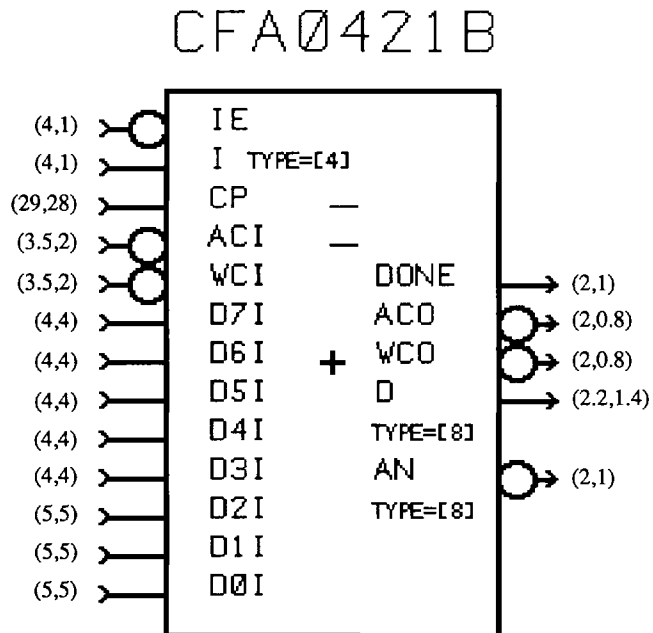


GENERAL DESCRIPTION: PROG'BLE TIMER/CNTR DMA ADDRESS GENERATOR

CFA0421B is designed to be compatible with AM2942. The additional 8-bit address outputs are also provided, so it can be used for AM2940.

PIN CONNECTION DIAGRAM:**FEATURES:**

- 8-bit address outputs. (compatible with AM2940)
- Expandable eight-bit slice
- Two independent 8-bit up/down counters
- Executes 16 instructions

EQUIVALENT USED GATES: 904 GATES
(for rough area estimates)

THIS MEGAFUNCTION CONSISTS OF :
904 soft-coded gates.

POWER: 338 mW.

FAULT COVERAGE(%): 100%

This megafunction was designed to be 100% functionally compatible as specified in the vendor's data book. However, LSI LOGIC makes no warranty that this megafunction behaves identically to the standard part. It is the user's responsibility to assure that the megafunction operates correctly in his/her ASIC design and meets desired system requirements.

PIN DESCRIPTION:

INPUT:

=====

IE INSTRUCTION ENABLE FOR I0:2.
 I3:0 SELECTS ONE OF SIXTEEN INSTRUCTIONS.
 CP CLOCK INPUT TO COUNTER AND REGISTERS.
 DI7:0 DATA INPUTS FROM DATA BUS.

OUTPUT:

=====

DONE TRANSFER COMPLETE SIGNAL.
 WCO CARRY-OUT FROM THE WORD COUNTER.
 ACO CARRY-OUT FROM THE ADDRESS COUNTER.
 D7:0 DATA OUTPUTS TO DATA BUS.
 AN7:0 ADDRESS OUTPUTS FROM THE ADDRESS COUNTER.

AC CHARACTERISTICS (CMOS10K NOMINAL CASE (ns))

*ASSUMING OUTPUT LOADING IS 3

SET-UP TIME AND HOLD TIME

INPUT	SET-UP TIME	HOLD TIME
D7:0	2.6	2.5
I3:0	12.0	0
ACI	6.0	0
WCI	6.0	0
IE	9.7	0

COMBINATIONAL DELAYS

INPUT	ACO	WCO	DONE	D7:0	AN7:0
ACI	4.6	--	--	--	--
WCI	--	4.6	12.7	--	--
(Note 1)					
I3:0	--	--	--	10.3	--
CP	8.2	8.2	13.5	5.0	2.3
(Note 2)					
IE	--	--	--	7.3	--

