AiP74HC/HCT243
Quad Bus Transceiver; 3-state

Product Specification

Specification Revision History:

Version	Date	Description
2012-06-A1	2012-06	New
2023-04-B1	2023-04	Update the template

Contents

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1、General Description

The AiP74HC/HCT243 are quad bus transceivers featuring non-inverting 3-state bus compatible outputs in both send and receive directions. They are designed for 4-line asynchronous 2-way data communications between data buses.

The output enable inputs ($\overline{OE}$A and $\overline{OE}$B) can be used to isolate the buses.

Features:

- Input levels:
  For AiP74HC243: CMOS level
  For AiP74HCT243: TTL level
- Octal bidirectional bus interface
- Non-inverting 3-state outputs
- Specified from -40℃ to +125℃
- Packaging information: DIP14/SOP14/TSSOP14

Ordering Information:

Tube packing specifications:

Part number	Packaging form	Marking code	Tube quantity	Boxed tube quantity	Boxed quantity	Notes
AiP74HC243DA14.TB	DIP14	74HC243	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm
AiP74HCT243DA14.TB	DIP14	74HCT243	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm
AiP74HC243SA14.TB	SOP14	74HC243	50 PCS/tube	200 tube/box	10000 PCS/box	Dimensions of plastic enclosure: 8.7mm×3.9mm Pin spacing: 1.27mm
AiP74HCT243SA14.TB	SOP14	74HCT243	50 PCS/tube	200 tube/box	10000 PCS/box	Dimensions of plastic enclosure: 8.7mm×3.9mm Pin spacing: 1.27mm
AiP74HC243TA14.TB	TSSOP14	74HC243	96 PCS/tube	200 tube/box	19200 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm
AiP74HCT243TA14.TB	TSSOP14	74HCT243	96 PCS/tube	200 tube/box	19200 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm

Reel packing specifications:

Part number	Packaging form	Marking code	Reel quantity	Boxed reel quantity	Notes
AiP74HC243SA14.TR	SOP14	74HC243	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 8.7mm×3.9mm Pin spacing: 1.27mm
AiP74HCT243SA14.TR	SOP14	74HCT243	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 8.7mm×3.9mm Pin spacing: 1.27mm
AiP74HC243TA14.TR	TSSOP14	74HC243	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm
AiP74HCT243TA14.TR	TSSOP14	74HCT243	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm

Note: If the physical information is inconsistent with the ordering information, please refer to the actual product.

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2、Block Diagram And Pin Description

2.1、Block Diagram

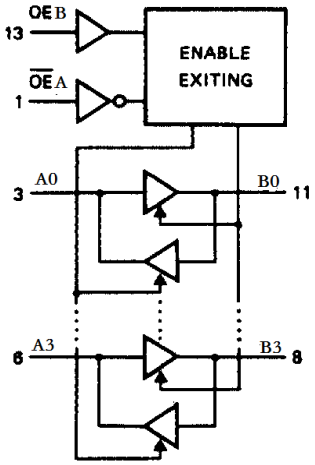


Figure 1. Logic symbol

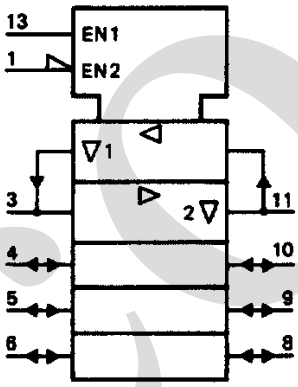


Figure 2. IEC logic symbol

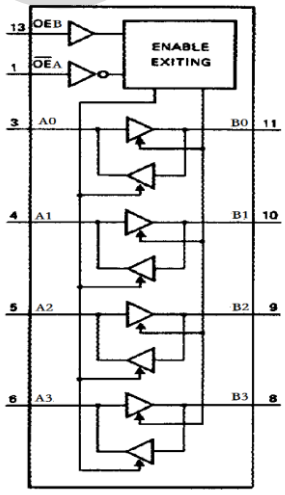
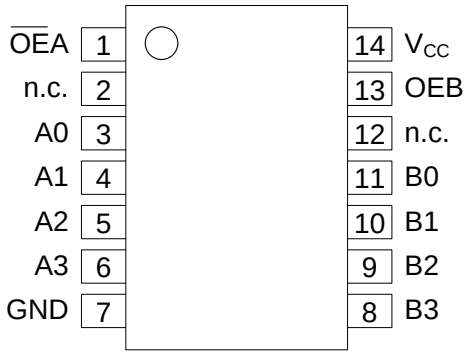


Figure 3. Functional diagram

2.2、Pin Configurations



2.3、Pin Description

Pin No.	Pin Name	Description
1	$\overline{OE}$A	output enable input (active LOW)
2	n.c.	not corrected
3	A0	data input/output
4	A1	data input/output
5	A2	data input/output
6	A3	data input/output
7	GND	ground (0V)
8	B3	data input/output
9	B2	data input/output
10	B1	data input/output
11	B0	data input/output
12	n.c.	not corrected
13	OEB	output enable input
14	V_{CC}	supply voltage

2.4、Function Table

Input		Output	
$\overline{OE}$A	OEB	An	Bn
L	L	input	B=A
H	L	Z	Z
L	H	Z	Z
H	H	A=B	input

Note: H=HIGH voltage level; L=LOW voltage level; Z=high-impedance OFF-state.

3、Electrical Parameter

3.1、Absolute Maximum Ratings

(Voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Max.	Unit
supply voltage	V_{CC}	-		-0.5	+7.0	V
input clamping current	I_{IK}	V_I < -0.5V or V_I > V_{CC}+0.5V		-	±20	mA
output clamping current	I_{OK}	V_O < -0.5V or V_O > V_{CC}+0.5V		-	±20	mA
output current	I_O	-0.5V < V_O < V_{CC}+0.5V		-	±35	mA
supply current	I_{CC}	-		-	70	mA
ground current	I_{GND}	-		-70	-	mA
storage temperature	T_{stg}	-		-65	+150	℃
total power dissipation	P_{tot}	-		-	500	mW
Soldering temperature	T_L	10s	DIP	245		℃
			SOP/TSSOP	260		

3.2、Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
AiP74HC243						
supply voltage	V_{CC}	-	2.0	5.0	6.0	V
input voltage	V_I	-	0	-	V_{CC}	V
output voltage	V_O	-	0	-	V_{CC}	V
input transition rise and fall rate	Δt/ΔV	V_{CC}=2.0V	-	-	625	ns/V
		V_{CC}=4.5V	-	1.67	139	ns/V
		V_{CC}=6.0V	-	-	83	ns/V
ambient temperature	T_{amb}	-	-40	-	+125	℃
AiP74HCT243						
supply voltage	V_{CC}	-	4.5	5.0	5.5	V
input voltage	V_I	-	0	-	V_{CC}	V
output voltage	V_O	-	0	-	V_{CC}	V
input transition rise and fall rate	Δt/ΔV	V_{CC}=4.5V	-	1.67	139	ns/V
ambient temperature	T_{amb}	-	-40	-	+125	℃

3.3、Electrical Characteristics

3.3.1、DC Characteristics 1

(T_{amb}=25℃, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
HIGH-level input voltage	V_{IH}	V_{CC}=2.0V		1.5	1.2	-	V
		V_{CC}=4.5V		3.15	2.4	-	V
		V_{CC}=6.0V		4.2	3.2	-	V
LOW-level input voltage	V_{IL}	V_{CC}=2.0V		-	0.8	0.5	V
		V_{CC}=4.5V		-	2.1	1.35	V
		V_{CC}=6.0V		-	2.8	1.8	V
HIGH-level output voltage	V_{OH}	V_I = V_{IH} or V_{IL}	I_O=-20uA; V_{CC}=2.0V	1.9	2.0	-	V
			I_O=-20uA; V_{CC}=4.5V	4.4	4.5	-	V
			I_O=-20uA; V_{CC}=6.0V	5.9	6.0	-	V
			I_O=-6.0mA; V_{CC}=4.5V	3.98	4.32	-	V
			I_O=-7.8mA; V_{CC}=6.0V	5.48	5.81	-	V
LOW-level output voltage	V_{OL}	V_I = V_{IH} or V_{IL}	I_O=20uA; V_{CC}=2.0V	-	0	0.1	V
			I_O=20uA; V_{CC}=4.5V	-	0	0.1	V
			I_O=20uA; V_{CC}=6.0V	-	0	0.1	V
			I_O=6.0mA; V_{CC}=4.5V	-	0.15	0.26	V
			I_O=7.8mA; V_{CC}=6.0V	-	0.16	0.26	V
input leakage current	I_I	V_I=V_{CC} or GND; V_{CC}=6.0V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=6.0V; V_O=V_{CC} or GND		-	-	±1.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=6.0V		-	-	8.0	uA
input capacitance	C_I	-		-	3.5	-	pF
input/output capacitance	$C_{I/O}$	-		-	10	-	pF
AiP74HCT243							
HIGH-level input voltage	V_{IH}	V_{CC}=4.5V to 5.5V		2.0	1.6	-	V
LOW-level input voltage	V_{IL}	V_{CC}=4.5V to 5.5V		-	1.2	0.8	V
HIGH-level output voltage	V_{OH}	V_I = V_{IH} or V_{IL}; V_{CC}=4.5V	I_O=-20uA	4.4	4.5	-	V
			I_O=-6.0mA	3.98	4.32	-	V
LOW-level output voltage	V_{OL}	V_I = V_{IH} or V_{IL}; V_{CC}=4.5V	I_O=20uA	-	0	0.1	V
			I_O=6.0mA	-	0.15	0.26	V
input leakage current	I_I	V_I=V_{CC} or GND; V_{CC}=5.5V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=5.5V; V_O=V_{CC} or GND		-	-	±1.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=5.5V		-	-	8.0	uA
additional supply current	ΔI_{CC}	per input pin; V_I=V_{CC}-2.1V;	An or Bn inputs	-	-	144	uA

		other inputs at V_{CC} or GND; V_{CC}=4.5V to 5.5V; I_O=0A	$\overline{OE}$A, $\overline{OE}$B input	-	-	540	uA
input capacitance	C_I	-		-	3.5	-	pF
input/output capacitance	$C_{I/O}$	-		-	10	-	pF

3.3.2、DC Characteristics 2

(T_{amb}=-40℃ to +85℃, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
HIGH-level input voltage	V_{IH}	V_{CC}=2.0V		1.5	-	-	V
		V_{CC}=4.5V		3.15	-	-	V
		V_{CC}=6.0V		4.2	-	-	V
LOW-level input voltage	V_{IL}	V_{CC}=2.0V		-	-	0.5	V
		V_{CC}=4.5V		-	-	1.35	V
		V_{CC}=6.0V		-	-	1.8	V
HIGH-level output voltage	V_{OH}	V_I = V_{IH} or V_{IL}	I_O=-20uA; V_{CC}=2.0V	1.9	-	-	V
			I_O=-20uA; V_{CC}=4.5V	4.4	-	-	V
			I_O=-20uA; V_{CC}=6.0V	5.9	-	-	V
			I_O=-6.0mA; V_{CC}=4.5V	3.84	-	-	V
			I_O=-7.8mA; V_{CC}=6.0V	5.34	-	-	V
LOW-level output voltage	V_{OL}	V_I = V_{IH} or V_{IL}	I_O=20uA; V_{CC}=2.0V	-	-	0.1	V
			I_O=20uA; V_{CC}=4.5V	-	-	0.1	V
			I_O=20uA; V_{CC}=6.0V	-	-	0.1	V
			I_O=6.0mA; V_{CC}=4.5V	-	-	0.33	V
			I_O=7.8mA; V_{CC}=6.0V	-	-	0.33	V
input leakage current	I_I	V_I=V_{CC} or GND; V_{CC}=6.0V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=6.0V; V_O=V_{CC} or GND		-	-	±5.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=6.0V		-	-	80	uA
AiP74HCT243							
HIGH-level input voltage	V_{IH}	V_{CC}=4.5V to 5.5V		2.0	-	-	V
LOW-level input voltage	V_{IL}	V_{CC}=4.5V to 5.5V		-	-	0.8	V
HIGH-level output voltage	V_{OH}	V_I = V_{IH} or V_{IL}; V_{CC}=4.5V	I_O=-20uA	4.4	-	-	V
			I_O=-6.0mA	3.84	-	-	V
LOW-level output voltage	V_{OL}	V_I = V_{IH} or V_{IL}; V_{CC}=4.5V	I_O=20uA	-	-	0.1	V
			I_O=6.0mA	-	-	0.33	V
input leakage current	I_I	V_I=V_{CC} or GND; V_{CC}=5.5V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=5.5V; V_O=V_{CC} or GND		-	-	±5.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=5.5V		-	-	80	uA

additional supply current	ΔI_{CC}	per input pin; $V_I=V_{CC}$-2.1V; other inputs at V_{CC} or GND; V_{CC}=4.5V to 5.5V; I_O=0A	An or Bn inputs	-	-	180	uA
			$\overline{OE}$A, OEB input	-	-	675	uA

3.3.3、DC Characteristics 3

(T_{amb}=-40℃ to +125℃, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
HIGH-level input voltage	V_{IH}	V_{CC}=2.0V		1.5	-	-	V
		V_{CC}=4.5V		3.15	-	-	V
		V_{CC}=6.0V		4.2	-	-	V
LOW-level input voltage	V_{IL}	V_{CC}=2.0V		-	-	0.5	V
		V_{CC}=4.5V		-	-	1.35	V
		V_{CC}=6.0V		-	-	1.8	V
HIGH-level output voltage	V_{OH}	$V_I = V_{IH}$ or V_{IL}	I_O=-20uA; V_{CC}=2.0V	1.9	-	-	V
			I_O=-20uA; V_{CC}=4.5V	4.4	-	-	V
			I_O=-20uA; V_{CC}=6.0V	5.9	-	-	V
			I_O=-6.0mA; V_{CC}=4.5V	3.7	-	-	V
			I_O=-7.8mA; V_{CC}=6.0V	5.2	-	-	V
LOW-level output voltage	V_{OL}	$V_I = V_{IH}$ or V_{IL}	I_O=20uA; V_{CC}=2.0V	-	-	0.1	V
			I_O=20uA; V_{CC}=4.5V	-	-	0.1	V
			I_O=20uA; V_{CC}=6.0V	-	-	0.1	V
			I_O=6.0mA; V_{CC}=4.5V	-	-	0.4	V
			I_O=7.8mA; V_{CC}=6.0V	-	-	0.4	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; V_{CC}=6.0V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	$V_I=V_{IH}$ or V_{IL}; V_{CC}=6.0V; $V_O=V_{CC}$ or GND		-	-	±10	uA
supply current	I_{CC}	$V_I=V_{CC}$ or GND; I_O=0A; V_{CC}=6.0V		-	-	160	uA
AiP74HCT243							
HIGH-level input voltage	V_{IH}	V_{CC}=4.5V to 5.5V		2.0	-	-	V
LOW-level input voltage	V_{IL}	V_{CC}=4.5V to 5.5V		-	-	0.8	V
HIGH-level output voltage	V_{OH}	$V_I = V_{IH}$ or V_{IL}; V_{CC}=4.5V	I_O=-20uA	4.4	-	-	V
			I_O=-6.0mA	3.7	-	-	V
LOW-level output voltage	V_{OL}	$V_I = V_{IH}$ or V_{IL}; V_{CC}=4.5V	I_O=20uA	-	-	0.1	V
			I_O=6.0mA	-	-	0.4	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; V_{CC}=5.5V		-	-	±1.0	uA
OFF-state output current	I_{OZ}	$V_I=V_{IH}$ or V_{IL}; V_{CC}=5.5V; $V_O=V_{CC}$ or GND		-	-	±10	uA
supply current	I_{CC}	$V_I=V_{CC}$ or GND; I_O=0A; V_{CC}=5.5V		-	-	160	uA
additional supply current	ΔI_{CC}	per input pin; $V_I=V_{CC}$-2.1V;	An or Bn inputs	-	-	196	uA

		other inputs at V_{CC} or GND; V_{CC}=4.5V to 5.5V; I_O=0A	$\overline{OE}$A, $\overline{OE}$B input	-	-	735	uA

3.3.4、AC Characteristics 1

(T_{amb}=25℃, GND =0V, t_r=t_f=6ns; C_L=50pF, unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=2.0V	-	22	90	ns
			V_{CC}=4.5V	-	8	18	ns
			V_{CC}=5.0V; C_L=15pF	-	6	-	ns
			V_{CC}=6.0V	-	6	15	ns
$\overline{OE}$A, $\overline{OE}$B to An or Bn enable time	t_{en}	see Figure 6, 7	V_{CC}=2.0V	-	50	150	ns
			V_{CC}=4.5V	-	18	30	ns
			V_{CC}=6.0V	-	14	26	ns
$\overline{OE}$A, $\overline{OE}$B to An or Bn disable time	t_{dis}	see Figure 6, 7	V_{CC}=2.0V	-	61	150	ns
			V_{CC}=4.5V	-	22	30	ns
			V_{CC}=6.0V	-	18	26	ns
transition time	t_t	see Figure 5	V_{CC}=2.0V	-	14	60	ns
			V_{CC}=4.5V	-	5	12	ns
			V_{CC}=6.0V	-	4	10	ns
power dissipation capacitance	C_{PD}	per buffer; V_I=GND to V_{CC}		-	26	-	pF
AiP74HCT243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=4.5V	-	13	22	ns
			V_{CC}=5.0V; C_L=15pF	-	11	-	ns
$\overline{OE}$A, $\overline{OE}$B to An or Bn enable time	t_{en}	V_{CC}=4.5V; see Figure 6, 7		-	18	34	ns
$\overline{OE}$A, $\overline{OE}$B to An or Bn disable time	t_{dis}	V_{CC}=4.5V; see Figure 6, 7		-	23	35	ns
transition time	t_t	V_{CC}=4.5V; see Figure 5		-	5	12	ns
power dissipation capacitance	C_{PD}	per buffer; V_I=GND to V_{CC}-1.5V		-	34	-	pF

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL}.

[2] t_{en} is the same as t_{PZL} and t_{PZH}.

[3] t_{dis} is the same as t_{PLZ} and t_{PHZ}.

[4] t_t is the same as t_{THL} and t_{TLH}.

[5] C_{PD} is used to determine the dynamic power dissipation (P_D in uW).

$P_D=C_{PD}\times V_{CC}^2\times f_i+\sum(C_L\times V_{CC}^2\times f_o)$ 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;

$\sum(C_L \times V_{CC}^2 \times f_o)$=sum of outputs.

3.3.5、AC Characteristics 2

(T_{amb}=-40℃ to +85℃, GND=0V, t_r=t_f=6ns; C_L=50pF, unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=2.0V	-	-	115	ns
			V_{CC}=4.5V	-	-	23	ns
			V_{CC}=6.0V	-	-	20	ns
$\overline{OE}$A, OEB to An or Bn enable time	t_{en}	see Figure 6, 7	V_{CC}=2.0V	-	-	190	ns
			V_{CC}=4.5V	-	-	38	ns
			V_{CC}=6.0V	-	-	33	ns
$\overline{OE}$A, OEB to An or Bn disable time	t_{dis}	see Figure 6, 7	V_{CC}=2.0V	-	-	205	ns
			V_{CC}=4.5V	-	-	41	ns
			V_{CC}=6.0V	-	-	35	ns
transition time	t_t	see Figure 5	V_{CC}=2.0V	-	-	75	ns
			V_{CC}=4.5V	-	-	15	ns
			V_{CC}=6.0V	-	-	13	ns
AiP74HCT243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=4.5V	-	-	28	ns
$\overline{OE}$A, OEB to An or Bn enable time	t_{en}	V_{CC}=4.5V; see Figure 6, 7		-	-	43	ns
$\overline{OE}$A, OEB to An or Bn disable time	t_{dis}	V_{CC}=4.5V; see Figure 6, 7		-	-	44	ns
transition time	t_t	V_{CC}=4.5V; see Figure 5		-	-	15	ns

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL}.

[2] t_{en} is the same as t_{PZL} and t_{PZH}.

[3] t_{dis} is the same as t_{PLZ} and t_{PHZ}.

[4] t_t is the same as t_{THL} and t_{TLH}.

3.3.6、AC Characteristics 3

(T_{amb}=-40℃ to +125℃, GND=0V, t_r=t_f=6ns; C_L=50pF, unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
AiP74HC243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=2.0V	-	-	135	ns
			V_{CC}=4.5V	-	-	27	ns
			V_{CC}=6.0V	-	-	23	ns
$\overline{OE}$A, OEB to An or Bn enable time	t_{en}	see Figure 6, 7	V_{CC}=2.0V	-	-	225	ns
			V_{CC}=4.5V	-	-	45	ns
			V_{CC}=6.0V	-	-	38	ns
$\overline{OE}$A, OEB to An or Bn disable time	t_{dis}	see Figure 6, 7	V_{CC}=2.0V	-	-	250	ns
			V_{CC}=4.5V	-	-	50	ns
			V_{CC}=6.0V	-	-	43	ns
transition time	t_t	see Figure 5	V_{CC}=2.0V	-	-	90	ns
			V_{CC}=4.5V	-	-	18	ns
			V_{CC}=6.0V	-	-	15	ns
AiP74HCT243							
An to Bn or Bn to An propagation delay	t_{pd}	see Figure 5	V_{CC}=4.5V	-	-	33	ns
$\overline{OE}$A, OEB to An or Bn enable time	t_{en}	V_{CC}=4.5V; see Figure 6, 7		-	-	51	ns
$\overline{OE}$A, OEB to An or Bn disable time	t_{dis}	V_{CC}=4.5V; see Figure 6, 7		-	-	53	ns
transition time	t_t	V_{CC}=4.5V; see Figure 5		-	-	18	ns

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL}.

[2] t_{en} is the same as t_{PZL} and t_{PZH}.

[3] t_{dis} is the same as t_{PLZ} and t_{PHZ}.

[4] t_t is the same as t_{THL} and t_{TLH}.

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4、Testing Circuit

4.1、AC Testing Circuit

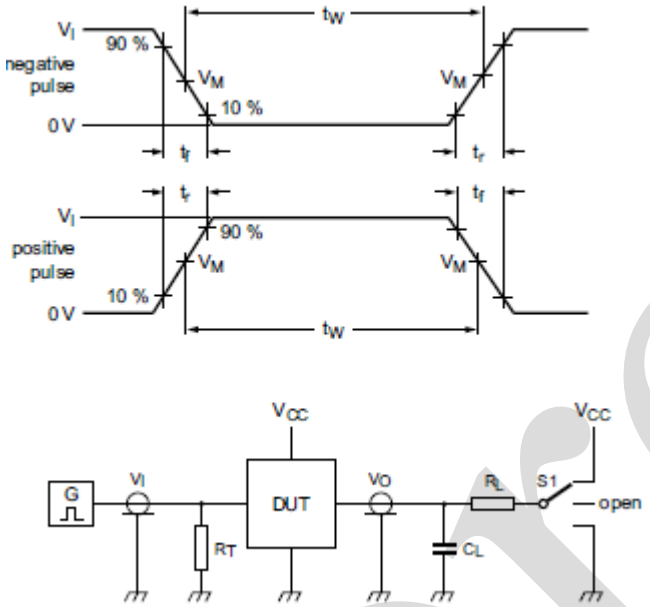


Figure 4. Test circuit for measuring switching times

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 the output impedance Z_o of the pulse generator.

S1=Test selection switch.

4.2、AC Testing Waveforms

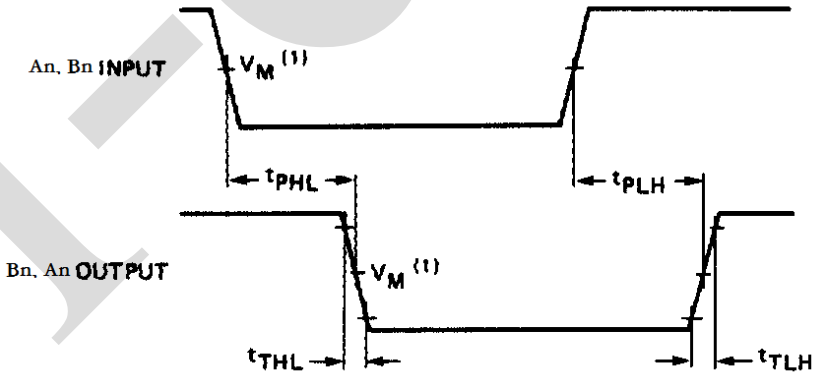


Figure 5. Input (An, Bn) to output (Bn, An) propagation delays and output transition times

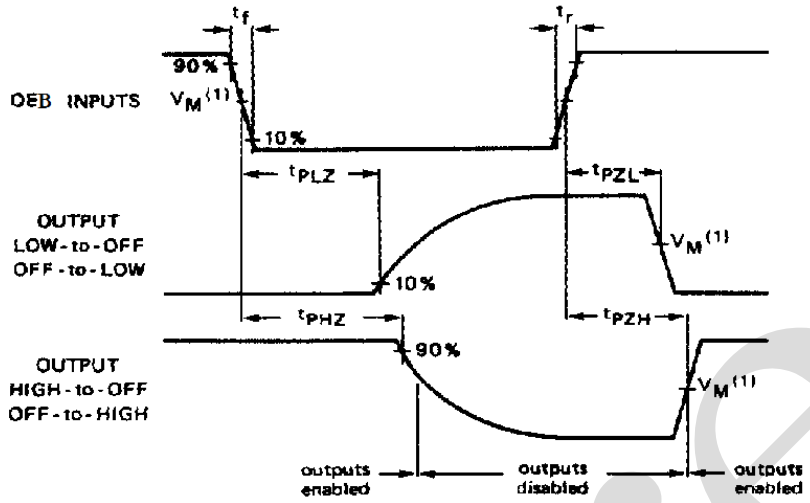


Figure 6. Waveforms showing the 3-state enable and disable times for input OEB

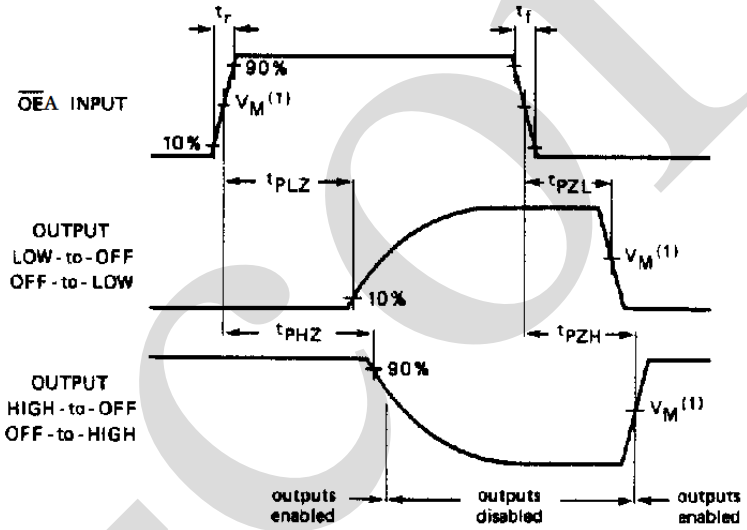


Figure 7. Waveforms showing the 3-state enable and disable times for input $\overline{OEA}$

4.3、Measurement Points

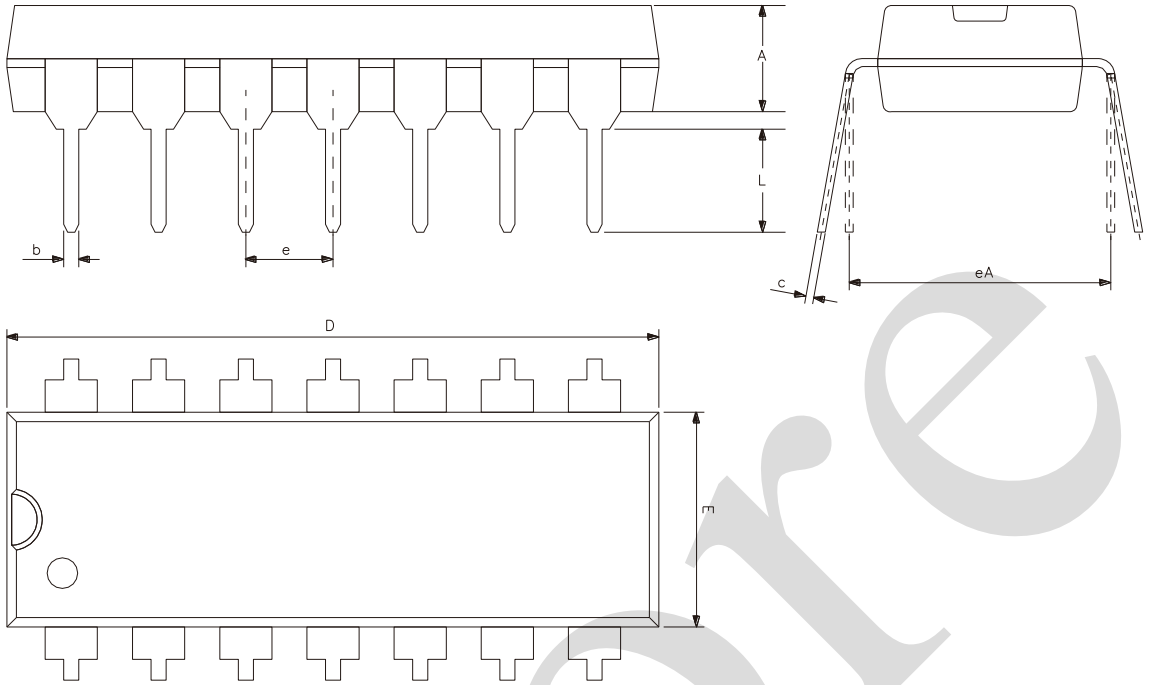
Type	Input	Output
	V_M	V_M
AiP74HC243	$0.5\times V_{CC}$	$0.5\times V_{CC}$
AiP74HCT243	1.3V	1.3V

4.4、Test Data

Type	Input		Load		S1 position		
	V_I	t_r , t_f	C_L	R_L	t_{PHL}, t_{PLH}	t_{PZH}, t_{PHZ}	t_{PZL}, t_{PLZ}
AiP74HC243	V_{CC}	6ns	15pF, 50pF	1kΩ	open	GND	V_{CC}
AiP74HCT243	3V	6ns	15pF, 50pF	1kΩ	open	GND	V_{CC}

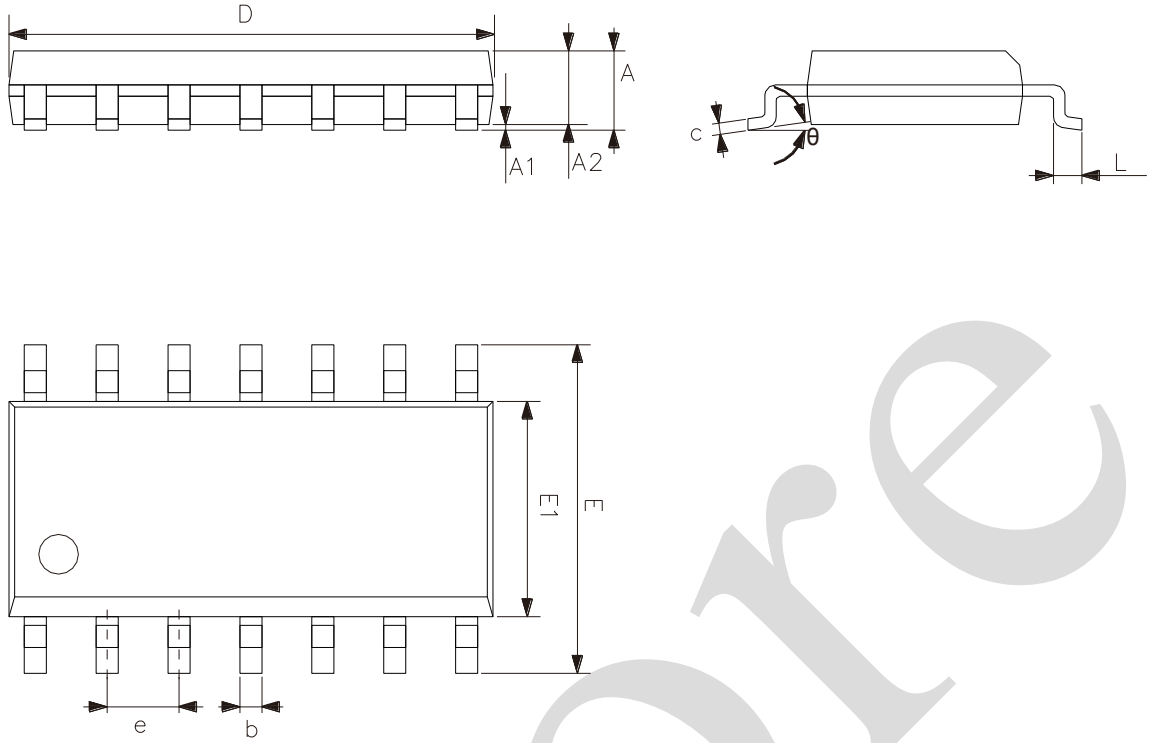
5、Package Information

5.1、DIP14



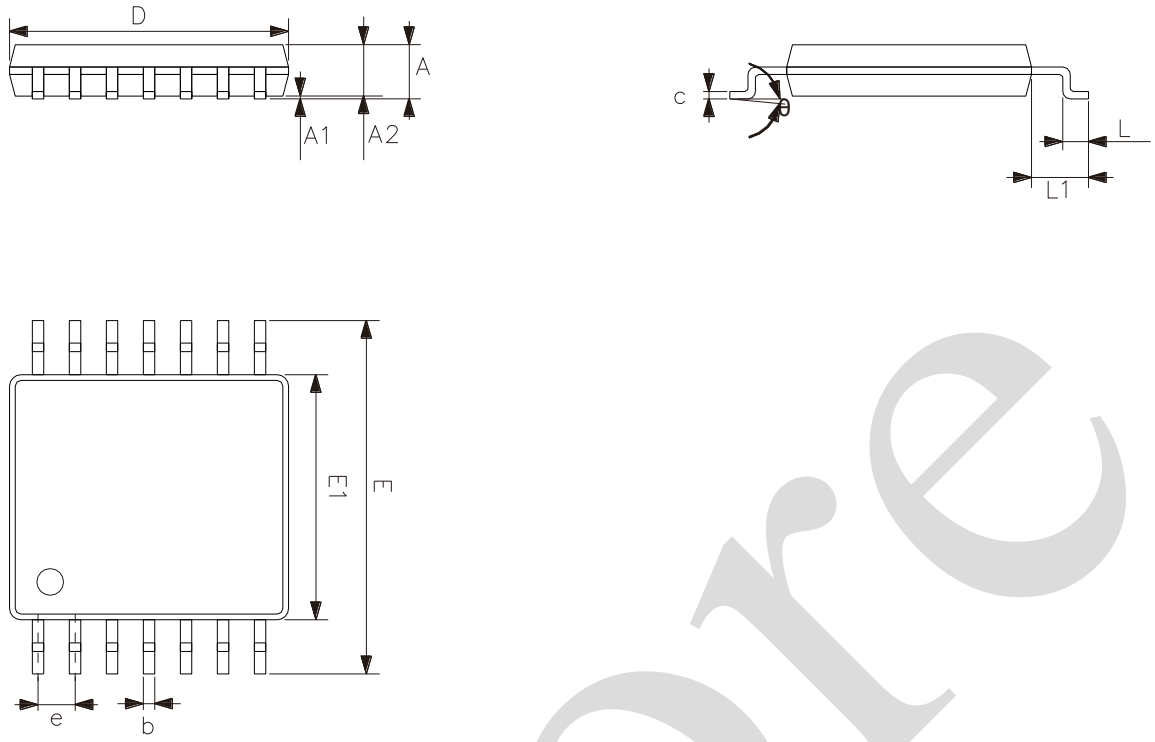
Symbol	Dimensions (mm)	
	Min.	Max.
A	3.05	3.60
b	0.33	0.56
c	0.20	0.36
D	18.80	19.40
E	6.20	6.60
e	2.54	
eA	7.62	10.90
L	2.92	-

5.2、SOP14



Symbol	Dimensions (mm)	
	Min.	Max.
A	1.50	1.75
A1	0.05	0.25
A2	1.30	-
b	0.33	0.50
c	0.19	0.25
D	8.43	8.76
E	5.80	6.25
E1	3.75	4.00
e	1.27	
L	0.40	0.89
θ	0 °	8 °

5.3、TSSOP14



Symbol	Dimensions (mm)	
	Min.	Max.
A	-	1.20
A1	0.05	0.15
A2	0.80	1.05
b	0.19	0.30
c	0.09	0.20
D	4.90	5.10
E1	4.30	4.50
E	6.20	6.60
e	0.65	
L	0.45	0.75
L1	1.00	
θ	0°	8°

6、Statements And Notes

6.1、The name and content of Hazardous substances or Elements in the product

Part name	Hazardous substances or Elements									
	Lead and lead compounds	Mercury and mercury compounds	Cadmium and cadmium compounds	Hexavalent chromium compounds	Polybrominated biphenyls	Polybrominated biphenyl ethers	Dibutyl phthalate	Butylbenzyl phthalate	Di-2-ethylhexyl phthalate	Diisobutyl phthalate
Lead frame	○	○	○	○	○	○	○	○	○	○
Plastic resin	○	○	○	○	○	○	○	○	○	○
Chip	○	○	○	○	○	○	○	○	○	○
The lead	○	○	○	○	○	○	○	○	○	○
Plastic sheet installed	○	○	○	○	○	○	○	○	○	○
explanation	○：Indicates that the content of hazardous substances or elements in the detection limit of the following the SJ/T11363-2006 standard. ×：Indicates that the content of hazardous substances or elements exceeding the SJ/T11363-2006 Standard limit requirements.									

6.2、Notes

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