SN54AC/ACT16841, SN74AC/ACT16841
20-BIT D-TYPE LATCHES WITH 3-STATE OUTPUTS

T-46-07-12   TI0272—D3548, JUNE 1990

- Members of Texas Instruments Widebus™ Family

- Packaged In Shrink Small-Outline 300-mil Packages (SSOP) and 380-mil Fine-Pitch Ceramic Flat Packages Using 25-mil Center-to-Center Pin Spacings

- Inputs are TTL- or CMOS-Voltage Compatible

- 3-State Outputs Drive Bus Lines Directly

- Flow-Through Architecture Optimizes PCB Layout

- Distributed V_{CC} and GND Pin Configuration Minimizes High-Speed Switching Noise

- EPIC™ (Enhanced-Performance Implanted CMOS) 1-μm Process

- 500-mA Typical Latch-Up Immunity at 125°C

74AC/ACT16841 ... DL PACKAGE
54AC/ACT16841 ... WD PACKAGE
(TOP VIEW)

1OE	1		56	1C
1Q1	2		55	1D1
1Q2	3		54	1D2
GND	4		53	GND
1Q3	5		52	1D3
1Q4	6		51	1D4
V_{CC}	7		50	V_{CC}
1Q5	8		49	1D5
1Q6	9		48	1D6
1Q7	10		47	1D7
GND	11		46	GND
1Q8	12		45	1D8
1Q9	13		44	1D9
1Q10	14		43	1D10
2Q1	15		42	2D1
2Q2	16		41	2D2
2Q3	17		40	2D3
GND	18		39	GND
2Q4	19		38	2D4
2Q5	20		37	2D5
2Q6	21		36	2D6
V_{CC}	22		35	V_{CC}
2Q7	23		34	2D7
2Q8	24		33	2D8
GND	25		32	GND
2Q9	26		31	2D9
2Q10	27		30	2D10
2OE	28		29	2C

description

The 54AC/ACT16841 and 74AC/ACT16841 are noninverting 20-bit D-type latches composed of two 10-bit sections. Separate control signals are provided for each 10-bit section.

For each 10-bit section, when the enable input (1C or 2C) is low, the latches are placed into the storage mode. In contrast, when (1C or 2C) is high, the latches are transparent. In this mode, the data present at the 1D (or 2D) inputs is transmitted to the 1Q (or 2Q) outputs if 1OE (or 2OE) is low. If 1OE (or 2OE) is high, the corresponding outputs are in the high-impedance state.

The 74AC16841 and 74ACT16841 are packaged in TI's shrink small-outline package (SSOP) with 25-mil center-to-center pin spacings. This package provides twice the I/O pin count and functionality of a standard small-outline package in the same printed-circuit-board area.

The 'AC16841 has CMOS-compatible input thresholds. The 'ACT16841 has TTL-compatible input thresholds.

The 54AC/ACT16841 is characterized over the full military temperature range of −55°C to 125°C. The 74AC/ACT16841 is characterized for operation from −40°C to 85°C.

PRODUCT PREVIEW

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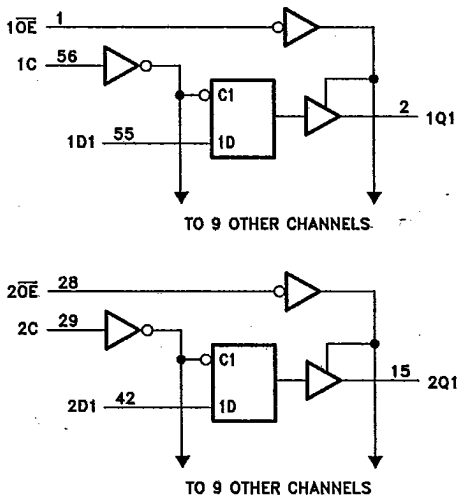POST OFFICE BOX 655303 · DALLAS, TEXAS 75265

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logic diagram (positive logic)

TO 9 OTHER CHANNELS

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