

Digital Logic

Pocket Data Book

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Pocket Data Book



PIN ASSIGNMENTS

Standard

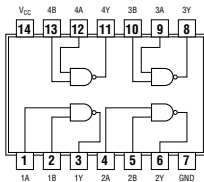
Pin Assignments

00

QUADRUPLE 2-INPUT POSITIVE-NAND GATES

positive logic:

$$Y = \overline{A \cdot B}$$



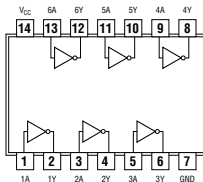
See page 231

04

HEX INVERTERS

positive logic:

$$Y = \overline{A}$$



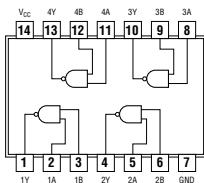
See page 235

01

QUADRUPLE 2-INPUT POSITIVE-NAND GATES WITH OPEN-COLLECTOR OUTPUTS

positive logic:

$$Y = \overline{A \cdot B}$$



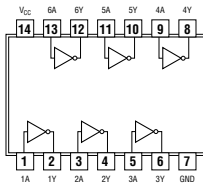
See page 232

U04

HEX INVERTERS

positive logic:

$$Y = \overline{A}$$



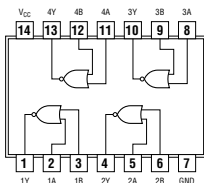
See page 236

02

QUADRUPLE 2-INPUT POSITIVE-NOR GATES

positive logic:

$$Y = \overline{A + B}$$



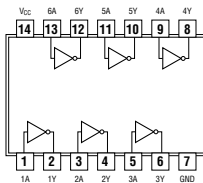
See page 233

05

HEX INVERTERS WITH OPEN-DRAIN OUTPUTS

positive logic:

$$Y = \overline{A}$$



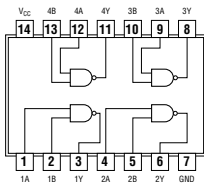
See page 236

03

QUADRUPLE 2-INPUT POSITIVE-NAND GATES WITH OPEN-COLLECTOR OUTPUTS

positive logic:

$$Y = \overline{A \cdot B}$$



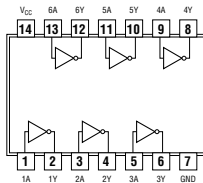
See page 234

06

HEX INVERTER BUFFERS/DRIVERS WITH OPEN-DRAIN OUTPUTS

positive logic:

$$Y = \overline{A}$$



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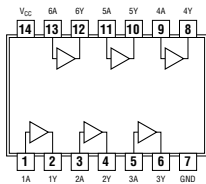
Pin Assignments

07

HEX BUFFERS/DRIVERS WITH OPEN-DRAIN OUTPUTS

positive logic:

$$Y = \bar{A}$$



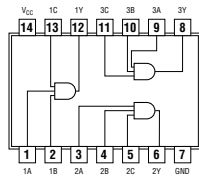
See page 237

11

TRIPLE 3-INPUT POSITIVE-AND GATES

positive logic:

$$Y = A \cdot B \cdot C$$



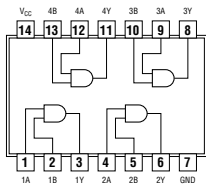
See page 241

08

QUADRUPLE 2-INPUT POSITIVE-AND GATES

positive logic:

$$Y = A \cdot B$$



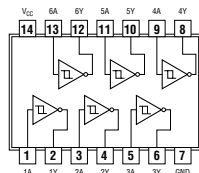
See page 238

14

HEX SCHMITT-TRIGGER INVERTERS

positive logic:

$$Y = \bar{A}$$



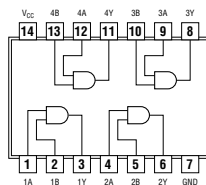
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09

QUADRUPLE 2-INPUT POSITIVE-AND GATES WITH OPEN-COLLECTOR OUTPUTS

positive logic:

$$Y = A \cdot B$$



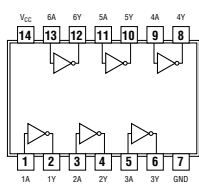
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16

HEX INVERTER BUFFERS/DRIVERS WITH OPEN-COLLECTOR HIGH-VOLTAGE OUTPUTS

positive logic:

$$Y = \bar{A}$$



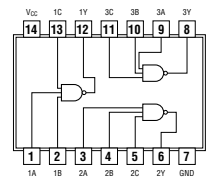
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10

TRIPLE 3-INPUT POSITIVE-NAND GATES

positive logic:

$$Y = \overline{A \cdot B \cdot C}$$



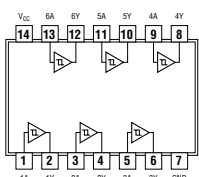
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17

HEX SCHMITT-TRIGGER BUFFER

positive logic:

$$Y = A$$



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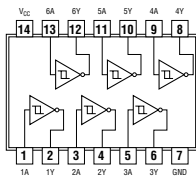
Pin Assignments

19

HEX SCHMITT-TRIGGER INVERTERS

positive logic:

$Y = \bar{A}$



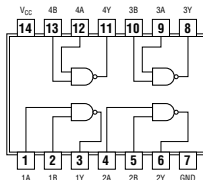
See page 244

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QUADRUPLE 2-INPUT HIGH-VOLTAGE INTERFACE POSITIVE-NAND GATES

positive logic:

$Y = \bar{A}\bar{B}$



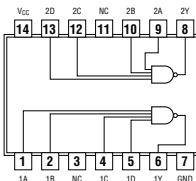
See page 247

20

DUAL 4-INPUT POSITIVE-NAND GATES

positive logic:

$Y = \bar{A}\bar{B}\bar{C}\bar{D}$



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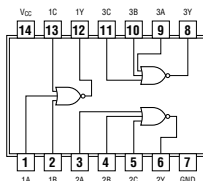
NC-No internal connection

27

TRIPLE 3-INPUT POSITIVE-NOR GATES

positive logic:

$Y = \bar{A} + \bar{B} + \bar{C}$



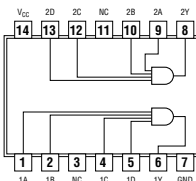
See page 247

21

DUAL 4-INPUT POSITIVE-AND GATES

positive logic:

$Y = A\bar{B}\bar{C}\bar{D}$



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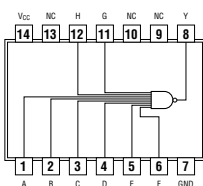
NC-No internal connection

30

8-INPUT POSITIVE-NAND GATES

positive logic:

$Y = \bar{A}\bar{B}\bar{C}\bar{D}\bar{E}\bar{F}\bar{G}\bar{H}$



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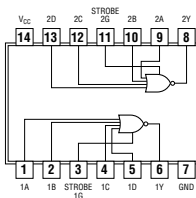
NC-No internal connection

25

DUAL 4-INPUT POSITIVE-NOR GATES WITH STROBE

positive logic:

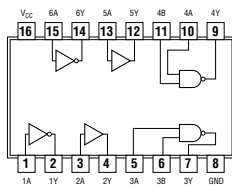
$Y = G(\bar{A} + \bar{B} + \bar{C} + \bar{D})$



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DELAY ELEMENTS



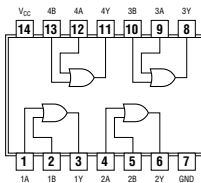
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Pin Assignments

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QUADRUPLE 2-INPUT POSITIVE-OR GATES

positive logic:
 $Y = A + B$

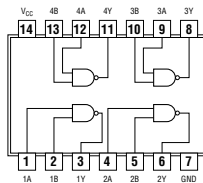


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QUADRUPLE 2-INPUT POSITIVE-NAND BUFFERS

positive logic:
 $Y = \overline{A \cdot B}$

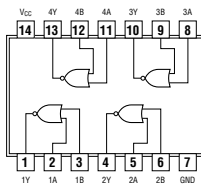


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33

QUADRUPLE 2-INPUT POSITIVE-NOR BUFFERS WITH OPEN-COLLECTOR OUTPUTS

positive logic:
 $Y = \overline{A + B}$

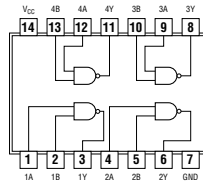


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QUADRUPLE 2-INPUT POSITIVE-NAND BUFFERS WITH OPEN-COLLECTOR OUTPUTS

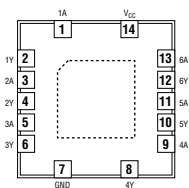
positive logic:
 $Y = \overline{A \cdot B}$



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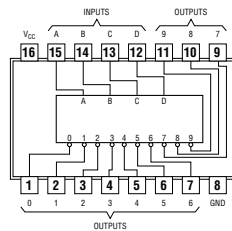
HEX BUFFER GATE



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4-LINE-TO-10-LINE DECODERS (1 of 10)

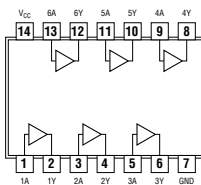


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HEX NONINVERTERS WITH OPEN-COLLECTOR OUTPUTS

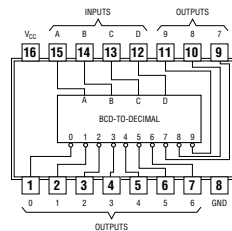
positive logic:
 $Y = A$



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BCD-TO-DECIMAL DECODERS/DRIVERS

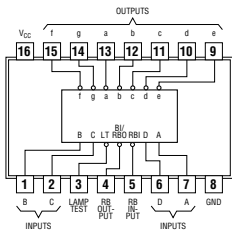


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Pin Assignments

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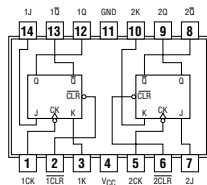
BCD-TO-SEVEN-SEGMENT DECODERS/DRIVERS



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DUAL J-K FLIP-FLOPS WITH CLEAR

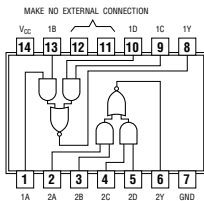


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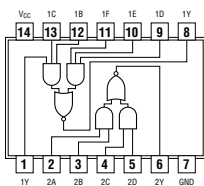
AND-OR-INVERT GATES
'51, 'S51 DUAL 2-WIDE 2-INPUT

positive logic:
 $Y = AB + CD$



AND-OR-INVERT GATES
'LS51 2-WIDE 3-INPUT, 2-WIDE 2-INPUT

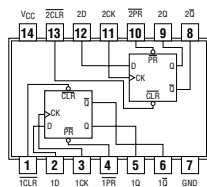
positive logic:
 $1Y = (1A 1B 1C) + (1D 1E 1F)$
 $2Y = (2A 2B) + (2C 2D)$



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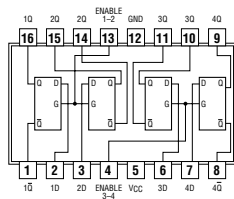
DUAL D-TYPE POSITIVE-EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR AND PRESET



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4-BIT BISTABLE LATCHES

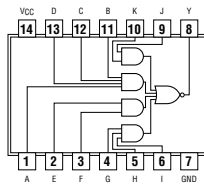


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4-2-3-2 INPUT AND-OR INVERT GATES

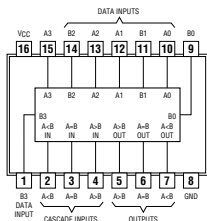
positive logic:
 $Y = ABCD + EF + GHI + JK$



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4-BIT MAGNITUDE COMPARATORS



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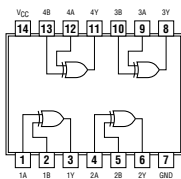
Pin Assignments

86

QUADRUPLE 2-INPUT EXCLUSIVE-OR GATES

positive logic:

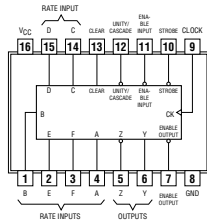
$$Y = A \oplus B \text{ or } Y = \overline{AB} + \overline{A\overline{B}}$$



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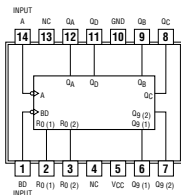
SYNCHRONOUS 6-BIT BINARY RATE MULTIPLIERS



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DECADE COUNTER

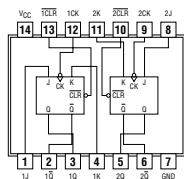


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NC-No internal connection

107

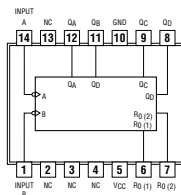
DUAL J-K FLIP-FLOPS WITH CLEAR



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DIVIDE-BY-TWELVE DECODE COUNTERS

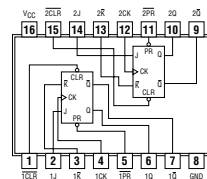


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NC-No internal connection

109

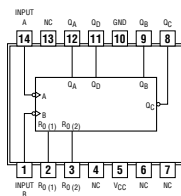
DUAL J-K POSITIVE-EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR AND PRESET



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4-BIT BINARY COUNTERS

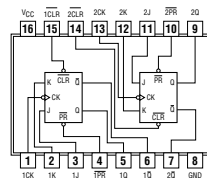


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NC-No internal connection

112

DUAL J-K NEGATIVE-EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR AND PRESET

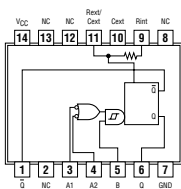


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Pin Assignments

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MONOSTABLE MULTIVIBRATORS WITH SCHMITT-TRIGGER INPUTS



NC-No internal connection

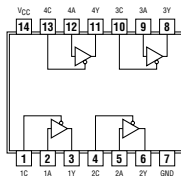
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QUADRUPLE BUS BUFFER GATES WITH 3-STATE OUTPUTS

positive logic:

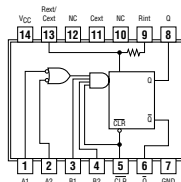
$Y = A$



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RETRIGGERABLE MONOSTABLE MULTIVIBRATORS



NC-No internal connection

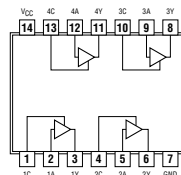
See page 281

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QUADRUPLE BUS BUFFER GATES WITH 3-STATE OUTPUTS

positive logic:

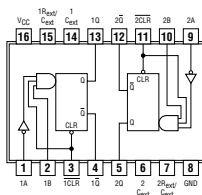
$Y = A$



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DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS WITH SCHMITT-TRIGGER INPUTS



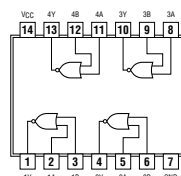
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SN54128...75-Ω LINE DRIVER SN74128...50-Ω LINE DRIVER

positive logic:

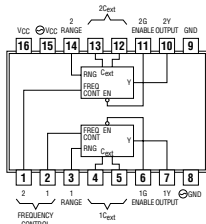
$Y = \overline{A + B}$



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DUAL VOLTAGE-CONTROLLED OSCILLATORS



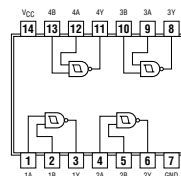
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QUADRUPLE POSITIVE-NAND GATES WITH SCHMITT TRIGGER INPUTS

positive logic:

$Y = \overline{A \cdot B}$



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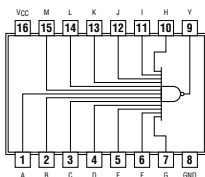
Pin Assignments

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13-INPUT POSITIVE-NAND GATES

positive logic:

$$Y = A \cdot B \cdot C \cdot D \cdot E \cdot F \cdot G \cdot H \cdot I \cdot J \cdot K \cdot L \cdot M$$



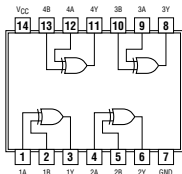
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QUADRUPLE 2-INPUT EXCLUSIVE-OR GATES WITH OPEN COLLECTOR OUTPUTS

positive logic:

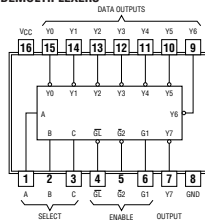
$$Y = A \cdot B = \bar{A}B + A\bar{B}$$



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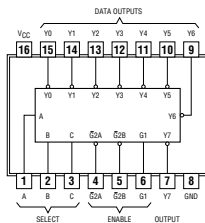
3-LINE TO 8-LINE DECODERS/DEMULTIPLERS WITH ADDRESS LATCHES



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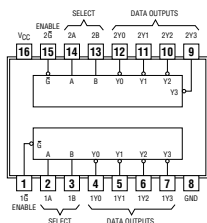
3-LINE TO 8-LINE DECODERS/DEMULTIPLERS



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DUAL 2-LINE TO 4-LINE DECODERS/DEMULTIPLERS



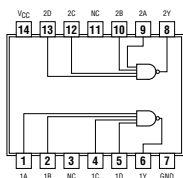
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DUAL 4-INPUT POSITIVE-NAND 50-Ω LINE DRIVERS

positive logic:

$$Y = ABCD$$

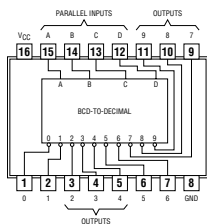


NC-No internal connection

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BCD-TO-DECIMAL DECODERS/DRIVERS

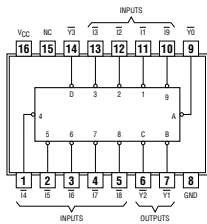


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Pin Assignments

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10-LINE TO 4-LINE BCD PRIORITY ENCODER

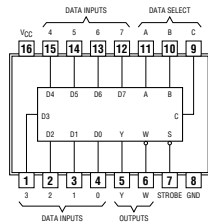


NC-No internal connection

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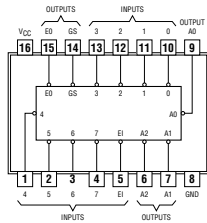
8-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS



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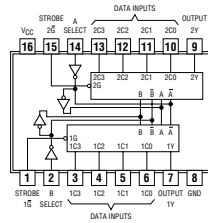
8-LINE TO 3-LINE PRIORITY ENCODERS



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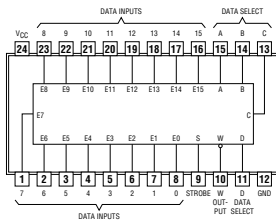
DUAL 4-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS



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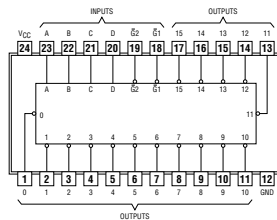
16-LINE TO 1-LINE DATA SELECTOR/MULTIPLEXER



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4-LINE TO 16-LINE DECODERS/DEMULTIPLEXERS



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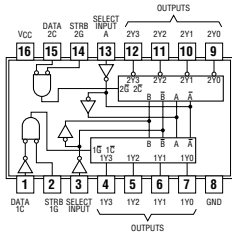
Pin Assignments

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DUAL 2-LINE TO 4-LINE DECODERS/DEMULPLEXERS

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DUAL 2-LINE TO 4-LINE DECODERS/DEMULPLEXERS
WITH OPEN-COLLECTOR OUTPUTS

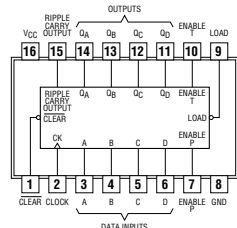


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4-BIT SYNCHRONOUS BINARY COUNTERS

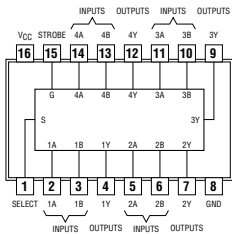


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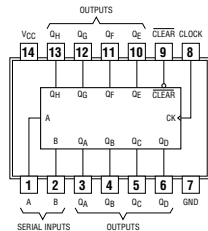
QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS



See page 312, 314

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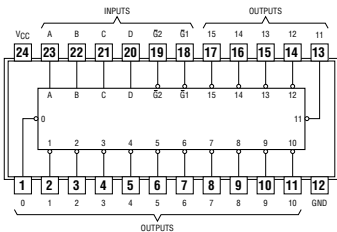
8-BIT PARALLEL-OUT SERIAL SHIFT REGISTERS



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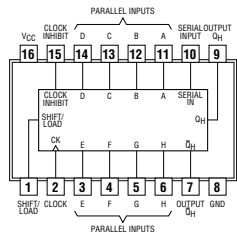
4-LINE TO 16-LINE DECODERS/DEMULPLEXERS
WITH OPEN-COLLECTOR OUTPUTS



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165

PARALLEL-LOAD 8-BIT SHIFT REGISTERS

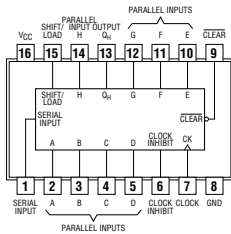


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Pin Assignments

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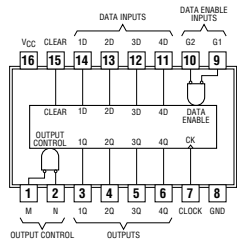
8-BIT PARALLEL-LOAD SHIFT REGISTERS



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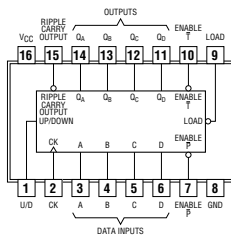
4-BIT D-TYPE REGISTERS WITH 3-STATE OUTPUTS



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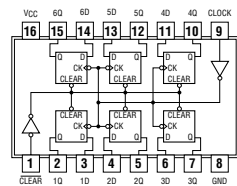
SYNCHRONOUS 4-BIT UP/DOWN BINARY COUNTERS



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174

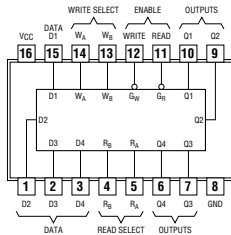
HEX D-TYPE FLIP-FLOPS WITH CLEAR



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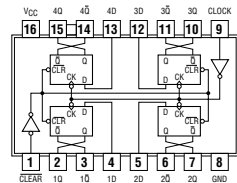
4-BY-4-REGISTER FILES WITH OPEN-COLLECTOR OUTPUTS



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QUADRUPLE D-TYPE FLIP-FLOPS WITH CLEAR

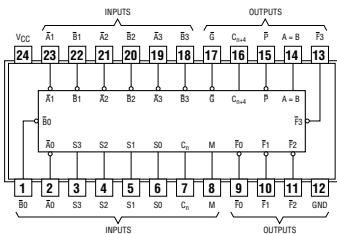


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Pin Assignments

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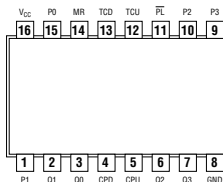
ARITHMETIC LOGIC UNITS/FUNCTION GENERATORS



See page 336

192

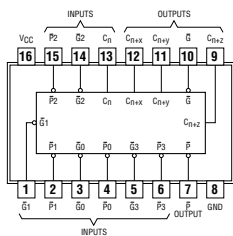
PRESETTABLE SYNCHRONOUS 4-BIT UP/DOWN COUNTERS



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182

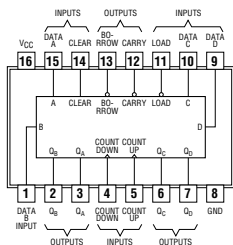
LOOK-AHEAD CARRY GENERATOR



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4-BIT SYNCHRONOUS UP/DOWN COUNTERS (DUAL CLOCK WITH CLEAR)



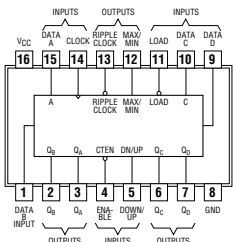
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SYNCHRONOUS 4-BIT UP/DOWN DECADE AND BINARY COUNTERS

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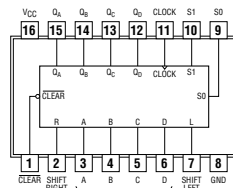
4-BIT SYNCHRONOUS UP/DOWN BINARY COUNTERS



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194

4-BIT BIDIRECTIONAL UNIVERSAL SHIFT REGISTERS

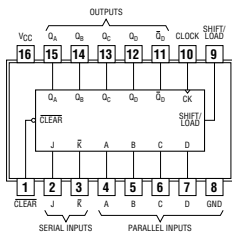


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Pin Assignments

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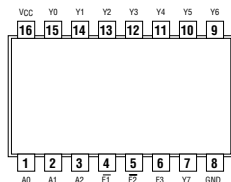
4-BIT PARALLEL-ACCESS SHIFT REGISTERS



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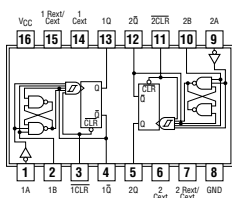
3-LINE TO 8-LINE DECODERS/DEMULPLEXERS



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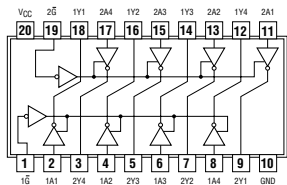
DUAL MONOSTABLE MULTIVIBRATORS WITH SCHMITT-TRIGGER INPUTS



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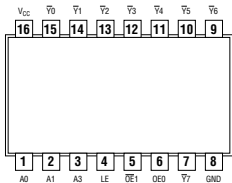
OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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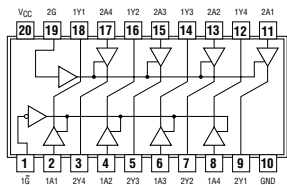
3-LINE TO 8-LINE DECODERS/DEMULPLEXERS WITH ADDRESS LATCHES



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OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS

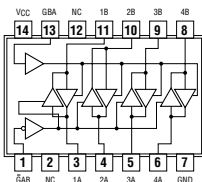


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QUADRUPLE BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

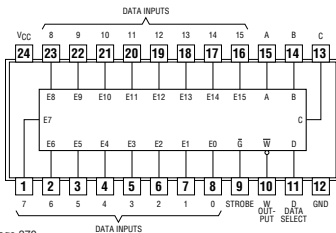


NC-No internal connection

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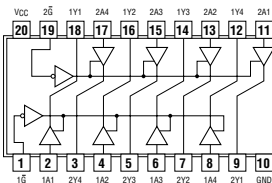
1-OF-16 DATA GENERATORS/MULTIPLEXERS WITH 3-STATE OUTPUTS



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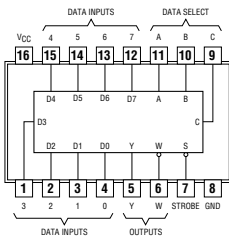
OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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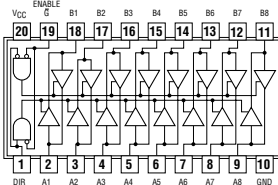
DATA SELECTORS/MULTIPLEXERS WITH 3-STATE OUTPUTS



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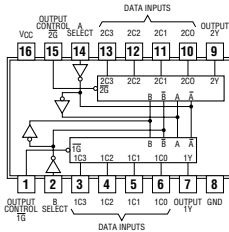
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



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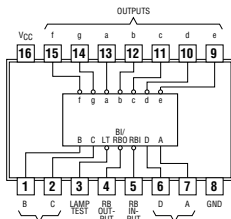
DUAL 4-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS WITH 3-STATE OUTPUTS



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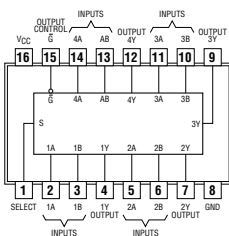
BCD-TO-SEVEN-SEGMENT DECODERS/DRIVERS



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QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS WITH 3-STATE OUTPUTS

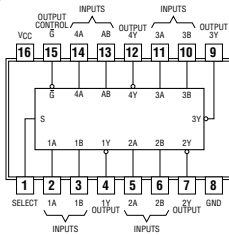


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Pin Assignments

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QUADRUPLE 4-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS WITH 3-STATE OUTPUTS

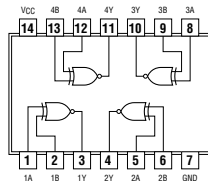


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QUADRUPLE 2-INPUT EXCLUSIVE-NOR GATES WITH OPEN-DRAIN OUTPUTS

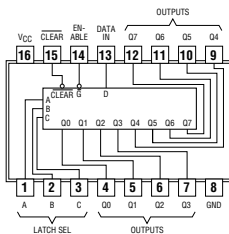
positive logic:
 $Y = A \oplus B$



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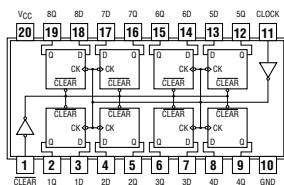
8-BIT ADDRESSABLE LATCHES



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OCTAL D-TYPE FLIP-FLOPS WITH CLEAR

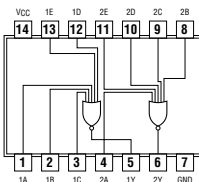


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DUAL 5-INPUT POSITIVE-NOR GATES

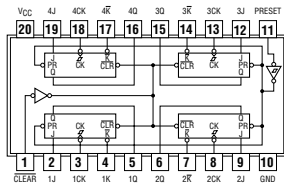
positive logic:
 $Y = A + B + C + D + E$



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QUADRUPLE J-K̄ FLIP-FLOPS

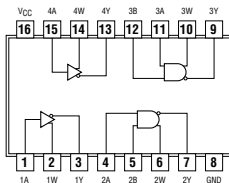


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QUADRUPLE COMPLEMENTARY-OUTPUT ELEMENTS

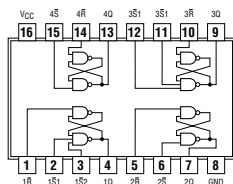
positive logic:
 $Y = \bar{A}, W = A$
 $Y = AB, W = AB$



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QUADRUPLE \bar{S} - \bar{R} LATCHES

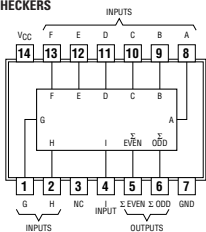


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Pin Assignments

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9-BIT PARITY GENERATORS/CHECKERS

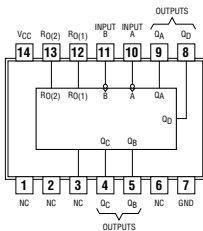


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NC-No internal connection

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4-BIT BINARY COUNTERS

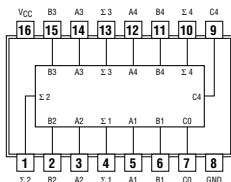


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NC-No internal connection

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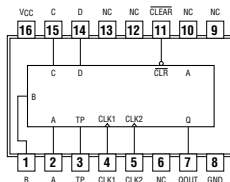
4-BIT BINARY FULL ADDERS WITH FAST CARRY



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PROGRAMMABLE FREQUENCY DIVIDERS/DIGITAL TIMERS

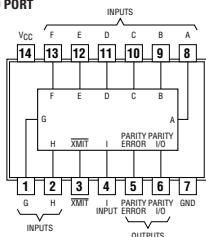


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NC-No internal connection

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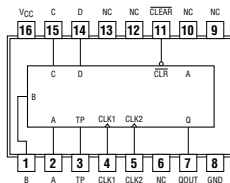
9-BIT ODD/EVEN PARITY GENERATORS/CHECKERS WITH BUS DRIVER PARITY I/O PORT



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DIGITAL PHASE-LOCKED-LOOP FILTERS

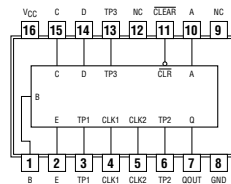


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NC-No internal connection

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PROGRAMMABLE FREQUENCY DIVIDERS/DIGITAL TIMERS

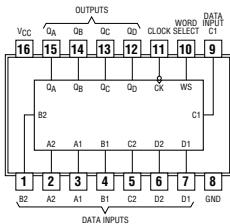


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NC-No internal connection

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QUADRUPLE 2-INPUT MULTIPLEXERS WITH STORAGE

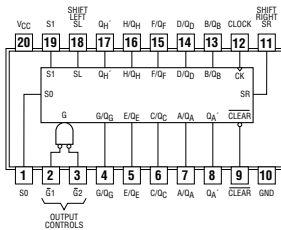


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Pin Assignments

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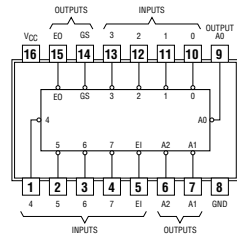
8-BIT UNIVERSAL SHIFT/STORAGE REGISTERS WITH 3-STATE OUTPUTS



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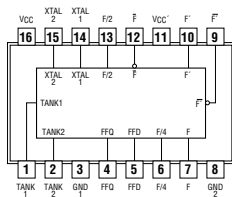
8-LINE TO 3-LINE PRIORITY ENCODERS WITH 3-STATE OUTPUTS



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CRYSTAL-CONTROLLED OSCILLATORS



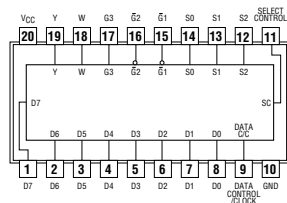
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8-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS/TRANSPARENT REGISTERS WITH 3-STATE OUTPUTS

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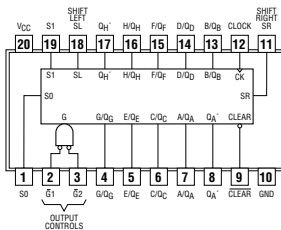
8-INPUT MULTIPLEXER/REGISTERS 3-STATE



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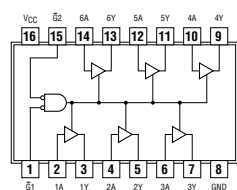
8-BIT UNIVERSAL SHIFT/STORAGE REGISTERS WITH SYNCHRONOUS CLEAR AND 3-STATE OUTPUTS



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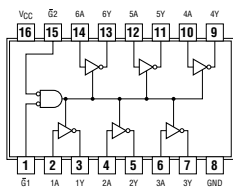
HEX BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS



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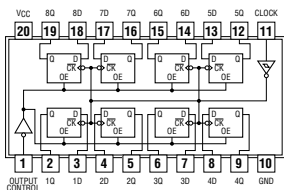
Pin Assignments

366 HEX BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS



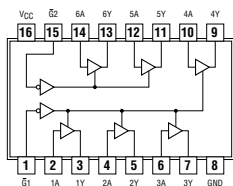
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374 OCTAL EDGE-TRIGGERED D-TYPE FLIP-FLOPS WITH 3-STATE OUTPUTS



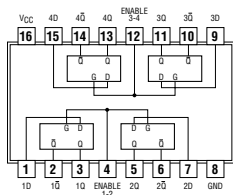
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367 HEX BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS



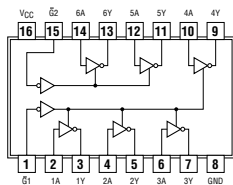
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375 4-BIT BISTABLE LATCHES



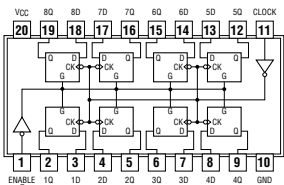
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368 HEX INVERTING BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS



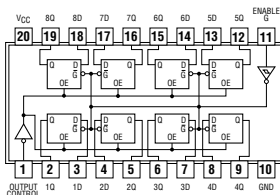
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377 OCTAL D-TYPE FLIP-FLOPS WITH CLOCK ENABLE



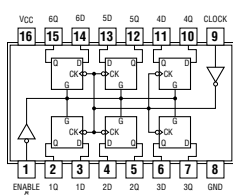
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373 OCTAL TRANSPARENT D-TYPE LATCHES WITH 3-STATE OUTPUTS



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378 HEX D-TYPE FLIP-FLOPS WITH CLOCK ENABLE

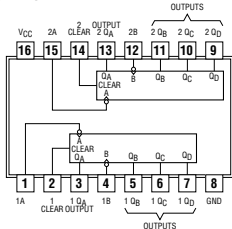


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Pin Assignments

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DUAL 4-BIT DECADE COUNTERS

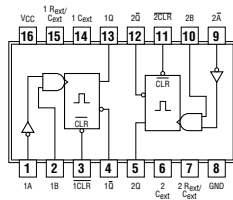


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RETRIGGERABLE MONOSTABLE MULTIVIBRATORS

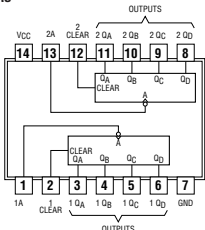
positive logic.
Y = A



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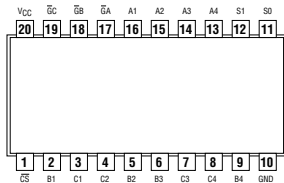
DUAL 4-BIT BINARY COUNTERS



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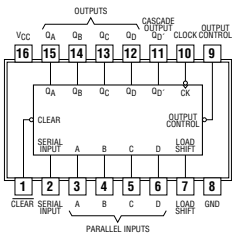
QUADRUPLE TRIDIRECTIONAL BUS TRANSCEIVERS



See page 432

395

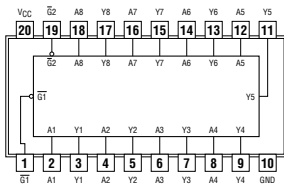
CASCADABLE SHIFT REGISTERS



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465

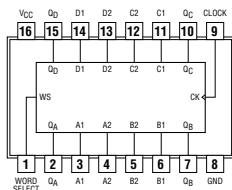
OCTAL BUFFERS WITH 3-STATE OUTPUTS



See page 433

399

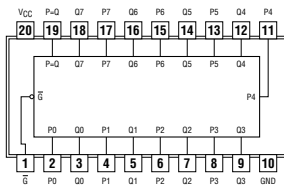
QUADRUPLE 2-INPUT MULTIPLEXERS WITH STORAGE



See page 430

518

OCTAL BINARY/BCD IDENTITY COMPARATORS WITH ENABLE



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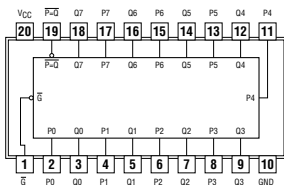
Pin Assignments

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OCTAL BINARY/BCD IDENTITY COMPARATORS WITH ENABLE

521

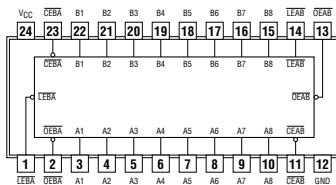
8-BIT IDENTITY COMPARATORS WITH OPEN-COLLECTOR OUTPUTS



See page 434, 435

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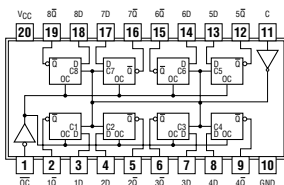
OCTAL REGISTERED TRANSCIEVERS WITH 3-STATE OUTPUTS



See page 440

533

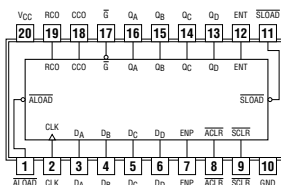
OCTAL TRANSPARENT D-TYPE LATCHES WITH 3-STATE OUTPUTS



See page 436

561

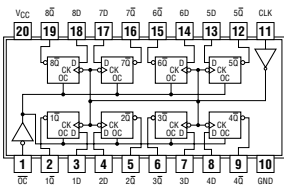
SYNCHRONOUS 4-BIT COUNTERS WITH 3-STATE OUTPUTS



See page 442

534

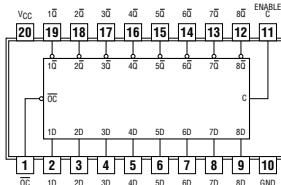
OCTAL EDGE-TRIGGERED D-TYPE FLIP-FLOPS WITH 3-STATE OUTPUTS



See page 437

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OCTAL D-TYPE TRANSPARENT LATCHES WITH 3-STATE OUTPUTS

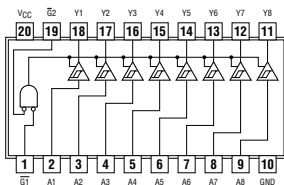


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541

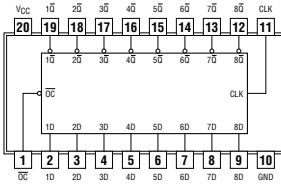
OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



See page 438, 439

564

OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH 3-STATE OUTPUTS

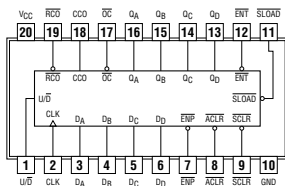


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Pin Assignments

569

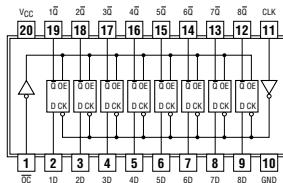
SYNCHRONOUS 4-BIT UP/DOWN BINARY COUNTERS WITH 3-STATE OUTPUTS



See page 446

576

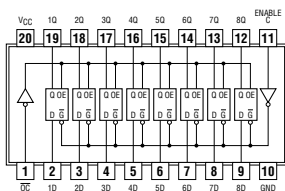
OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH 3-STATE OUTPUTS



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573

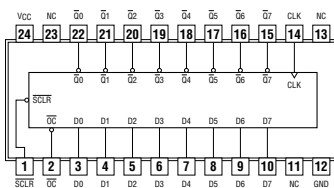
OCTAL TRANSPARENT D-TYPE LATCHES WITH 3-STATE OUTPUTS



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OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH 3-STATE OUTPUTS

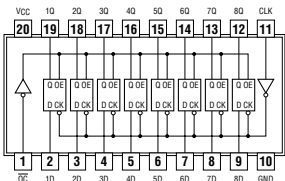


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NC-No internal connection

574

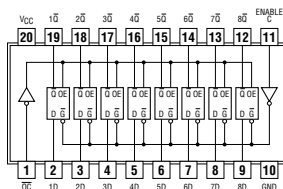
OCTAL EDGE-TRIGGERED D-TYPE FLIP-FLOPS WITH 3-STATE OUTPUTS



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580

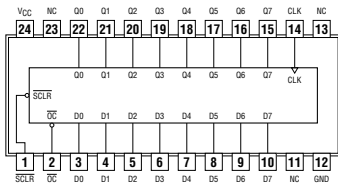
OCTAL D-TYPE TRANSPARENT LATCHES WITH 3-STATE OUTPUTS



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OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH 3-STATE OUTPUTS

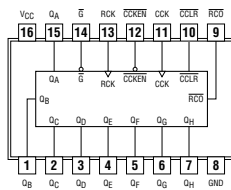


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NC-No internal connection

590

8-BIT BINARY COUNTERS WITH 3-STATE OUTPUT REGISTERS

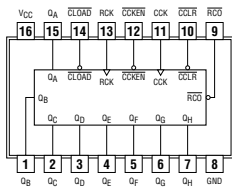


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Pin Assignments

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8-BIT BINARY COUNTERS WITH INPUT REGISTERS



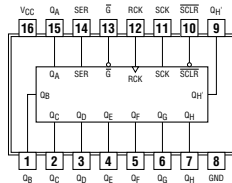
See page 458

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8-BIT SHIFT REGISTERS WITH 3-STATE OUTPUT REGISTERS

596

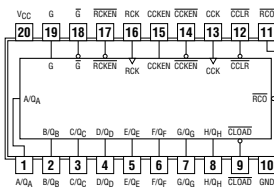
8-BIT SHIFT REGISTERS WITH OUTPUT LATCHES



See page 464, 466

593

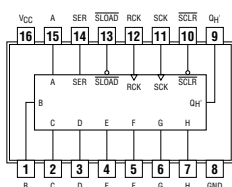
8-BIT BINARY COUNTERS WITH INPUT REGISTERS



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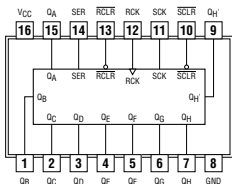
SERIAL-OUT SHIFT REGISTERS WITH INPUT LATCHES



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594

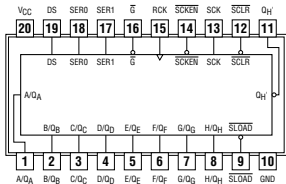
8-BIT SHIFT REGISTERS WITH OUTPUT REGISTERS



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598

8-BIT SHIFT REGISTERS WITH INPUT LATCHES



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Pin Assignments

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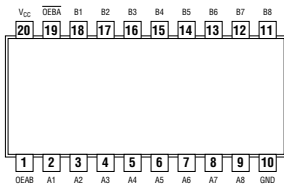
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

621

OCTAL BUS TRANSCEIVERS

623

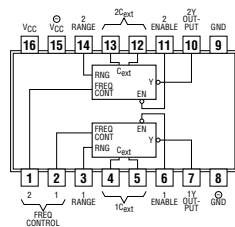
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



See page 472, 473, 474

629

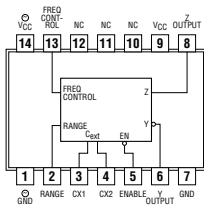
DUAL VOLTAGE-CONTROLLED OSCILLATORS



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624

VOLTAGE-CONTROLLED OSCILLATORS

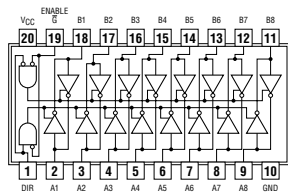


NC-No internal connection

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638

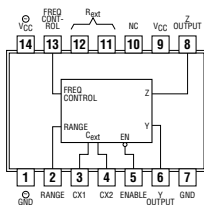
OCTAL BUS TRANSCEIVERS



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VOLTAGE-CONTROLLED OSCILLATORS

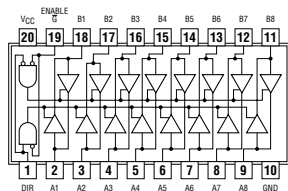


NC-No internal connection

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OCTAL BUS TRANSCEIVERS



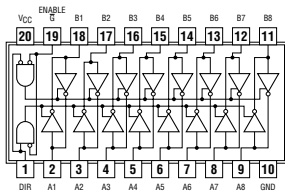
See page 479

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OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

642

OCTAL BUS TRANSCEIVERS WITH OPEN-COLLECTOR OUTPUTS



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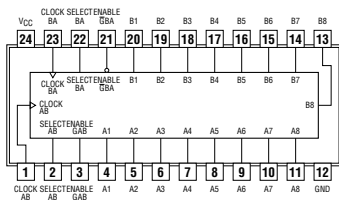
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653

654

OCTAL BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS



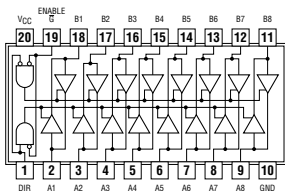
See page 490, 492, 494, 496

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OCTAL BUS TRANSCEIVERS WITH OPEN-COLLECTOR OUTPUTS

645

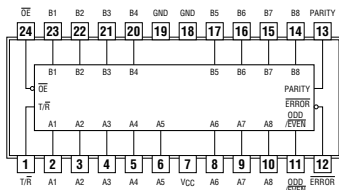
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



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657

OCTAL BUS TRANSCEIVERS WITH PARITY GENERATORS/CHECKERS AND 3-STATE OUTPUTS



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646

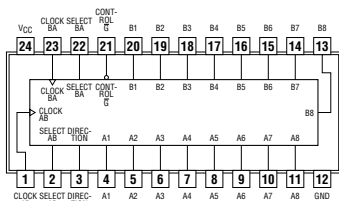
OCTAL BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS

647

OCTAL BUS TRANSCEIVERS AND REGISTERS WITH OPEN-COLLECTOR OUTPUTS

648

OCTAL BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS

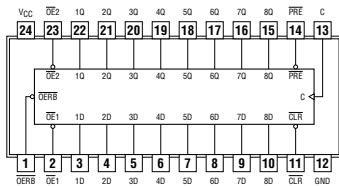


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667

8-BIT D-TYPE TRANSPARENT READ-BACK LATCHES WITH 3-STATE OUTPUTS

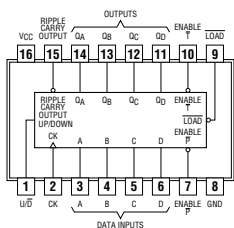


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Pin Assignments

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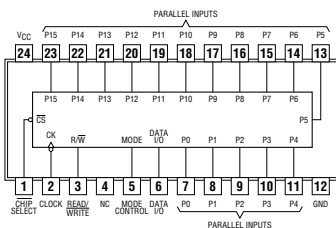
SYNCHRONOUS 4-BIT UP/DOWN COUNTERS



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674

16-BIT SHIFT REGISTERS

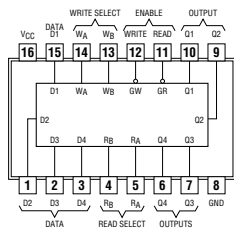


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NC-No internal connection

670

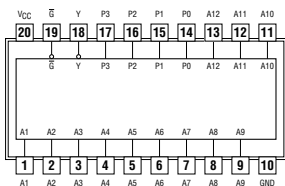
4-BY-4 REGISTER FILES WITH 3-STATE OUTPUTS



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679

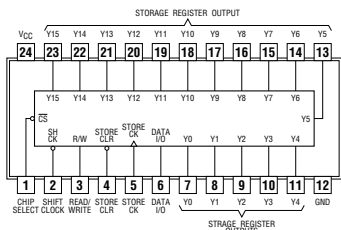
12-BIT ADDRESS COMPARATOR



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673

16-BIT SHIFT REGISTERS

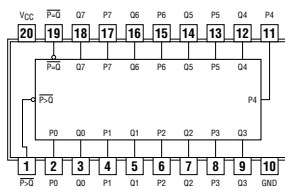


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684

8-BIT MAGNITUDE COMPARATORS

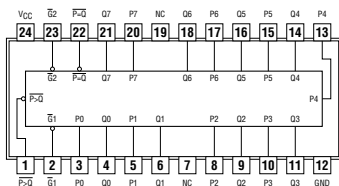


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Pin Assignments

686

8-BIT MAGNITUDE/IDENTITY COMPARATORS

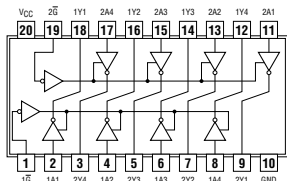


NC-No internal connection

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756

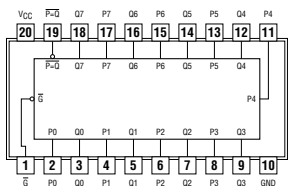
OCTAL BUFFER/DRIVER WITH OPEN-COLLECTOR OUTPUTS



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688

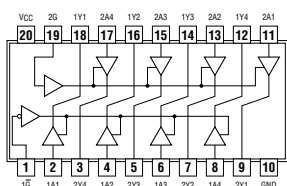
8-BIT IDENTITY COMPARATORS



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OCTAL BUFFER/DRIVER WITH OPEN-COLLECTOR OUTPUTS

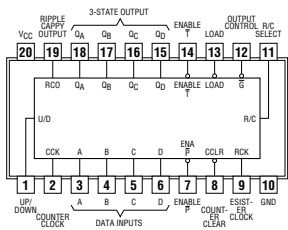


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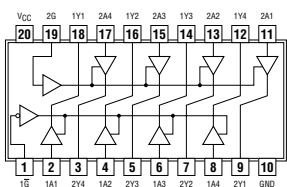
SYNCHRONOUS UP/DOWN COUNTERS WITH OUTPUT REGISTERS AND MULTIPLEXED 3-STATE OUTPUTS



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OCTAL BUFFERS/DRIVERS WITH OPEN-COLLECTOR OUTPUTS



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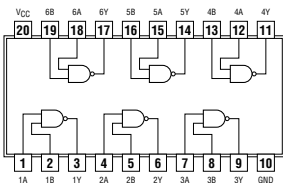
Pin Assignments

804

HEX 2-INPUT NAND DRIVERS

positive logic:

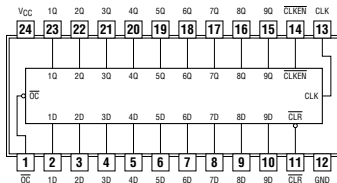
$$Y = A \cdot B$$



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823

9-BIT BUS-INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS



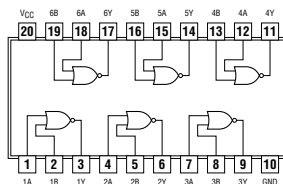
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805

HEX 2-INPUT NOR DRIVERS

positive logic:

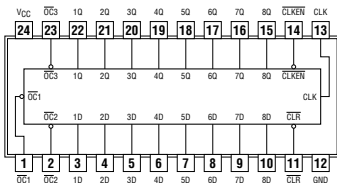
$$Y = A + B$$



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825

8-BIT BUS-INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS



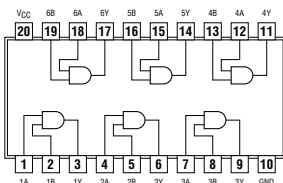
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808

HEX 2-INPUT AND DRIVERS

positive logic:

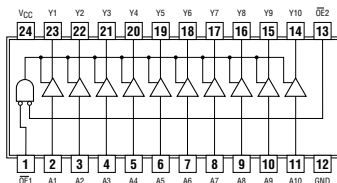
$$Y = A + B$$



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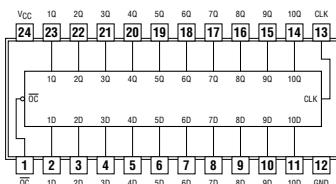
10-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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821

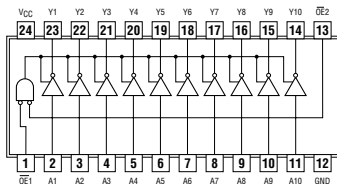
10-BIT BUS-INTERFACE FLIP FLOPS WITH 3-STATE OUTPUTS



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10-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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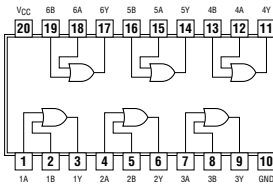
Pin Assignments

832

HEX 2-INPUT OR DRIVERS

positive logic:

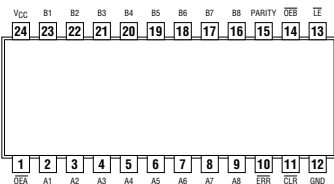
$$Y = A + B$$



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853

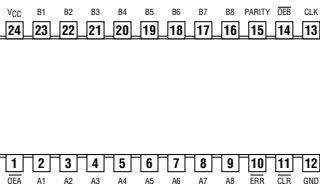
8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



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833

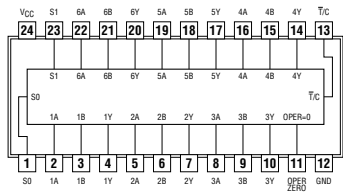
8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



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857

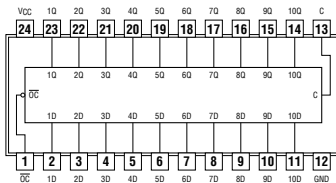
HEX 2-TO-1 UNIVERSAL MULTIPLEXERS WITH 3-STATE OUTPUTS



See page 540

841

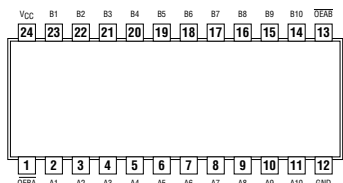
10-BIT BUS-INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



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861

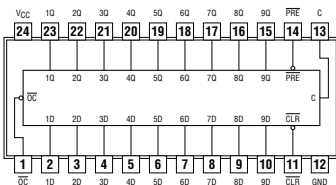
10-BIT TRANSCEIVERS WITH 3-STATE OUTPUTS



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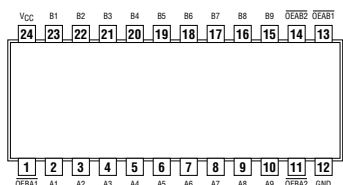
9-BIT BUS-INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



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9-BIT BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

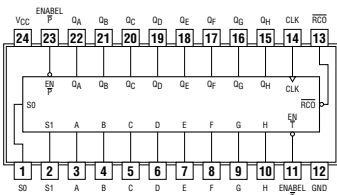


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867

869

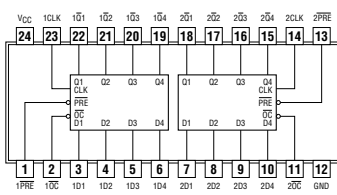
SYNCHRONOUS 8-BIT UP/DOWN COUNTERS



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876

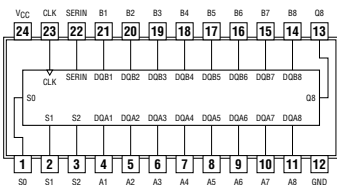
DUAL 4-BIT D-TYPE EDGE-TRIGGERD FLIP-FLOPS WITH 3-STATE OUTPUTS



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870

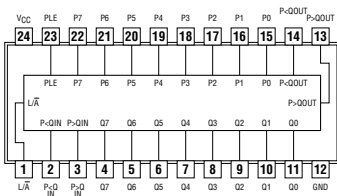
DUAL 16-BY 4-BIT REGISTER FILES



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885

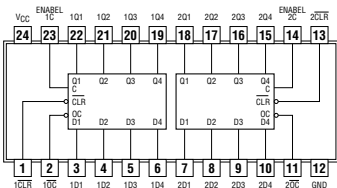
8-BIT MAGNITUDE COMPARATORS



See page 554

873

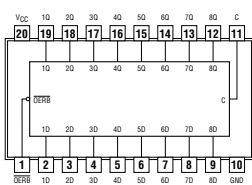
DUAL 4-BIT D-TYPE LATCHES WITH 3-STATE OUTPUTS



See page 550

990

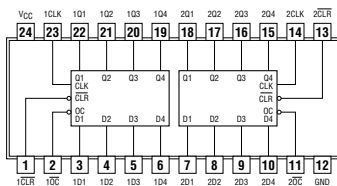
8-BIT D-TYPE TRANSPARENT READ-BACK LATCH



See page 556

874

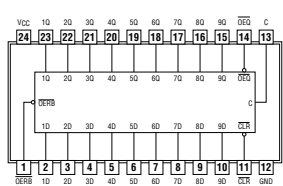
DUAL 4-BIT D-TYPE EDGE-TRIGGERD FLIP-FLOPS WITH 3-STATE OUTPUTS



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992

9-BIT D-TYPE TRANSPARENT READ-BACK LATCH WITH 3-STATE OUTPUTS

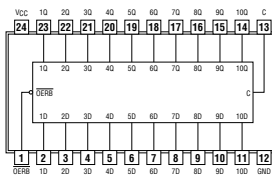


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Pin Assignments

994

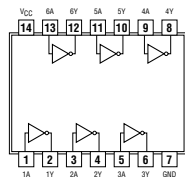
10-BIT D-TYPE TRANSPARENT READ-BACK LATCH



See page 558

1005

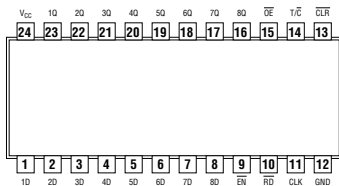
HEX INVERTING BUFFERS WITH OPEN-COLLECTOR OUTPUTS



See page 561

996

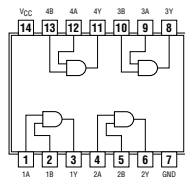
8-BIT D-TYPE EDGE-TRIGGERED READ-BACK LATCHES



See page 559

1008

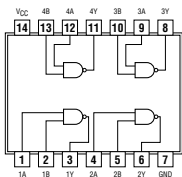
QUADRUPLE 2-INPUT POSITIVE-AND BUFFER/DRIVER



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1000

QUADRUPLE 2-INPUT POSITIVE-NAND BUFFERS/DRIVERS

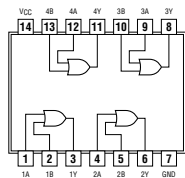


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1032

QUADRUPLE 2-INPUT POSITIVE-OR BUFFERS/DRIVERS

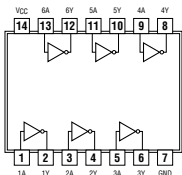
positive logic:
 $Y = A + B$



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1004

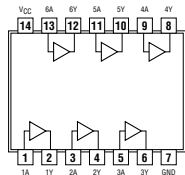
HEX INVERTING DRIVERS



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1034

HEX DRIVERS

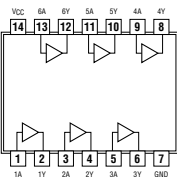


See page 562

Pin Assignments

1035

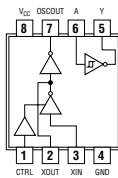
HEX NONINVERTING BUFFERS WITH OPEN-COLLECTOR OUTPUTS



See page 563

1404

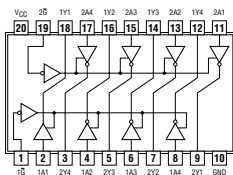
OSCILLATOR DRIVER FOR CRYSTAL OSCILLATOR OR CERAMIC RESONATOR



See page 565

1240

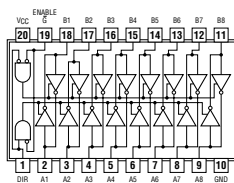
OCTAL BUFFER AND LINE DRIVER WITH 3-STATE OUTPUTS



See page 563

1640

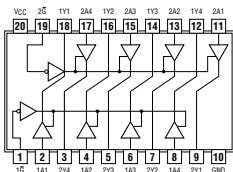
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



See page 566

1244

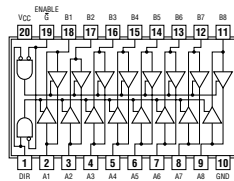
OCTAL BUFFERS AND DRIVERS WITH 3-STATE OUTPUTS



See page 564

1645

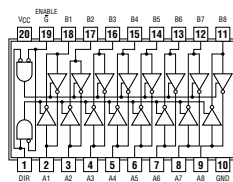
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



See page 567

1245

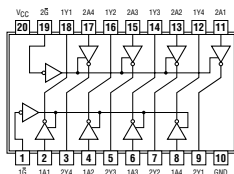
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



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2240

OCTAL BUFFERS AND LINE/MOS DRIVERS WITH 3-STATE OUTPUTS

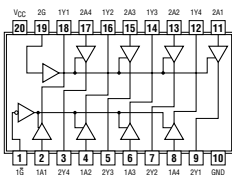


See page 568

Pin Assignments

2241

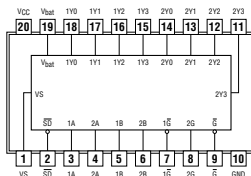
OCTAL BUFFERS AND LINE/MOS DRIVERS WITH 3-STATE OUTPUTS



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2414

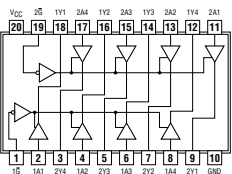
MEMORY DECODER WITH ON-CHIP SUPPLY VOLTAGE MONITOR



See page 573

2244

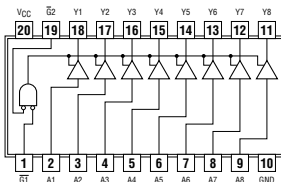
OCTAL BUFFERS AND LINE/MOS DRIVERS WITH 3-STATE OUTPUTS



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2541

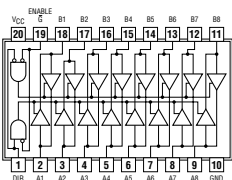
OCTAL LINE DRIVER/MOS DRIVER WITH 3-STATE OUTPUTS



See page 574

2245

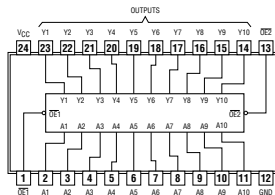
OCTAL TRANSCEIVER AND LINE/MOS DRIVERS WITH 3-STATE OUTPUTS



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2827

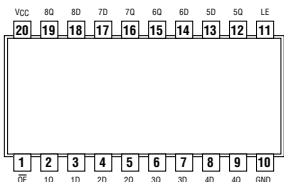
10-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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2373

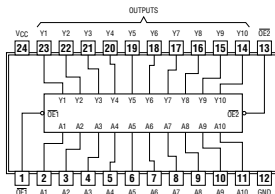
25-Ω OCTAL TRANSPARENT D-TYPE LATCH WITH 3-STATE OUTPUTS



See page 572

2828

10-BIT BUS/MOS MEMORY DRIVERS WITH 3-STATE INVERTING

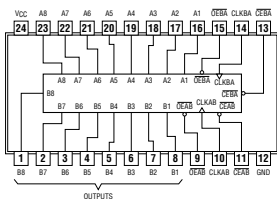


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Pin Assignments

2952

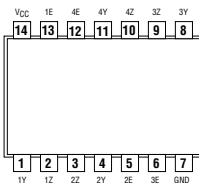
OCTAL BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS



See page 576

4016

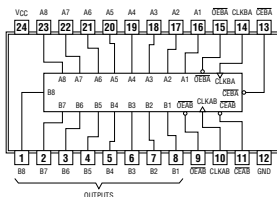
QUAD BILATERAL SWITCH



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2953

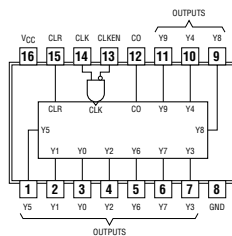
OCTAL BUS TRANSCEIVER AND REGISTER WITH 3-STATE OUTPUTS



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4017

DECADE COUNTERS/DIVIDER



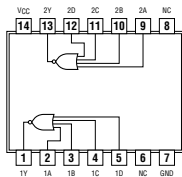
See page 582

4002

DUAL 4-INPUT POSITIVE-NOR GATES

positive logic:

$$Y = \overline{A + B + C + D}$$

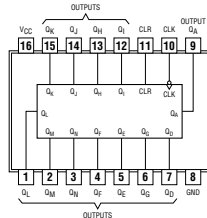


NC-No internal connection

See page 579

4020

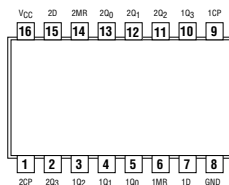
14-STAGE BINARY COUNTERS



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4015

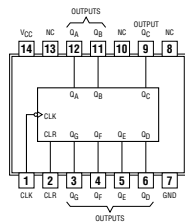
DUAL 4-STAGE STATIC SHIFT REGISTER



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4024

7-STAGE BINARY COUNTERS

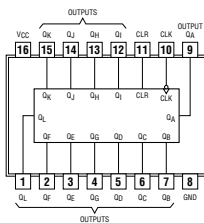


NC-No internal connection

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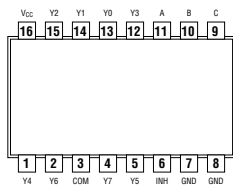
Pin Assignments

4040 12-STAGE BINARY COUNTERS



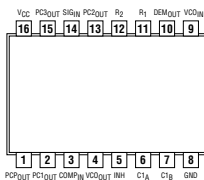
See page 585

4051 8-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS



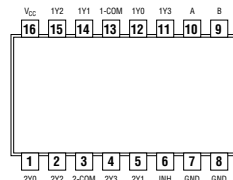
See page 589

4046 PHASE-LOCKED-LOOP WITH VCO



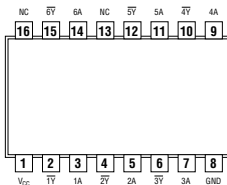
See page 586

4052 DUAL 4-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS



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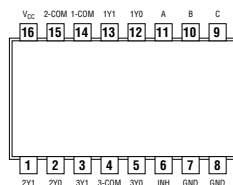
4049 HEX INVERTING BUFFERS



NC-No internal connection

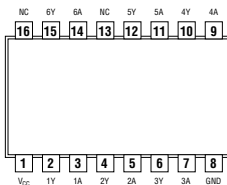
See page 588

4053 TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS



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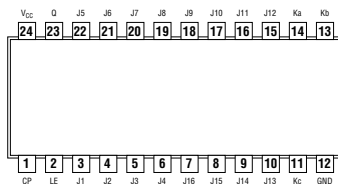
4050 HEX NON-INVERTING BUFFERS



NC-No internal connection

See page 588

4059 CMOS PROGRAMMABLE DIVIDE-BY-N COUNTER

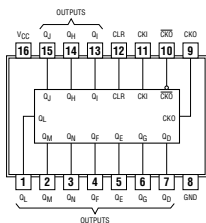


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Pin Assignments

4060

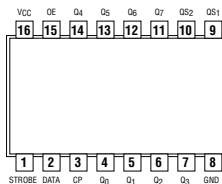
ASYNCHRONOUS 14-STAGE BINARY COUNTERS
AND OSCILLATORS



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4094

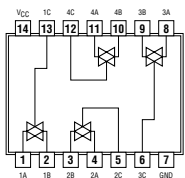
8-STAGE SHIFT AND STORE BUS REGISTER,
THREE-STATE



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4066

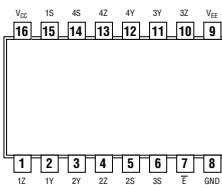
QUADRUPLE BILATERAL SWITCHES



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4316

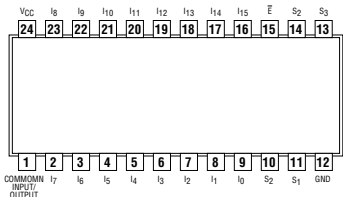
QUAD ANALOG SWITCH WITH LEVEL TRANSLATION



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4067

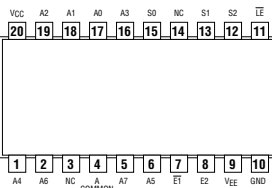
16-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER



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4351

ANALOG MULTIPLEXERS/DEMULTIPLEXERS
WITH LATCH



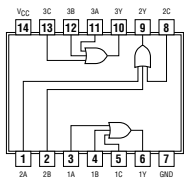
See page 599

NC-No internal connection

4075

TRIPLE 3-INPUT OR GATES

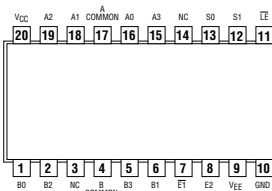
positive logic:
 $Y = A + B + C$



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4352

ANALOG MULTIPLEXERS/DEMULTIPLEXERS
WITH LATCH



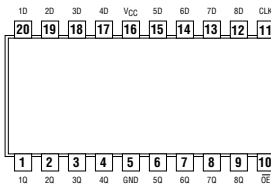
See page 600

NC-No internal connection

Pin Assignments

4374

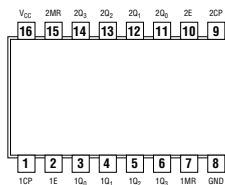
OCTAL EDGE-TRIGGERED D-TYPE DUAL-RANK
FLIP-FLOP WITH 3-STAE OUTPUTS



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4518

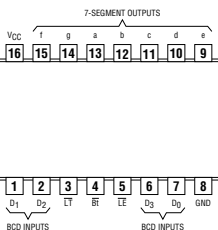
DUAL SYNCHRONOUS COUNTERS



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4511

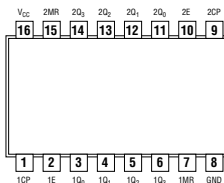
BCD-TO-7 SEGMENT LATCH/DECODER/DRIVERS



See page 602

4520

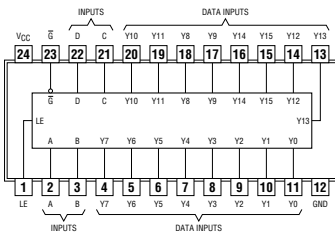
DUAL SYNCHRONOUS COUNTERS



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4514

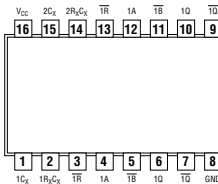
4-LINE TO 16-LINE DECODERS/DEMULTEPLEXERS WITH INPUT LATCHES



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4538

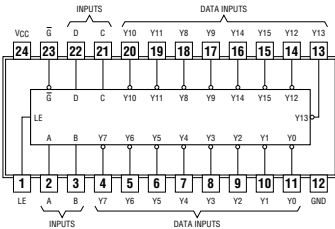
DUAL RETRIGGERABLE
PRECISION MONO STABLE MULTIVIBRATOR



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4515

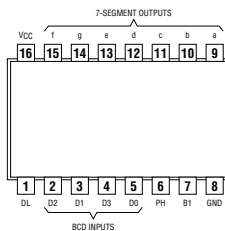
4-LINE TO 16-LINE DECODERS/DEMULTEPLEXERS WITH INPUT LATCHES



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4543

BCD-TO-7 SEGMENT LATCH/DECODER/DRIVERS

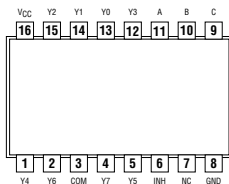


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Pin Assignments

4851

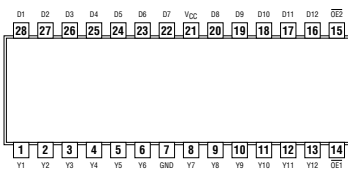
8-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER WITH INJECTION-CURRENT EFFECT CONTROL



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5402

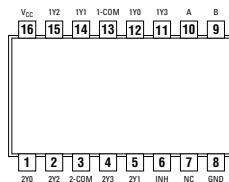
12-BIT LINE/MEMORY DRIVERS WITH 3-STATE OUTPUTS



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4852

DUAL 4-TO-1 CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER WITH INJECTION-CURRENT EFFECT CONTROL

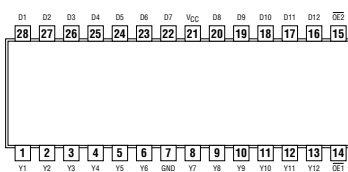


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NC-No internal connection

5403

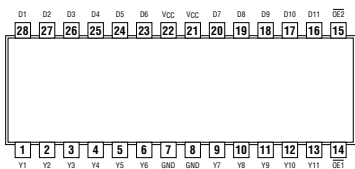
12-BIT LINE/MEMORY DRIVERS WITH 3-STATE OUTPUTS



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5400

11-BIT LINE/MEMORY DRIVERS WITH 3-STATE OUTPUTS

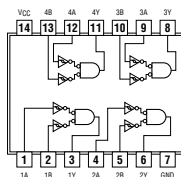


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7001

QUADRUPLE POSITIVE-AND GATES WITH SCHMITT-TRIGGER INPUTS

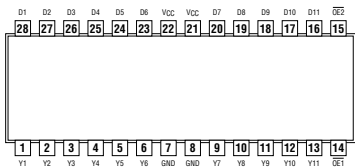
positive logic:
 $Y = A \cdot B$



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5401

11-BIT LINE/MEMORY DRIVERS WITH 3-STATE OUTPUTS

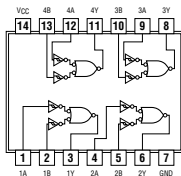


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7002

QUADRUPLE POSITIVE-NOR GATES WITH SCHMITT-TRIGGER INPUTS

positive logic:
 $Y = A + B$

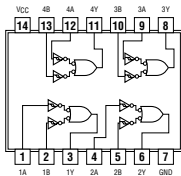


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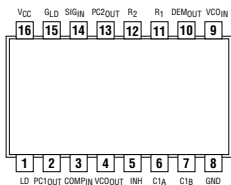
7032**QUADRUPLE POSITIVE-OR GATES
WITH SCHMITT-TRIGGER INPUTS**

positive logic:

$$Y = A + B$$



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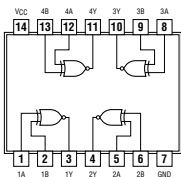
7046**PHASE-LOCKED LOOP WITH VCO AND LOCK DETECTOR**

See page 618

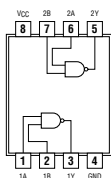
7266**QUAD 2-INPUT EXCLUSIVE-NOR GATES**

positive logic:

$$Y = \overline{A} \oplus \overline{B}$$



See page 619

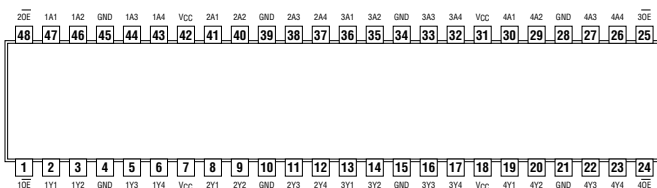
8003**DUAL 2-INPUT POSITIVE-NAND GATES**

See page 619

Pin Assignments

16240

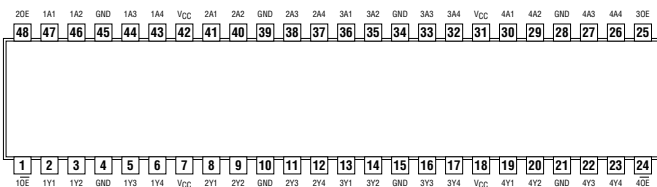
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 620

16241

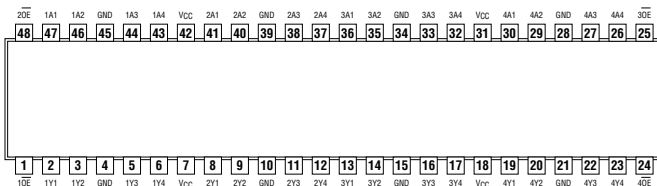
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 622

16244

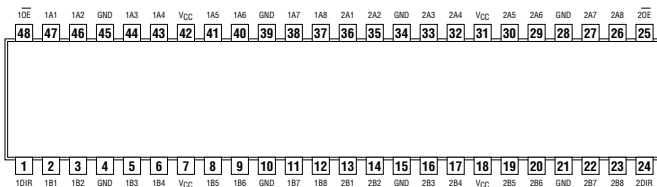
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 624

16245

16-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

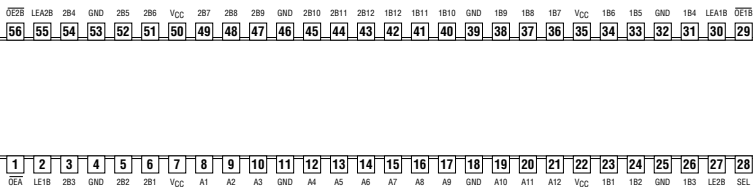


See page 626

Pin Assignments

16260

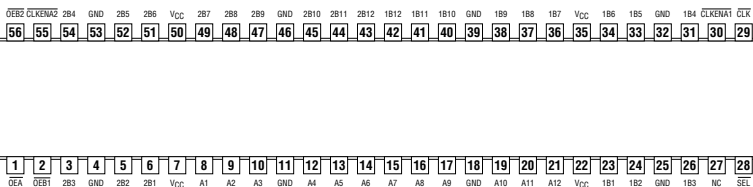
12-BIT TO 24-BIT MULTIPLEXED D-TYPE LATCH
WITH 3-STATE OUTPUTS



See page 628

16269

12-BIT TO 24-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

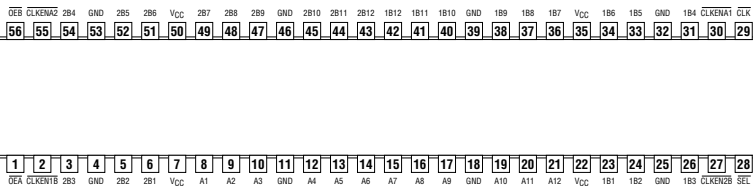


See page 630

NC-No internal connection

16270

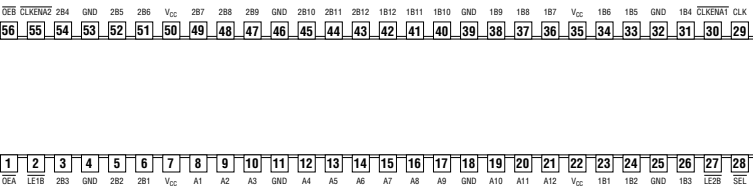
12-BIT TO 24-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



See page 632

16271

12-BIT TO 24-BIT MULTIPLEXED BUS EXCHANGER
WITH 3-STATE OUTPUTS

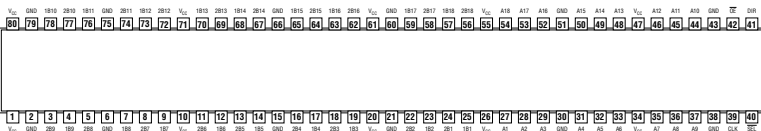


See page 634

Pin Assignments

16282

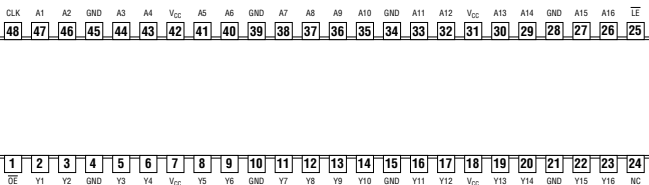
**18-BIT TO 36-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS**



See page 636

16344

**16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS**

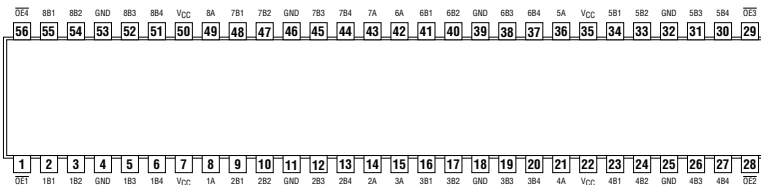


See page 638

NC-No internal connection

16344

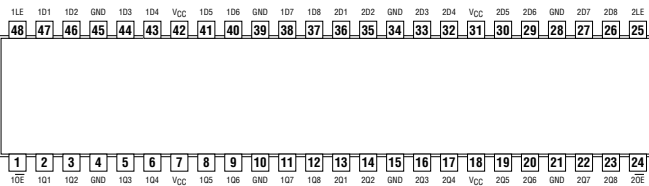
**1-BIT TO 4-BIT ADDRESS DRIVER
WITH 3-STATE OUTPUTS**



See page 640

16373

**16-BIT TRANSPARENT LATCHES
WITH 3-STATE OUTPUTS**

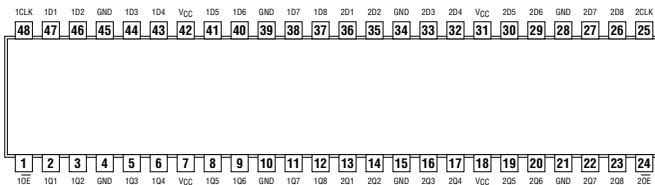


See page 642

Pin Assignments

16374

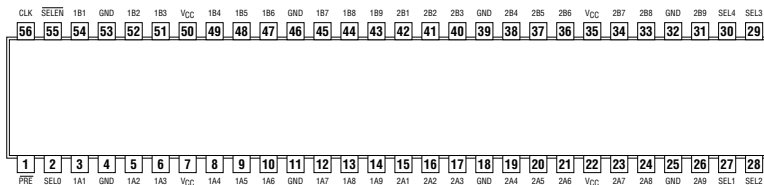
16-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH 3-STATE OUTPUTS



See page 644

16409

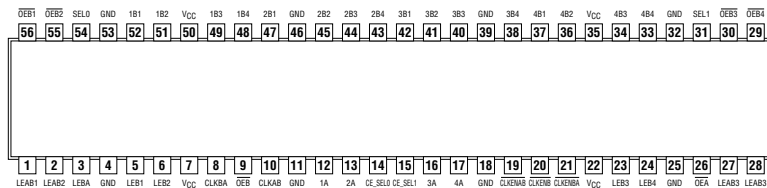
9-BIT, 4-PORT UNIVERSAL BUS EXCHANGER
WITH 3-STATE OUTPUTS



See page 646

16460

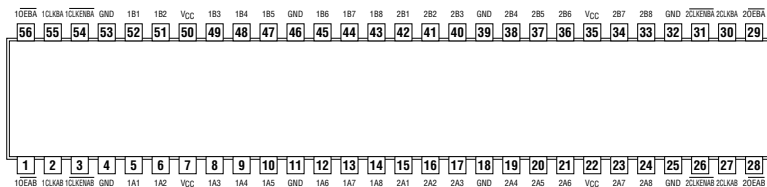
4-T0-1 MULTIPLEXED/DEMULTIPLEXED TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 648

16470

16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS

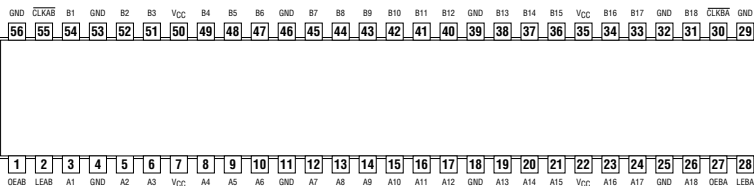


See page 650

Pin Assignments

16500

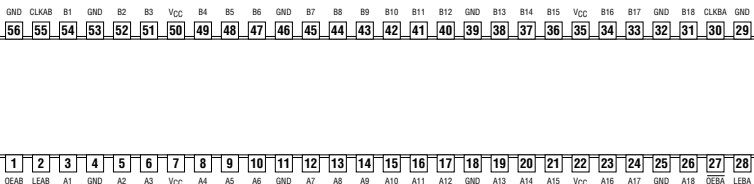
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



See page 652

16501

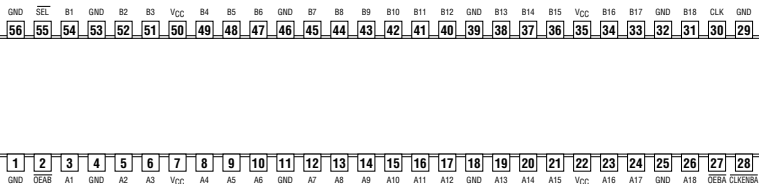
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



See page 654

16524

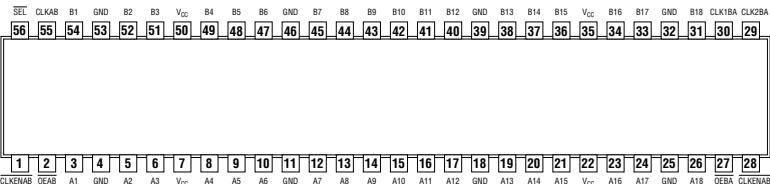
18-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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16525

18-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

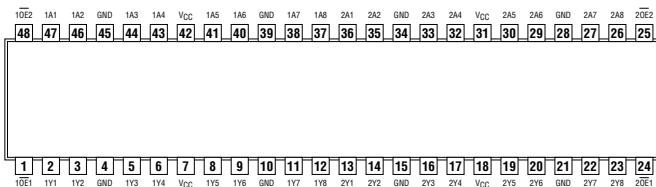


See page 656

Pin Assignments

16540

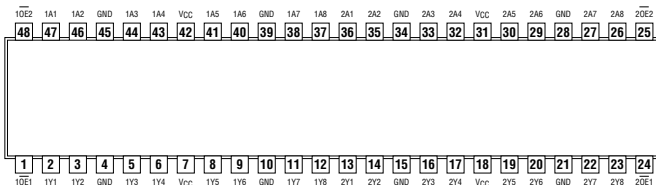
16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 660

16541

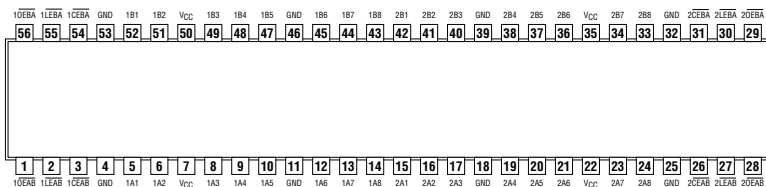
16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 661

16543

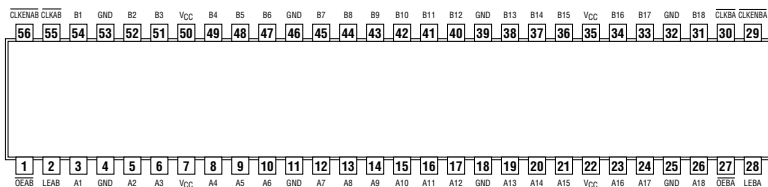
16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 662

16600

18-BIT UNIVERSAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS

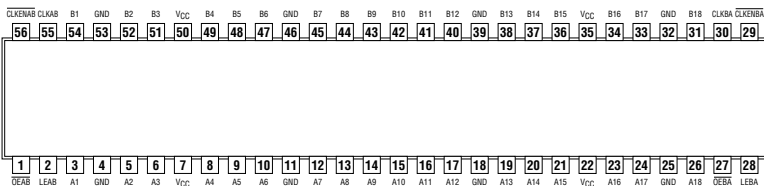


See page 664

Pin Assignments

16601

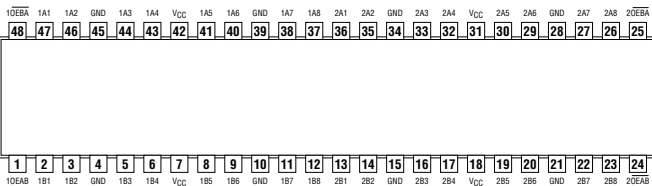
18-BIT UNIVERSAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 666

16620

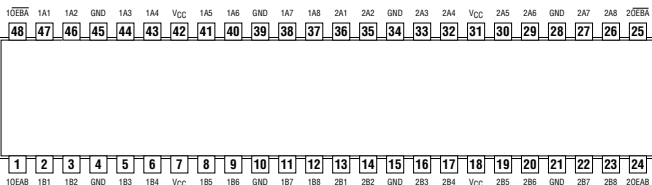
16-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 668

16623

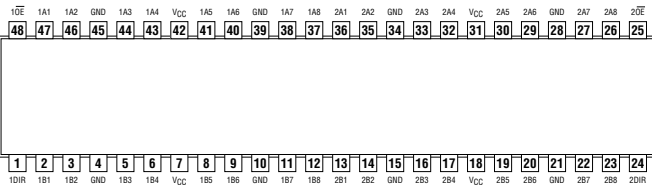
16-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 670

16640

16-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

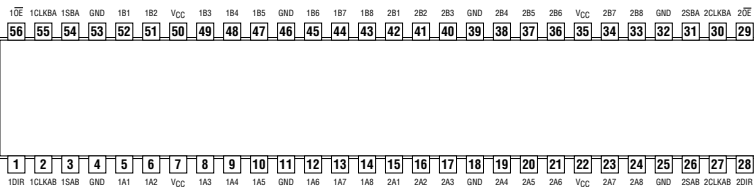


See page 671

Pin Assignments

16646

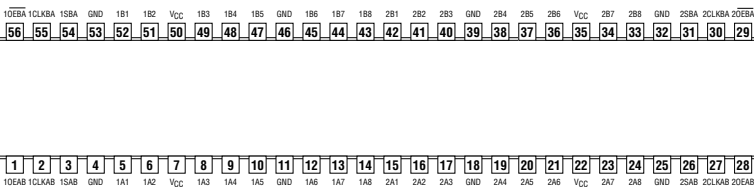
16-BIT BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS



See page 672

16651

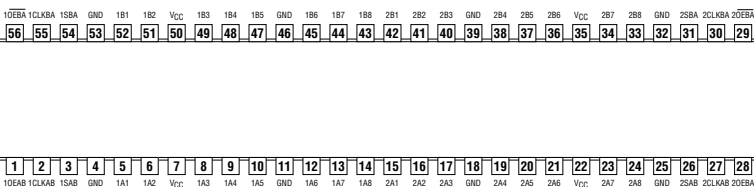
16-BIT BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS



See page 674

16652

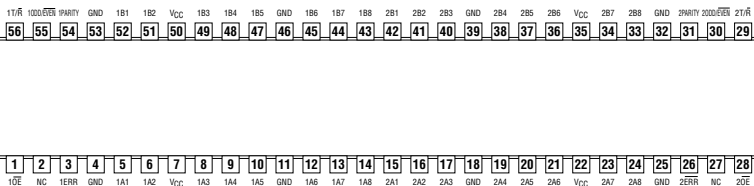
16-BIT BUS TRANSCEIVERS AND REGISTERS WITH 3-STATE OUTPUTS



See page 676

16657

16-BIT TRANSCEIVERS WITH PARITY GENERATORS/CHECKERS AND 3-STATE OUTPUTS



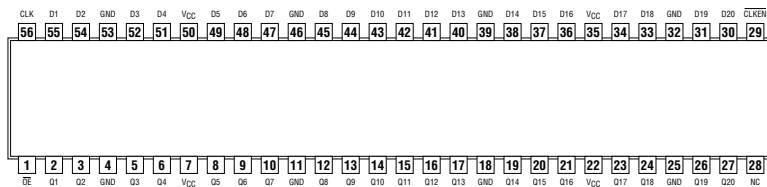
See page 678

NC-No internal connection

Pin Assignments

16721

20-BIT FLIP-FLOP
WITH 3-STATE OUTPUTS

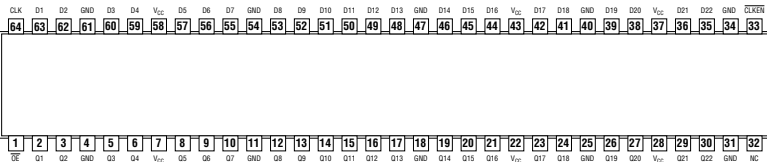


See page 680

NC-No internal connection

16722

22-BIT FLIP-FLOP WITH 3-STATE OUTPUTS

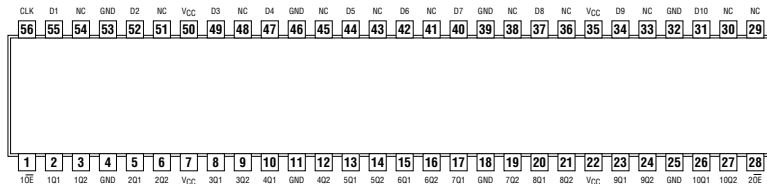


See page 681

NC-No internal connection

16820

10-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH DUAL OUTPUTS

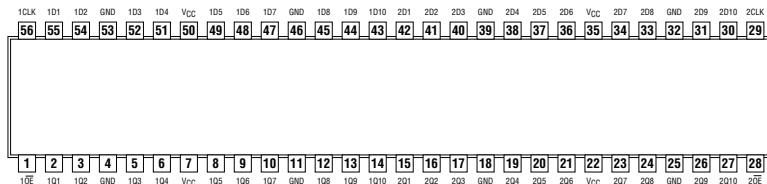


See page 682

NC-No internal connection

16821

20-BIT BUS INTERFACE FLIP-FLOPS
WITH 3-STATE OUTPUTS

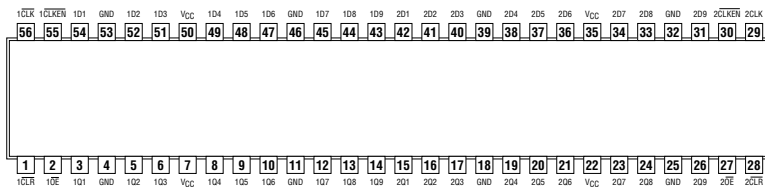


See page 683

Pin Assignments

16823

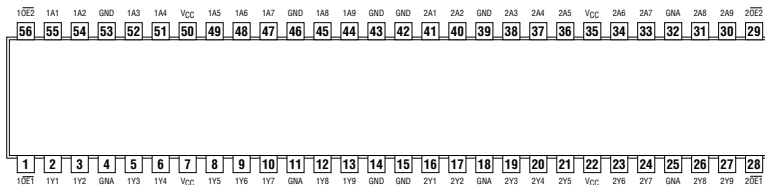
18-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH DUAL OUTPUTS



See page 684

16825

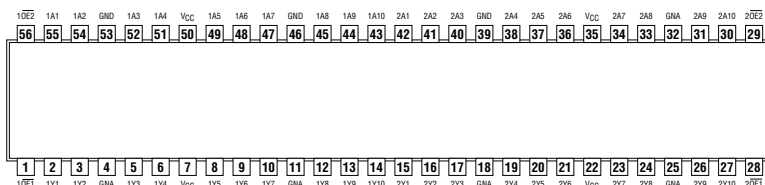
18-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 685

16827

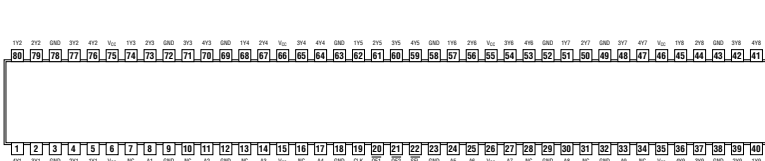
20-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 686

16831

1-TO-4 ADDRESS REGISTER/DRIVER
WITH 3-STATE OUTPUTS



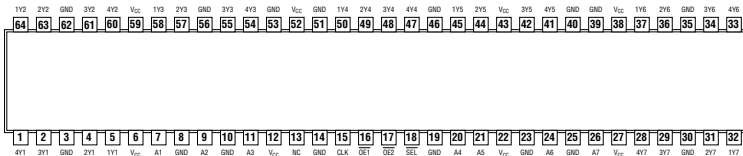
See page 688

NC-No internal connection

Pin Assignments

16832

1-TO-4 ADDRESS REGISTER/DRIVER
WITH 3-STATE OUTPUTS

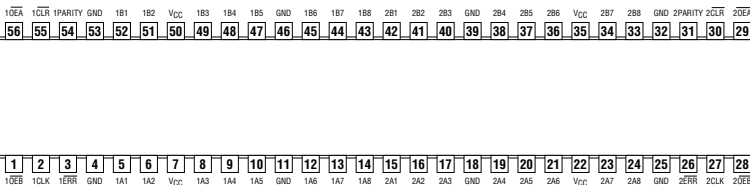


See page 689

NC-No internal connection

16833

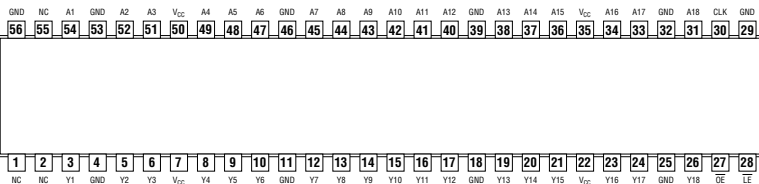
DUAL 8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



See page 690

16834

16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

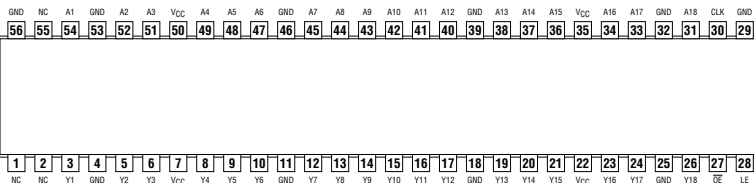


See page 692

NC-No internal connection

16835

3.3-V ABT 18-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS



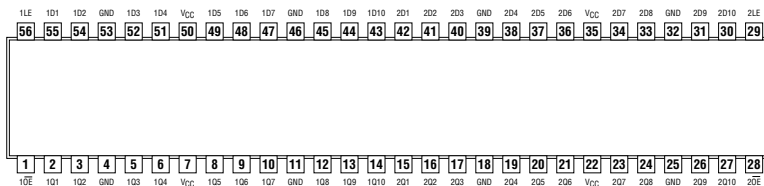
See page 693

NC-No internal connection

Pin Assignments

16841

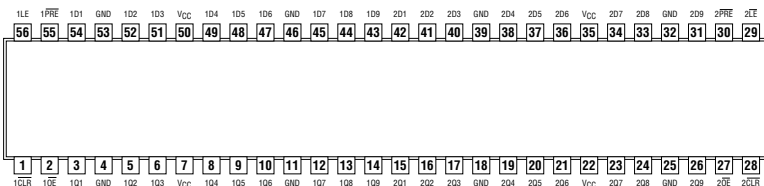
20-BIT BUS INTERFACE D-TYPE LATCHES
WITH 3-STATE OUTPUTS



See page 694

16843

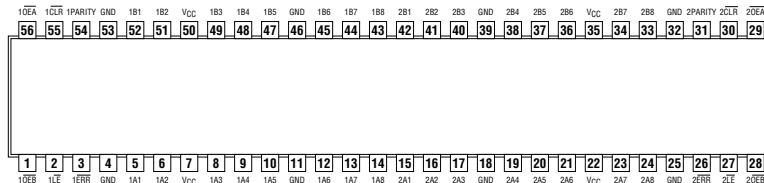
18-BIT BUS INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



See page 695

16853

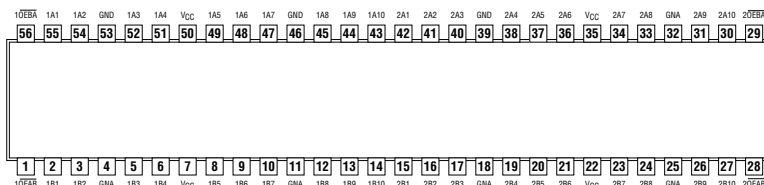
DUAL 8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



See page 696

16861

20-BIT BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

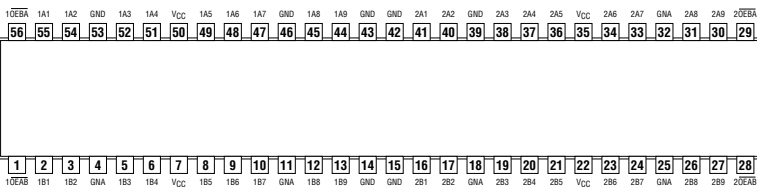


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Pin Assignments

16863

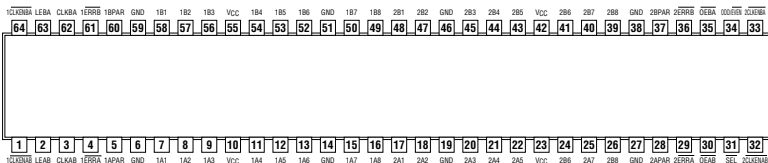
18-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 699

16901

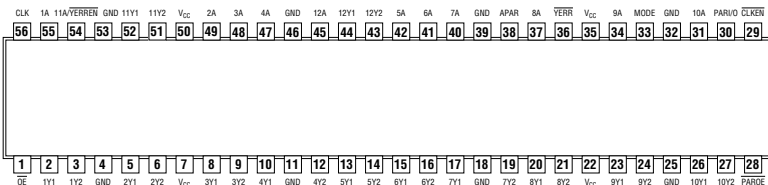
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH PARITY GENERATORS/CHECKERS



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16903

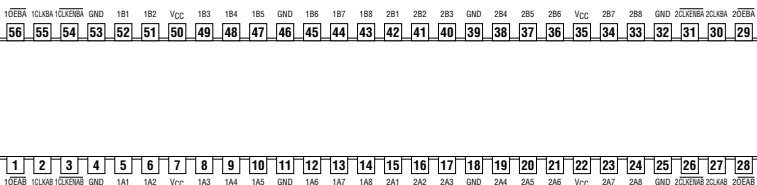
3.3-V 12-BIT UNIVERSAL BUS DRIVER
WITH PARITY CHECKER AND DUAL 3-STATE OUTPUTS



See page 702

16952

16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS

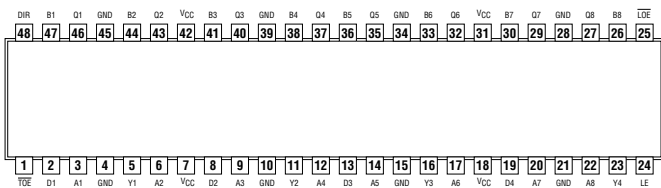


See page 704

Pin Assignments

16973

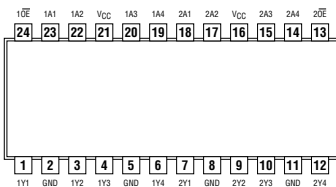
8-BIT BUS TRANSCEIVER AND TRANSPARENT D-TYPE LATCH WITH FOUR INDEPENDENT BUFFERS



See page 706

25244

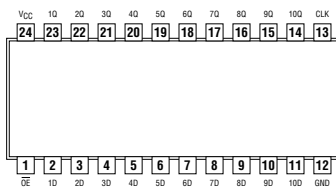
25-Ω OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS



See page 708

29821

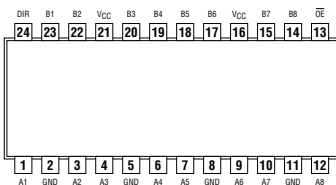
10-BIT BUS-INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS



See page 711

25245

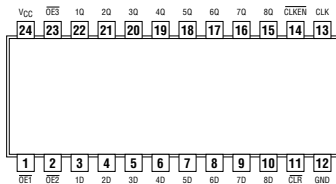
25-Ω OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



See page 709

29825

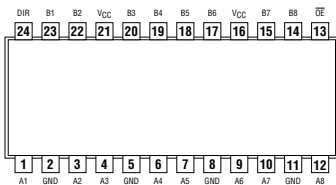
8-BIT BUS-INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS



See page 712

25642

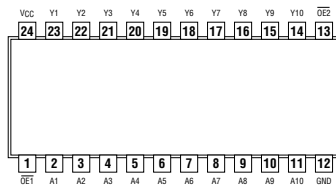
25-Ω OCTAL BUS TRANSCEIVER



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29827

29828
10-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS

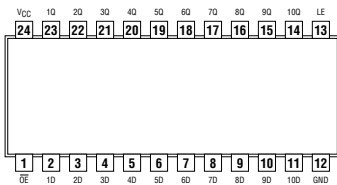


See page 713, 714

Pin Assignments

29841

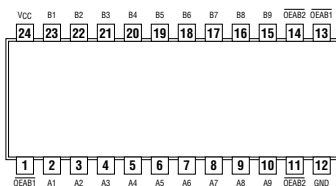
10-BIT BUS INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



See page 715

29864

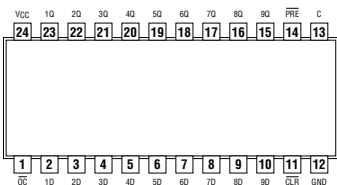
9-BIT BUS TRANSCEIVER WITH 3-STATE OUTPUTS



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29843

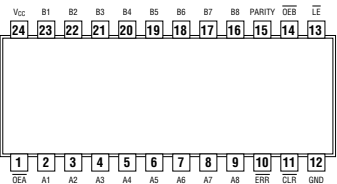
9-BIT BUS INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



See page 716

29854

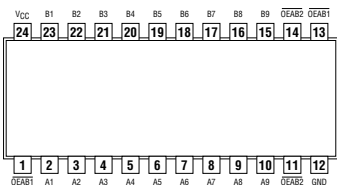
8-BIT TO 9-BIT PARITY BUS TRANSCEIVER



See page 718

29863

9-BIT BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



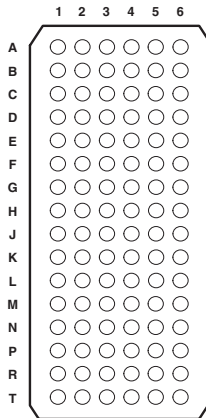
See page 720

Pin Assignments

32240

32-BIT BUFFER/DRIVER

GKE PACKAGE
(TOP VIEW)



terminal assignments

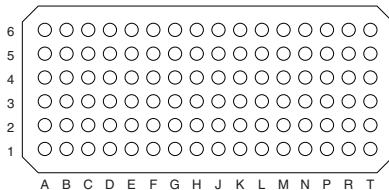
	1	2	3	4	5	6
A	1Y2	1Y1	1OE	2OE	1A1	1A2
B	1Y4	1Y3	GND	GND	1A3	1A4
C	2Y2	2Y1	1V _{CC}	1V _{CC}	2A1	2A2
D	2Y2	2Y3	GND	GND	2A3	2A4
E	3Y2	3Y1	GND	GND	3A1	3A2
F	3Y4	3Y3	1V _{CC}	1V _{CC}	3A3	3A4
G	4Y2	4Y1	GND	GND	4A1	4A2
H	4Y3	4Y4	4OE	3OE	4A4	4A3
J	5Y2	5Y1	5OE	6OE	5A1	5A2
K	5Y4	5Y3	GND	GND	5A3	5A4
L	6Y2	6Y1	2V _{CC}	2V _{CC}	6A1	6A2
M	6Y4	6Y3	GND	GND	6A3	6A4
N	7Y2	7Y1	GND	GND	7A1	7A2
P	7Y4	7Y3	2V _{CC}	2V _{CC}	7A3	7A4
R	8Y2	8Y1	GND	GND	8A1	8A2
T	8Y3	8Y4	8OE	7OE	8A4	8A3

See page 722

32244

32-BIT BUFFER/DRIVER
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



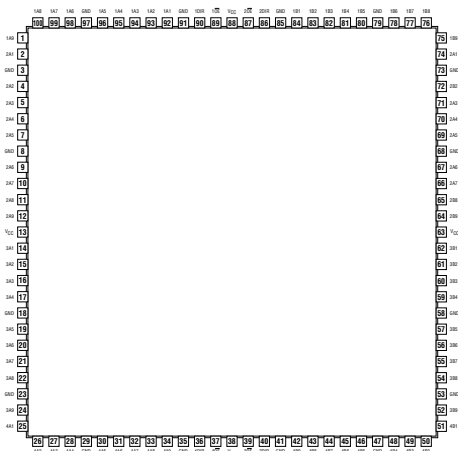
6	1A2	1A4	2A2	2A4	3A2	3A4	4A2	4A3	5A2	5A4	6A2	6A4	7A2	7A4	8A2	8A3
5	1A1	1A3	2A1	2A3	3A1	3A3	4A1	4A4	5A1	5A3	6A1	6A3	7A1	7A3	8A1	8A4
4	2OE	GND	V _{CC}	GND	GND	V _{CC}	GND	3OE	6OE	GND	V _{CC}	GND	GND	V _{CC}	GND	7OE
3	1OE	GND	V _{CC}	GND	GND	V _{CC}	GND	4OE	5DIR	GND	V _{CC}	GND	GND	V _{CC}	GND	8DIR
2	1Y1	1Y3	2Y1	2Y3	3Y1	3Y3	4Y1	4Y4	5Y1	5Y3	6Y1	6Y3	7Y1	7Y3	8Y1	8Y4
1	1Y2	1Y4	2Y2	2Y4	3Y2	3Y4	4Y2	4Y3	5Y2	5Y4	6Y2	6Y4	7Y2	7Y4	8Y2	8Y3
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T

See page 724

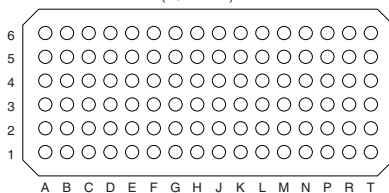
Pin Assignments

32245

32-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



GKE PACKAGE
(TOP VIEW)

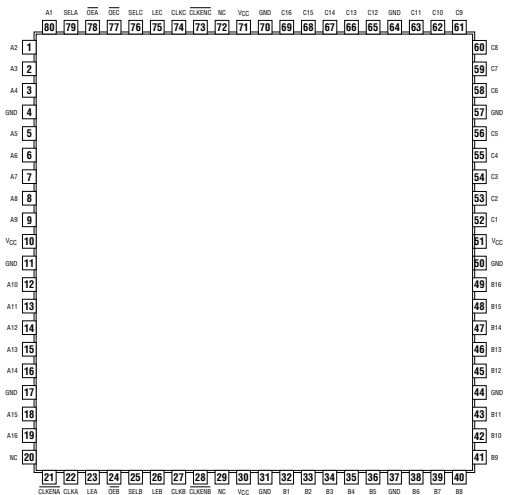


6	1A2	1A4	1A6	1A8	2A2	2A4	2A6	2A7	3A2	3A4	3A6	3A8	4A2	4A4	4A6	4A7
5	1A1	1A3	1A5	1A7	2A1	2A3	2A5	2A8	3A1	3A3	3A5	3A7	4A1	4A3	4A5	4A8
4	$\overline{1OE}$	GND	V_{CC}	GND	GND	V_{CC}	GND	$\overline{2OE}$	$\overline{3OE}$	GND	V_{CC}	GND	GND	V_{CC}	GND	$\overline{4OE}$
3	1DIR	GND	V_{CC}	GND	GND	V_{CC}	GND	2DIR	3DIR	GND	V_{CC}	GND	GND	V_{CC}	GND	4DIR
2	1B1	1B3	1B5	1B7	2B1	2B3	2B5	2B8	3B1	3B3	3B5	3B7	4B1	4B3	4B5	4B8
1	1B2	1B4	1B6	1B8	2B2	2B4	2B6	2B7	3B2	3B4	3B6	3B8	4B2	4B4	4B6	4B7
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T

Pin Assignments

32316

16-BIT TRI-PORT UNIVERSAL BUS EXCHANGERS

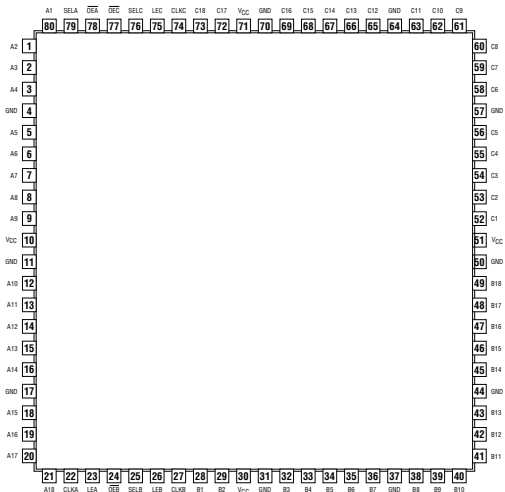


See page 728

NC-No internal connection

32318

18-BIT TRI-PORT UNIVERSAL BUS EXCHANGERS



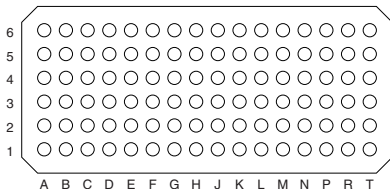
See page 730

Pin Assignments

32373

32-BIT TRANSPARENT D-TYPE LATCH
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



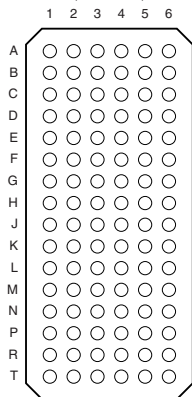
6	1D2	1D4	1D6	1D8	2D2	2D4	2D6	2D7	3D2	3D4	3D6	3D8	4D2	4D4	4D6	4D7
5	1D1	1D3	1D5	1D7	2D1	2D3	2D5	2D8	3D1	3D3	3D5	3D7	4D1	4D3	4D5	4D8
4	1LE	GND	V _{CC}	GND	GND	V _{CC}	GND	2LE	3LE	GND	V _{CC}	GND	GND	V _{CC}	GND	4LE
3	1OE	GND	V _{CC}	GND	GND	V _{CC}	GND	2OE	3OE	GND	V _{CC}	GND	GND	V _{CC}	GND	4OE
2	1Q1	1Q3	1Q5	1Q7	2Q1	2Q3	2Q5	2Q8	3Q1	3Q3	3Q5	3Q7	4Q1	4Q3	4Q5	4Q8
1	1Q2	1Q4	1Q6	1Q8	2Q2	2Q4	2Q6	2Q7	3Q2	3Q4	3Q6	3Q8	4Q2	4Q4	4Q6	4Q7
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T

See page 732

32374

32-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOP
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



terminal assignments

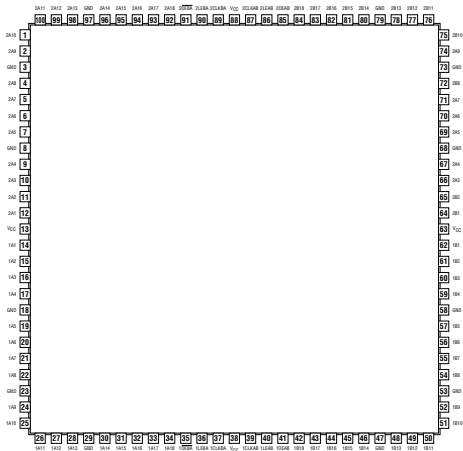
	1	2	3	4	5	6
A	1Q2	1Q1	1OE	1CLK	1D1	1D2
B	1Q4	1Q3	GND	GND	1D3	1D4
C	1Q6	1Q5	V _{CC}	V _{CC}	1D5	1D6
D	1Q8	1Q7	GND	GND	1D7	1D8
E	2Q2	2Q1	GND	GND	2D1	2D2
F	2Q4	2Q3	V _{CC}	V _{CC}	2D3	2D4
G	2Q6	2Q5	GND	GND	2D5	2D6
H	2Q8	2Q7	2OE	2CLK	2D7	2D8
J	3Q2	3Q1	3OE	3CLK	3D1	3D2
K	3Q4	3Q3	GND	GND	3D3	3D4
L	3Q6	3Q5	V _{CC}	V _{CC}	3D5	3D6
M	3Q8	3Q7	GND	GND	3D7	3D8
N	4Q2	4Q1	GND	GND	4D1	4D2
P	4Q4	4Q3	V _{CC}	V _{CC}	4D3	4D4
R	4Q6	4Q5	GND	GND	4D5	4D6
T	4Q7	4Q8	4OE	4CLK	4D8	4D7

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Pin Assignments

32501

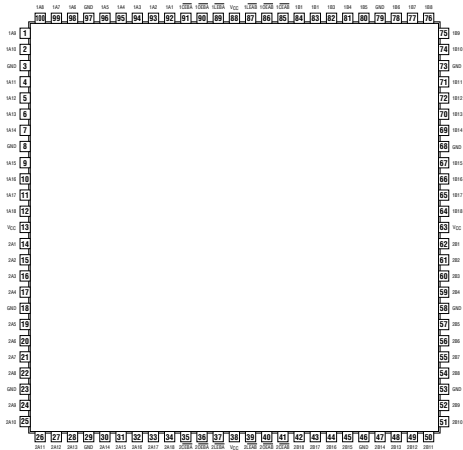
36-BIT UNIVERSAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



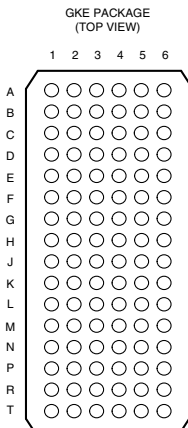
See page 736

32543

36-BIT REGISTERED BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



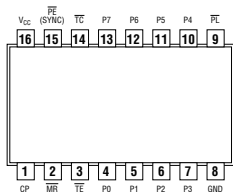
See page 738

32973**16-BIT BUS TRANSCEIVER AND TRANSPARENT D-TYPE LATCH
WITH EIGHT INDEPENDENT BUFFERS**

terminal assignments

	1	2	3	4	5	6
A	1A1	D1	1 $\overline{\text{TOE}}$	1DIR	1B1	1Q1
B	1A2	Y1	GND	GND	1B2	1Q2
C	1A3	D2	V _{CC}	V _{CC}	1B3	1Q3
D	1A4	Y2	GND	GND	1B4	1Q4
E	1A5	D3	GND	GND	1B5	1Q5
F	1A6	Y3	V _{CC}	V _{CC}	1B6	1Q6
G	1A7	D4	GND	GND	1B7	1Q7
H	1A8	Y4	1LE	1 $\overline{\text{LOE}}$	1B8	1Q8
J	2A1	D5	2 $\overline{\text{TOE}}$	2DIR	2B1	2Q1
K	2A2	Y5	GND	GND	2B2	2Q2
L	2A3	D6	V _{CC}	V _{CC}	2B3	2Q3
M	2A4	Y6	GND	GND	2B4	2Q4
N	2A5	D7	GND	GND	2B5	2Q5
P	2A6	Y7	V _{CC}	V _{CC}	2B6	2Q6
R	2A7	D8	GND	GND	2B7	2Q7
T	2A8	Y8	2LE	2 $\overline{\text{LOE}}$	2B8	2Q8

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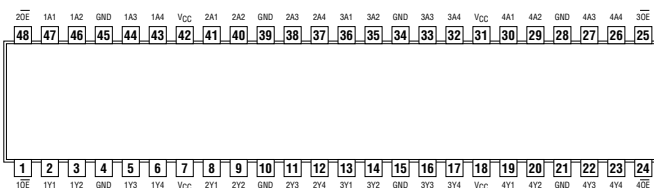
40103**8-STAGE SYNCHRONOUS DOWN COUNTERS**

See page 742

Pin Assignments

162240

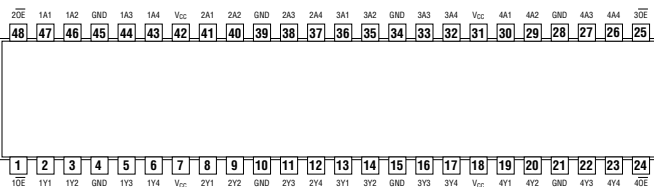
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 744

162241

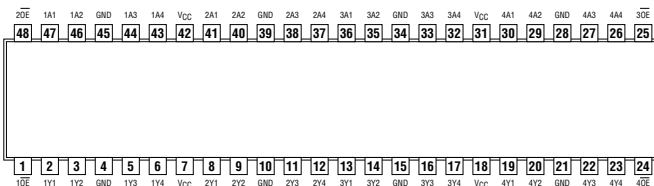
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 745

162244

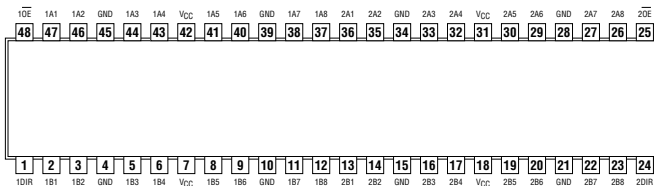
16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 746

162245

16-BIT TRANSCEIVER
WITH 3-STATE OUTPUTS

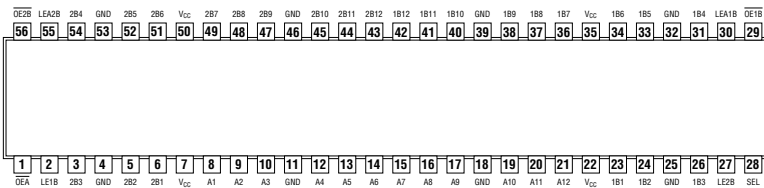


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Pin Assignments

162260

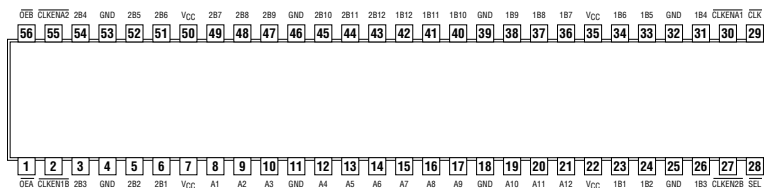
12-BIT TO 24-BIT MULTIPLEXED D-TYPE LATCH
WITH 3-STATE OUTPUTS



See page 748

162268

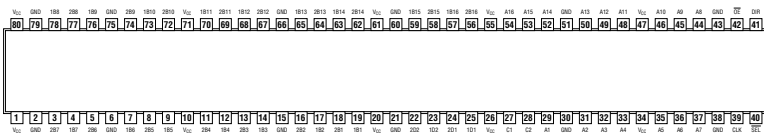
12-BIT TO 24-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



See page 750

162280

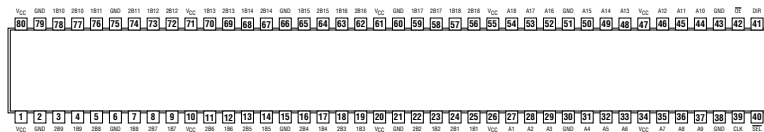
16-BIT TO 32-BIT REGISTERED BUS EXCHANGER
WITH BYTE MASKS AND 3-STATE OUTPUTS



See page 752

162282

18-BIT TO 36-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS

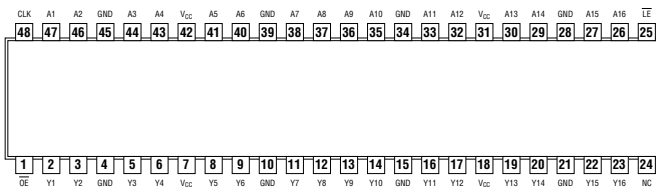


See page 754

Pin Assignments

162334

16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

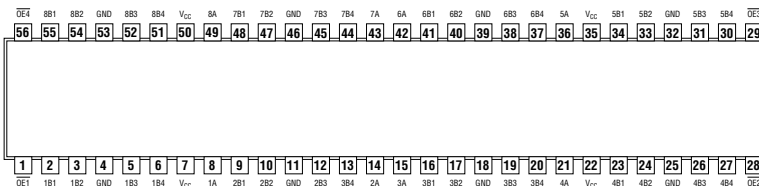


See page 756

NC-No internal connection

162344

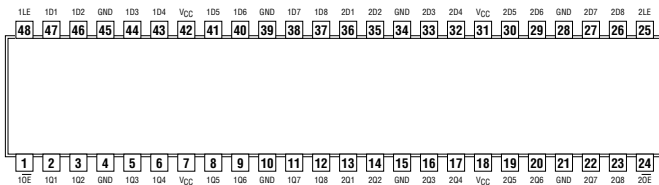
1-BIT TO 4-BIT ADDRESS DRIVER
WITH 3-STATE OUTPUTS



See page 758

162373

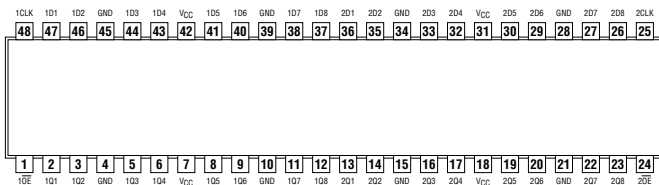
3.3-V ABT 16-BIT TRANSPARENT D-TYPE LATCHES
WITH 3-STATE OUTPUTS



See page 760

162374

3.3-V ABT 16-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH 3-STATE OUTPUTS

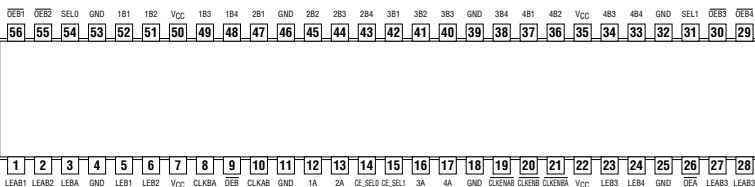


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Pin Assignments

162460

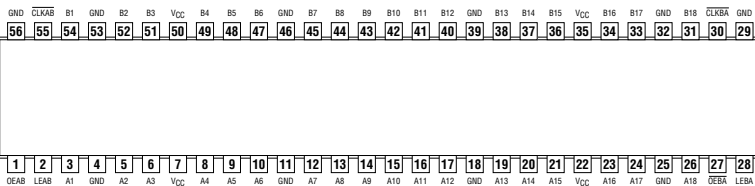
4-TO-1 MULTIPLEXED/DEMULTIPLEXED REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 762

162500

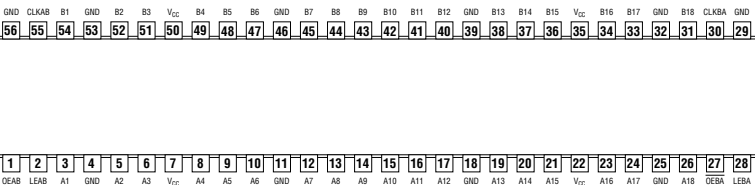
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



See page 764

162501

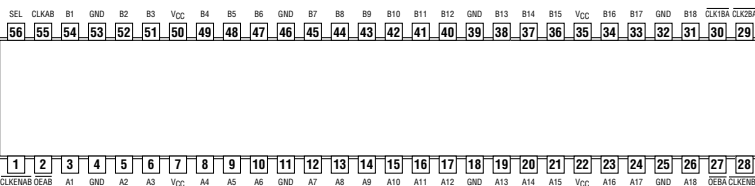
18-BIT UNIVERSAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 766

162525

18-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

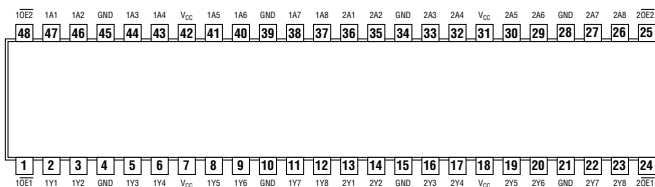


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Pin Assignments

162541

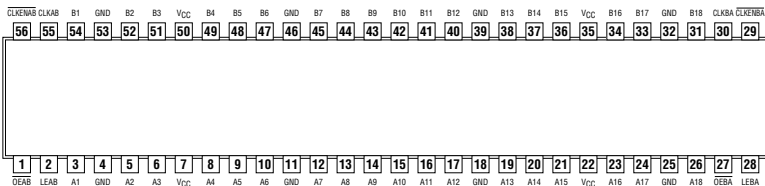
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 770

162601

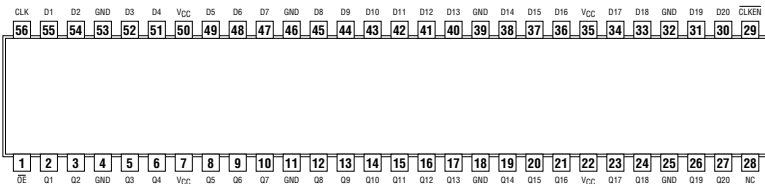
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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162721

3.3-V 20-BIT FLIP-FLOP
WITH 3-STATE OUTPUTS

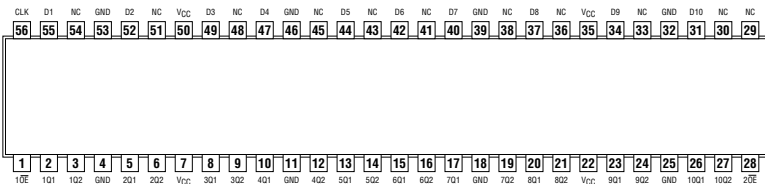


See page 774

NC-No internal connection

162820

3.3-V 10-BIT FLIP-FLOP WITH DUAL OUTPUTS
AND 3-STATE OUTPUTS

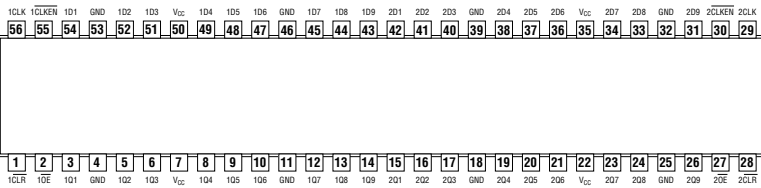


See page 775

NC-No internal connection

162823

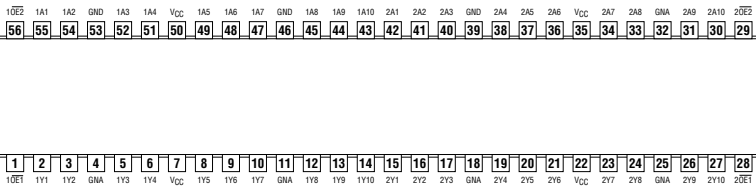
18-BIT BUS-INTERFACE FLIP-FLOPS
WITH 3-STATE OUTPUTS



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162825

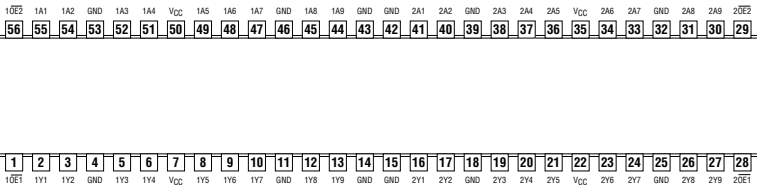
18-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



See page 777

162827

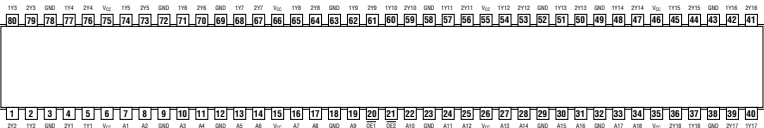
20-BIT BUS BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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162830

1-BIT TO 2-BIT ADDRESS DRIVER WITH 3-STATE OUTPUTS

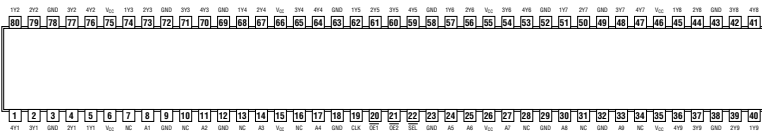


See page 779

Pin Assignments

162831

1-BIT TO 4-BIT ADDRESS REGISTER/DRIVER
WITH 3-STATE OUTPUTS

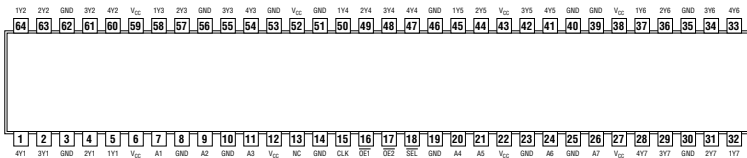


NC-No internal connection

See page 780

162832

1-BIT TO 4-BIT ADDRESS REGISTER/DRIVER
WITH 3-STATE OUTPUTS

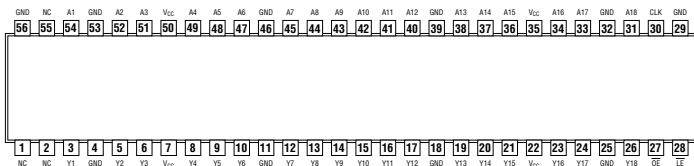


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162834

162835

18-BIT UNIVERSAL BUS DRIVER WITH 3-STATE OUTPUTS

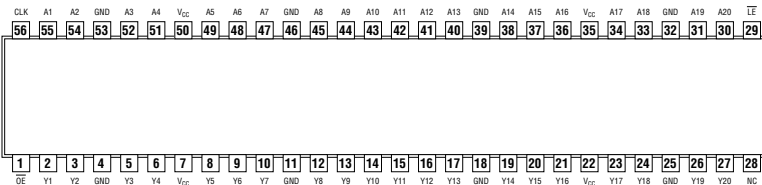


NC-No internal connection

See page 782, 783

162836

20-BIT UNIVERSAL BUS DRIVER WITH 3-STATE OUTPUTS



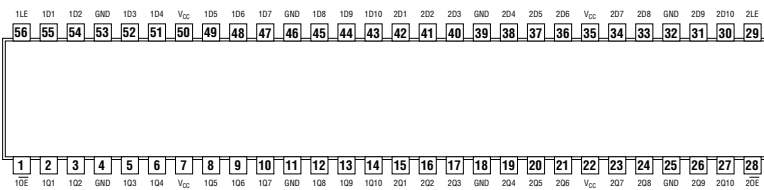
NC-No internal connection

See page 784

Pin Assignments

162841

20-BIT BUS-INTERFACE D-TYPE LATCH
WITH 3-STATE OUTPUTS



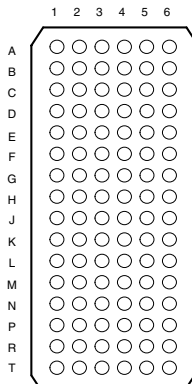
See page 785

Pin Assignments

322244

32-BIT BUFFER/DRIVER
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



terminal assignments

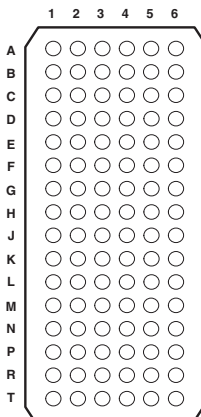
	1	2	3	4	5	6
A	1Y2	1Y1	1OE	2OE	1A1	1A2
B	1Y4	1Y3	GND	GND	1A3	1A4
C	2Y2	2Y1	VCC	VCC	2A1	2A2
D	2Y4	2Y3	GND	GND	2A3	2A4
E	3Y2	3Y1	GND	GND	3A1	3A2
F	3Y4	3Y3	VCC	VCC	3A3	3A4
G	4Y2	4Y1	GND	GND	4A1	4A2
H	4Y3	4Y4	4OE	3OE	4A4	4A3
J	5Y2	5Y1	5OE	6OE	5A1	5A2
K	5Y4	5Y3	GND	GND	5A3	5A4
L	6Y2	6Y1	VCC	VCC	6A1	6A2
M	6Y4	6Y3	GND	GND	6A3	6A4
N	7Y2	7Y1	GND	GND	7A1	7A2
P	7Y4	7Y3	VCC	VCC	7A3	7A4
R	8Y2	8Y1	GND	GND	8A1	8A2
T	8Y3	8Y4	8OE	7OE	8A4	8A3

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322374

3.3-V ABT 32-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOP WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



terminal assignments

	1	2	3	4	5	6
A	1Q2	1Q1	1OE	1CLK	1D1	1D2
B	1Q4	1Q3	GND	GND	1D3	1D4
C	1Q6	1Q5	VCC	VCC	1D5	1D6
D	1Q8	1Q7	GND	GND	1D7	1D8
E	2Q2	2Q1	GND	GND	2D1	2D2
F	2Q4	2Q3	VCC	VCC	2D3	2D4
G	2Q6	2Q6	GND	GND	2D5	2D6
H	2Q7	2Q8	2OE	2CLK	2D8	2D7
J	3Q2	3Q1	3OE	3CLK	3D1	3D2
K	3Q4	3Q3	GND	GND	3D3	3D4
L	3Q6	3Q5	VCC	VCC	3D5	3D6
M	3Q8	3Q7	GND	GND	3D7	3D8
N	4Q2	4Q1	GND	GND	4D1	4D2
P	4Q4	4Q3	VCC	VCC	4D3	4D4
R	4Q6	4Q5	GND	GND	4D5	4D6
T	4Q7	4Q8	4OE	4CLK	4D8	4D7

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