

# DATA SHEET

## **74F764-1/74F765-1** DRAM dual-ported controllers

Product specification

1992 Aug 10

IC15 Data Handbook

# DRAM dual-ported controllers

# 74F764-1/74F765-1

## FEATURES

- Allows two microprocessors to access the same bank of dynamic RAM
- Performs arbitration, signal timing, address multiplexing and refresh
- 9 Address output pins allow direct control of up to 256K dynamic RAMs
- External address multiplexing enables control of 1Mbit (or greater) dynamic RAMs
- Separate refresh clock allows adjustable refresh timing
- 74F764-1 has an on-chip 18-bit address input latch
- 74F764-1/765-1 allow control of dynamic RAMs with row access times down to 40ns
- 74F764-1/765-1 output drivers designed for first reflected wave switching

## DESCRIPTION

The 74F764-1/765-1 DRAM Dual-ported Controller is a high-speed synchronous dual-port arbiter and timing generator that allows two microprocessors, microcontrollers, or any other memory accessing device to share the same block of DRAM. The device performs arbitration, signal timing, address multiplexing, and refresh address generation, replacing up to 25 discrete devices.

### 74F764-1 vs. 74F765-1

The 74F764-1, though functionally and pin-to-pin compatible with the 74F765-1, differs from the later in that it has an on-chip address input latch. This is useful in systems that have unlatched or multiplexed address and data bus.

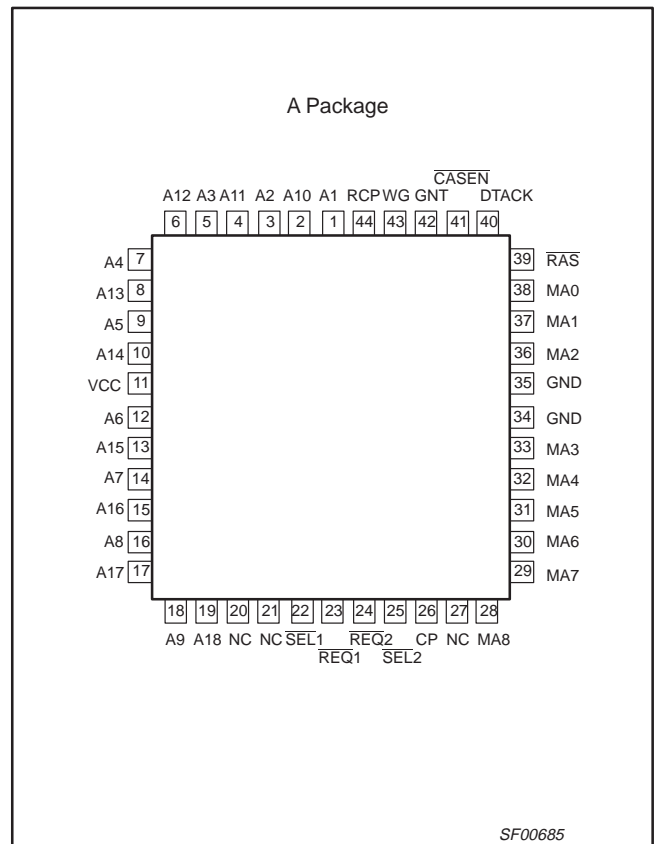
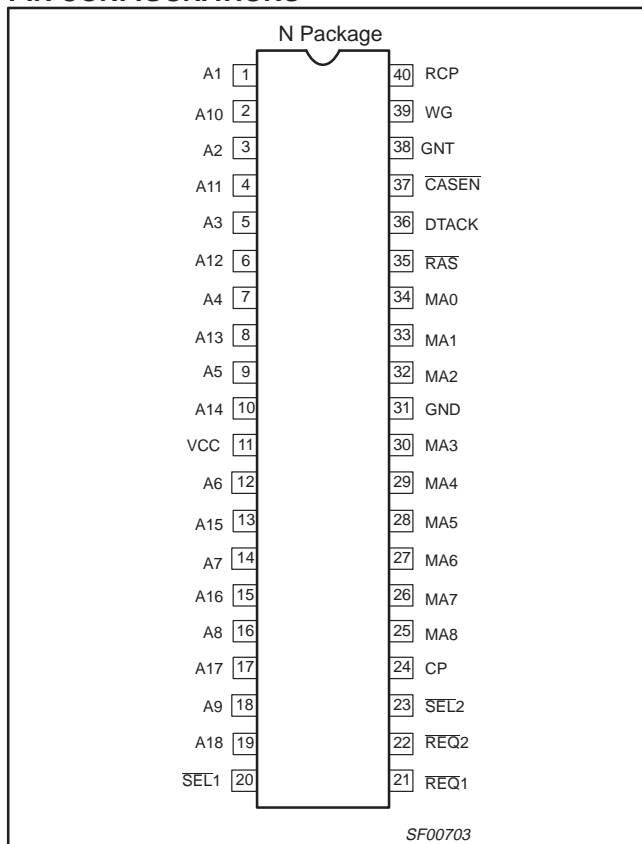
The specialized outputs eliminate the need for signal terminations in essentially all applications.

Both devices are available in 40-pin plastic DIP or 44-pin PLCC with pinouts designed to allow convenient placement of microprocessors, DRAMs, and other support chips.

## ORDERING INFORMATION

DESCRIPTION	COMMERCIAL RANGE V <sub>CC</sub> = 5V±10%, T <sub>amb</sub> = 0°C to 70°C	DRAWING NUMBER
40-Pin Plastic Dual In-line Package	74F764-1N, 74F765-1N	SOT129-1
44-Pin Plastic Leaded Chip Carrier	74F764-1A, 74F765-1A	SOT187-2

## PIN CONFIGURATIONS

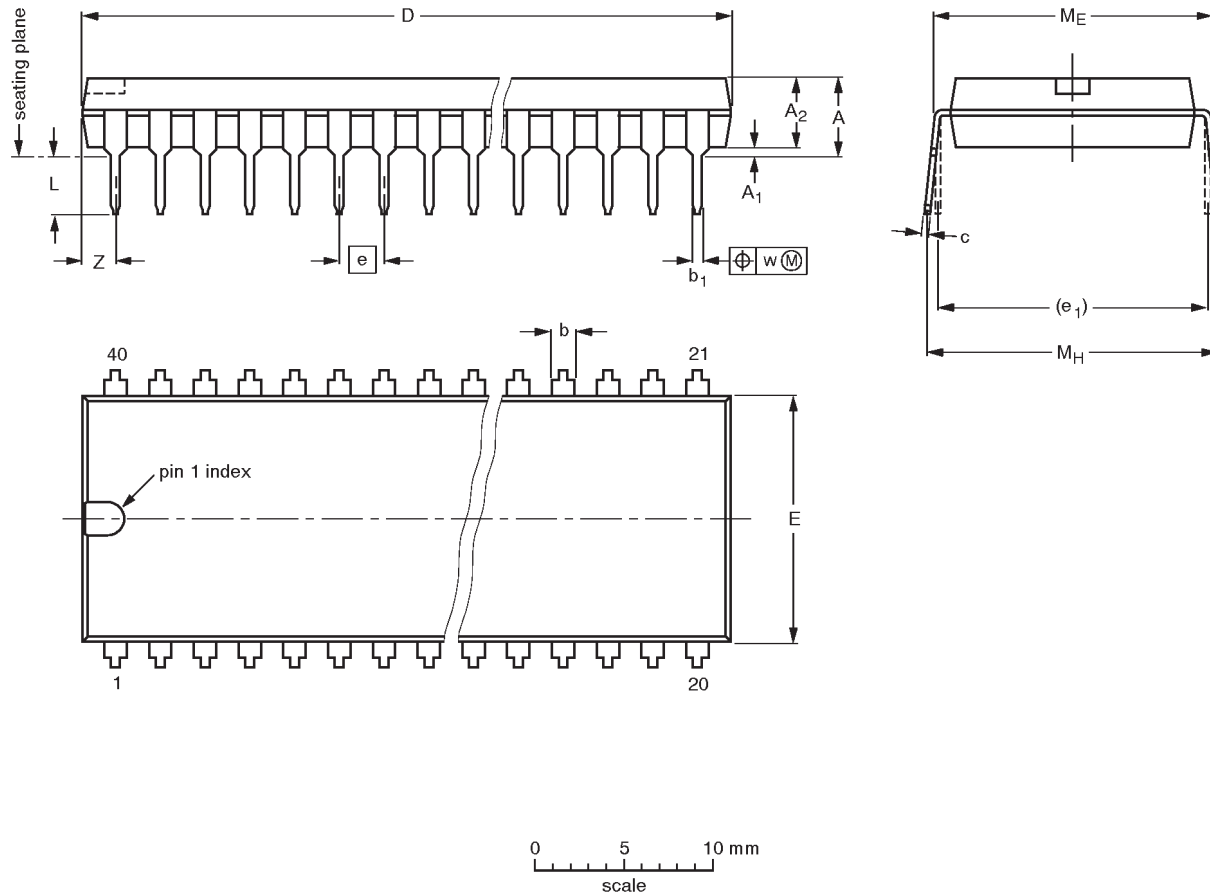


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74F764-1/74F765-1

DIP40: plastic dual in-line package; 40 leads (600 mil)

SOT129-1



**DIMENSIONS** (inch dimensions are derived from the original mm dimensions)

UNIT	A max.	A <sub>1</sub> min.	A <sub>2</sub> max.	b	b <sub>1</sub>	c	D <sup>(1)</sup>	E <sup>(1)</sup>	e	e <sub>1</sub>	L	M <sub>E</sub>	M <sub>H</sub>	w	Z <sup>(1)</sup> max.
mm	4.7	0.51	4.0	1.70 1.14	0.53 0.38	0.36 0.23	52.50 51.50	14.1 13.7	2.54	15.24	3.60 3.05	15.80 15.24	17.42 15.90	0.254	2.25
inches	0.19	0.020	0.16	0.067 0.045	0.021 0.015	0.014 0.009	2.067 2.028	0.56 0.54	0.10	0.60	0.14 0.12	0.62 0.60	0.69 0.63	0.01	0.089

**Note**

1. Plastic or metal protrusions of 0.25 mm maximum per side are not included.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT129-1	051G08	MO-015AJ				92-11-17 95-01-14