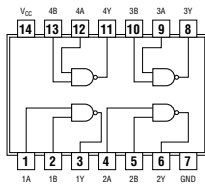


Pin Assignments

00

QUADRUPLE 2-INPUT POSITIVE-NAND GATES

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

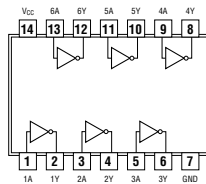


See page 139

04

HEX INVERTERS

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

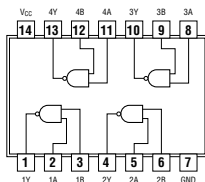


See page 143

01

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

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

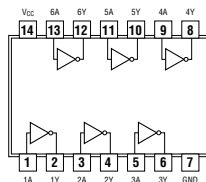


See page 140

U04

HEX INVERTERS

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

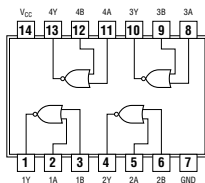


See page 144

02

QUADRUPLE 2-INPUT POSITIVE-NOR GATES

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

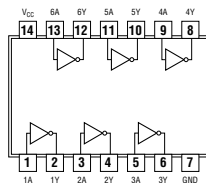


See page 141

05

HEX INVERTERS WITH OPEN-COLLECTOR OUTPUTS

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

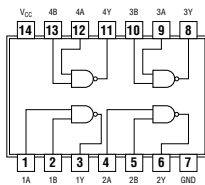


See page 144

03

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

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

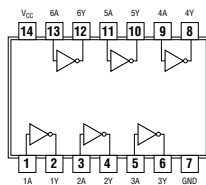


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06

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

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



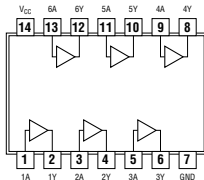
See page 145

Pin Assignments

07

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

positive logic:
 $Y = \bar{A}$

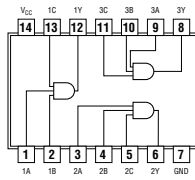


See page 145

11

TRIPLE 3-INPUT POSITIVE-AND GATES

positive logic:
 $Y = A \cdot B \cdot C$

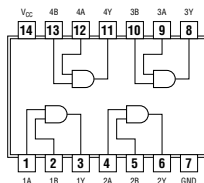


See page 149

08

QUADRUPLE 2-INPUT POSITIVE-AND GATES

positive logic:
 $Y = A \cdot B$

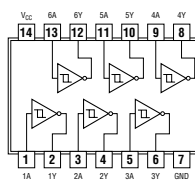


See page 146

14

HEX SCHMITT-TRIGGER INVERTERS

positive logic:
 $Y = \bar{A}$

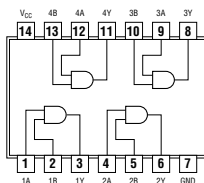


See page 150

09

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

positive logic:
 $Y = A \cdot B$

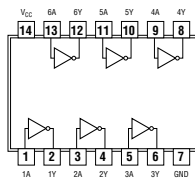


See page 147

16

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

positive logic:
 $Y = \bar{A}$

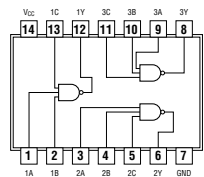


See page 151

10

TRIPLE 3-INPUT POSITIVE-NAND GATES

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

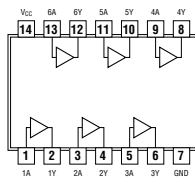


See page 148

17

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

positive logic:
 $Y = A$



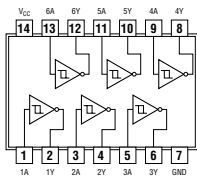
See page 151

Pin Assignments

19

HEX SCHMITT-TRIGGER INVERTERS

positive logic:
 $Y = \bar{A}$

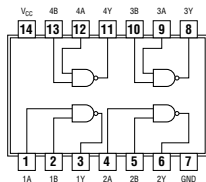


See page 152

26

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

positive logic:
 $Y = \bar{A}\bar{B}$

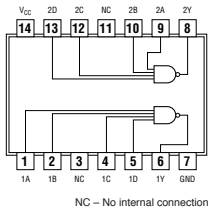


See page 155

20

DUAL 4-INPUT POSITIVE-NAND GATES

positive logic:
 $Y = \bar{A} \cdot \bar{B} \cdot \bar{C} \cdot \bar{D}$

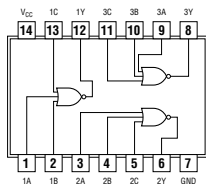


See page 153

27

TRIPLE 3-INPUT POSITIVE-NOR GATES

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

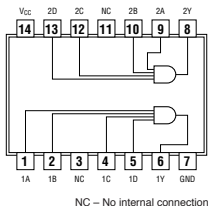


See page 155

21

DUAL 4-INPUT POSITIVE-AND GATES

positive logic:
 $Y = A \cdot B \cdot C \cdot D$

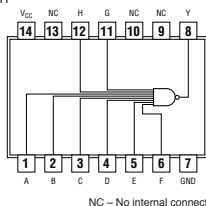


See page 154

30

8-INPUT POSITIVE-NAND GATES

positive logic:
 $Y = \bar{A} \cdot \bar{B} \cdot \bar{C} \cdot \bar{D} \cdot \bar{E} \cdot \bar{F} \cdot \bar{G} \cdot \bar{H}$

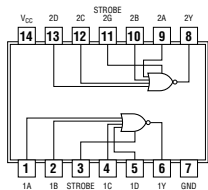


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25

DUAL 4-INPUT POSITIVE-NOR GATES WITH STROBE

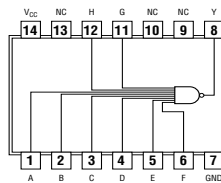
positive logic:
 $Y = \bar{G}(\bar{A} + \bar{B} + \bar{C} + \bar{D})$



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31

DELAY ELEMENTS



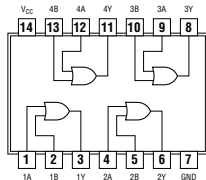
See page 156

Pin Assignments

32

QUADRUPLE 2-INPUT POSITIVE OR GATES

positive logic:
 $Y = A + B$

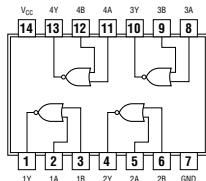


See page 157

33

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

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

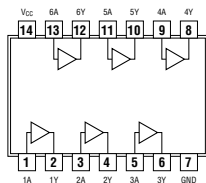


See page 158

35

HEX NONINVERTERS WITH OPEN-COLLECTOR OUTPUTS

positive logic:
 $Y = A$

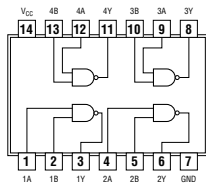


See page 158

37

QUADRUPLE 2-INPUT POSITIVE-NAND BUFFERS

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

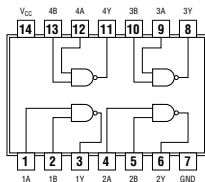


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38

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

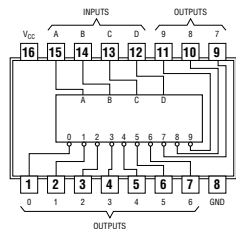
positive logic:
 $Y = \overline{A \cdot B}$



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42

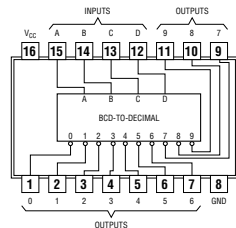
4-LINE-TO-10-LINE DECODERS



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45

BCD-TO-DECIMAL DECODER/DRIVER

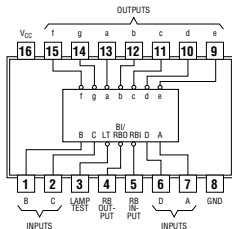


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Pin Assignments

47

BCD-TO-SEVEN-SEGMENT DECODERS/DRIVERS



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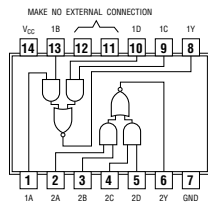
51

AND-OR-INVERT GATES

'S1, 'S51 DUAL 2-WIDE 2-INPUT

positive logic:

$$Y = AB + CD$$



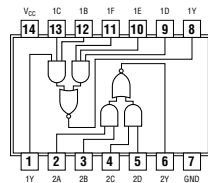
AND-OR-INVERT GATES

'LS51 2-WIDE 3-INPUT, 2-WIDE 2-INPUT

positive logic:

$$1Y = (1A \cdot 1B \cdot 1C) + (1D \cdot 1E \cdot 1F)$$

$$2Y = (2A \cdot 2B) + (2C \cdot 2D)$$



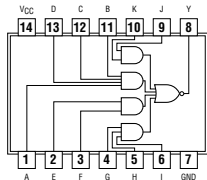
See page 166

64

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

positive logic:

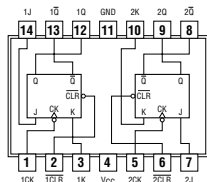
$$Y = ABCD + EF + GHI + JK$$



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73

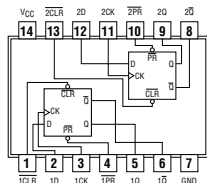
DUAL J-K FLIP-FLOPS WITH CLEAR



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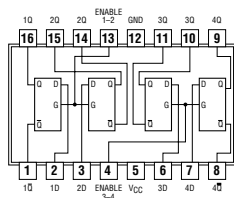
DUAL D-TYPE POSITIVE-EDGE-TRIGGERED FLIP-FLOPS WITH PRESET AND CLEAR



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75

4-BIT BISTABLE LATCHES

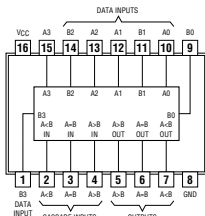


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Pin Assignments

85

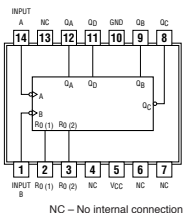
4-BIT MAGNITUDE COMPARATORS



See page 173

93

4-BIT BINARY COUNTERS



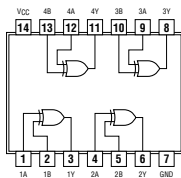
See page 177

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QUADRUPLE 2-INPUT EXCLUSIVE-OR GATES

positive logic:

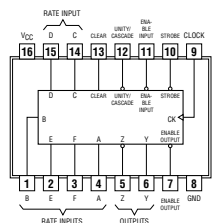
$$Y = A \oplus B \text{ or } Y = \bar{A}B + A\bar{B}$$



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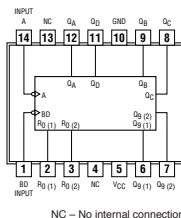
SYNCHRONOUS 6-BIT BINARY RATE MULTIPLIER



See page 178

90

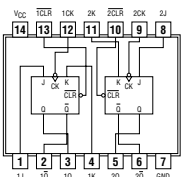
DECADE COUNTER



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107

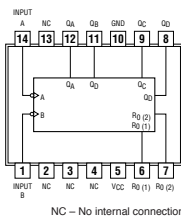
DUAL J-K FLIP-FLOPS WITH CLEAR



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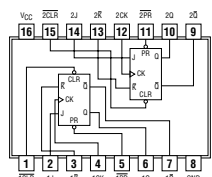
DIVIDE-BY-TWELVE COUNTERS



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

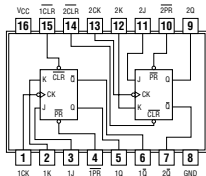


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Pin Assignments

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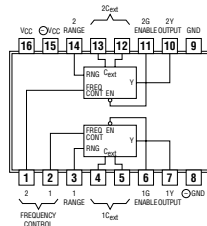
DUAL J-K NEGATIVE-EDGE-TRIGGERED FLIP-FLOPS WITH PRESET AND CLEAR



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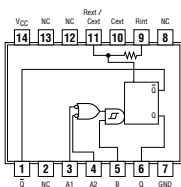
DUAL VOLTAGE-CONTROLLED OSCILLATORS WITH ENABLE INPUTS



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MONOSTABLE MULTIVIBRATOR



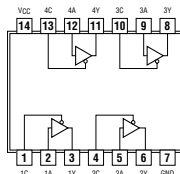
NC - No internal connection

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QUADRUPLE BUS BUFFER GATES WITH THREE-STATE OUTPUTS

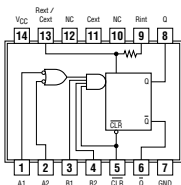
positive logic:
 $Y = A$



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RETRIGGERABLE MONOSTABLE MULTIVIBRATORS WITH CLEAR



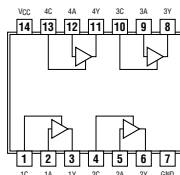
NC - No internal connection

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QUADRUPLE BUS BUFFER GATES WITH THREE-STATE OUTPUTS

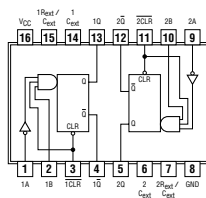
positive logic:
 $Y = A$



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DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS WITH CLEAR

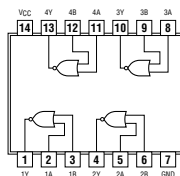


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SN54128...75-Ω LINE DRIVER
SN74128...50-Ω LINE DRIVER

positive logic:
 $Y = A + B$



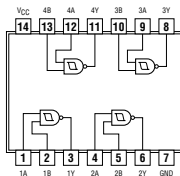
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Pin Assignments

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QUADRUPLE 2-INPUT POSITIVE-NAND SCHMITT TRIGGERS

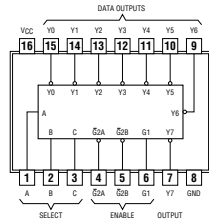
positive logic:
 $Y = A \cdot B$



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3-TO-8-LINE DECODERS/DEMULPLEXERS



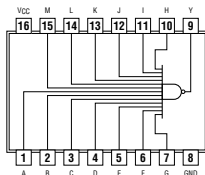
See page 196

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13-INPUT POSITIVE-NAND GATES

positive logic:

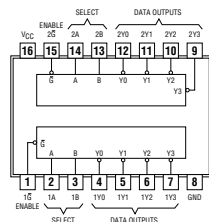
$$Y = A \cdot B \cdot C \cdot D \cdot E \cdot F \cdot G \cdot H \cdot I \cdot J \cdot K \cdot L \cdot M$$



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DUAL 2-TO-4-LINE DECODERS/DEMULPLEXERS



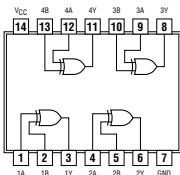
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QUAD 2-INPUT EXCLUSIVE-OR GATES WITH OPEN COLLECTOR OUTPUTS

positive logic:

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



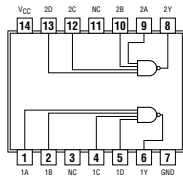
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DUAL 4-INPUT POSITIVE-NAND 50-Ω LINE DRIVERS

positive logic:

$$Y = ABCD$$

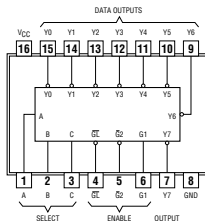


NC - No internal connection

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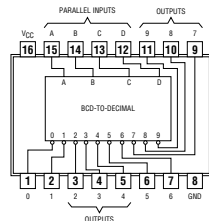
3-TO 8-LINE DECODERS/DEMULPLEXERS WITH ADDRESS LATCHES



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BCD-TO-DECIMAL DECODERS/DRIVERS FOR LAMPS, RELAYS, MOS

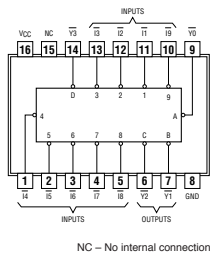


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Pin Assignments

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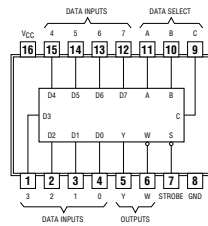
10-TO-4 LINE PRIORITY ENCODER



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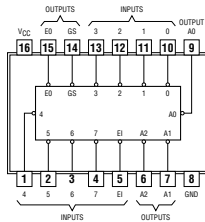
8-TO-1 LINE DATA SELECTORS/MULTIPLEXERS



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148

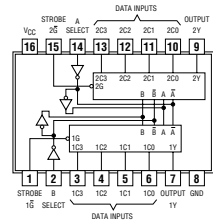
8-TO-3-LINE OCTAL PRIORITY ENCODERS



See page 204

153

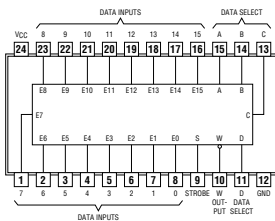
DUAL 4-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS



See page 210

150

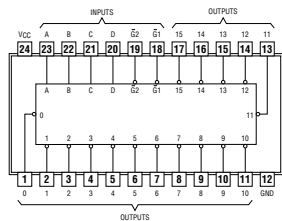
1-OF-16 DATA SELECTOR



See page 206

154

4-LINE TO 16-LINE DECODER/DEMULTIPLEXER



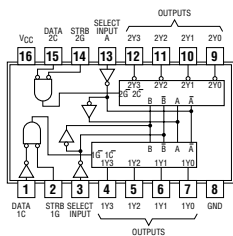
See page 212

Pin Assignments

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DECODERS/DEMULTEPLEXERS

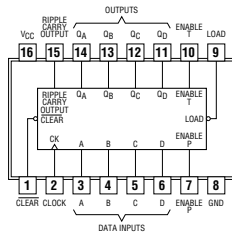


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163

SYNCHRONOUS 4-BIT BINARY COUNTERS

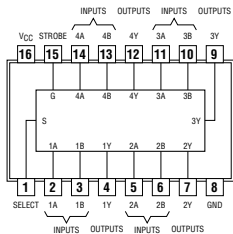


See page 224, 226

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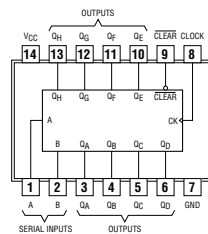
QUAD 2-TO 1-LINE DATA SELECTORS/MULTIPLEXERS



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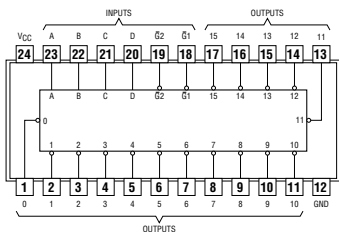
8-BIT PARALLEL OUTPUT SERIAL SHIFT REGISTERS



See page 228

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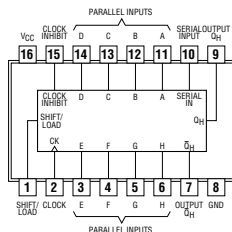
4-TO-16 LINE DECODER/DEMULTEPLEXER



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165

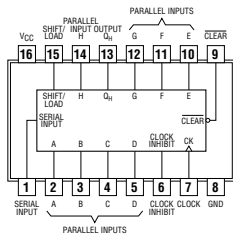
8-BIT SHFT REGISTERS



See page 230

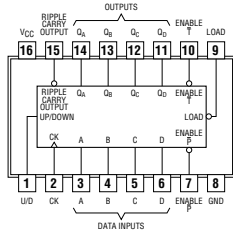
Pin Assignments

166 8-BIT SHIFT REGISTERS



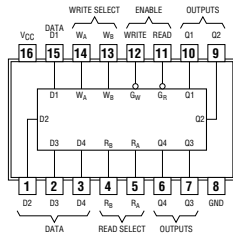
See page 232

169 4-BIT UP/DOWN SYNCHRONOUS BINARY COUNTERS



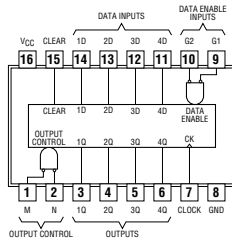
See page 234

170 4-BY-4-REGISTER FILES



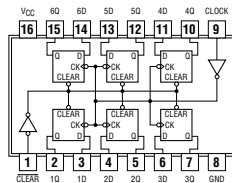
See page 236

173 4-BIT D-TYPE REGISTERS



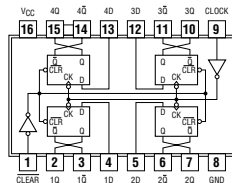
See page 238

174 HEX D-TYPE FLIP-FLOPS



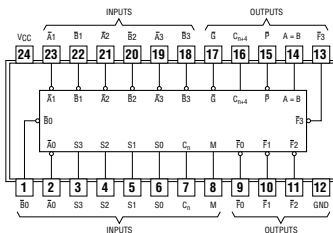
See page 240

175 QUAD D-TYPE FLIP-FLOPS



See page 241

181 ARITHMETIC LOGIC UNITS/FUNCTION GENERATORS

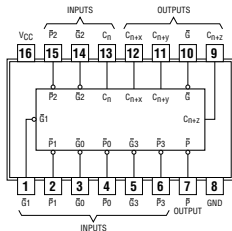


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Pin Assignments

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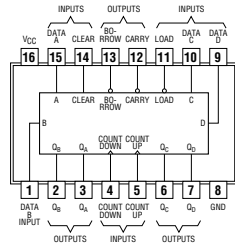
LOOK-AHEAD CARRY GENERATORS



See page 244

193

SYNCHRONOUS UP/DOWN DUAL CLOCK COUNTERS

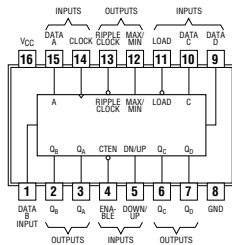


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191

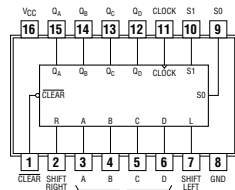
SYNCHRONOUS UP/DOWN DUAL CLOCK COUNTERS



See page 246, 248

194

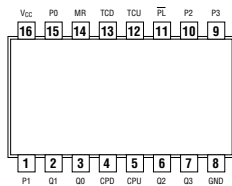
4-BIT BIDIRECTIONAL UNIVERSAL SHIFT REGISTERS



See page 254

192

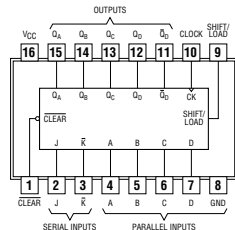
PRESETTABLE SYNCHRONOUS 4-BIT UP/DOWN COUNTERS



See page 250

195

4-BIT PARALLEL-ACCESS SHIFT REGISTERS

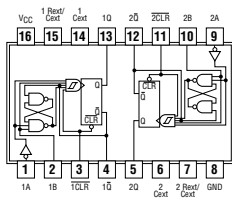


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Pin Assignments

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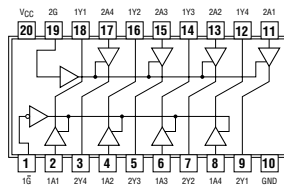
DUAL MONOSTABLE MULTIVIBRATORS



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241

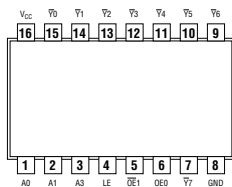
OCTAL BUFFERS/LINE DRIVERS/LINE RECEIVERS



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237

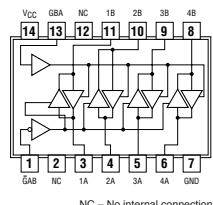
3-TO-8 LINE DECODER DEMULTIPLEXER WITH ADDRESS LATCHES



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243

QUADRUPLE BUS TRANSCEIVERS

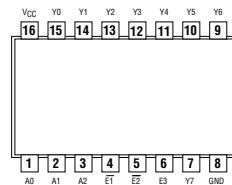


NC – No internal connection

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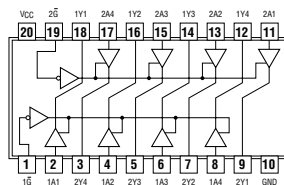
3-TO-8-LINE DECODERS/DEMULTIPLEXERS



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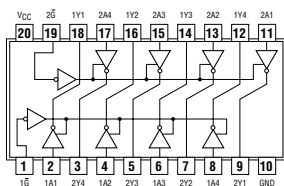
OCTAL BUFFERS/LINE DRIVERS/LINE RECEIVERS



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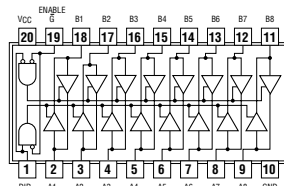
OCTAL BUFFERS/LINE DRIVERS/LINE RECEIVERS



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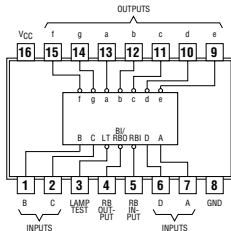
OCTAL BUSTRANSCEIVERS



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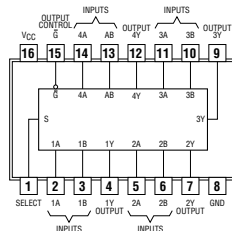
Pin Assignments

247 BCD-TO-SEVEN-SEGMENT DECODERS/DRIVERS WITH RIPPLE BLANKING



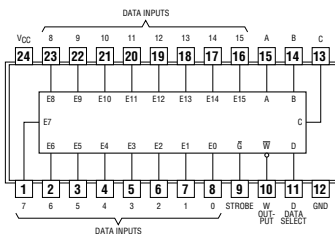
See page 274

257 QUAD DATA SELECTORS/MULTIPLEXERS



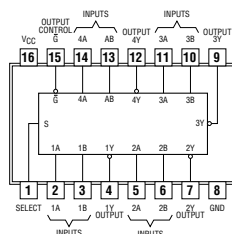
See page 282

250 1-OF-16 DATA GENERATOR/MULTIPLEXER



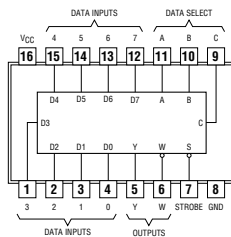
See page 276

258 QUAD DATA SELECTORS/MULTIPLEXERS



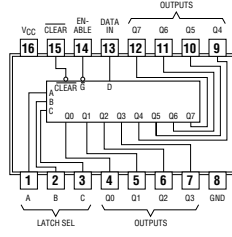
See page 284

251 DATA SELECTORS/MULTIPLEXERS



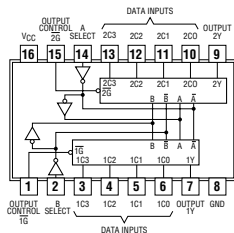
See page 278

259 8-BIT ADDRESSABLE LATCHES



See page 286

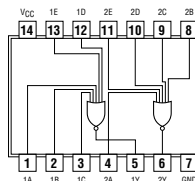
253 DUAL DATA SELECTORS/MULTIPLEXERS



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260 DUAL 5-INPUT POSITIVE-NOR GATES

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



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Pin Assignments

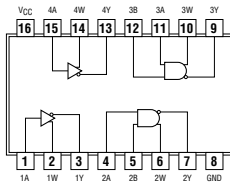
265

QUAD COMPLEMENTARY-OUTPUT ELEMENTS

positive logic:

$$Y = \bar{A}, W = A$$

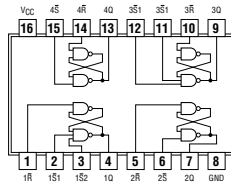
$$Y = AB, W = AB$$



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QUAD S-R LATCHES



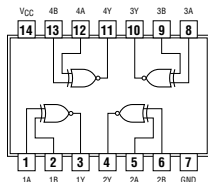
See page 293

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QUAD 2-INPUT EXCLUSIVE-NOR GATES WITH OPEN-COLLECTOR OUTPUTS

positive logic:

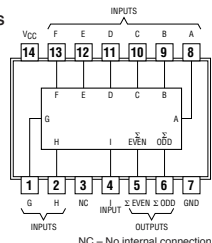
$$Y = A \oplus B$$



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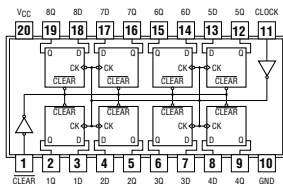
9-BIT ODD/EVEN PARITY GENERATORS/CHECKERS



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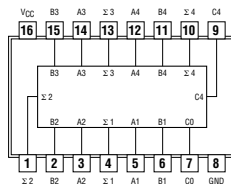
OCTAL D-TYPE FLIP-FLOPS



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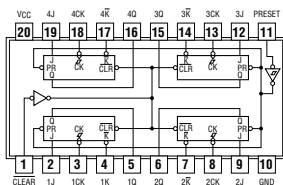
4-BIT BINARY FULL ADDERS



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276

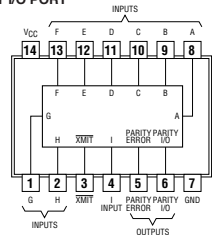
QUAD J-K FLIP-FLOPS



See page 292

286

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

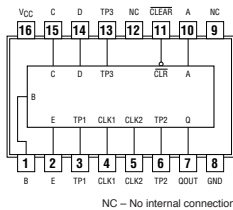


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Pin Assignments

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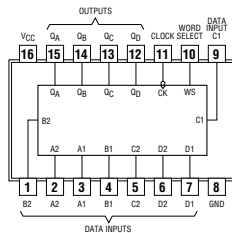
PROGRAMMABLE FREQUENCY DIVIDER/DIGITAL TIMER



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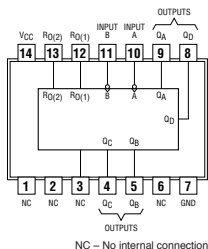
QUAD 2-INPUT MULTIPLEXERS WITH STORAGE



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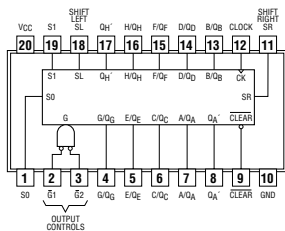
4-BIT BINARY COUNTERS



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299

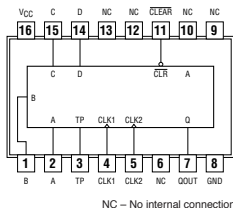
8-BIT BIDIRECTIONAL UNIVERSAL SHIFT/STORAGE REGISTERS



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294

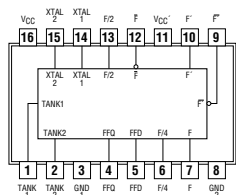
PROGRAMMABLE FREQUENCY DIVIDER/DIGITAL TIMER



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321

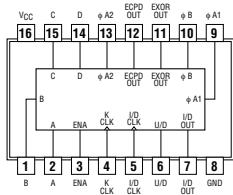
CRYSTAL-CONTROLLED OSCILLATOR



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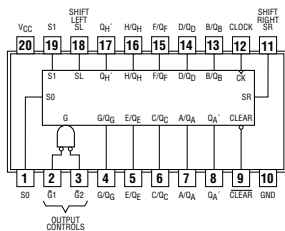
DIGITAL PHASE-LOCKED-LOOP FILTERS



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8-BIT BIDIRECTIONAL SHIFT/STORAGE REGISTERS

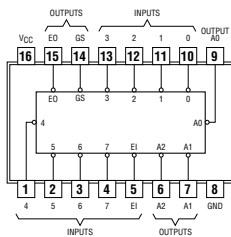


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Pin Assignments

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8-LINE TO 3-LINE PRIORITY ENCODER

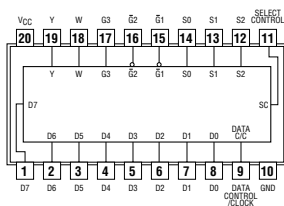


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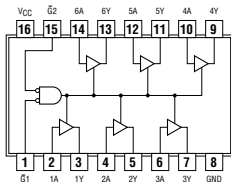
8-INPUT MULTIPLEXERS/REGISTERS 3-STATE



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365

HEX BUS DRIVERS

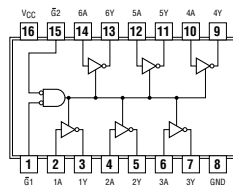


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HEX BUS DRIVERS

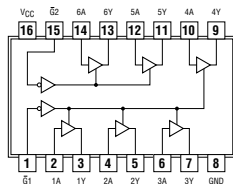
HEX BUFFERS/LINE DRIVERS 3-STATE



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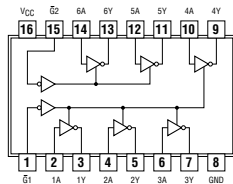
HEX BUS DRIVERS



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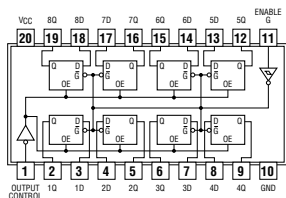
HEX BUS DRIVERS



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OCTAL D-TYPE LATCHES

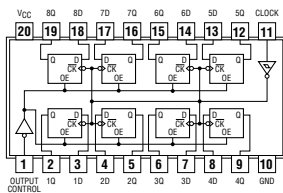


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Pin Assignments

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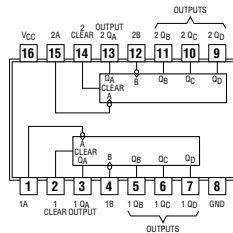
OCTAL D-TYPE FLIP-FLOPS



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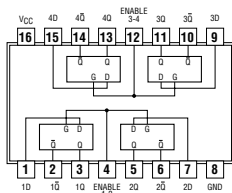
DUAL DECADE COUNTERS



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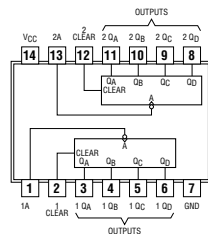
4-BIT BISTABLE LATCHES



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393

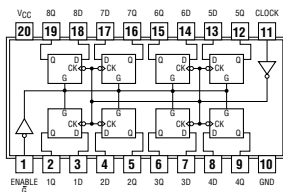
DUAL 4-BIT BINARY COUNTERS



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377

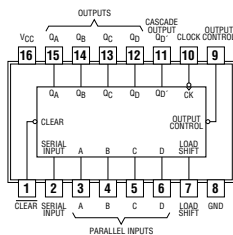
OCTAL D-TYPE FLIP-FLOPS



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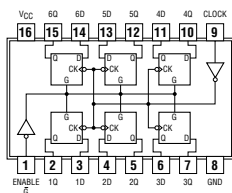
4-BIT UNIVERSAL SHIFT REGISTERS



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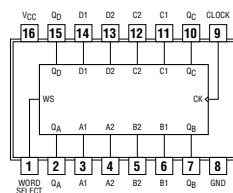
HEX D-TYPE FLIP-FLOPS



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QUAD 2-INPUT MULTIPLEXER WITH STORAGE



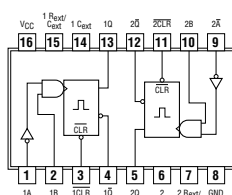
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Pin Assignments

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RE-TRIGGERABLE MONO-STABLE MULTIVIBRATOR

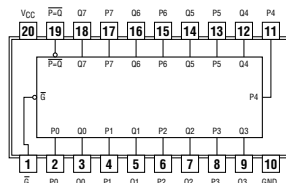
positive logic:
Y = A



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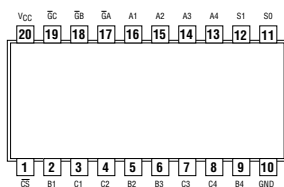
8-BIT IDENTITY COMPARATOR



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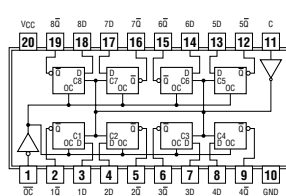
QUADRUPLE TRIDIRECTIONAL BUS TRANSCEIVERS



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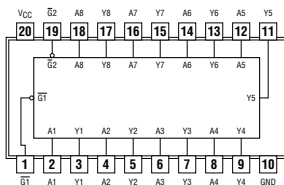
OCTAL D-TYPE TRANSPARENT LATCHES



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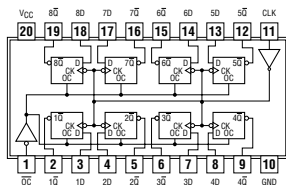
OCTAL BUFFERS WITH 3-STATE OUTPUTS



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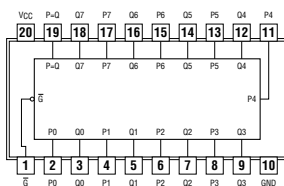
OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS



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518

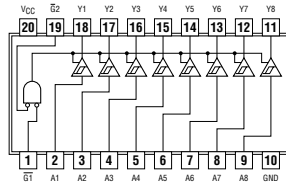
8-BIT IDENTITY COMPARATOR



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540

OCTAL BUFFERS AND LINE DRIVERS

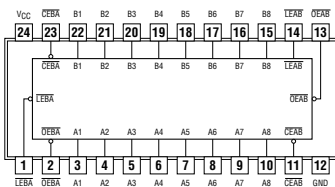


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Pin Assignments

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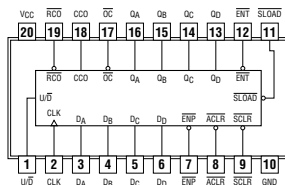
OCTAL REGISTERED TRANSCEIVERS



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569

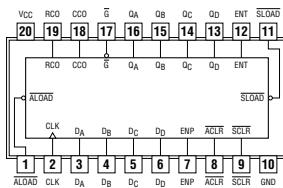
SYNCHRONOUS 4-BIT UP/DOWN COUNTERS



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561

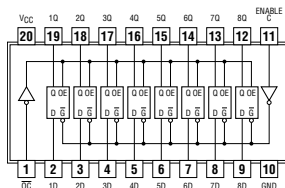
SYNCHRONOUS 4-BIT COUNTER



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573

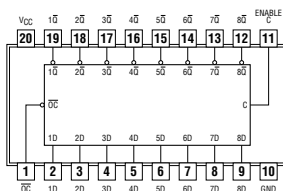
OCTAL D-TYPE TRANSPARENT LATCHES



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563

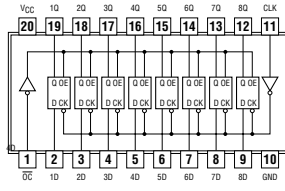
OCTAL D-TYPE TRANSPARENT LATCHES WITH INVERTED OUTPUTS



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574

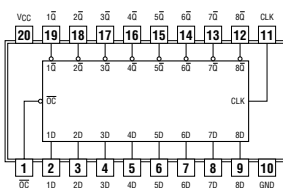
OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS



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564

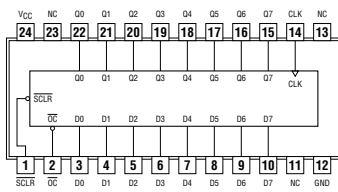
OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS



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OCTAL D-TYPES EDGE-TRIGGERED FLIP-FLOPS



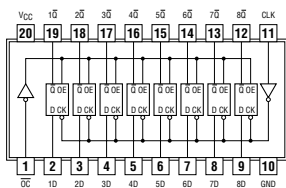
NC - No internal connection

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Pin Assignments

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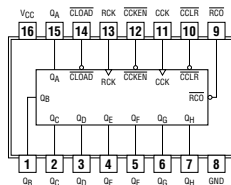
OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS



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592

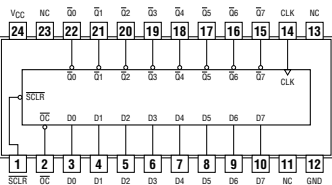
8-BIT BINARY COUNTER WITH INPUT REGISTER



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OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS

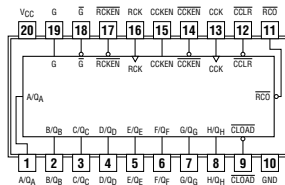


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NC – No internal connection

593

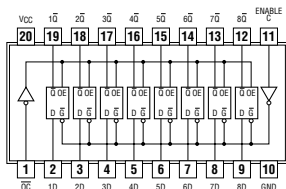
8-BIT BINARY COUNTER WITH INPUT REGISTER



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580

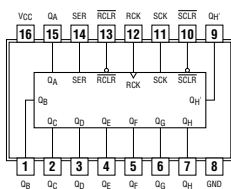
OCTAL D-TYPE TRANSPARENT LATCHES WITH INVERTED OUTPUTS



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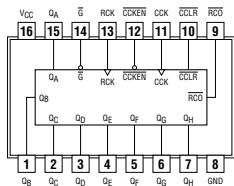
8-BIT SHIFT REGISTER WITH OUTPUT LATCH



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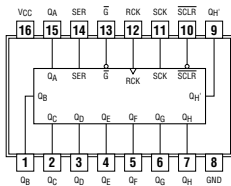
8-BIT BINARY COUNTER WITH OUTPUT REGISTER



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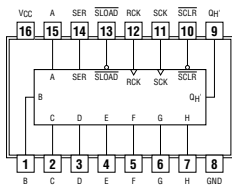
8-BIT SHIFT REGISTER WITH OUTPUT LATCH



See page 372, 374

597

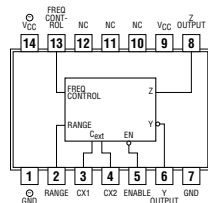
8-BIT SHIFT REGISTER WITH INPUT LATCH



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VOLTAGE-CONTROLLED OSCILLATOR

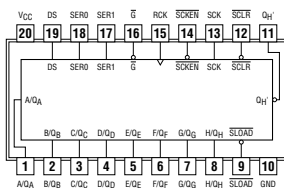


NC – No internal connection

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598

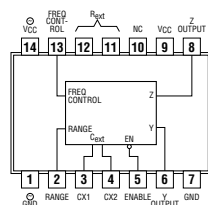
8-BIT SHIFT REGISTERS



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628

VOLTAGE-CONTROLLED OSCILLATOR



NC – No internal connection

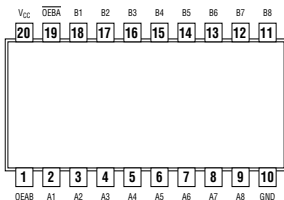
See page 384

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623

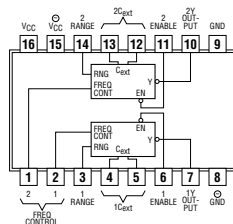
OCTAL BUS TRANSCEIVERS



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629

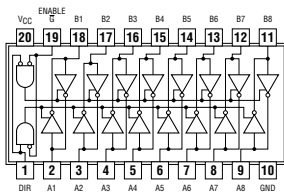
VOLTAGE-CONTROLLED OSCILLATOR



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OCTAL BUS TRANSCEIVERS

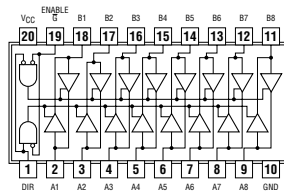


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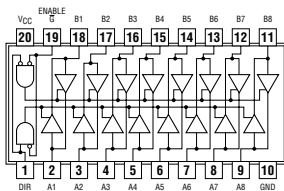
OCTAL BUS TRANSCEIVERS



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OCTAL BUS TRANSCEIVERS



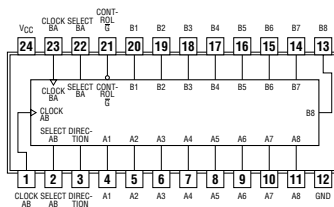
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OCTAL BUS TRANSCEIVERS AND REGISTERS

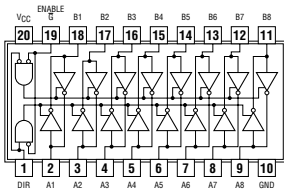


See page 392, 394, 396

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642

OCTAL BUS TRANSCEIVERS



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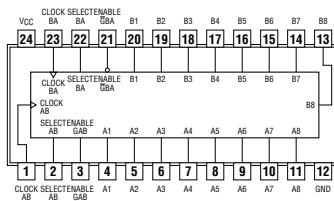
651

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654

OCTAL BUS TRANSCEIVERS AND REGISTERS

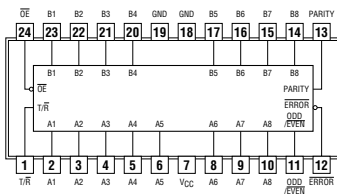


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Pin Assignments

657

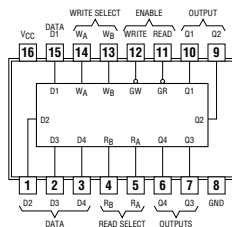
OCTAL BUS TRANSCEIVERS
WITH 8-BIT PARITY GENERATORS/CHECKERS



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670

4-BY-4 REGISTER FILE

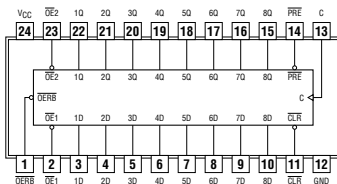


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667

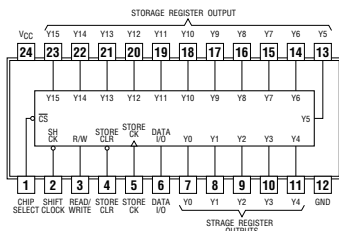
8-BIT D-TYPE TRANSPARENT READ-BACK LATCHES



See page 408, 410

673

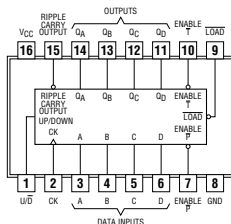
16-BIT SHIFT REGISTER



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669

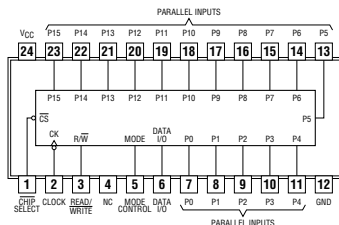
SYNCHRONOUS 4-BIT UP/DOWN BINARY COUNTER



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674

16-BIT SHFT REGISTER



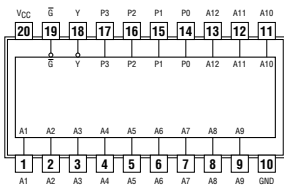
See page 418

NC - No internal connection

Pin Assignments

679

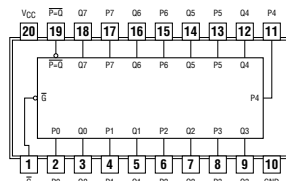
ADDRESS COMPARATOR



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688

8-BIT IDENTITY COMPARATOR

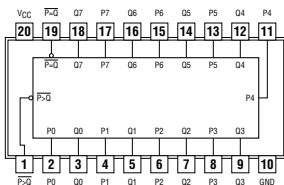


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684

8-BIT IDENTITY COMPARATOR

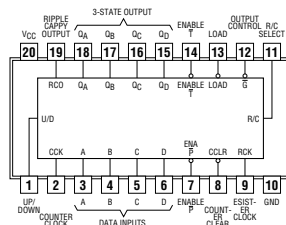


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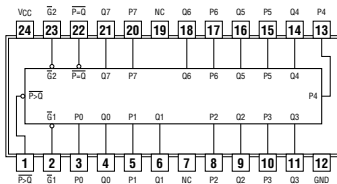
SYNCHRONOUS UP/DOWN COUNTER WITH OUTPUT REGISTER, MULTIPLEXED THREE-STATE OUTPUT



See page 430, 432

686

8-BIT IDENTITY COMPARATOR

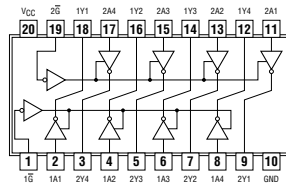


NC – No internal connection

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756

OCTAL BUFFER/LINE DRIVER/LINE RECEIVER WITH OPEN-COLLECTOR OUTPUTS

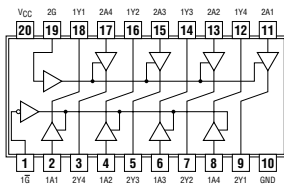


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Pin Assignments

757

OCTAL BUFFER/LINE DRIVER/LINE RECEIVER WITH OPEN-COLLECTOR OUTPUTS

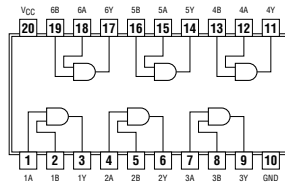


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808

HEX 2-INPUT AND DRIVERS

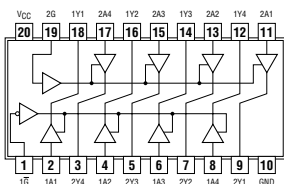
positive logic:
 $Y = A + B$



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760

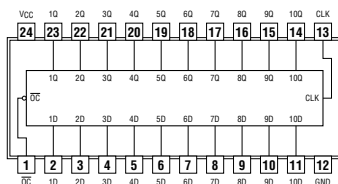
OCTAL BUFFER/LINE DRIVER/LINE RECEIVER WITH OPEN-COLLECTOR OUTPUTS



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821

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

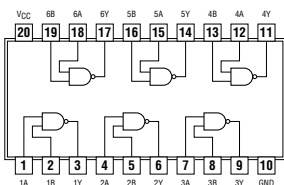


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804

HEX 2-INPUT NAND DRIVERS

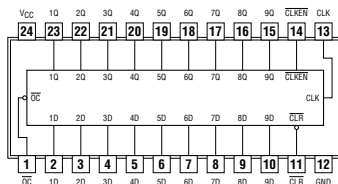
positive logic:
 $A = \overline{A \cdot B}$



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823

9-BIT BUS INTERFACE FLIP-FLOP WITH 3-STATE OUTPUT

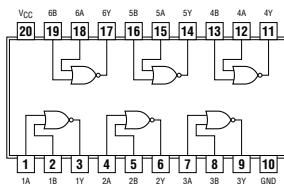


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805

HEX 2-INPUT NOR DRIVERS

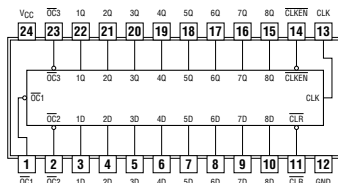
positive logic:
 $Y = \overline{A + B}$



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825

8-BIT BUS INTERFACE FLIP-FLOP WITH 3-STATE OUTPUT

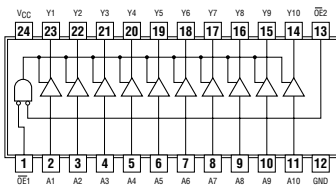


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Pin Assignments

827

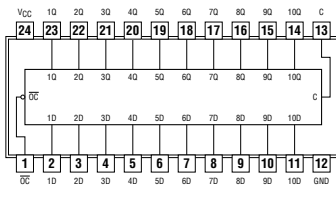
10-BIT BUFFER/BUS DRIVERS



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841

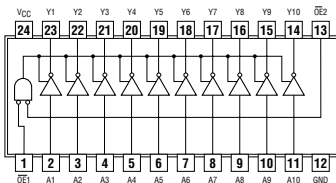
10-BIT BUS INTERFACE D-TYPE LATCHES WITH 3-STATE OUTPUTS



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828

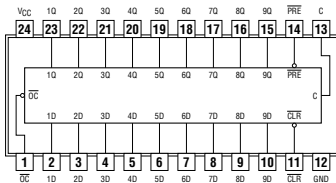
10-BIT BUFFERS/BUS DRIVERS



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



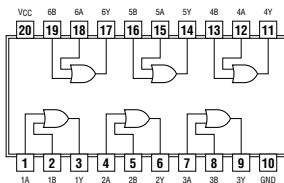
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HEX 2-INPUT OR DRIVERS

positive logic:

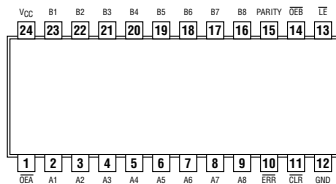
$$Y=A+B$$



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853

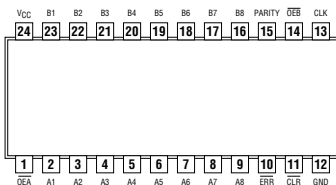
8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



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833

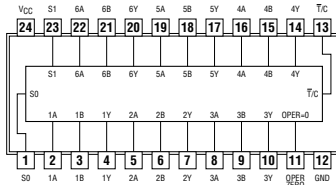
10-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



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857

HEX 2-TO-1 UNIVERSAL MULTIPLEXERS

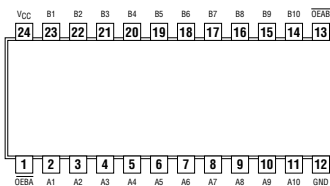


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Pin Assignments

861

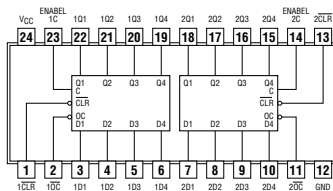
10-BIT TRANSCEIVERS WITH 3-STATE OUTPUTS



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873

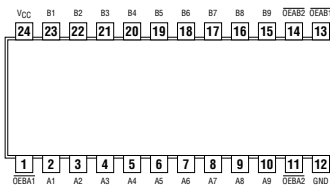
DUAL 4-BIT D-TYPE LATCHES



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9-BIT BUS TRANSCEIVER WITH 3-STATE OUTPUTS

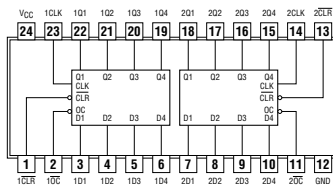


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NC – No internal connection

874

DUAL 4-BIT D-TYPE EDGE-TRIGGERED FLIP-FLOPS



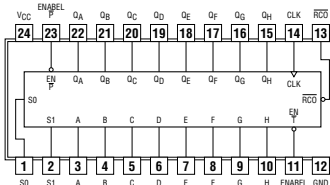
See page 465

NC – No internal connection

867

869

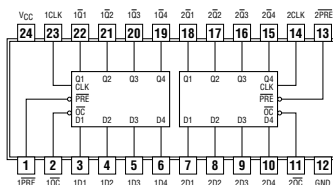
8-BIT SYNCHRONOUS BIDIRECTIONAL COUNTER



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876

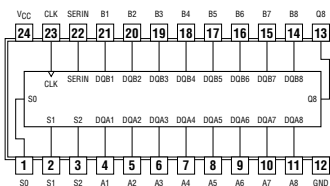
DUAL 4-BIT D-TYPE FLIP-FLOPS



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870

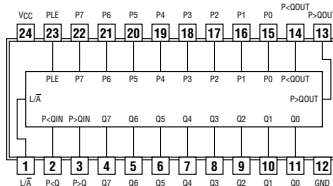
DUAL 16-BY 4-BIT REGISTER FILES



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885

8-BIT MAGNITUDE COMPARATOR

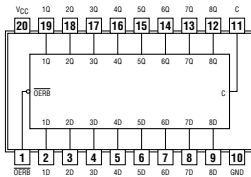


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Pin Assignments

990

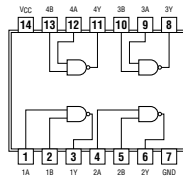
8-BIT D-TYPE TRANSPARENT READ-BACK LATCHES



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1000

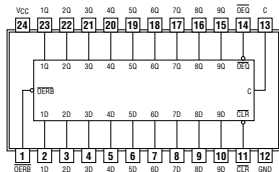
QUAD 2-INPUT NAND BUFFERS/DRIVERS



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992

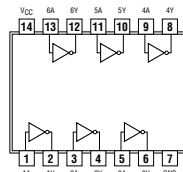
9-BIT D-TYPE TRANSPARENT



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1004

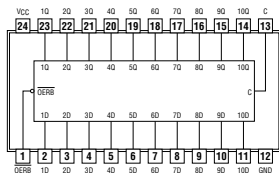
HEX INVERTING DRIVERS



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994

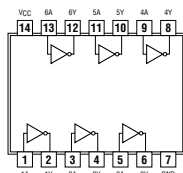
10-BIT D-TYPE TRANSPARENT READ-BACK LATCHES



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1005

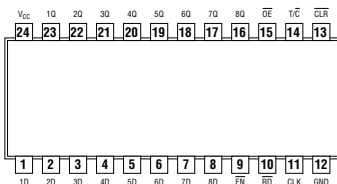
HEX INVERTING BUFFER GATES WITH OPEN-COLLECTOR OUTPUTS



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996

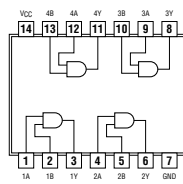
8-BIT D-TYPE EDGE-TRIGGERED READ-BACK LATCHES



See page 474

1008

QUADRUPLE 2-INPUT POSITIVE-AND BUFFERS/DRIVERS



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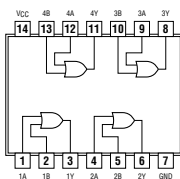
Pin Assignments

1032

QUAD 2-INPUT OR BUFFERS/DRIVERS

positive logic:

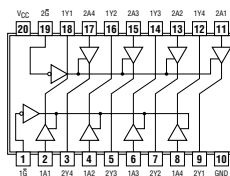
$$Y = A+B$$



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1244

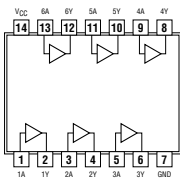
OCTAL BUFFERS/LINE DRIVERS/LINE RECEIVERS



See page 480

1034

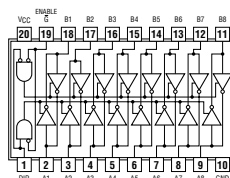
HEX DRIVERS



See page 478

1245

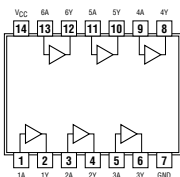
OCTAL BUS TRANSCEIVERS



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1035

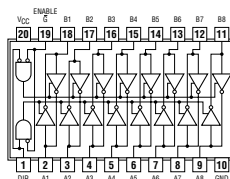
HEX BUFFERS WITH OPEN-COLLECTOR OUTPUTS



See page 479

1640

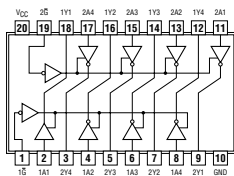
OCTAL BUS TRANSCEIVERS



See page 481

1240

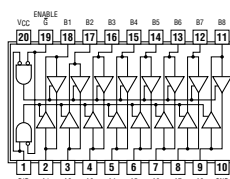
OCTAL BUFFERS/LINE DRIVERS/LINE RECEIVERS



See page 479

1645

OCTAL BUS TRANSCEIVERS

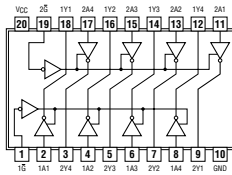


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Pin Assignments

2240

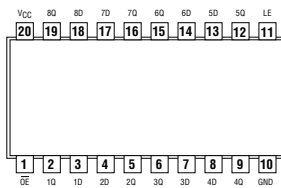
OCTAL BUFFERS AND LINE DRIVERS/MOS DRIVERS WITH 3-STATE OUTPUTS



See page 482

2373

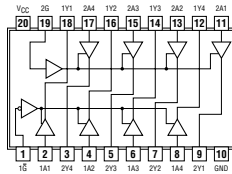
25-Ω OCTAL TRANSPARENT D-TYPE LATCH WITH 3-STATE OUTPUTS



See page 486

2241

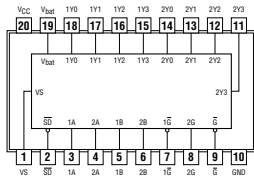
OCTAL BUFFERS AND LINE DRIVERS/MOS DRIVERS WITH 3-STATE OUTPUTS



See page 483

2414

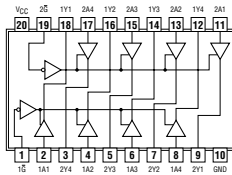
MEMORY DECODER WITH ON-CHIP V_{CC} MONITOR



See page 488

2244

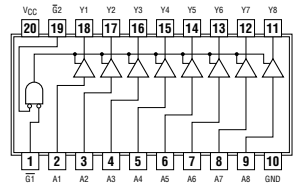
OCTAL BUFFERS AND LINE DRIVERS/MOS DRIVERS WITH 3-STATE OUTPUTS



See page 484

2541

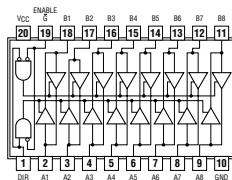
NON-INVERTED 3-STATE OUTPUTS OCTAL LINE DRIVERS/MOS DRIVERS WITH 3-STATE OUTPUTS



See page 490

2245

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

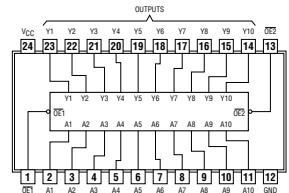


See page 485

2827

3-STATE OUTPUTS

2828 3-STATE INVERTING OUTPUTS BUS/MOS MEMORY DRIVERS

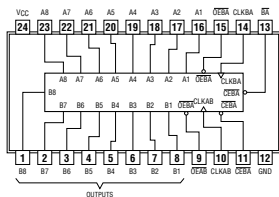


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Pin Assignments

2952

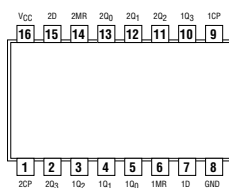
OCTAL BUS TRANSCEIVERS AND REGISTERS



See page 492

4015

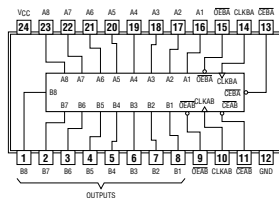
DUAL 4-STAGE STATIC SHIFT REGISTER



See page 498

2953

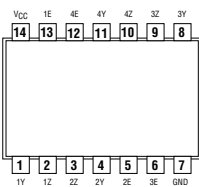
OCTAL BUS TRANSCEIVERS AND REGISTERS



See page 494

4016

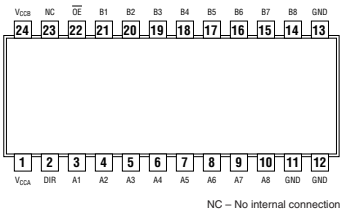
QUAD BILATERAL SWITCH



See page 499

3245

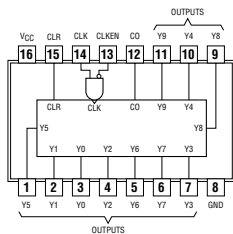
OCTAL BUS TRANSCEIVER WITH ADJUSTABLE OUTPUT VOLTAGE AND 3-STATE OUTPUTS



See page 496

4017

DECADE COUNTERS/DIVIDERS

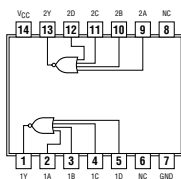


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4002

DUAL 4-INPUT POSITIVE-NOR GATES

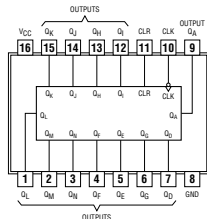
positive logic:
 $Y = \overline{A + B + C + D}$



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4020

14-STAGE BINARY COUNTERS

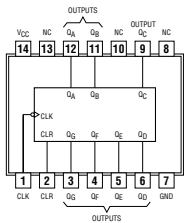


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Pin Assignments

4024

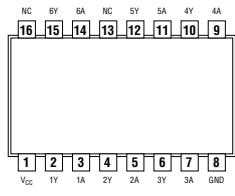
7-STAGE BINARY COUNTERS



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4050

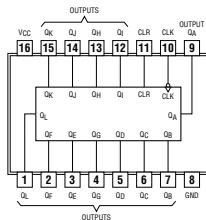
HEX INVERTING BUFFERS NON-INVERTING



See page 506

4040

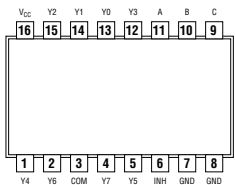
12-STAGE BINARY COUNTERS



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4051

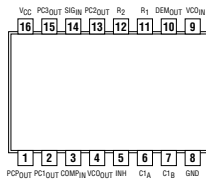
8-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS



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4046

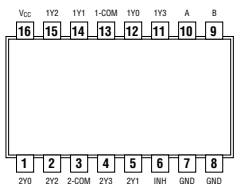
PHASE-LOCKED-LOOP WITH VCO



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4052

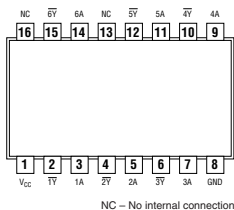
DUAL 4-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS



See page 508

4049

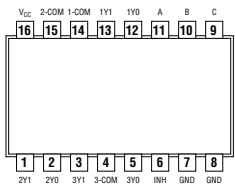
HEX INVERTING BUFFERS



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4053

TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS

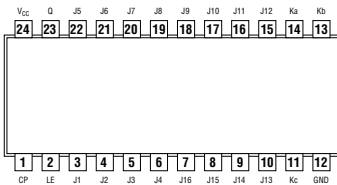


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Pin Assignments

4059

CMOS PROGRAMMABLE DIVIDE-BY-N COUNTER

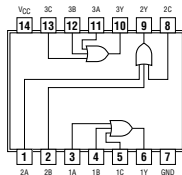


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4075

TRIPLE 3-INPUT OR GATES

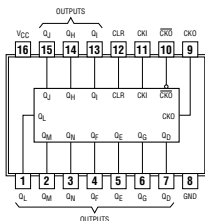
positive logic:
 $Y = A + B + C$



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4060

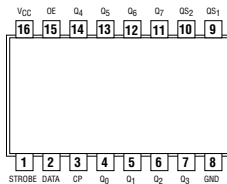
ASYNCHRONOUS 14-STAGE BINARY COUNTERS AND OSCILLATORS



See page 511

4094

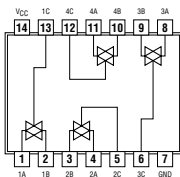
8-STAGE SHIFT AND STORE BUS REGISTER, THREE-STATE



See page 516

4066

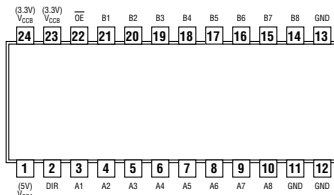
QUADRUPLE BILATERAL SWITCHES



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4245

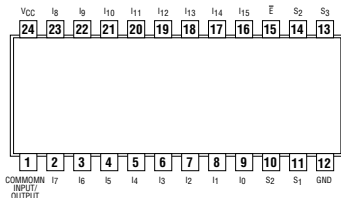
OCTAL BUS TRANSCEIVER AND 3.3-V TO 5-V SHIFTER WITH 3-STATE OUTPUTS



See page 518

4067

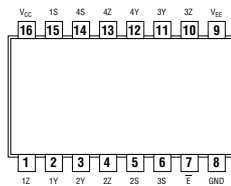
16-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER



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4316

QUAD ANALOG SWITCH WITH LEVEL TRANSLATION

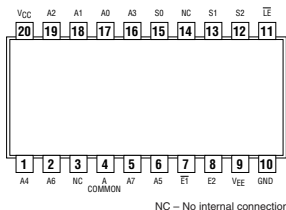


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Pin Assignments

4351

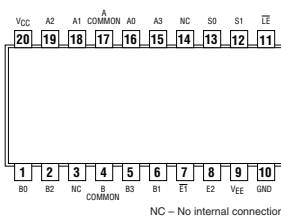
ANALOG MULTIPLEXERS/DEMULTIPLEXERS WITH LATCH



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4352

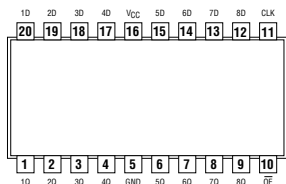
ANALOG MULTIPLEXERS/DEMULTIPLEXERS WITH LATCH



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4374

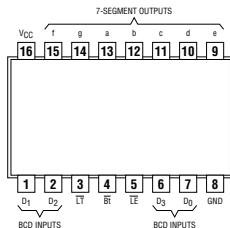
OCTAL EDGE-TRIGGERED D-TYPE DUAL-RANK FLIP-FLOP WITH 3-STAE OUTPUTS



See page 522

4511

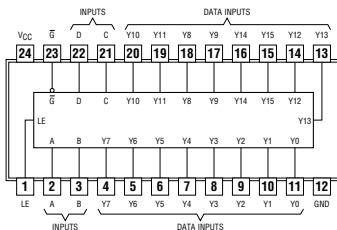
BCD-TO-7 SEGMENT LATCH/DECODER/DRIVERS



See page 523

4514

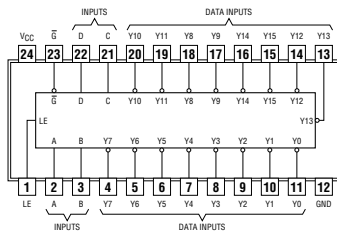
4-LINE TO 16-LINE DECODERS/DEMULTIPLEXERS WITH LATCHES



See page 524

4515

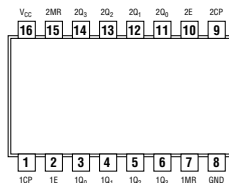
4-LINE TO 16-LINE DECODERS/DEMULTIPLEXERS WITH LATCHES



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4518

DUAL SYNCHRONOUS COUNTERS

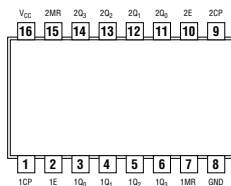


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Pin Assignments

4520

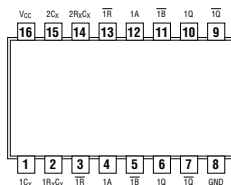
DUAL SYNCHRONOUS COUNTERS



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4538

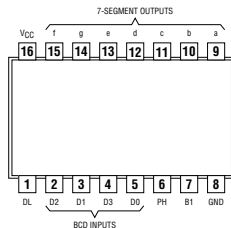
DUAL RETRIGGERABLE
PRECISION MONO STABLE MULTIVIBRATOR



See page 530

4543

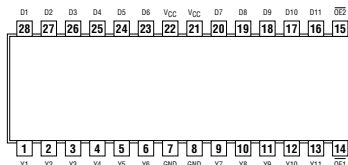
BCD-TO-7 SEGMENT LATCH/DECODER/DRIVERS



See page 532

5400

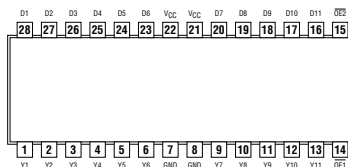
11-BIT LINE/MEMORY DRIVERS
WITH 3-STATE OUTPUTS



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5401

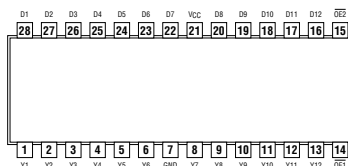
11-BIT LINE/MEMORY DRIVERS
WITH 3-STATE OUTPUTS



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5402

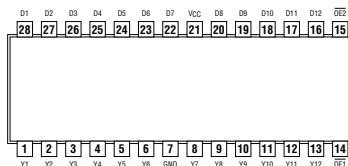
12-BIT LINE/MEMORY DRIVERS
WITH 3-STATE OUTPUTS



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5403

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



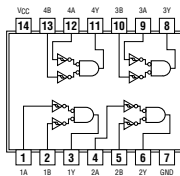
See page 535

Pin Assignments

7001

QUADRUPLE POSITIVE-AND GATES WITH SCHMITT-TRIGGER INPUTS

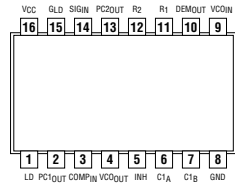
positive logic:
 $Y = A \cdot B$



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7046

PHASE-LOCKED LOOP WITH VCO AND LOCK DETECTOR

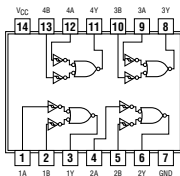


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7002

QUADRUPLE POSITIVE-NOR GATES WITH SCHMITT-TRIGGER INPUTS

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

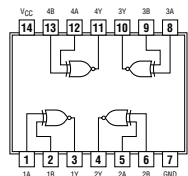


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7266

QUAD 2-INPUT EXCLUSIVE-NOR GATES

positive logic:
 $Y = A \oplus B$

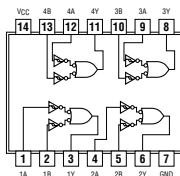


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7032

QUADRUPLE POSITIVE-OR GATES WITH SCHMITT-TRIGGER INPUTS

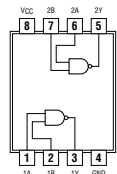
positive logic:
 $Y = A + B$



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8003

DUAL 2-INPUT POSITIVE-NAND GATES

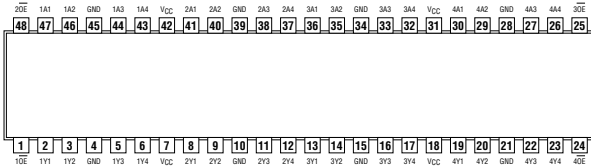


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Pin Assignments

16240

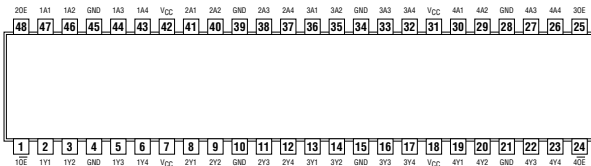
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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16241

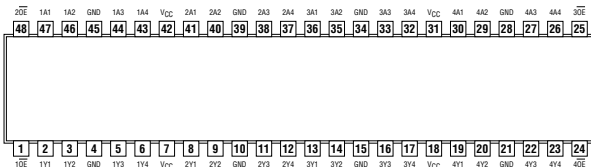
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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16244

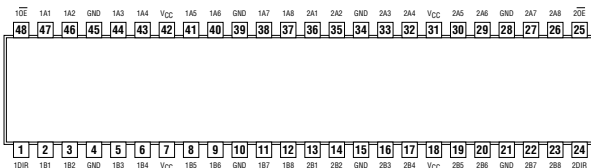
16-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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16245

16-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

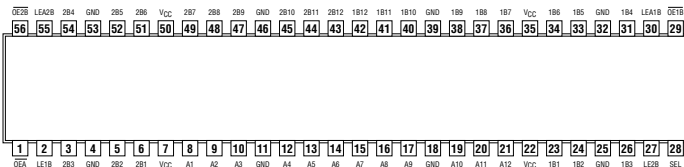


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Pin Assignments

16260

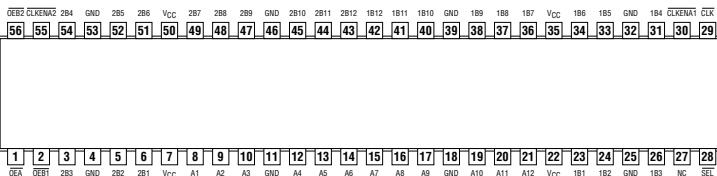
12-BIT TO 24-BIT MULTIPLEXED D-TYPE LATCH
WITH 3-STATE OUTPUTS



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16269

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

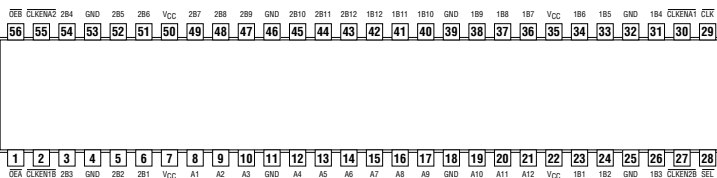


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NC – No internal connection

16270

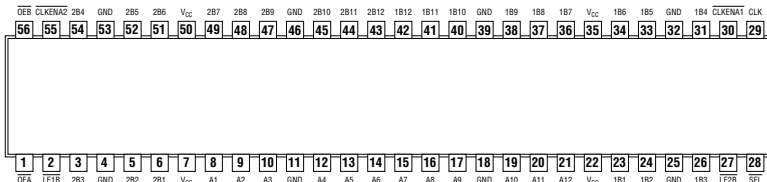
12-BIT TO 24-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



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16271

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

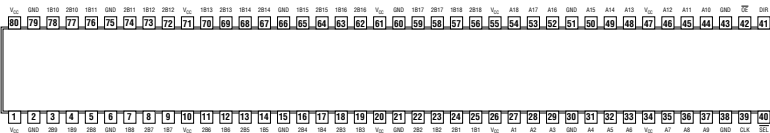


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Pin Assignments

16282

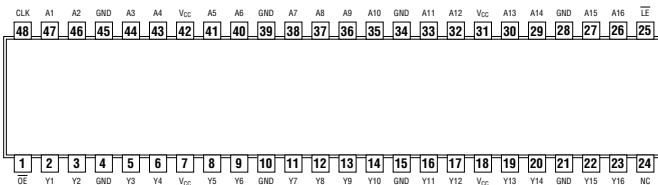
18-BIT TO 36-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



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16334

16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

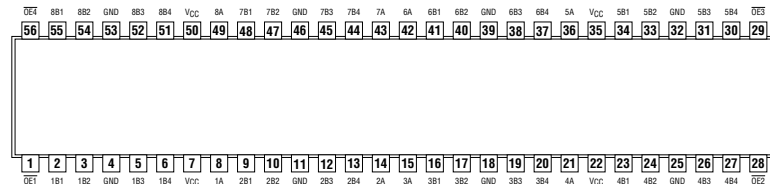


NC – No internal connection

See page 558

16344

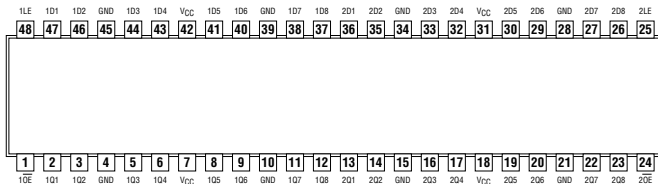
1-BIT TO 4-BIT ADDRESS DRIVER
WITH 3-STATE OUTPUTS



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16373

16-BIT TRANSPARENT LATCHES
WITH 3-STATE OUTPUTS

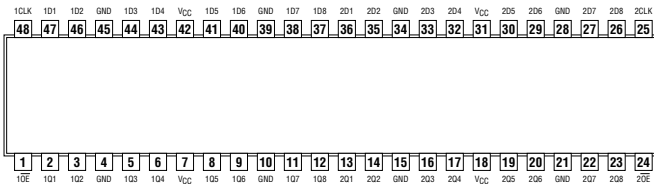


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Pin Assignments

16374

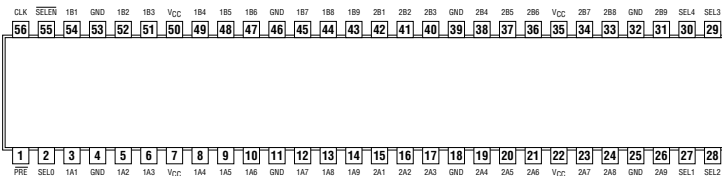
16-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH 3-STATE OUTPUTS



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16409

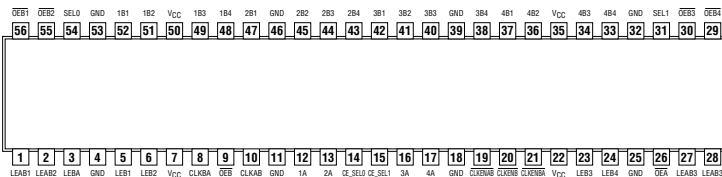
9-BIT, 4-PORT UNIVERSAL BUS EXCHANGER
WITH 3-STATE OUTPUTS



See page 566

16460

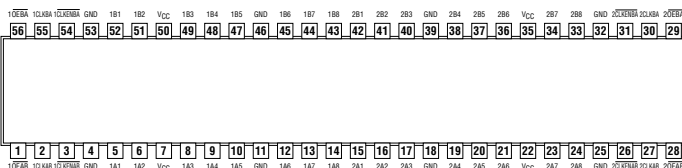
4-TO-1 MULTIPLEXED/DEMULPLEXED TRANSCEIVERS
WITH 3-STATE OUTPUTS



See page 568

16470

16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS

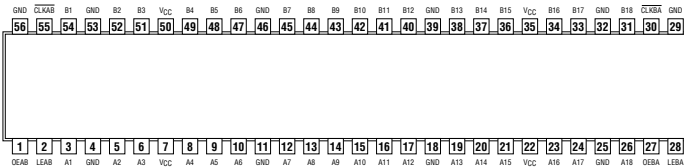


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Pin Assignments

16500

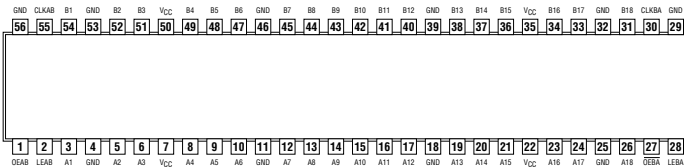
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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16501

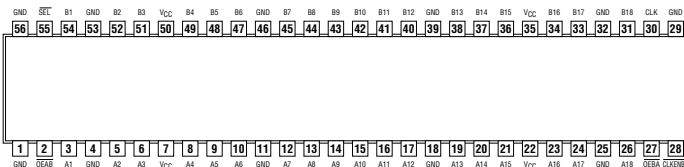
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



See page 574

16524

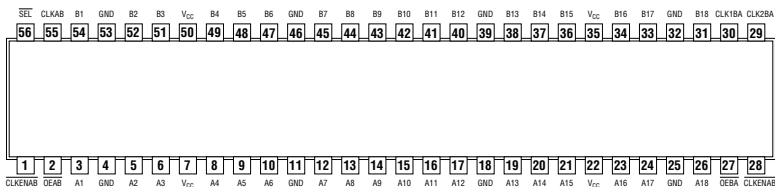
18-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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16525

18-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

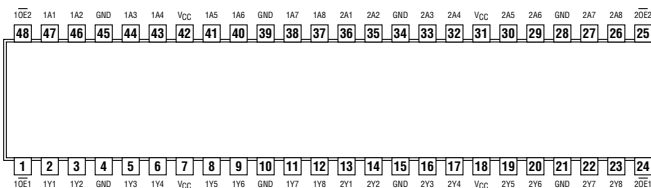


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Pin Assignments

16540

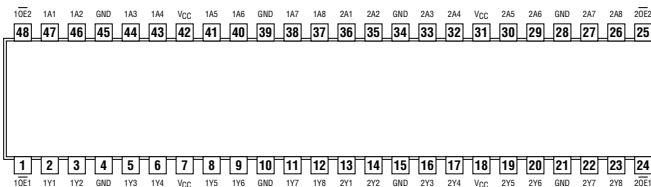
16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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16541

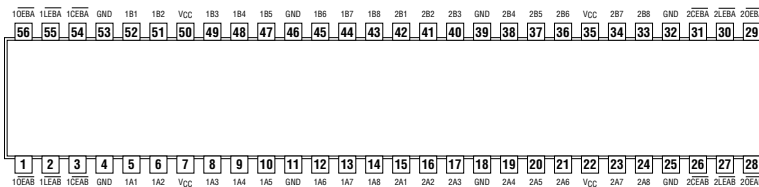
16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 581

16543

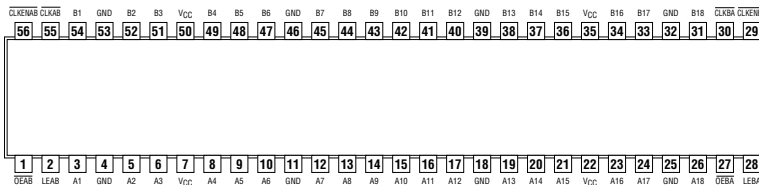
16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS



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16600

18-BIT UNIVERSAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS

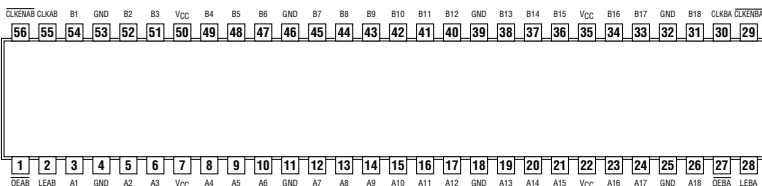


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Pin Assignments

16601

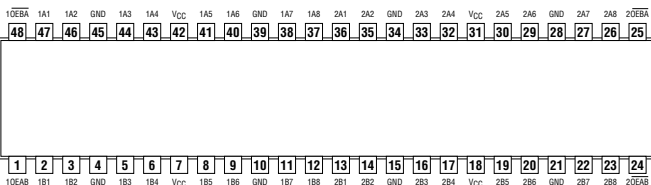
18-BIT UNIVERSAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



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16620

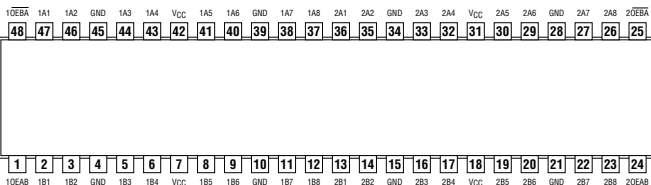
16-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



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16623

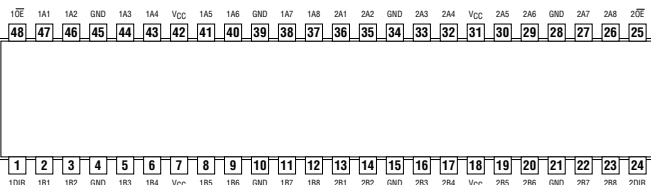
16-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



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16640

16-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

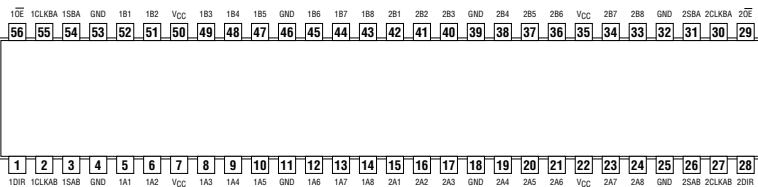


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Pin Assignments

16646

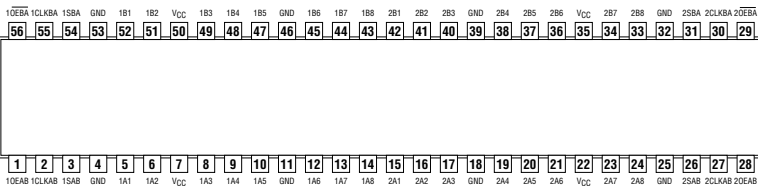
16-BIT BUS TRANSCEIVERS AND REGISTERS
WITH 3-STATE OUTPUTS



See page 592

16651

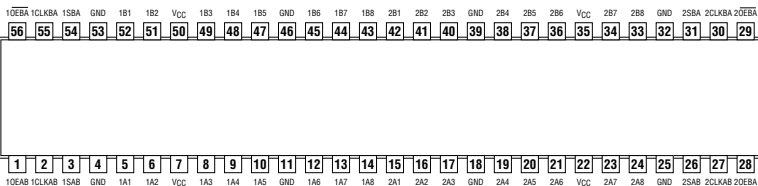
16-BIT BUS TRANSCEIVERS AND REGISTERS
WITH 3-STATE OUTPUTS



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16652

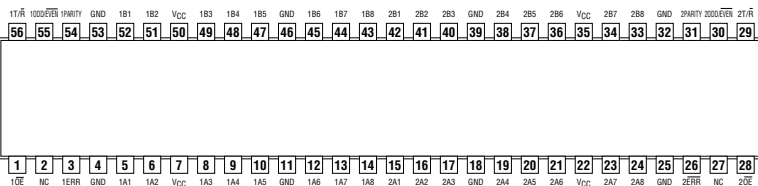
16-BIT BUS TRANSCEIVERS AND REGISTERS
WITH 3-STATE OUTPUTS



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16657

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



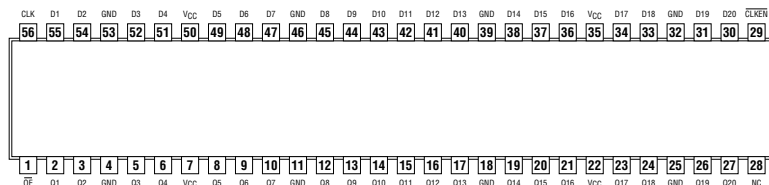
See page 598

NC – No internal connection

Pin Assignments

16721

20-BIT FLIP-FLOP
WITH 3-STATE OUTPUTS

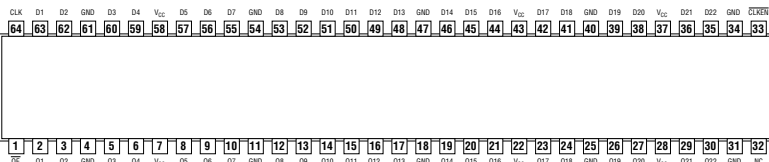


NC – No internal connection

See page 600

16722

22-BIT FLIP-FLOP WITH 3-STATE OUTPUTS

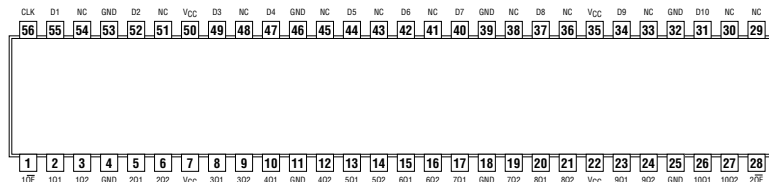


NC – No internal connection

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16820

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

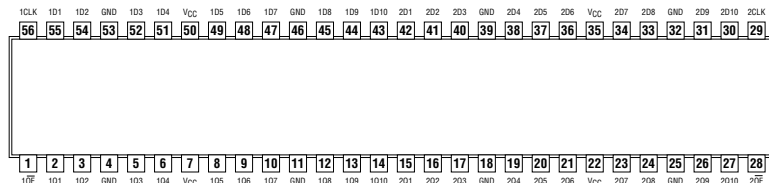


NC – No internal connection

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16821

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

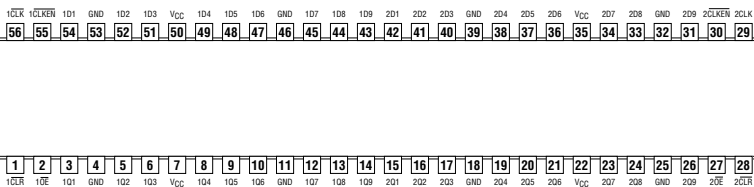


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Pin Assignments

16823

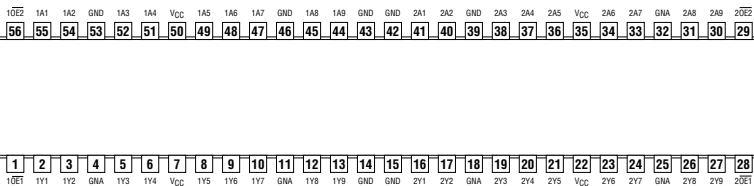
18-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH DUAL OUTPUTS



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16825

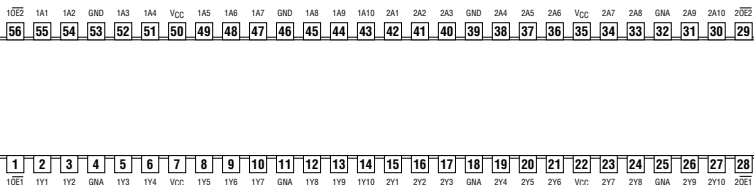
18-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 605

16827

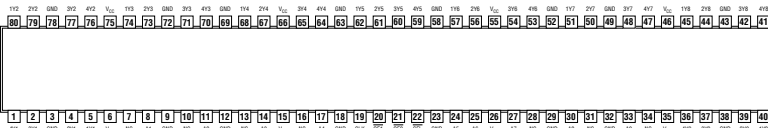
20-BIT BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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16831

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



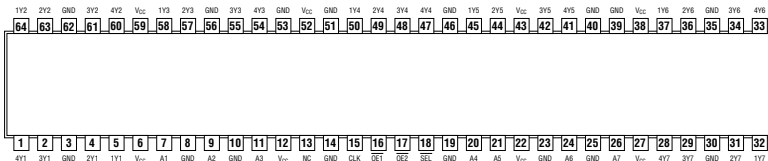
NC – No internal connection

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Pin Assignments

16832

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

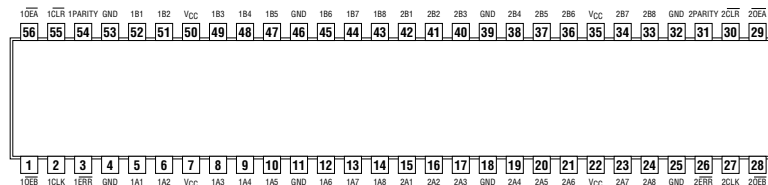


NC – No internal connection

See page 608

16833

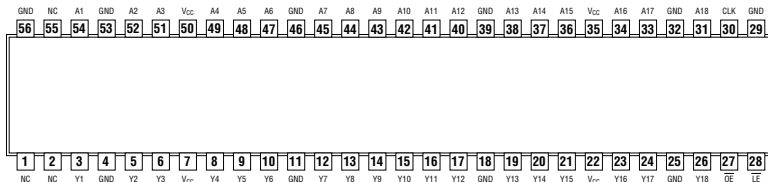
DUAL 8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



See page 610

16834

16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

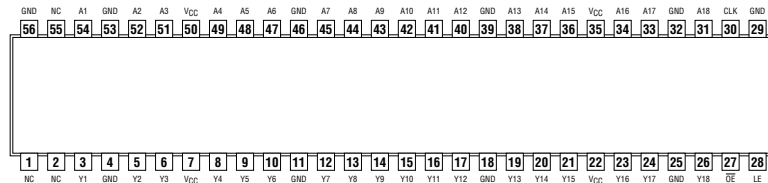


NC – No internal connection

See page 612

16835

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



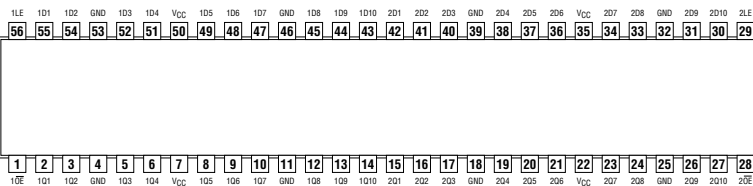
NC – No internal connection

See page 613

Pin Assignments

16841

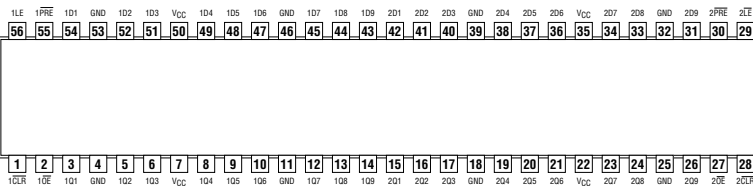
20-BIT BUS INTERFACE D-TYPE LATCHES
WITH 3-STATE OUTPUTS



See page 614

16843

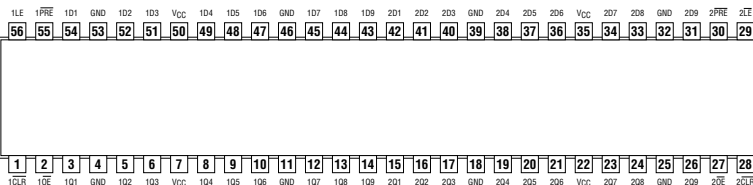
18-BIT BUS INTERFACE D-TYPE LATCHES
WITH 3-STATE OUTPUTS



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16853

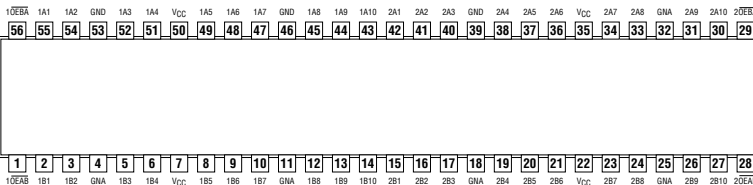
DUAL 8-BIT TO 9-BIT PARITY BUS TRANSCEIVERS



See page 616

16861

20-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS

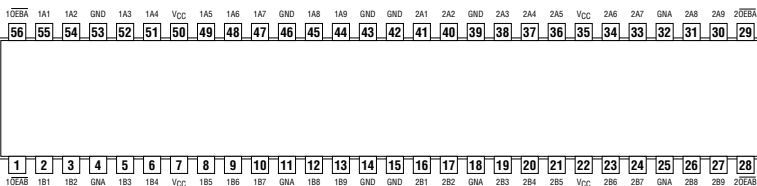


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Pin Assignments

16863

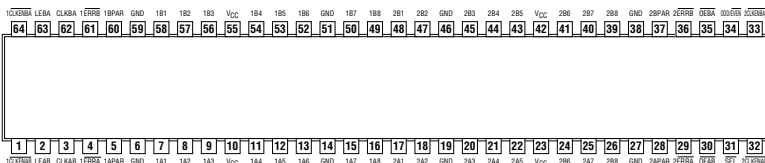
18-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



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16901

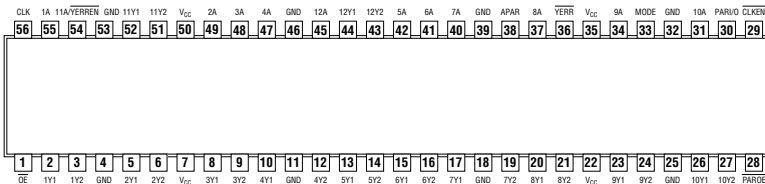
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH PARITY GENERATORS/CHECKERS



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16903

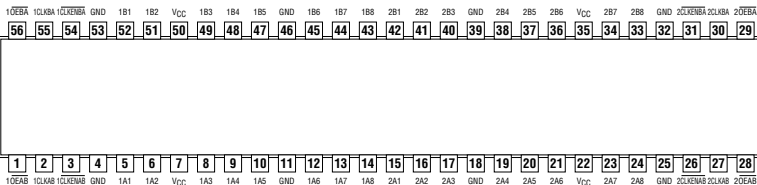
3.3-V 12-BIT UNIVERSAL BUS DRIVER
WITH PARITY CHECKER AND DUAL 3-STATE OUTPUTS



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16952

16-BIT REGISTERED TRANSCEIVERS
WITH 3-STATE OUTPUTS

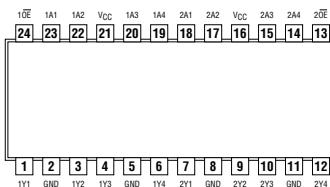


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Pin Assignments

25244

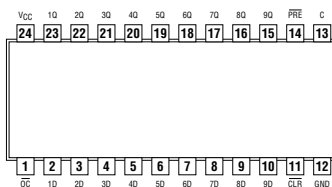
25-Ω OCTAL BUS BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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29825

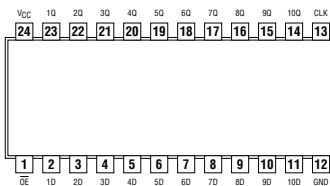
8-BIT BUS-INTERFACE FLIP-FLOPS
WITH 3-STATE OUTPUTS



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25245

25-Ω OCTAL BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS

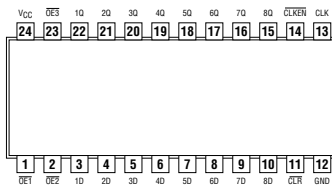


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29827

29828

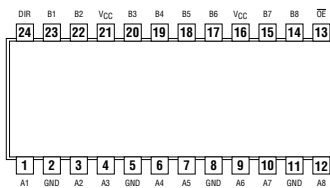
10-BIT BUFFERS AND BUS DRIVERS
WITH 3-STATE OUTPUTS



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25642

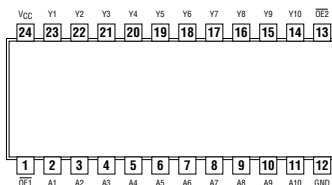
25-Ω OCTAL BUS TRANSCEIVER



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29841

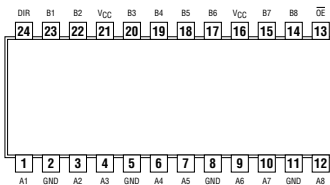
10-BIT BUS INTERFACE D-TYPE LATCHES
WITH 3-STATE OUTPUTS



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29821

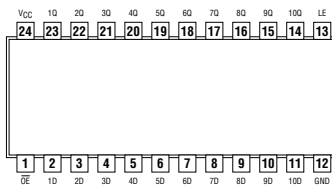
10-BIT BUS-INTERFACE FLIP-FLOPS
WITH 3-STATE OUTPUTS



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29843

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

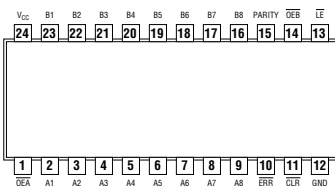


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Pin Assignments

29854

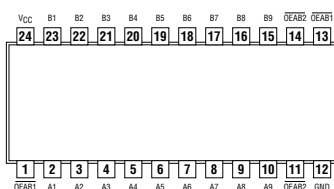
8-BIT TO 9-BIT PARITY BUS TRANSCEIVER



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29864

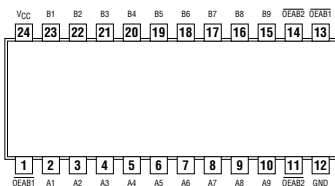
9-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS



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29863

9-BIT BUS TRANSCEIVERS
WITH 3-STATE OUTPUTS

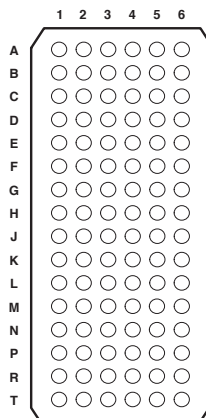


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32240

32-BIT BUFFER/DRIVER

GKE PACKAGE
(TOP VIEW)



terminal assignments

	1	2	3	4	5	6
A	1Y2	1Y1	1 \overline{OE}	2 \overline{OE}	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	4 \overline{OE}	3 \overline{OE}	4A4	4A3
J	5Y2	5Y1	5 \overline{OE}	6 \overline{OE}	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	8 \overline{OE}	7 \overline{OE}	8A4	8A3

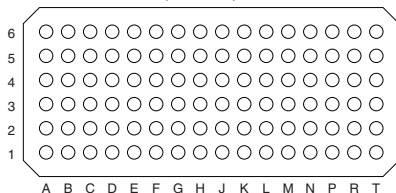
See page 640

Pin Assignments

32244

36-BIT BUFFER/DRIVER
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



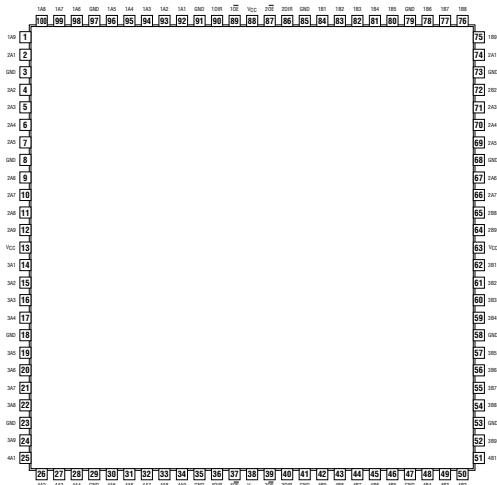
6	1A2	1A4	2A2	2A4	3A2	3A4	4A2	4A3	5A2	5A4	6A2	6A4	7A2	7A4	8A2	8A3
5	1A1	1A3	2A1	2A3	3A1	3A3	4A1	4A4	5A1	5A3	6A1	6A3	7A1	7A3	8A1	8A4
4	2OE	GND	V _{CC}	GND	GND	V _{CC}	GND	3OE	6OE	GND	V _{CC}	GND	GND	V _{CC}	GND	7OE
3	1OE	GND	V _{CC}	GND	GND	V _{CC}	GND	4OE	5DIR	GND	V _{CC}	GND	GND	V _{CC}	GND	8DIR
2	1Y1	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

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Pin Assignments

32245

36-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

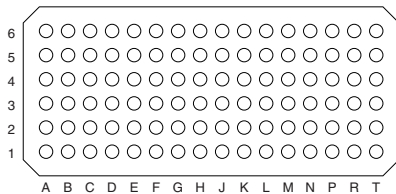


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32245

36-BIT BUS TRANSCEIVER
WITH 3-STATE OUTPUTS

GKE PACKAGE
(TOP VIEW)



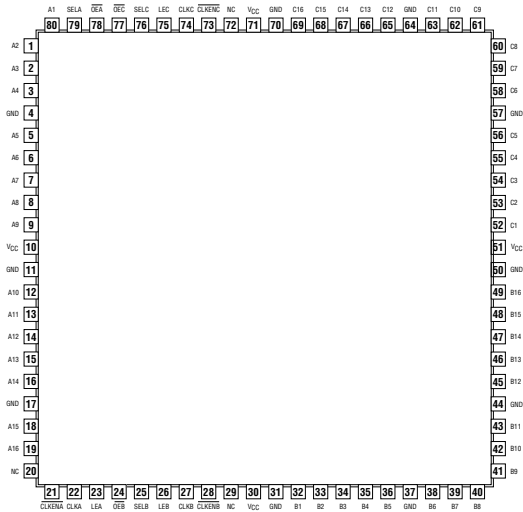
6	1A2	1A4	1A6	1A8	2A2	2A4	2A6	2A7	3A2	3A4	3A6	3A8	4A2	4A4	4A6	4A7
5	1A1	1A3	1A5	1A7	2A1	2A3	2A5	2A8	3A1	3A3	3A5	3A7	4A1	4A3	4A5	4A8
4	1OE	GND	V _{CC}	GND	GND	V _{CC}	GND	2OE	3OE	GND	V _{CC}	GND	GND	V _{CC}	GND	4OE
3	1DIR	GND	V _{CC}	GND	GND	V _{CC}	GND	2DIR	3DIR	GND	V _{CC}	GND	GND	V _{CC}	GND	4DIR
2	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

See page 644

Pin Assignments

32316

16-BIT TRI-PORT UNIVERSAL BUS EXCHANGERS

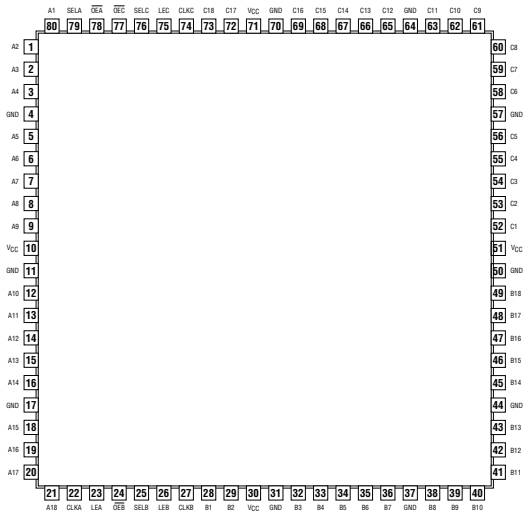


See page 646

NC – No internal connection

32318

18-BIT TRI-PORT UNIVERSAL BUS EXCHANGERS



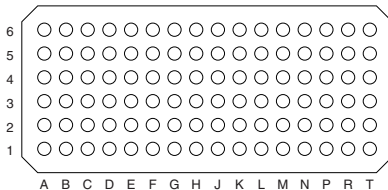
See page 648

Pin Assignments

32373

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

GKE PACKAGE
(TOP VIEW)



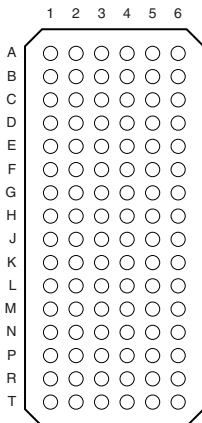
6	1D2	1D4	1D6	1D8	2D2	2D4	2D6	2D7	3D2	3D4	3D6	3D8	4D2	4D4	4D6	4D7
5	1D1	1D3	1D5	1D7	2D1	2D3	2D5	2D8	3D1	3D3	3D5	3D7	4D1	4D3	4D5	4D8
4	1LE	GND	V _{CC}	GND	GND	V _{CC}	GND	2LE	3LE	GND	V _{CC}	GND	GND	V _{CC}	GND	4LE
3	1OE	GND	V _{CC}	GND	GND	V _{CC}	GND	2OE	3OE	GND	V _{CC}	GND	GND	V _{CC}	GND	4OE
2	1Q1	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 650

32374

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

GKE PACKAGE
(TOP VIEW)



terminal assignments

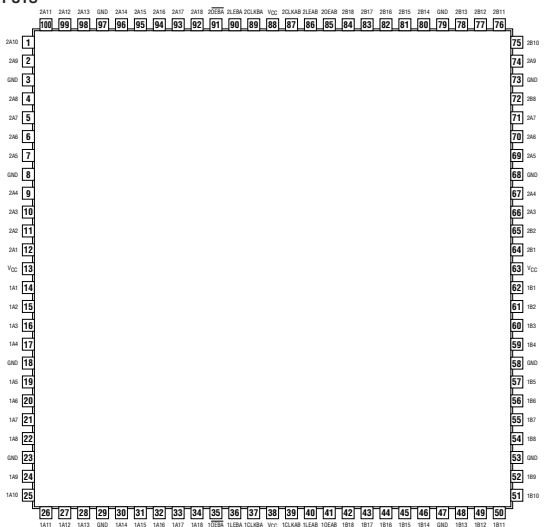
	1	2	3	4	5	6
A	1Q2	1Q1	1OE	1CLK	1D1	1D2
B	1Q4	1Q3	GND	GND	1D3	1D4
C	1Q6	1Q5	V _{CC}	V _{CC}	1D5	1D6
D	1Q8	1Q7	GND	GND	1D7	1D8
E	2Q2	2Q1	GND	GND	2D1	2D2
F	2Q4	2Q3	V _{CC}	V _{CC}	2D3	2D4
G	2Q6	2Q5	GND	GND	2D5	2D6
H	2Q8	2Q7	2OE	2CLK	2D7	2D8
J	3Q2	3Q1	3OE	3CLK	3D1	3D2
K	3Q4	3Q3	GND	GND	3D3	3D4
L	3Q6	3Q5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

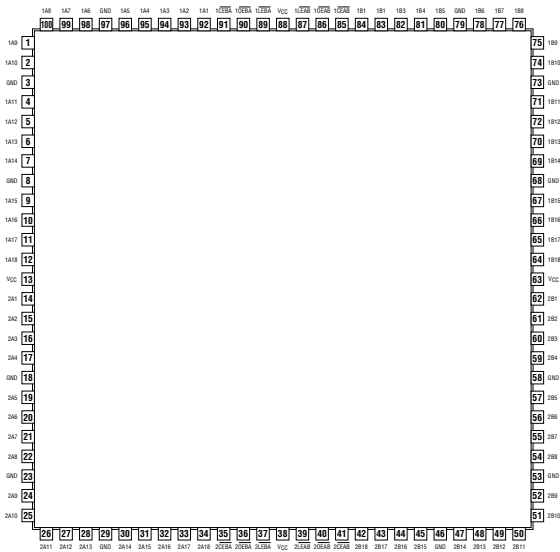
36-BIT UNIVERSAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS



See page 654

32543

36-BIT REGISTERED BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

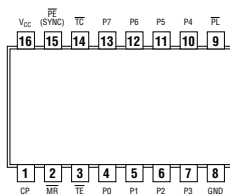


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Pin Assignments

40103

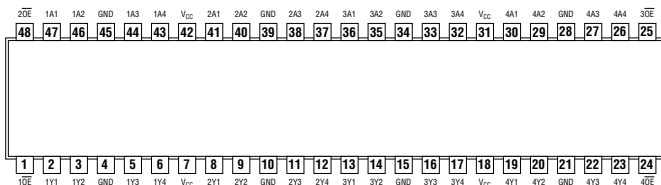
8-STAGE SYNCHRONOUS DOWN COUNTERS



See page 658

162240

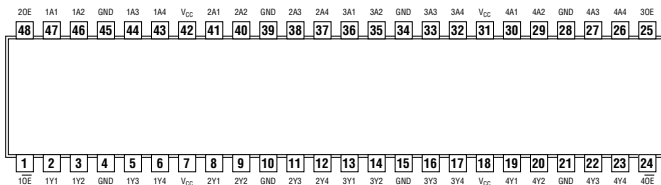
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



See page 659

162241

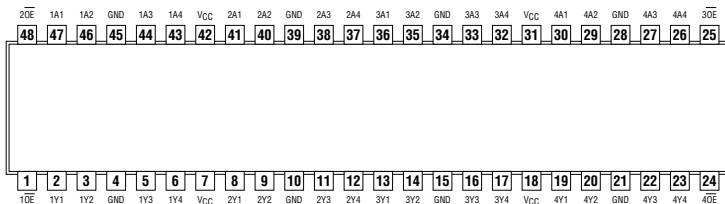
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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162244

16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS

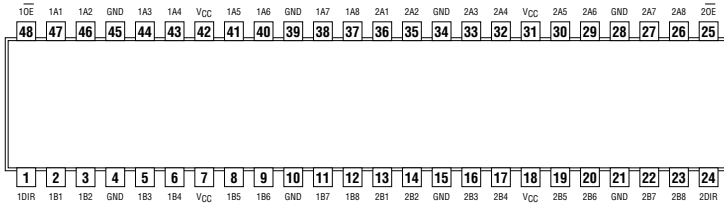


See page 661

Pin Assignments

162245

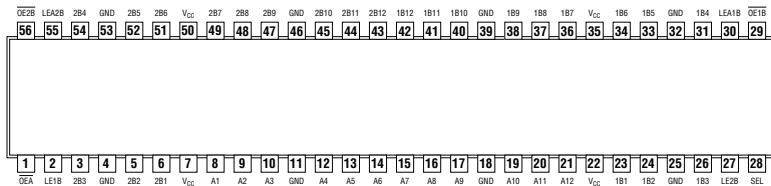
16-BIT TRANSCEIVER
WITH 3-STATE OUTPUTS



See page 662

162260

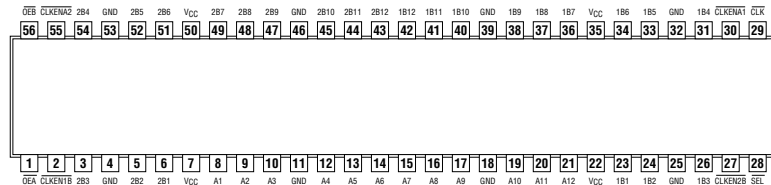
12-BIT TO 24-BIT MULTIPLEXED D-TYPE LATCH
WITH 3-STATE OUTPUTS



See page 664

162268

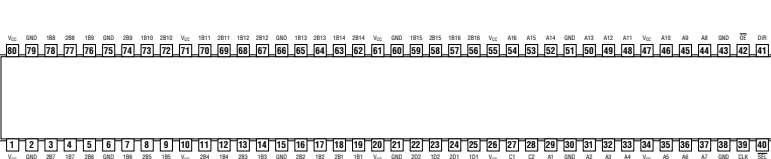
12-BIT TO 24-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



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162280

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

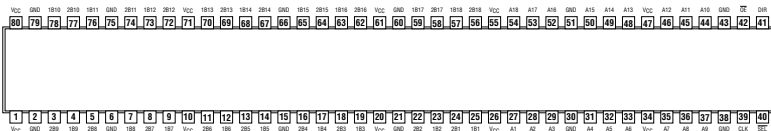


See page 668

Pin Assignments

162282

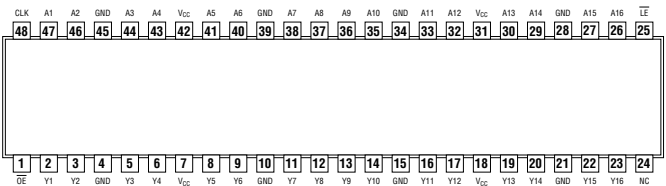
18-BIT TO 36-BIT REGISTERED BUS EXCHANGER
WITH 3-STATE OUTPUTS



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162334

16-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

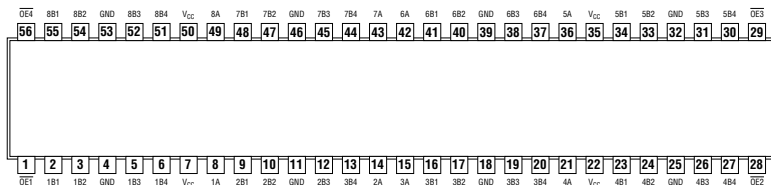


NC – No internal connection

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162344

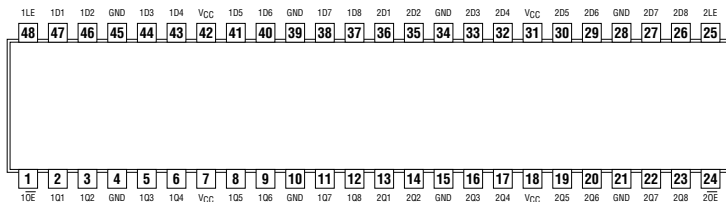
1-BIT TO 4-BIT ADDRESS DRIVER
WITH 3-STATE OUTPUTS



See page 674

162373

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

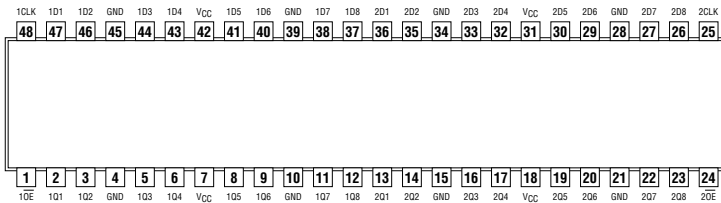


See page 676

Pin Assignments

162374

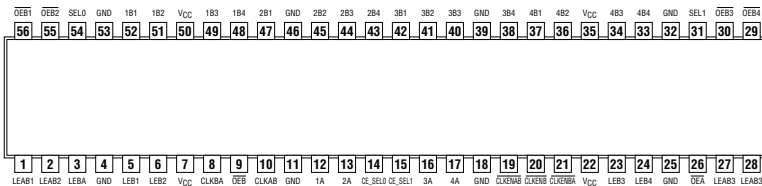
3.3-V ABT 16-BIT EDGE-TRIGGERED D-TYPE FLIP-FLOPS
WITH 3-STATE OUTPUTS



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162460

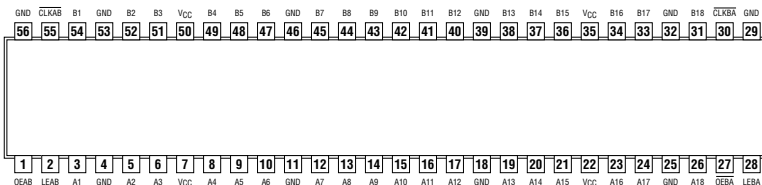
4-TO-1 MULTIPLEXED/DEMULTIPLEXED REGISTERED TRANSCIEVERS
WITH 3-STATE OUTPUTS



See page 678

162500

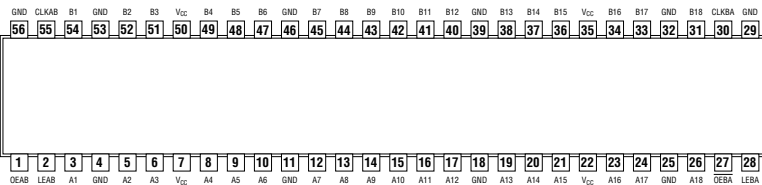
18-BIT UNIVERSAL BUS TRANSCIEVER
WITH 3-STATE OUTPUTS



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162501

18-BIT UNIVERSAL BUS TRANSCIEVERS
WITH 3-STATE OUTPUTS

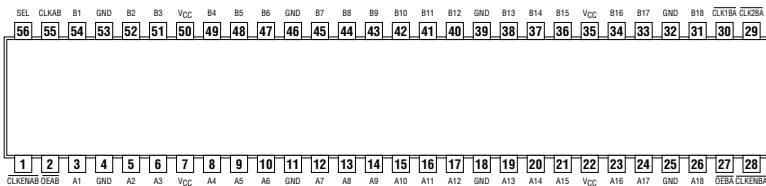


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Pin Assignments

162525

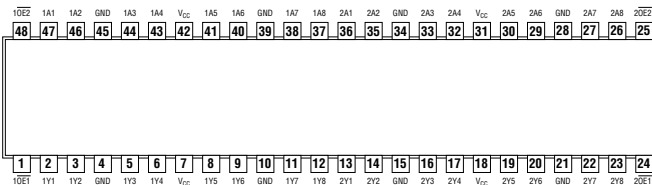
16-BIT REGISTERED BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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162541

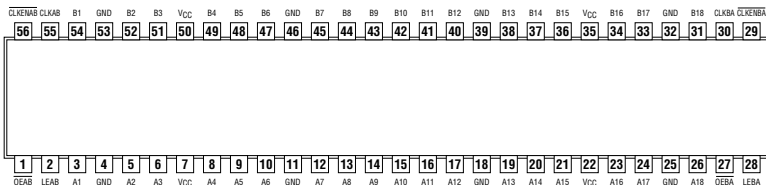
3.3-V ABT 16-BIT BUFFERS/DRIVERS
WITH 3-STATE OUTPUTS



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162601

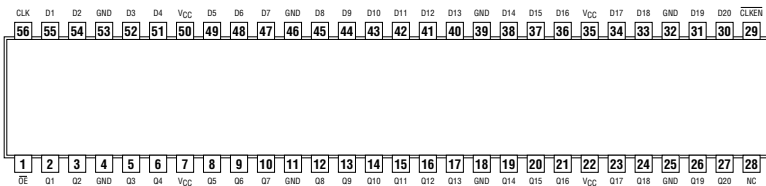
18-BIT UNIVERSAL BUS TRANSCEIVER
WITH 3-STATE OUTPUTS



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162721

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



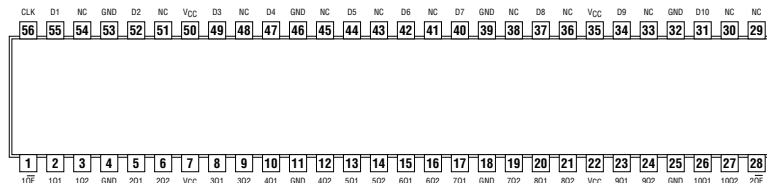
See page 690

NC – No internal connection

Pin Assignments

162820

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

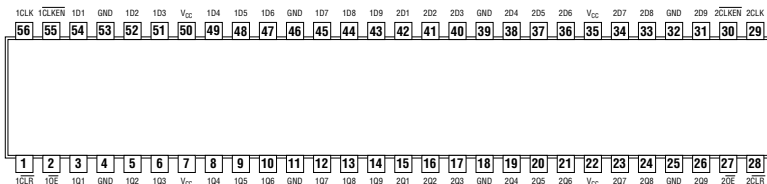


NC – No internal connection

See page 691

162823

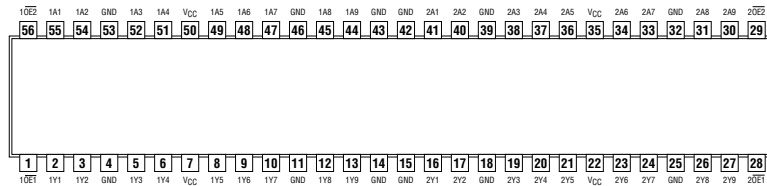
18-BIT BUS-INTERFACE FLIP-FLOPS WITH 3-STATE OUTPUTS



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162825

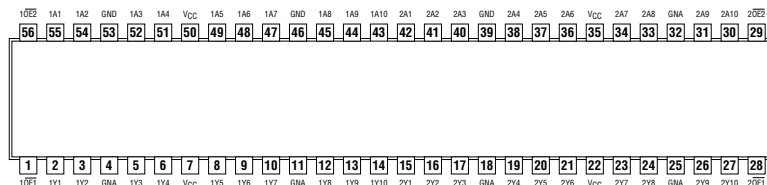
18-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS



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162827

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

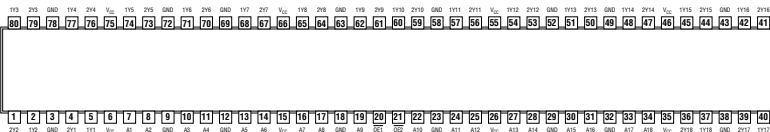


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Pin Assignments

162830

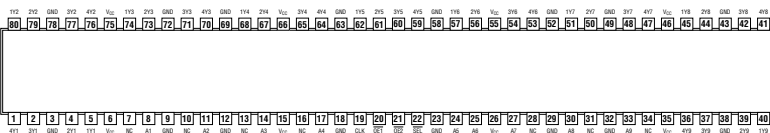
1-BIT TO 2-BIT ADDRESS DRIVER
WITH 3-STATE OUTPUTS



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162831

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

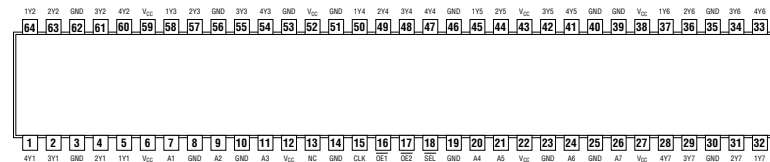


NC – No internal connection

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162832

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

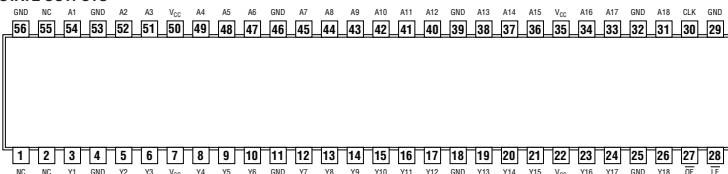


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162834

162835

18-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS



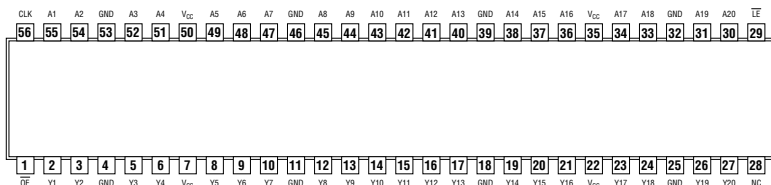
See page 698, 699

NC – No internal connection

Pin Assignments

162836

20-BIT UNIVERSAL BUS DRIVER
WITH 3-STATE OUTPUTS

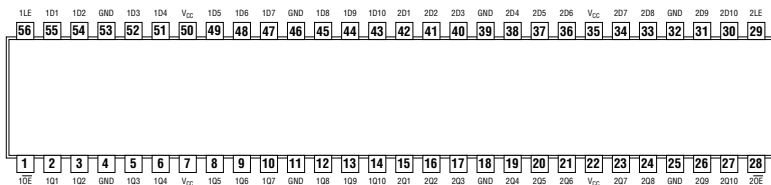


NC – No internal connection

See page 700

162841

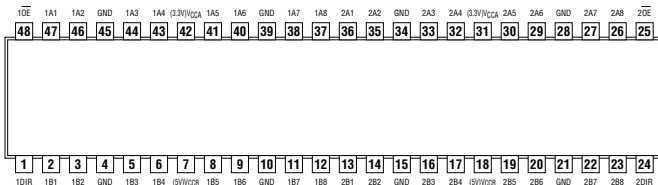
20-BIT BUS-INTERFACE D-TYPE LATCH
WITH 3-STATE OUTPUTS



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164245

16-BIT TRANSCEIVER AND 3.3-V TO 5-V SHIFTER
WITH 3-STATE OUTPUTS



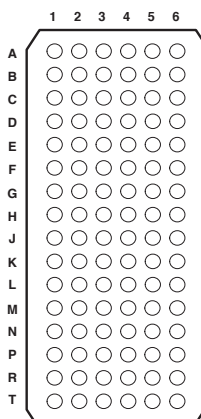
See page 702

Pin Assignments

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	1 \overline{OE}	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	2Q6	GND	GND	2D5	2D6
H	2Q7	2Q8	2 \overline{OE}	2CLK	2D8	2D7
J	3Q2	3Q1	3 \overline{OE}	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	4 \overline{OE}	4CLK	4D8	4D7

NC – No internal connection

See page 703