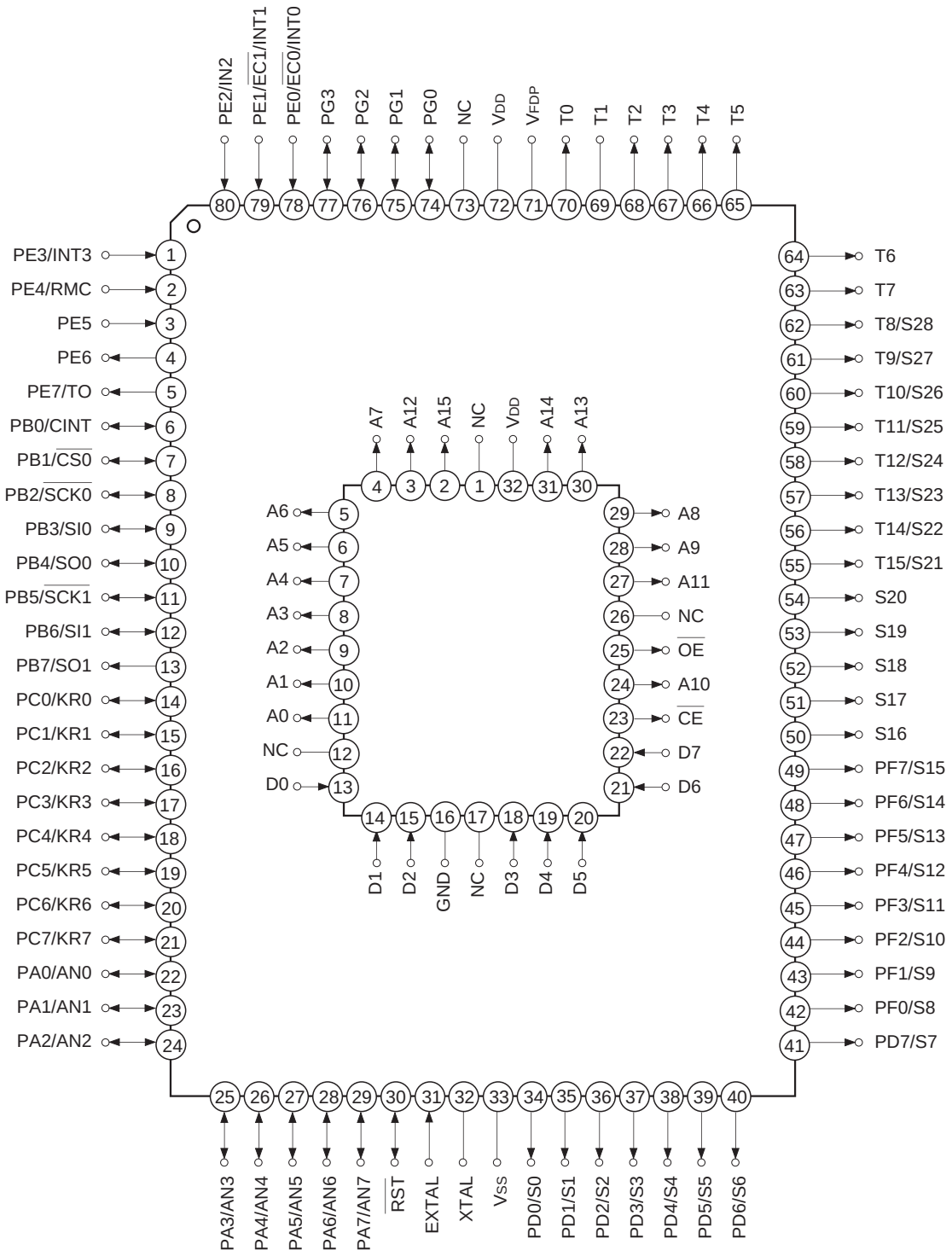
Note) Mask option depends on the type of the CXP82500. Refer to the Products List for details.

Structure

Silicon gate CMOS IC

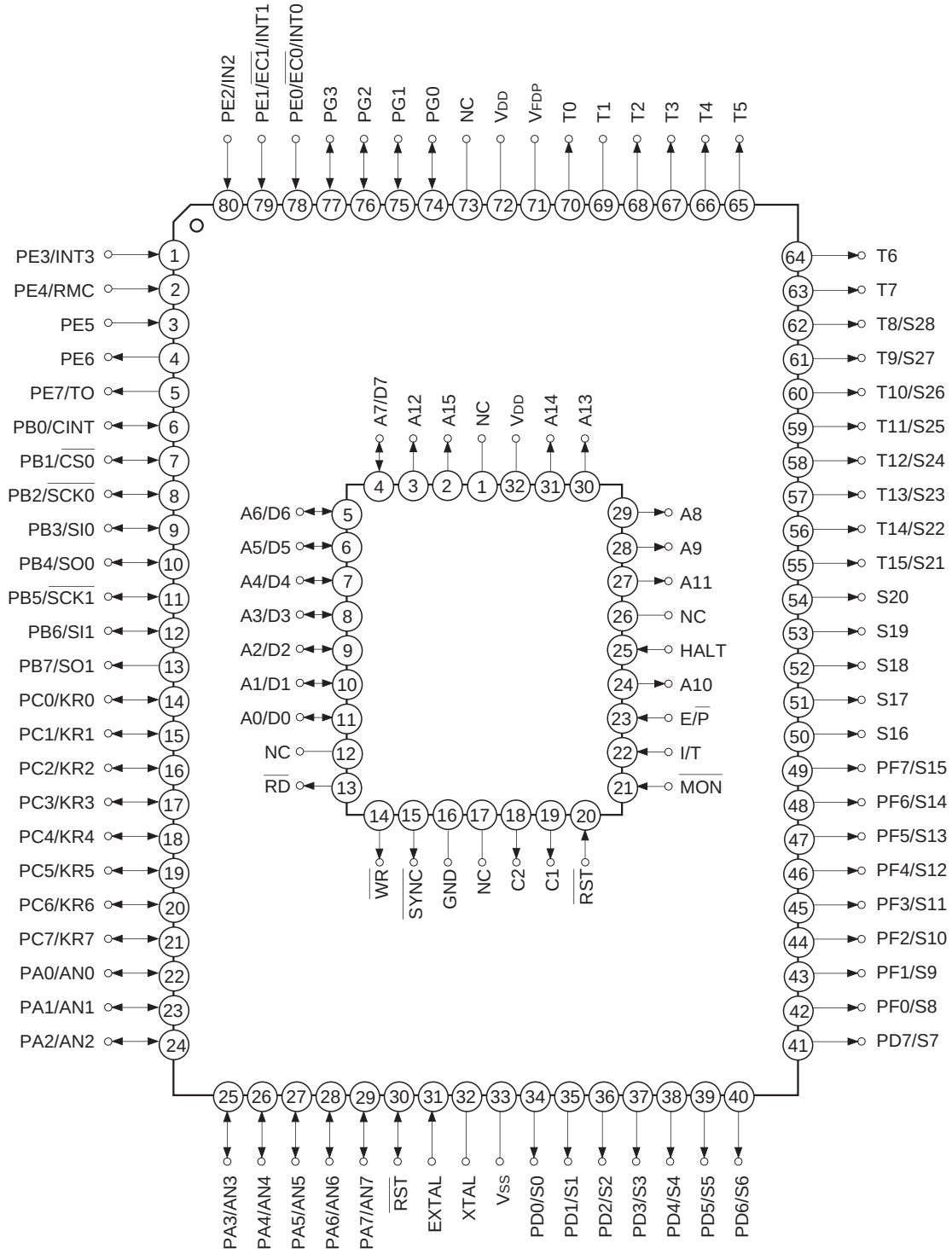
E93863A78-PS

Pin Assignment in Piggyback Mode



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

Pin Assignment in Evaluator Mode

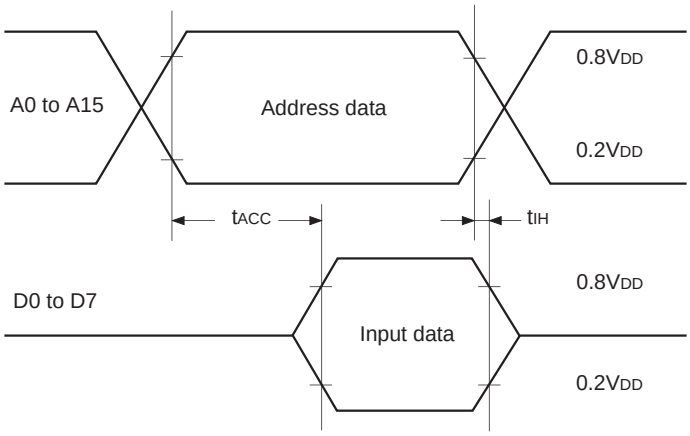


Note) NC (Pin 73) is always connected to V_{DD}.

EPROM Read Timing

(Ta = –20 to +75°C, Vcc = 4.5 to 5.5V, Vss = 0V reference)

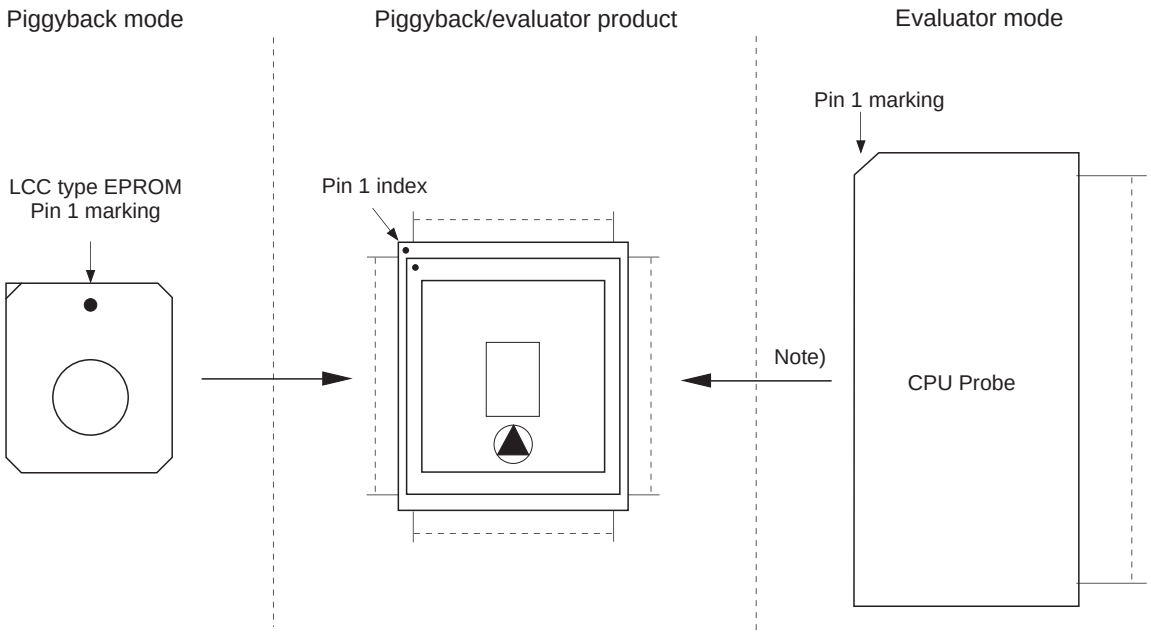
Item	Symbol	Pins	Min.	Max.	Unit
Address → Data Input delay time	t_{ACC}	A0 to A15 D0 to D7		120	ns
Address → Data Hold time	t_{IH}	A0 to A15 D0 to D7	0		ns



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

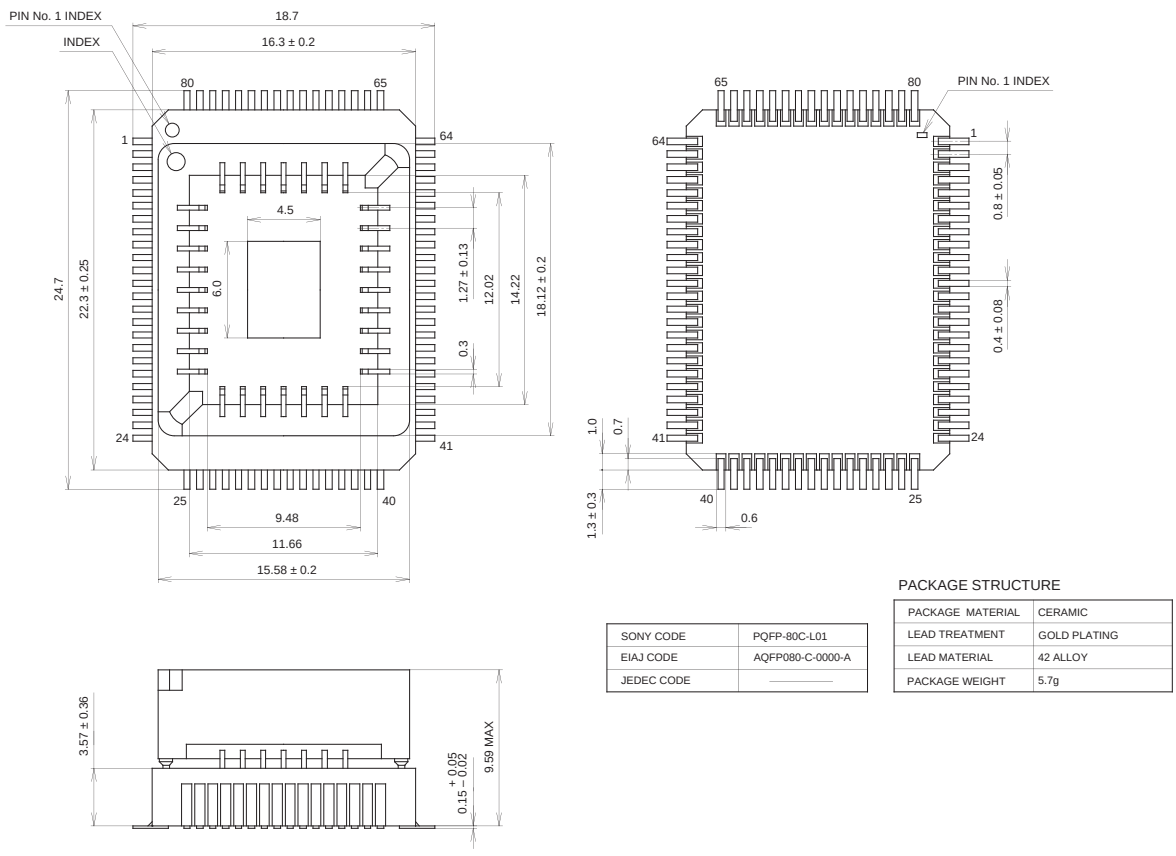
Piggyback mode/evaluator mode can be switched as shown below.



Note) Evaluation cap should be connected to CPU probe.

Package Outline Unit: mm

80PIN PQFP (CERAMIC)



PACKAGE STRUCTURE

SONY CODE	PQFP-80C-L01
EIAJ CODE	AQFP080-C-0000-A
JEDEC CODE	————

PACKAGE MATERIAL	CERAMIC
LEAD TREATMENT	GOLD PLATING
LEAD MATERIAL	42 ALLOY
PACKAGE WEIGHT	5.7g

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