SONY

CXP84600

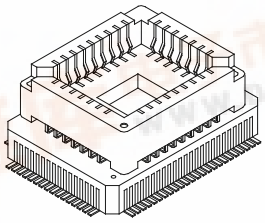
CMOS 8-bit Single Chip Microcomputer

Piggyback/
evaluator type

Description

The CXP84600 is a CMOS 8-bit single chip microcomputer of piggyback/evaluator combined type, which is developed for evaluating the function of the CXP84632/84640/84648.

80 pin PQFP (Ceramic)



Features

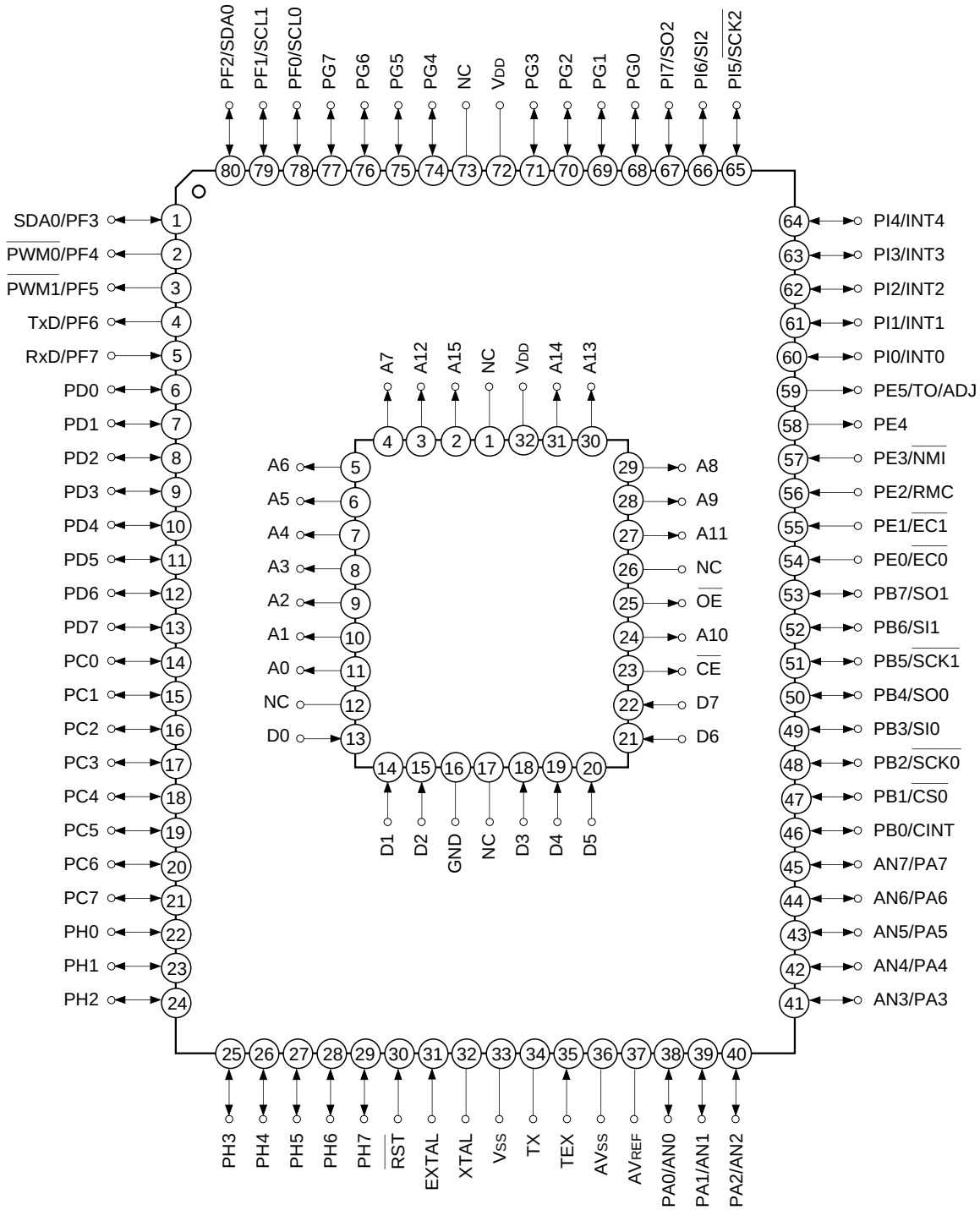
- A wide instruction set (213 instructions) which covers various types of data
  - — 16-bit operation/multiplication and division/ Boolean bit operation instructions
- Minimum instruction cycle: 250ns at 16MHz operation (4.5 to 5.5V)
  333ns at 12MHz operation (3.0 to 5.5V)
  122µs at 32kHz operation (2.7 to 5.5V)
- Applicable EPROM: LCC type 27C512 (Maximum 60K bytes are available.)
- Incorporated RAM capacity: 2048 bytes
- Peripheral functions
  - — A/D converter: 8 bits, 8 channels, successive approximation method (Conversion time of 20µs at 16MHz)
  - — Serial interface: Srart-stop synchronization (UART), 1 channel
    Incorporated buffer RAM (Auto transfer for 1 to 32 bytes), 1 channel
    Incorporated 8-bit, 10-stage FIFO (Auto transfer for 1 to 10 bytes), 1 channel
    8-bit clock synctype (MSB/LSB first selectable), 1 channel
  - — Timer: 8-bit timer, 8-bit timer/counter, 19-bit time base timer, 16-bit capture timer/counter, 32kHz timer/counter
  - — I^2C bus interface
  - — Remote control reception circuit: 8-bit pulse measurement counter, 6-stage FIFO
  - — PWM output circuit: 12 bits, 2 channels
- Interruption: 21 factors, 15 vectors, multi-interruption possible
- Standby mode: SLEEP/STOP
- Package: 80-pin ceramic PQFP

Note) Mask option depends on the type of the CXP84600. Refer to the Products List for details.

Structure

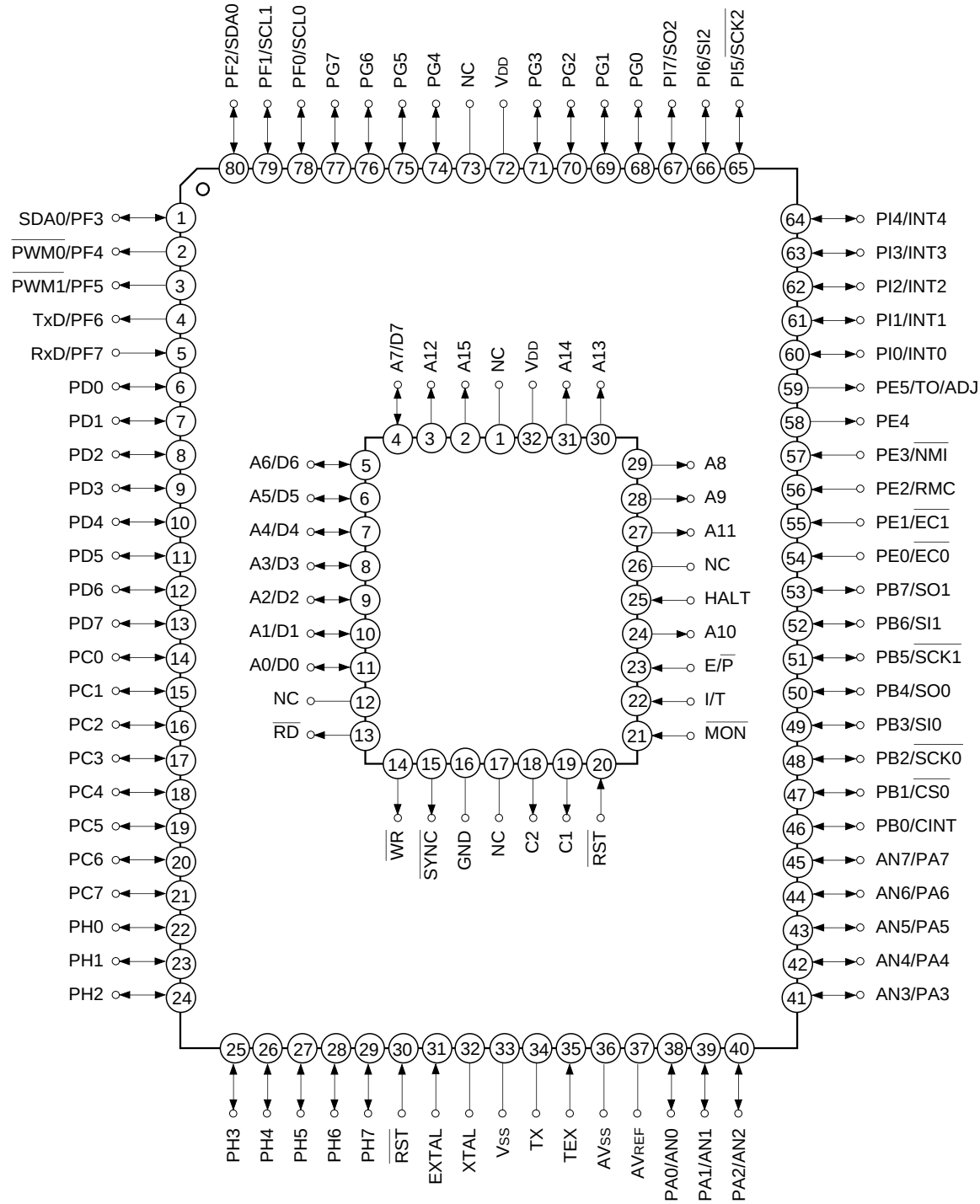
Silicon gate CMOS IC

Pin Assignment in Piggyback Mode



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

Pin Assignment in Evaluator Mode



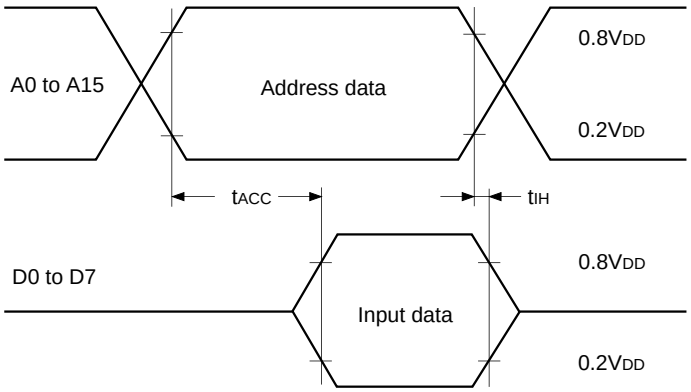
Note) NC (Pin 73) is always connected to V_{DD}.

EPROM Read Timing (Ta = –20 to +75°C, V_{DD} = 3.0 to 5.5V, Vss = 0V reference)

Item	Symbol	Pin	Min.	Max.	Unit
Address → data input delay time	t_{ACC}	A0 to A15 D0 to D7		100*1	ns
				75*2	
Address → data hold time	t_{IH}	A0 to A15 D0 to D7	0		ns

*1 At 12MHz operation (V_{DD} = 4.5 to 5.5V)

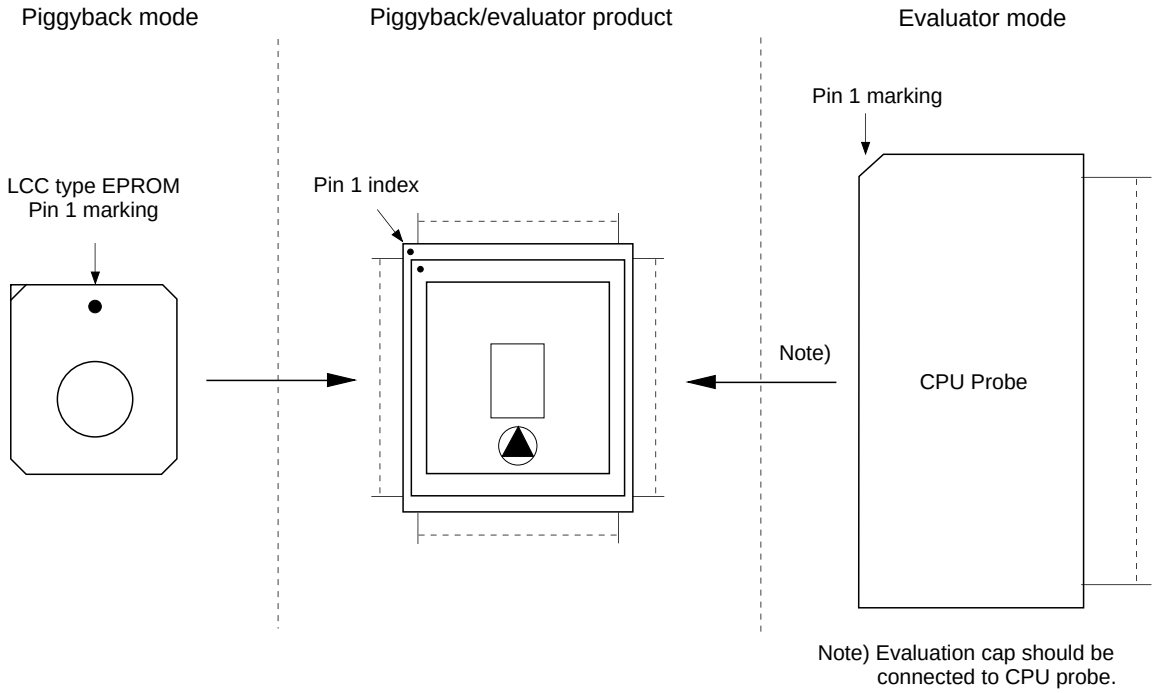
*2 At 12MHz operation (V_{DD} = 3.0 to 5.5V), At 16MHz operation (V_{DD} = 4.5 to 5.5V)



Products List

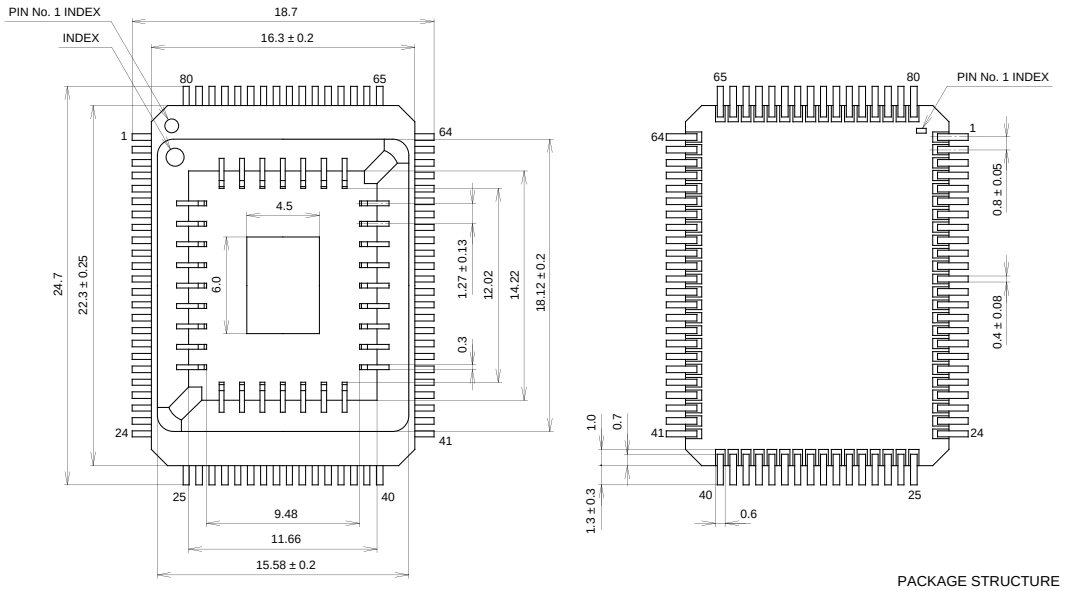
Option item	Products			
	Mask			Piggyback/evaluator
	CXP84632	CXP84640	CXP84648	CXP84600-U01Q
Package	80-pin plastic QFP			80-pin ceramic QFP
ROM capacity	32K bytes	40K bytes	48K bytes	EPROM 60K bytes
Reset pin pull-up resistor	Existent/Non-existent			Existent

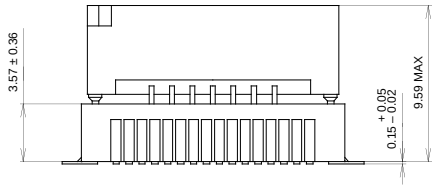
Piggyback mode/evaluator mode can be switched as shown below.



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