

74ALVCH16600

18-bit universal bus transceiver; 3-state

Rev. 3 — 15 January 2018

Product data sheet

1 General description

The 74ALVCH16600 is an 18-bit universal transceiver featuring non-inverting 3-state bus compatible outputs in both send and receive directions. Data flow in each direction is controlled by output enable (\overline{OEAB} and \overline{OEBA}), latch enable (LEAB and LEBA), and clock (\overline{CPAB} and \overline{CPBA}) inputs. For A-to-B data flow, the device operates in the transparent mode when LEAB is HIGH. When LEAB is LOW, the A data is latched if \overline{CPAB} is held at a HIGH or LOW logic level. If LEAB is LOW, the A-bus data is stored in the flip-flop on the HIGH-to-LOW transition of \overline{CPAB} . When \overline{OEAB} is LOW, the outputs are active. When \overline{OEAB} is HIGH, the outputs are in the high-impedance state. The HIGH clock can be controlled with the clock-enable inputs (\overline{CEBA} and \overline{CEAB}).

Data flow for B-to-A is similar to that of A-to-B, but uses \overline{OEBA} , LEBA and \overline{CPBA} .

To ensure the high impedance state during power up or power down, \overline{OEBA} and \overline{OEAB} should be tied to V_{CC} through a pullup resistor; the minimum value of the resistor is determined by the current-sinking/current-sourcing capability of the driver.

Active bus hold circuitry is provided to hold unused or floating data inputs at a valid logic level.

2 Features and benefits

- CMOS low power consumption
- MultiByte flow-through standard pin-out architecture
- Low inductance multiple V_{CC} and GND pins for minimum noise and ground bounce
- Direct interface with TTL levels (2.7 V to 3.6 V)
- Bus hold on data inputs
- Output drive capability 50 Ω transmission lines at 85 °C
- Current drive ± 24 mA at 3.0 V
- Complies with JEDEC standards:
 - JESD8-5 (2.3 V to 2.7 V)
 - JESD8B/JESD36 (2.7 V to 3.6 V)
- ESD protection:
 - HBM ANSI/ESDA/JEDEC JS-001 exceeds 2000 V
 - CDM JESD22-C101E exceeds 1000 V

3 Ordering information

Table 1. Ordering information

| Type number | Package | | | Version |
|-----------------|-------------------|---------|--|----------|
| | Temperature range | Name | Description | |
| 74ALVCH16600DGG | -40 °C to +85 °C | TSSOP56 | plastic thin shrink small outline package; 56 leads; body width 6.1 mm | SOT364-1 |

4 Functional diagram

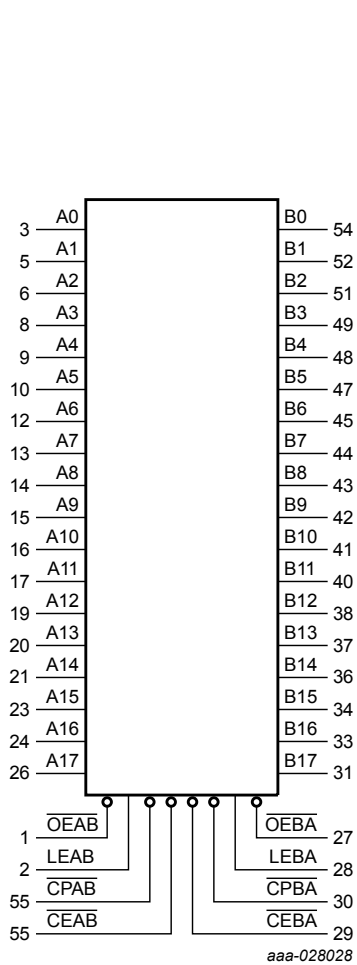


Figure 1. Logic symbol

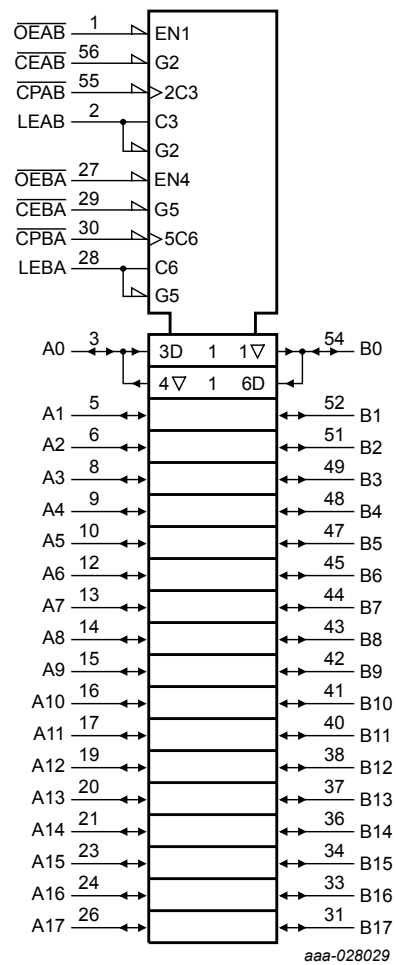


Figure 2. IEC logic symbol

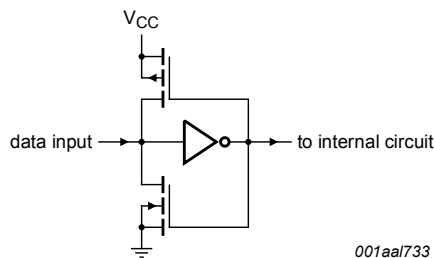


Figure 3. Bus hold circuit

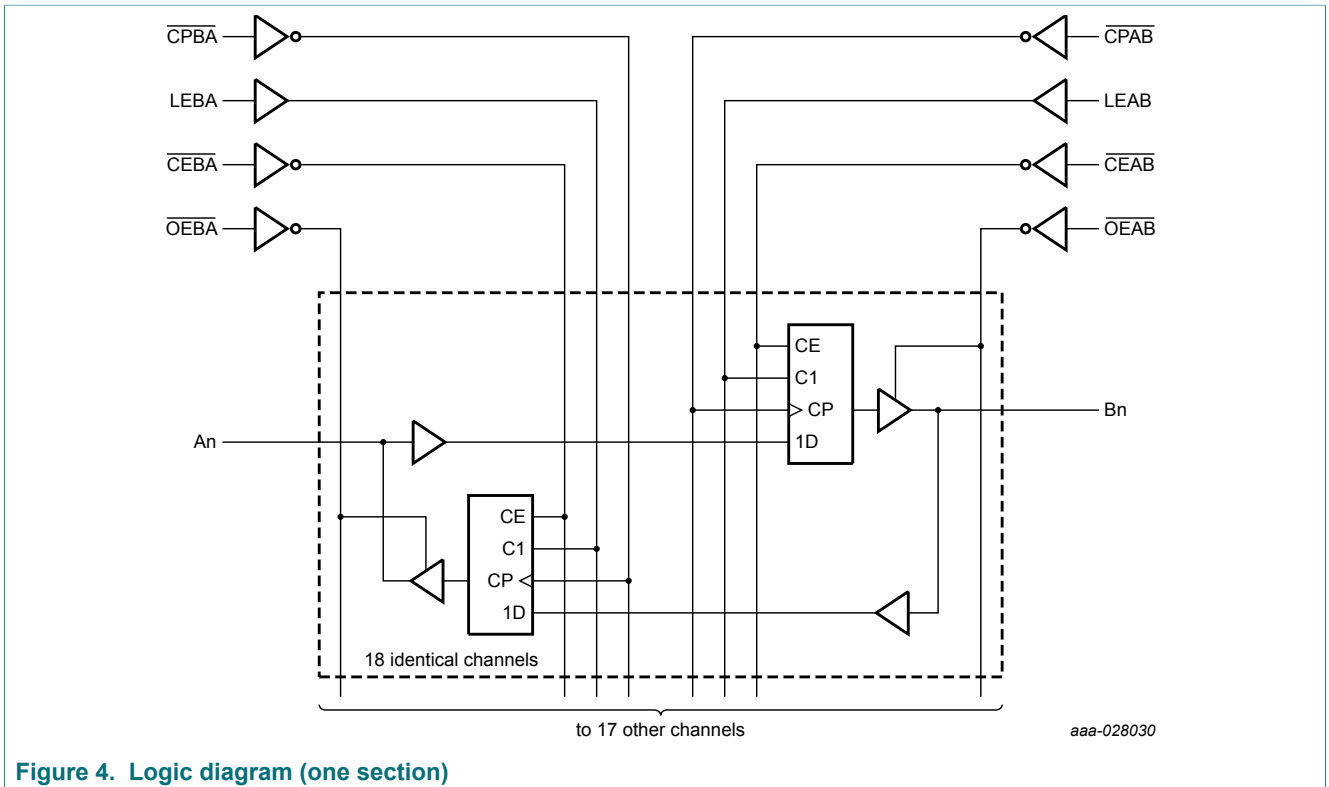


Figure 4. Logic diagram (one section)

5 Pinning information

5.1 Pinning

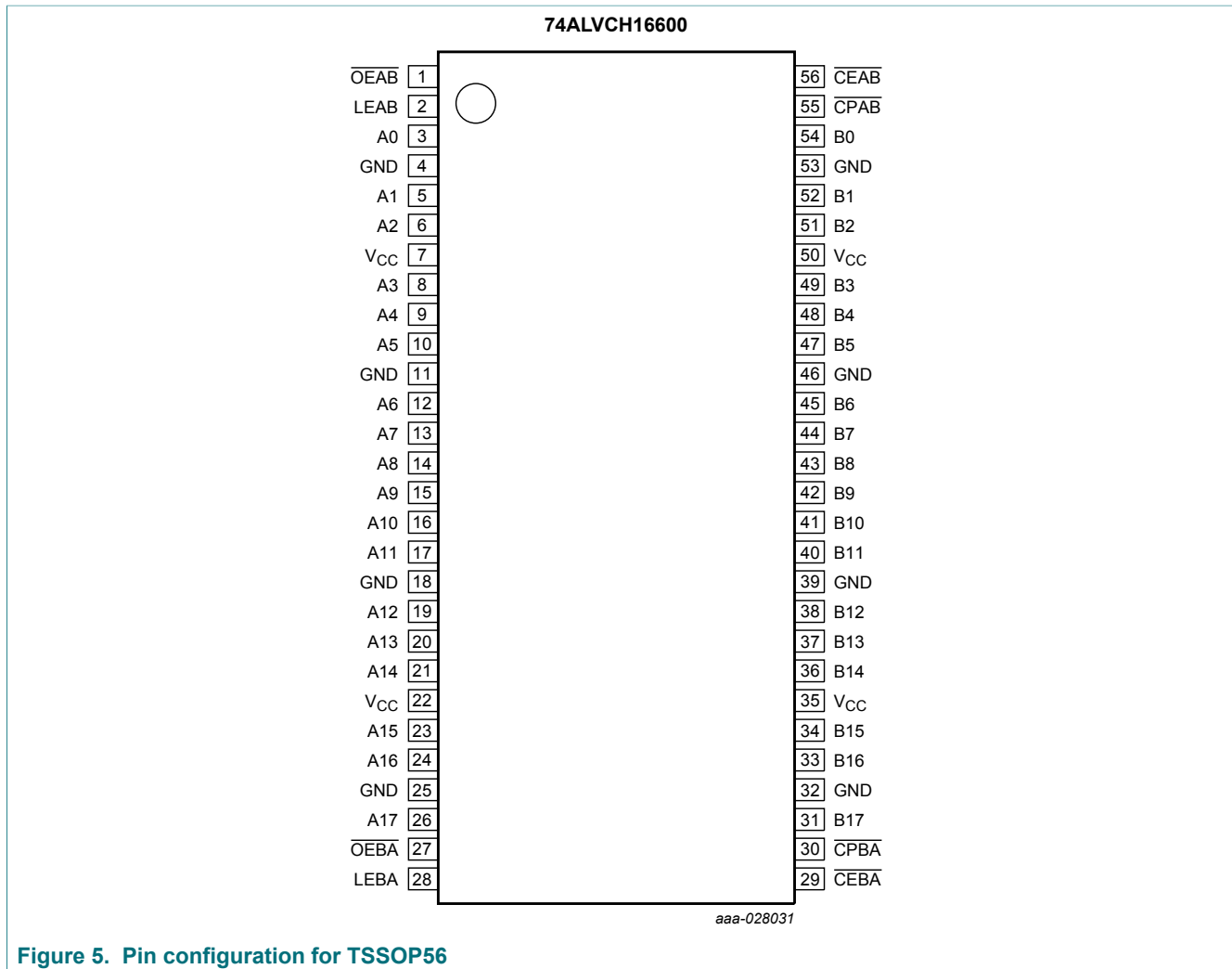


Figure 5. Pin configuration for TSSOP56

5.2 Pin description

Table 2. Pin description

| Symbol | Pin | Description |
|--|--|---|
| A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17 | 3, 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 21, 23, 24, 26 | data inputs/outputs |
| B0, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17 | 54, 52, 51, 49, 48, 47, 45, 44, 43, 42, 41, 40, 38, 37, 36, 34, 33, 31 | data outputs/inputs |
| \overline{OEAB} , \overline{OEBA} | 1, 27 | A to B / B to A output enable input (active LOW) |
| LEAB, LEBA | 2, 28 | A to B / B to A latch enable inputs (active HIGH) |
| \overline{CPBA} , \overline{CPAB} | 30, 55 | B to A / A to B clock inputs (active LOW) |
| \overline{CEBA} , \overline{CEAB} | 29, 56 | B to A / A to B clock enable inputs (active LOW) |
| GND | 4, 11, 18, 25, 32, 39, 46, 53 | ground (0 V) |
| V _{CC} | 7, 22, 35, 50 | supply voltage |

6 Functional description

Table 3. Function selection ^[1] ^[2]

| Operating mode | Inputs | | | | | Outputs |
|----------------------|--------|------|------|------|----|---------|
| | CEAB | OEAB | LEAB | CPAB | An | Bn |
| Disabled | X | H | X | X | X | Z |
| Transparent | X | L | H | X | H | H |
| | X | L | H | X | L | L |
| Hold | H | L | L | X | X | NC |
| Clock data & Display | L | L | L | ↓ | h | H |
| | L | L | L | ↓ | l | L |
| Hold data & Display | L | L | L | H | X | NC |
| | L | L | L | L | X | NC |

[1] A-to-B data flow is shown; B-to-A flow is similar but uses \overline{CEBA} , \overline{OEBA} , LEBA, and \overline{CPBA} .

[2] H = HIGH voltage level;

h = HIGH voltage level one set-up time prior to the enable or clock transition;

L = LOW voltage level;

l = LOW voltage level one set-up time prior to the enable or clock transition;

X = don't care;

NC = no change

↓ = HIGH-to-LOW enable or clock transition;

Z = high-impedance OFF-state.

7 Limiting values

Table 4. Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134). Voltages are referenced to GND (ground = 0 V).

| Symbol | Parameter | Conditions | Min | Max | Unit |
|-----------|-------------------------|----------------------------------|------|----------------|------|
| V_{CC} | supply voltage | | -0.5 | +4.6 | V |
| V_I | input voltage | data inputs [1] | -0.5 | $V_{CC} + 0.5$ | V |
| | | control inputs [1] | -0.5 | +4.6 | V |
| V_O | output voltage | [1] | -0.5 | $V_{CC} + 0.5$ | V |
| I_{IK} | input clamping current | $V_I < 0$ V | -50 | - | mA |
| I_{OK} | output clamping current | $V_O > V_{CC}$ or $V_O < 0$ V | - | ± 50 | mA |
| I_O | output current | $V_O = 0$ V to V_{CC} | - | ± 50 | mA |
| I_{CC} | supply current | | - | 100 | mA |
| I_{GND} | ground current | | -100 | - | mA |
| T_{stg} | storage temperature | | -65 | +150 | °C |
| P_{tot} | total power dissipation | $T_{amb} = -40$ °C to +85 °C [2] | - | 600 | mW |

[1] The input and output voltage ratings may be exceeded if the input and output current ratings are observed.

[2] For TSSOP56 packages: above 55 °C derate linearly with 8 mW/K.

8 Recommended operating conditions

Table 5. Recommended operating conditions

| Symbol | Parameter | Conditions | Min | Max | Unit |
|---------------------|-------------------------------------|---|-----|----------|------|
| V_{CC} | supply voltage | $V_{CC} = 2.5$ V: for maximum speed performance at $C_L = 30$ pF | 2.3 | 2.7 | V |
| | | $V_{CC} = 3.3$ V: for maximum speed performance at $C_L = 50$ pF | 3.0 | 3.6 | V |
| V_I | input voltage | | 0 | V_{CC} | V |
| V_O | output voltage | | 0 | V_{CC} | V |
| T_{amb} | ambient temperature | in free air | -40 | +85 | °C |
| $\Delta t/\Delta V$ | input transition rise and fall rate | $V_{CC} = 2.3$ V to 3.0 V | 0 | 20 | ns/V |
| | | $V_{CC} = 3.0$ V to 3.6 V | 0 | 10 | ns/V |

9 Static characteristics

Table 6. Static characteristics

At recommended operating conditions. $T_{amb} = -40\text{ °C}$ to $+85\text{ °C}$; Voltages are referenced to GND (ground = 0 V).

| Symbol | Parameter | Conditions | Min | Typ ^[1] | Max | Unit |
|-------------------|---------------------------------|---|-----------------------|------------------------|------|------|
| V _{IH} | HIGH-level input voltage | V _{CC} = 2.3 to 2.7 V | 1.7 | 1.2 | - | V |
| | | V _{CC} = 2.7 to 3.6 V | 2.0 | 1.5 | - | V |
| V _{IL} | LOW-level input voltage | V _{CC} = 2.3 to 2.7 V | - | 1.2 | 0.7 | V |
| | | V _{CC} = 2.7 to 3.6 V | - | 1.5 | 0.8 | V |
| V _{OH} | HIGH-level output voltage | V _I = V _{IH} or V _{IL} | | | | |
| | | I _O = -100 μA; V _{CC} = 2.3 V to 3.6 V | V _{CC} - 0.2 | V _{CC} | - | V |
| | | I _O = -6 mA; V _{CC} = 2.3 V | V _{CC} - 0.3 | V _{CC} - 0.08 | - | V |
| | | I _O = -12 mA; V _{CC} = 2.3 V | V _{CC} - 0.6 | V _{CC} - 0.26 | - | V |
| | | I _O = -12 mA; V _{CC} = 2.7 V | V _{CC} - 0.5 | V _{CC} - 0.14 | - | V |
| | | I _O = -12 mA; V _{CC} = 3.0 V | V _{CC} - 0.6 | V _{CC} - 0.09 | - | V |
| V _{OL} | LOW-level output voltage | V _I = V _{IH} or V _{IL} | | | | |
| | | I _O = 100 μA; V _{CC} = 2.3 V to 3.6 V | - | GND | 0.20 | V |
| | | I _O = 6 mA; V _{CC} = 2.3 V | - | 0.07 | 0.40 | V |
| | | I _O = 12 mA; V _{CC} = 2.3 V | - | 0.15 | 0.70 | V |
| | | I _O = 12 mA; V _{CC} = 2.7 V | - | 0.14 | 0.40 | V |
| | | I _O = 24 mA; V _{CC} = 3.0 V | - | 0.27 | 0.55 | V |
| I _I | input leakage current | V _I = V _{CC} or GND; V _{CC} = 2.3 V to 3.6 V | - | 0.1 | 5 | μA |
| I _{BHL} | bus hold LOW current | V _{CC} = 2.3 V; V _I = 0.7 V | 45 | - | - | μA |
| | | V _{CC} = 3.0 V; V _I = 0.8 V | 75 | 150 | - | μA |
| I _{BHH} | bus hold HIGH current | V _{CC} = 2.3 V; V _I = 1.7 V | -45 | - | - | μA |
| | | V _{CC} = 3.0 V; V _I = 2.0 V | -75 | -175 | - | μA |
| I _{BHLO} | bus hold LOW overdrive current | V _{CC} = 3.6 V | 500 | - | - | μA |
| I _{BHHO} | bus hold HIGH overdrive current | V _{CC} = 3.6 V | -500 | - | - | μA |
| I _{OZ} | OFF-state output current | V _{CC} = 2.7 V to 3.6 V; V _I = V _{IH} or V _{IL} ; V _O = V _{CC} or GND | - | 0.1 | 10 | μA |
| I _{CC} | supply current | V _{CC} = 2.3 to 3.6 V; V _I = V _{CC} or GND; I _O = 0 A | - | 0.2 | 40 | μA |
| ΔI _{CC} | additional supply current | V _I = V _{CC} - 0.6 V; I _O = 0 A; V _{CC} = 2.3 V to 3.6 V | - | 150 | 750 | μA |
| C _I | input capacitance | | - | 4.0 | - | pF |
| C _{I/O} | input/output capacitance | | - | 8.0 | - | pF |

[1] All typical values are measured at $T_{amb} = 25\text{ °C}$.

10 Dynamic characteristics

Table 7. Dynamic characteristics

Voltages are referenced to GND (ground = 0 V). $T_{amb} = -40\text{ °C}$ to $+85\text{ °C}$; For test circuit, see [Figure 10](#).

| Symbol | Parameter | Conditions | Min | Typ ^[1] | Max | Unit |
|-----------|-------------------|---|-----|--------------------|-----|------|
| t_{pd} | propagation delay | An to Bn; Bn to An; Figure 6 ^[2] | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 1.0 | 3.1 | 5.2 | ns |
| | | $V_{CC} = 2.7\text{ V}$ | - | 3.1 | 4.7 | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 1.0 | 2.8 | 4.2 | ns |
| | | LEAB to Bn; LEBA to An; Figure 7 ^[2] | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 1.0 | 3.6 | 6.2 | ns |
| | | $V_{CC} = 2.7\text{ V}$ | - | 3.4 | 5.5 | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 1.0 | 3.1 | 4.9 | ns |
| | | \overline{CPAB} to Bn; \overline{CPBA} to An; Figure 7 ^[2] | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 1.0 | 3.8 | 7.3 | ns |
| | | $V_{CC} = 2.7\text{ V}$ | - | 3.8 | 6.8 | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 1.3 | 2.9 | 5.7 | ns |
| t_{en} | enable time | \overline{OEAB} to Bn; \overline{OEBA} to An; Figure 8 ^[2] | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 1.0 | 3.1 | 6.5 | ns |
| | | $V_{CC} = 2.7\text{ V}$ | - | 3.3 | 6.3 | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 1.1 | 2.8 | 5.2 | ns |
| t_{dis} | disable time | \overline{OEAB} to Bn; \overline{OEBA} to An; Figure 8 ^[2] | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 1.0 | 2.8 | 5.1 | ns |
| | | $V_{CC} = 2.7\text{ V}$ | - | 3.3 | 4.7 | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 1.2 | 3.2 | 4.4 | ns |
| t_w | pulse width | LEAB HIGH; LEBA HIGH; Figure 7 | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 3.3 | 1.6 | - | ns |
| | | $V_{CC} = 2.7\text{ V}$ | 3.3 | 1.0 | - | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 3.3 | 1.0 | - | ns |
| | | \overline{CPAB} HIGH or LOW; \overline{CPBA} HIGH or LOW; Figure 7 | | | | |
| | | $V_{CC} = 2.3\text{ V}$ to 2.7 V | 3.3 | 2.0 | - | ns |
| | | $V_{CC} = 2.7\text{ V}$ | 3.3 | 1.4 | - | ns |
| | | $V_{CC} = 3.0\text{ V}$ to 3.6 V | 3.3 | 1.1 | - | ns |

| Symbol | Parameter | Conditions | Min | Typ ^[1] | Max | Unit |
|------------------|-------------------------------|--|-----|--------------------|-----|------|
| t _{su} | set-up time | An to \overline{CPAB} ; Bn to \overline{CPBA} ; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 1.3 | -0.1 | - | ns |
| | | V _{CC} = 2.7 V | 1.3 | -0.4 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 1.2 | -0.1 | - | ns |
| | | An to LEAB; Bn to LEBA; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 1.2 | 0.1 | - | ns |
| | | V _{CC} = 2.7 V | 1.1 | -0.2 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 1.1 | 0.3 | - | ns |
| | | CEAB to \overline{CPAB} ; CEBA to \overline{CPBA} ; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 0.7 | -0.4 | - | ns |
| | | V _{CC} = 2.7 V | 0.7 | -0.7 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 0.8 | -0.2 | - | ns |
| t _h | hold time | An to \overline{CPAB} ; Bn to \overline{CPBA} ; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 1.5 | 0.6 | - | ns |
| | | V _{CC} = 2.7 V | 1.8 | 0.4 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 1.5 | 0.4 | - | ns |
| | | An to LEAB; Bn to LEBA; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 1.2 | 0.6 | - | ns |
| | | V _{CC} = 2.7 V | 1.6 | 0.1 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 1.3 | 0.1 | - | ns |
| | | CEAB to \overline{CPAB} ; CEBA to \overline{CPBA} ; Figure 9 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 1.4 | 2.0 | - | ns |
| | | V _{CC} = 2.7 V | 1.7 | 0.6 | - | ns |
| | | V _{CC} = 3.0 V to 3.6 V | 1.4 | 0.4 | - | ns |
| f _{max} | maximum frequency | \overline{CPAB} , \overline{CPBA} ; Figure 7 | | | | |
| | | V _{CC} = 2.3 V to 2.7 V | 150 | 335 | - | MHz |
| | | V _{CC} = 2.7 V | 150 | 350 | - | MHz |
| | | V _{CC} = 3.0 V to 3.6 V | 150 | 362 | - | MHz |
| C _{PD} | power dissipation capacitance | per latch; V _I = GND to V _{CC} ^[3] | | | | |
| | | output enabled | - | 21 | - | pF |
| | | output disabled | - | 3 | - | pF |

[1] Typical values are measured at T_{amb} = 25 °C

Typical values for V_{CC} = 2.3 V to 2.7 V are measured at V_{CC} = 2.5 V

Typical values for V_{CC} = 3.0 V to 3.6 V are measured at V_{CC} = 3.3 V

[2] t_{pd} is the same as t_{PHL} and t_{PLH}; t_{en} is the same as t_{PZH} and t_{PZL}; t_{dis} is the same as t_{PHZ} and t_{PLZ}.

[3] C_{PD} is used to determine the dynamic power dissipation (P_D in μW):

P_D = C_{PD} × V_{CC}² × f_i × N + ∑(C_L × V_{CC}² × f_o) where:

f_i = input frequency in MHz;

f_o = output frequency in MHz;

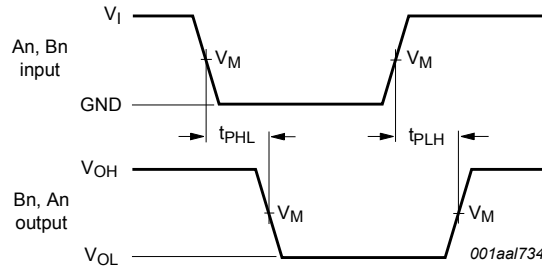
C_L = output load capacitance in pF;

V_{CC} = supply voltage in V;

N = number of inputs switching;

∑(C_L × V_{CC}² × f_o) = sum of outputs.

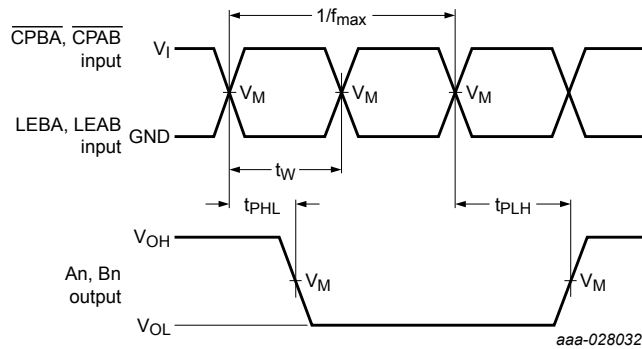
10.1 Waveforms and test circuit



Measurement points are given in [Table 8](#).

V_{OL} and V_{OH} are typical voltage output levels that occur with the output load.

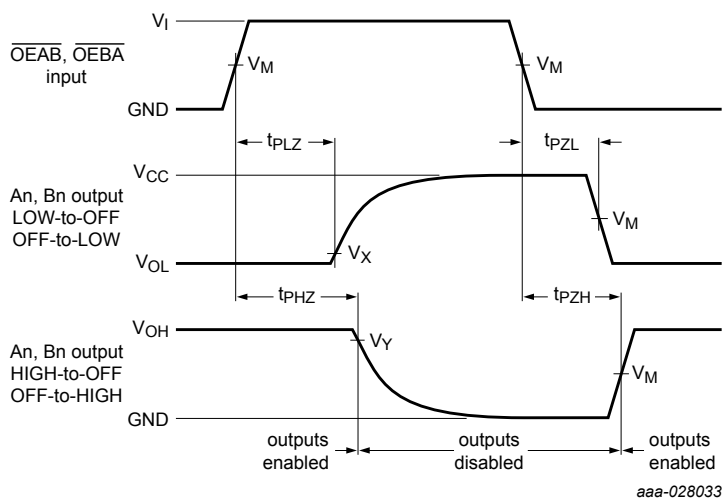
Figure 6. The input An, Bn to output Bn, An propagation delay times.



Measurement points are given in [Table 8](#).

V_{OL} and V_{OH} are typical voltage output levels that occur with the output load.

Figure 7. Latch enable input LEAB, LEBA and clock input CPAB, CPBA to output Bn, An propagation delay times; pulse width and f_{max} of CPAB and CPBA



Measurement points are given in [Table 8](#).

V_{OL} and V_{OH} are typical voltage output levels that occur with the output load.

Figure 8. 3-state enable and disable times.

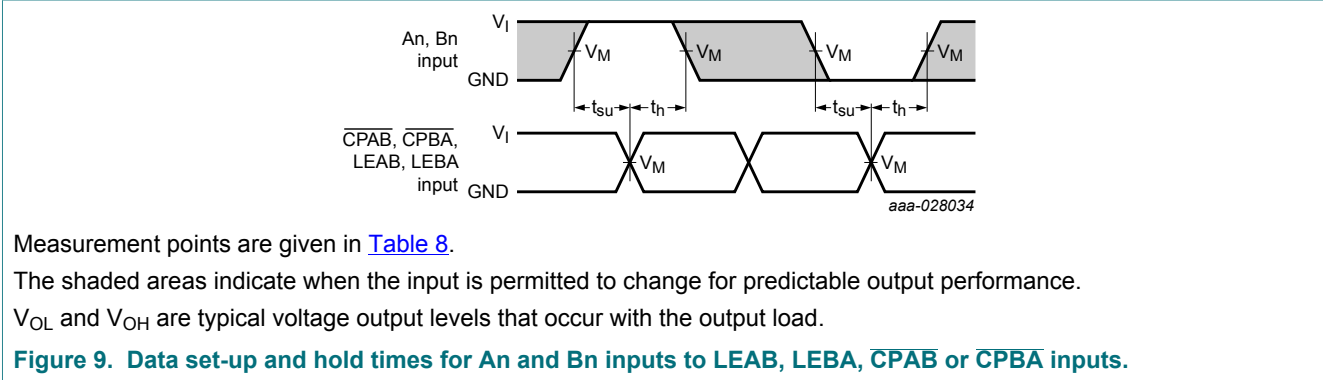
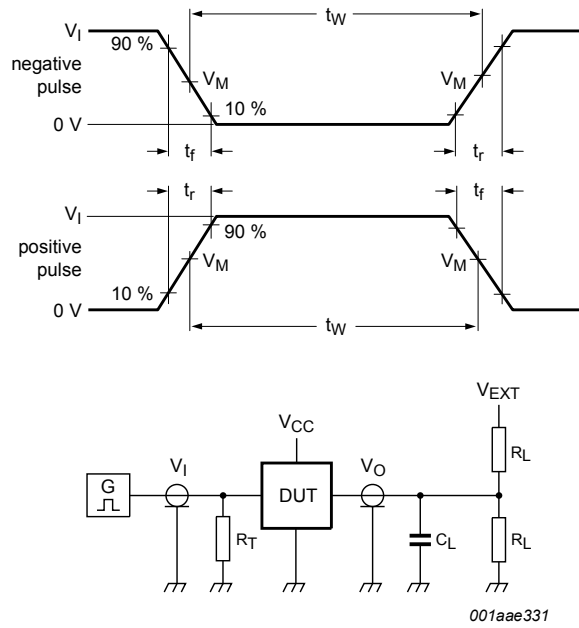


Table 8. Measurement points

| Supply voltage | Input | | Output | | |
|----------------|----------|--------------|--------------|-------------------|-------------------|
| | V_I | V_M | V_M | V_X | V_Y |
| 2.3 V to 2.7 V | V_{CC} | $0.5 V_{CC}$ | $0.5 V_{CC}$ | $V_{OL} + 0.15 V$ | $V_{OH} - 0.15 V$ |
| 2.7 V | 2.7 V | 1.5 V | 1.5 V | $V_{OL} + 0.3 V$ | $V_{OH} - 0.3 V$ |
| 3.0 V to 3.6 V | 2.7 V | 1.5 V | 1.5 V | $V_{OL} + 0.3 V$ | $V_{OH} - 0.3 V$ |



Test data is given in [Table 9](#).

Definitions for test circuit:

R_L = Load resistance.

C_L = Load capacitance including jig and probe capacitance.

R_T = Termination resistance should be equal to output impedance Z_o of the pulse generator.

V_{EXT} = External voltage for measuring switching times.

Figure 10. Test circuit for measuring switching times

Table 9. Test data

| Supply voltage | Input | | Load | | V_{EXT} | | |
|----------------|----------|---------------|-------|--------------|--------------------|--------------------|--------------------|
| V_{CC} | V_I | t_r, t_f | C_L | R_L | t_{PLH}, t_{PHL} | t_{PLZ}, t_{PZL} | t_{PHZ}, t_{PZH} |
| 2.3 V to 2.7 V | V_{CC} | ≤ 2.0 ns | 30 pF | 500 Ω | open | $2 \times V_{CC}$ | GND |
| 2.7 V | 2.7 V | ≤ 2.5 ns | 50 pF | 500 Ω | open | $2 \times V_{CC}$ | GND |
| 3.0 V to 3.6 V | 2.7 V | ≤ 2.5 ns | 50 pF | 500 Ω | open | $2 \times V_{CC}$ | GND |

11 Package outline

TSSOP56: plastic thin shrink small outline package; 56 leads; body width 6.1 mm

SOT364-1



DIMENSIONS (mm are the original dimensions).

| UNIT | A max. | A ₁ | A ₂ | A ₃ | b _p | c | D ⁽¹⁾ | E ⁽²⁾ | e | H _E | L | L _p | Q | v | w | y | Z | θ |
|------|--------|----------------|----------------|----------------|----------------|------------|------------------|------------------|-----|----------------|---|----------------|--------------|------|------|-----|------------|----------|
| mm | 1.2 | 0.15 0.05 | 1.05 0.85 | 0.25 | 0.28 0.17 | 0.2 0.1 | 14.1 13.9 | 6.2 6.0 | 0.5 | 8.3 7.9 | 1 | 0.8 0.4 | 0.50 0.35 | 0.25 | 0.08 | 0.1 | 0.5 0.1 | 8° 0° |

Notes

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.
2. Plastic interlead protrusions of 0.25 mm maximum per side are not included.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|-----------------|------------|--------|-------|--|---------------------|----------------------|
| | IEC | JEDEC | JEITA | | | |
| SOT364-1 | | MO-153 | | | | 99-12-27 03-02-19 |

Figure 11. Package outline SOT364-1 (TSSOP56)

12 Abbreviations

Table 10. Abbreviations

| Acronym | Description |
|---------|---|
| CDM | Charged Device Model |
| CMOS | Complementary Metal-Oxide Semiconductor |
| DUT | Device Under Test |
| ESD | ElectroStatic Discharge |
| HBM | Human Body Model |
| TTL | Transistor-Transistor Logic |

13 Revision history

Table 11. Revision history

| Document ID | Release date | Data sheet status | Change notice | Supersedes |
|------------------|---|-----------------------|---------------|------------------|
| 74ALVCH16600 v.3 | 20180115 | Product data sheet | - | 74ALVCH16600 v.2 |
| Modifications: | <ul style="list-style-type: none"> The format of this data sheet has been redesigned to comply with the identity guidelines of Nexperia. Legal texts have been adapted to the new company name where appropriate. | | | |
| 74ALVCH16600 v.2 | 19980924 | Product specification | - | 74ALVCH16600 v.1 |
| 74ALVCH16600 v.1 | 19980801 | Product specification | - | - |

14 Legal information

14.1 Data sheet status

| Document status ^{[1][2]} | Product status ^[3] | Definition |
|-----------------------------------|-------------------------------|---|
| Objective [short] data sheet | Development | This document contains data from the objective specification for product development. |
| Preliminary [short] data sheet | Qualification | This document contains data from the preliminary specification. |
| Product [short] data sheet | Production | This document contains the product specification. |

[1] Please consult the most recently issued document before initiating or completing a design.

[2] The term 'short data sheet' is explained in section "Definitions".

[3] The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the Internet at URL <http://www.nexperia.com>.

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Date of release: 15 January 2018
Document identifier: 74ALVCH16600

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