## 54AC16862, 54ACT16862 74AC16862, 74ACT16862 20-BIT BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

(TOP VIEW)

56 1 1 GBA

55 1A1

54 **1** 1A2

53 GND

52 1 1A3

51 1 1A4

50 **∏** Vcc

49 1 1A5

48 1 1A6

47 **∏** 1A7

46 T GND

45 1 1A8

44 **1** 1A9

43 1A10

42 1 2A1

41 7 2A2

40 **1** 2A3

39 F GND

38 7 2A4

36 **1** 2A6

35 NCC

33 **F** 2A8

GND

37 **1** 2A5

34 **5** 2A7

32 **h** 

16862, 54ACT16862 . . . WD PACKAGE 16862, 74ACT16862 . . . DL PACKAGE

1GAB □

1B1 **∏** 

1B2 **∏** 

GND [

1B3 **∏** 5

V<sub>CC</sub> [] 7

1B5 **1** 8

1B6 **∏** 9

1B7 **[** 

GND [

1B8 **□** 

2B1 **□** 

2B2 [

2B3 F

GND [

2B4 ਜੋ

2B5 [

2B6

∨сс Г

2B8

2B7

GND

1B10 **□** 

1B4 **□** 

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- Members of Texas Instruments Widebus™ Family
- Packaged in Shrink Small-Outline 300-mil Packages (SSOP) and 380-mil Fine-Pitch Ceramic Flat Packages Using 25-mil Center-to-Center Pin Spacings
- Inputs are TTL- or CMOS-Voltage Compatible
- 3-State Outputs Drive Bus Lines Directly
- Flow-Through Architecture Optimizes PCB Layout
- Distributed V<sub>CC</sub> and GND Pin Configuration Minimizes High-Speed Switching Noise
- EPIC™ (Enhanced-Performance Implanted CMOS) 1-µm Process
- 500-mA Typical Latch-Up Immunity at 125°C

## description

The 'AC16862 and 'ACT16862 are inverting 20-bit bus transceivers composed of two 10-bit transceiver sections with separate control signals. These devices allow data transmission from the A bus to the B bus or from the B bus to the A bus, depending upon the levels present at the output-enable inputs (1GAB, 2GAB, 1GBA, and 2GBA). The control logic also allows for isolation and latching.

The 'AC16862 has CMOS-compatible input thresholds. The 'ACT16862 has TTL-compatible input thresholds.

The 54AC16862 and 54ACT16862 are characterized over the full military temperature range of –55°C to 125°C. The 74AC16862 and 74ACT16862 are characterized for operation from –40°C to 85°C.

## **FUNCTION TABLE, EACH SECTION**

INPUTS		OPERATION
GAB	GBA	
L	Н	A to B
Н	L	B to A
Н	Н	Isolation
L	L	Latch A and B
		$(A = \overline{B})$

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