



AiP74LV4051 1-of-8 Analog Multiplexer/Demultiplexer

Product Specification

Specification Revision History:

Version	Date	Description
2024-04-A0	2024-04	New
2024-08-A1	2024-08	Modify the parameters
2025-12-A2	2025-12	Add DHVQFN16 package form



Contents

1、General Description.....	3
2、Block Diagram And Pin Description	5
2.1、Block Diagram	5
2.2、Pin Configurations.....	6
2.3、Pin Description.....	6
2.4、Function Table.....	7
3、Electrical Parameter	7
3.1、Absolute Maximum Ratings.....	7
3.2、Recommended Operating Conditions.....	7
3.3、Electrical Characteristics.....	8
3.3.1、DC Characteristics 1	8
3.3.2、DC Characteristics 2.....	9
3.3.3、AC Characteristics 1.....	11
3.3.4、AC Characteristics 2.....	12
3.3.5、AC Characteristics 3.....	13
4、Testing Circuit	14
4.1、AC Testing Circuit 1	14
4.2、AC Testing Waveforms.....	14
4.3、AC Testing Circuit 2	15
4.4、On Resistance Test Circuit.....	18
4.5、DC Testing Circuit	18
4.6、Measurement Points	19
4.7、Test Data	19
5、Package Information	20
5.1、DIP16	20
5.2、SOP16	21
5.3、TSSOP16.....	22
5.4、DHVQFN16	23
6、Statements And Notes	24
6.1、The name and content of Hazardous substances or Elements in the product	24
6.2、Notes	24



1、General Description

The AiP74LV4051 is a low-voltage CMOS device and is pin and function compatible with the AiP74HC/HCT4051.

The AiP74LV4051 is an 8-channel analog multiplexer/demultiplexer with three digital select inputs (S0 to S2), an active-LOW enable input (E), eight independent inputs/outputs (Y0 to Y7) and a common input/output (Z).

Features:

- Optimized for low-voltage applications: 2.0V to 6.0V
- Accepts TTL input levels between $V_{CC}=2.7V$ and $V_{CC}=3.6V$
- Low ON resistance:
 - 110 Ω (typical) at $V_{CC}-V_{EE}=2.0V$
 - 90 Ω (typical) at $V_{CC}-V_{EE}=3.0V$
 - 60 Ω (typical) at $V_{CC}-V_{EE}=4.5V$
- Logic level translation: to enable 3V logic to communicate with $\pm 3V$ analog signals
- Typical 'break before make' built in
- Specified from -40°C to +125°C
- Packaging information: DIP16/SOP16/TSSOP16/DHVQFN16



Ordering Information:

Tube packing specifications:

Part number	Packaging form	Marking code	Tube quantity	Boxed tube quantity	Boxed quantity	Notes
AiP74LV4051DA16.TB	DIP16	74LV4051	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm
AiP74LV4051SA16.TB	SOP16	74LV4051	50 PCS/tube	200 tube/box	10000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing: 1.27mm
AiP74LV4051TA16.TB	TSSOP16	74LV4051	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
AiP74LV4051SA16.TR	SOP16	74LV4051	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing: 1.27mm
AiP74LV4051TA16.TR	TSSOP16	74LV4051	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm
AiP74LV4051QE16.TR	DHVQFN16	74LV4051	3000 PCS/reel	3000 PCS/box	Dimensions of plastic enclosure: 3.5mm×2.5mm Pin spacing: 0.50mm

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



2、Block Diagram And Pin Description

2.1、Block Diagram

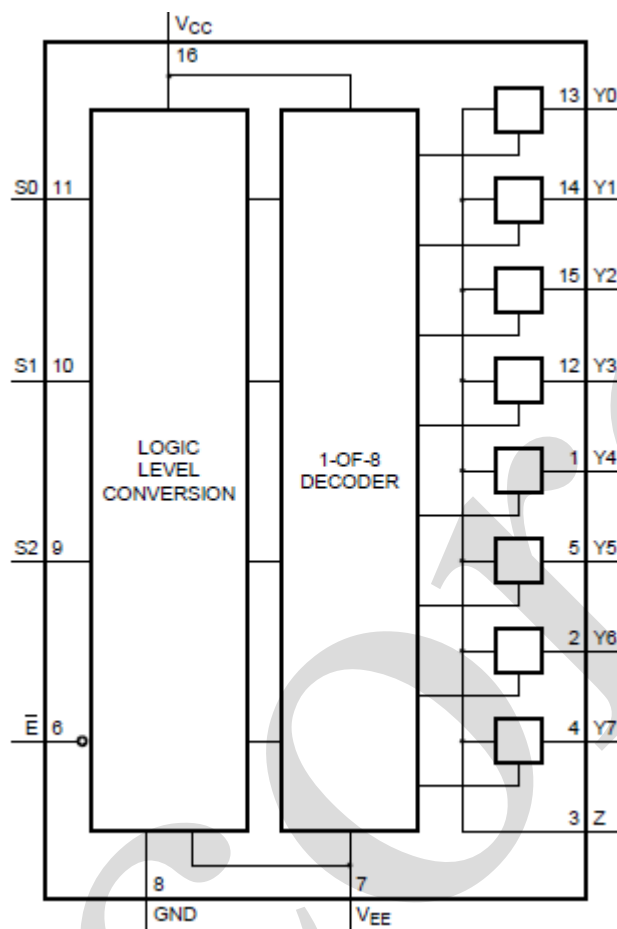


Figure 1. Functional diagram

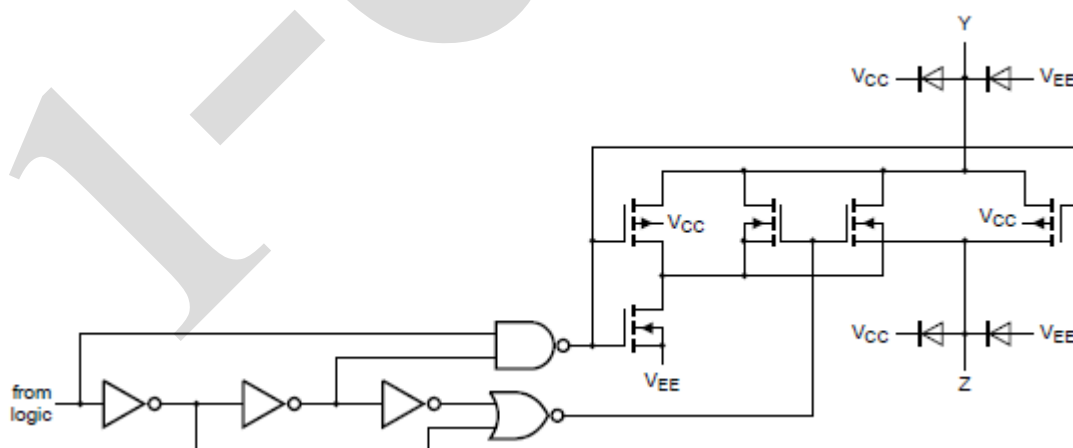
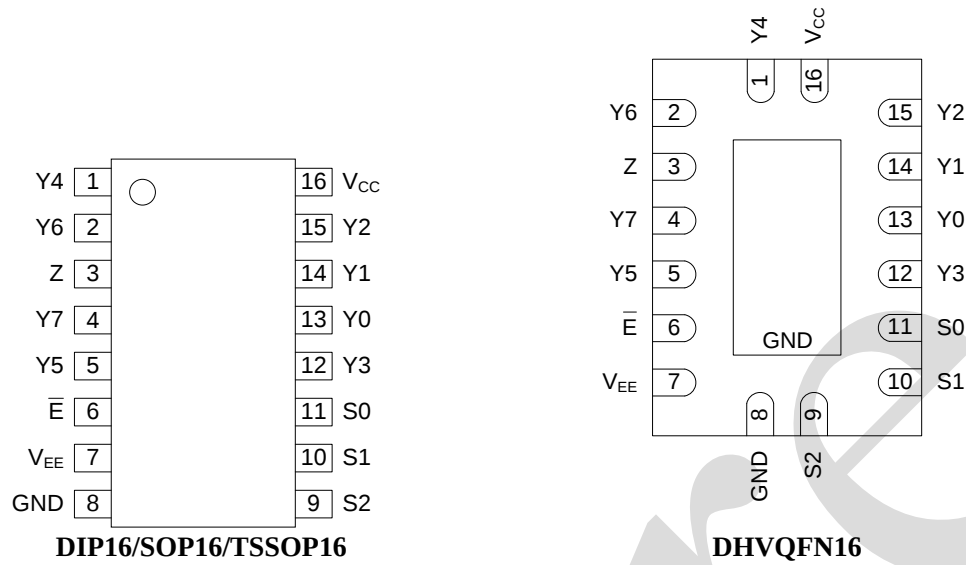


Figure 2. Schematic diagram (one switch)



2.2、Pin Configurations



2.3、Pin Description

Pin No.	Pin Name	Description
1	Y4	independent input or output
2	Y6	independent input or output
3	Z	common output or input
4	Y7	independent input or output
5	Y5	independent input or output
6	$\bar{E}$	enable input (active LOW)
7	V_{EE}	supply voltage
8	GND	ground (0V)
9	S2	select input
10	S1	select input
11	S0	select input
12	Y3	independent input or output
13	Y0	independent input or output
14	Y1	independent input or output
15	Y2	independent input or output
16	V_{CC}	supply voltage



2.4、Function Table

Input				Channel ON
$\bar{E}$	S2	S1	S0	
L	L	L	L	Y0 to Z
L	L	L	H	Y1 to Z
L	L	H	L	Y2 to Z
L	L	H	H	Y3 to Z
L	H	L	L	Y4 to Z
L	H	L	H	Y5 to Z
L	H	H	L	Y6 to Z
L	H	H	H	Y7 to Z
H	X	X	X	switches off

Note: H=HIGH voltage level; L=LOW voltage level; X=don't care.

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
switch clamping current	I _{SK}	V _{SW} < -0.5V or V _{SW} >V _{CC} +0.5V		-	±20	mA
switch current	I _{SW}	V _{SW} > -0.5V or V _{SW} <V _{CC} +0.5V; source or sink current		-	±25	mA
storage temperature	T _{stg}	-		-65	+150	°C
total power dissipation	P _{tot}	-		-	500	mW
soldering temperature	T _L	10s	DIP	245		°C
			SOP/TSSOP/DHVQFN	260		

3.2、Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
supply voltage	V_{CC}	-	2	3.3	6	V
input voltage	V_I	-	0	-	V_{CC}	V
switch voltage	V_{SW}	-	0	-	V_{CC}	V
ambient temperature	T_{amb}	in free air	-40	-	+125	°C
input transition rise and fall rate	$\Delta t/\Delta V$	$V_{CC}=2.0V$ to $2.7V$	-	-	200	ns/V
		$V_{CC}=2.7V$ to $6.0V$	-	-	100	ns/V



3.3、Electrical Characteristics

3.3.1、DC Characteristics 1

($T_{amb} = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions (V)		Min.	Typ.	Max.	Unit
HIGH-level input voltage	V_{IH}	$V_{CC}=2.0\text{V}$		1.4	-	-	V
		$V_{CC}=2.7\text{V to }3.6\text{V}$		2.0	-	-	V
		$V_{CC}=4.5\text{V}$		3.15	-	-	V
		$V_{CC}=6.0\text{V}$		4.20	-	-	V
LOW-level input voltage	V_{IL}	$V_{CC}=2.0\text{V}$		-	-	0.5	V
		$V_{CC}=2.7\text{V to }3.6\text{V}$		-	-	0.7	V
		$V_{CC}=4.5\text{V}$		-	-	1.15	V
		$V_{CC}=6.0\text{V}$		-	-	1.60	V
input leakage current	I_I	$V_I = V_{CC}$ or GND	$V_{CC}=3.6\text{V}$	-	-	1.0	μA
			$V_{CC}=6.0\text{V}$	-	-	2.0	μA
OFF-state leakage current	$I_{S(OFF)}$	$V_I = V_{IH}$ or V_{IL} ; see Figure 12	$V_{CC}=3.6\text{V}$	-	-	1.0	μA
			$V_{CC}=6.0\text{V}$	-	-	2.0	μA
ON-state leakage current	$I_{S(ON)}$	$V_I = V_{IH}$ or V_{IL} ; see Figure 13	$V_{CC}=3.6\text{V}$	-	-	1.0	μA
			$V_{CC}=6.0\text{V}$	-	-	2.0	μA
supply current	I_{CC}	$V_I = V_{CC}$ or GND; $I_O = 0\text{A}$	$V_{CC}=3.6\text{V}$	-	-	20	μA
			$V_{CC}=6.0\text{V}$	-	-	40	μA
additional supply current	ΔI_{CC}	per input; $V_I = V_{CC} - 0.6\text{V}$; $V_{CC} = 2.7\text{V to }3.6\text{V}$		-	-	500	μA
ON resistance (peak)	$R_{ON(peak)}$	$V_I = 0\text{V to }V_{CC} - V_{EE}$	$V_{CC} = 2.0\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	290	650	Ω
			$V_{CC} = 2.7\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	150	300	Ω
			$V_{CC} = 3.0\text{V to }3.6\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	100	200	Ω
			$V_{CC} = 4.5\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	80	160	Ω
			$V_{CC} = 6.0\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	65	130	Ω
ON resistance mismatch between channels	ΔR_{ON}	$V_I = 0\text{V to }V_{CC} - V_{EE}$	$V_{CC} = 2.0\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	5	-	Ω
			$V_{CC} = 2.7\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	4	-	Ω
			$V_{CC} = 3.0\text{V to }3.6\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	4	-	Ω
			$V_{CC} = 4.5\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	3	-	Ω
			$V_{CC} = 6.0\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	2	-	Ω
ON resistance (rail)	$R_{ON(rail)}$	$V_I = \text{GND}$	$V_{CC} = 2.0\text{V}$; $I_{SW} = 1000\mu\text{A}$	-	110	235	Ω



			$V_{CC}=2.7V$; $I_{SW}=1000uA$	-	85	170	Ω
			$V_{CC}=3.0V$ to $3.6V$; $I_{SW}=1000uA$	-	65	130	Ω
			$V_{CC}=4.5V$; $I_{SW}=1000uA$	-	60	120	Ω
			$V_{CC}=6.0V$; $I_{SW}=1000uA$	-	50	100	Ω
		$V_I=V_{CC}-V_{EE}$	$V_{CC}=2.0V$; $I_{SW}=1000uA$	-	150	320	Ω
			$V_{CC}=2.7V$; $I_{SW}=1000uA$	-	110	220	Ω
			$V_{CC}=3.0V$ to $3.6V$; $I_{SW}=1000uA$	-	85	170	Ω
			$V_{CC}=4.5V$; $I_{SW}=1000uA$	-	70	140	Ω
			$V_{CC}=6.0V$; $I_{SW}=1000uA$	-	60	120	Ω

Note:

[1] Typical values are measured at $T_{amb}=25^{\circ}C$.

3.3.2、DC Characteristics 2

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

Parameter	Symbol	Conditions (V)		Min.	Typ.	Max.	Unit
HIGH-level input voltage	V_{IH}	$V_{CC}=2.0V$		1.4	-	-	V
		$V_{CC}=2.7V$ to $3.6V$		2.0	-	-	V
		$V_{CC}=4.5V$		3.15	-	-	V
		$V_{CC}=6.0V$		4.20	-	-	V
LOW-level input voltage	V_{IL}	$V_{CC}=2.0V$		-	-	0.5	V
		$V_{CC}=2.7V$ to $3.6V$		-	-	0.7	V
		$V_{CC}=4.5V$		-	-	1.15	V
		$V_{CC}=6.0V$		-	-	1.60	V
input leakage current	I_I	$V_I=V_{CC}$ or GND	$V_{CC}=3.6V$	-	-	2.0	μA
			$V_{CC}=6.0V$	-	-	4.0	μA
OFF-state leakage current	$I_{S(OFF)}$	$V_I=V_{IH}$ or V_{IL} ; see Figure 12	$V_{CC}=3.6V$	-	-	2.0	μA
			$V_{CC}=6.0V$	-	-	4.0	μA
ON-state leakage current	$I_{S(ON)}$	$V_I=V_{IH}$ or V_{IL} ; see Figure 13	$V_{CC}=3.6V$	-	-	2.0	μA
			$V_{CC}=6.0V$	-	-	4.0	μA
supply current	I_{CC}	$V_I=V_{CC}$ or GND; $I_O=0A$	$V_{CC}=3.6V$	-	-	40	μA
			$V_{CC}=6.0V$	-	-	80	μA
additional supply current	ΔI_{CC}	per input; $V_I=V_{CC}-0.6V$; $V_{CC}=2.7V$ to $3.6V$		-	-	850	μA
ON resistance (peak)	$R_{ON(peak)}$	$V_I=0V$ to $V_{CC}-V_{EE}$	$V_{CC}=2.0V$; $I_{SW}=1000uA$	-	-	750	Ω



ON resistance (rail)	$R_{ON(rail)}$		$V_{CC}=2.7V;$ $I_{SW}=1000uA$	-	-	350	Ω
			$V_{CC}=3.0V$ to $3.6V;$ $I_{SW}=1000uA$	-	-	250	Ω
			$V_{CC}=4.5V;$ $I_{SW}=1000uA$	-	-	200	Ω
			$V_{CC}=6.0V;$ $I_{SW}=1000uA$	-	-	150	Ω
		$V_I=GND$	$V_{CC}=2.0V;$ $I_{SW}=1000uA$	-	-	270	Ω
			$V_{CC}=2.7V;$ $I_{SW}=1000uA$	-	-	200	Ω
			$V_{CC}=3.0V$ to $3.6V;$ $I_{SW}=1000uA$	-	-	150	Ω
			$V_{CC}=4.5V;$ $I_{SW}=1000uA$	-	-	140	Ω
			$V_{CC}=6.0V;$ $I_{SW}=1000uA$	-	-	120	Ω
		$V_I=V_{CC}-V_{EE}$	$V_{CC}=2.0V;$ $I_{SW}=1000uA$	-	-	370	Ω
			$V_{CC}=2.7V;$ $I_{SW}=1000uA$	-	-	250	Ω
			$V_{CC}=3.0V$ to $3.6V;$ $I_{SW}=1000uA$	-	-	205	Ω
			$V_{CC}=4.5V;$ $I_{SW}=1000uA$	-	-	150	Ω
			$V_{CC}=6.0V;$ $I_{SW}=1000uA$	-	-	135	Ω

Note:

[1] Typical values are measured at $T_{amb}=25^{\circ}C$.



3.3.3、AC Characteristics 1

($T_{amb}=-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
propagation delay	t _{pd}	Yn to Z, Z to Yn; see Figure 4	V _{CC} =2.0V	-	9	17	ns
			V _{CC} =2.7V	-	6	13	ns
			V _{CC} =3.0V to 3.6V	-	5	10	ns
			V _{CC} =4.5V	-	4	9	ns
			V _{CC} =6.0V	-	3	8	ns
enable time	t _{en}	$\bar{E}$ to Yn, Z; see Figure 5	V _{CC} =2.0V	-	49	94	ns
			V _{CC} =2.7V	-	36	69	ns
			V _{CC} =3.0V to 3.6V; C _L =15pF	-	23	-	ns
			V _{CC} =3.0V to 3.6V	-	28	55	ns
			V _{CC} =4.5V	-	25	47	ns
			V _{CC} =6.0V	-	19	38	ns
		Sn to Yn ,see Figure 5	V _{CC} =2.0V	-	48	90	ns
			V _{CC} =2.7V	-	35	66	ns
			V _{CC} =3.0V to 3.6V; C _L =15pF	-	22	-	ns
			V _{CC} =3.0V to 3.6V	-	27	53	ns
			V _{CC} =4.5V	-	24	45	ns
			V _{CC} =6.0V	-	18	34	ns
disable time	t _{dis}	$\bar{E}$ to Yn; see Figure 5	V _{CC} =2.0V	-	51	93	ns
			V _{CC} =2.7V	-	38	69	ns
			V _{CC} =3.0V to 3.6V; C _L =15pF	-	25	-	ns
			V _{CC} =3.0V to 3.6V	-	30	56	ns
			V _{CC} =4.5V	-	29	48	ns
			V _{CC} =6.0V	-	21	37	ns
		Sn to Yn; see Figure 5	V _{CC} =2.0V	-	41	73	ns
			V _{CC} =2.7V	-	31	54	ns
			V _{CC} =3.0V to 3.6V; C _L =15pF	-	20	-	ns
			V _{CC} =3.0V to 3.6V	-	24	44	ns
			V _{CC} =4.5V	-	22	37	ns
			V _{CC} =6.0V	-	17	29	ns

Note:

[1] Typical values are measured at $T_{amb}=25^{\circ}\text{C}$.

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

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

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

[3] Typical values are measured at nominal supply voltage ($V_{CC}=3.3\text{V}$).



3.3.4、AC Characteristics 2

($T_{amb} = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
propagation delay	t_{pd}	Yn to Z, Z to Yn; see Figure 4	$V_{CC}=2.0V$	-	-	20	ns
			$V_{CC}=2.7V$	-	-	15	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	12	ns
			$V_{CC}=4.5V$	-	-	10	ns
			$V_{CC}=6.0V$	-	-	8	ns
enable time	t_{en}	$\overline{E}$ to Yn, Z; see Figure 5	$V_{CC}=2.0V$	-	-	112	ns
			$V_{CC}=2.7V$	-	-	83	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	66	ns
			$V_{CC}=4.5V$	-	-	56	ns
			$V_{CC}=6.0V$	-	-	43	ns
		Sn to Yn; see Figure 5	$V_{CC}=2.0V$	-	-	107	ns
			$V_{CC}=2.7V$	-	-	79	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	63	ns
			$V_{CC}=4.5V$	-	-	54	ns
			$V_{CC}=6.0V$	-	-	41	ns
disable time	t_{dis}	$\overline{E}$ to Yn, Z; see Figure 5	$V_{CC}=2.0V$	-	-	110	ns
			$V_{CC}=2.7V$	-	-	82	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	66	ns
			$V_{CC}=4.5V$	-	-	56	ns
			$V_{CC}=6.0V$	-	-	44	ns
		Sn to Yn; see Figure 5	$V_{CC}=2.0V$	-	-	90	ns
			$V_{CC}=2.7V$	-	-	67	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	54	ns
			$V_{CC}=4.5V$	-	-	46	ns
			$V_{CC}=6.0V$	-	-	36	ns

Note:

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

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

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



3.3.5、AC Characteristics 3

($T_{amb}=25^{\circ}\text{C}$, $GND=0V$, $t_r=t_f\leq 6.0\text{ns}$, $V_I=GND$ or V_{CC} , unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
total harmonic distortion	THD	f_i =1kHz; C_L =50pF; R_L =10k Ω ; see Figure 8	V_{CC} =3.0V; V_I =2.75V(p-p)	-	0.8	-	%
			V_{CC} =6.0V; V_I =5.5V(p-p)	-	0.4	-	%
		f_i =10kHz; C_L =50pF; R_L =10k Ω ; see Figure 8	V_{CC} =3.0V; V_I =2.75V(p-p)	-	2.4	-	%
			V_{CC} =6.0V; V_I =5.5V(p-p)	-	1.2	-	%
-3dB frequency response	$f_{(-3dB)}$	C_L =50pF; R_L =50 Ω ; see Figure 6	V_{CC} =3.0V	-	180	-	MHz
			V_{CC} =6.0V	-	200	-	MHz
isolation (OFF-state)	α_{iso}	f_i =1MHz; C_L =50pF; R_L =600 Ω ; see Figure 7	V_{CC} =3.0V	-	-50	-	dB
			V_{CC} =6.0V	-	-50	-	dB
crosstalk voltage	V_{ct}	between digital inputs and switch; f_i =1MHz; C_L =50pF; R_L =600 Ω ; see Figure 9	V_{CC} =3.0V	-	0.11	-	V
			V_{CC} =6.0V	-	0.12	-	V
crosstalk	Xtalk	between switches; f_i =1MHz; C_L =50pF; R_L =600 Ω ; see Figure 10	V_{CC} =3.0V	-	-60	-	dB
			V_{CC} =6.0V	-	-60	-	dB

Note:

[1] To obtain 0dBm level at output for 1MHz (0dBm=1mW into 50 Ω), adjust f_i voltage.

[2] To obtain 0dBm level at output for 1MHz (0dBm=1mW into 600 Ω), adjust f_i voltage.



4、Testing Circuit

4.1、AC Testing Circuit 1

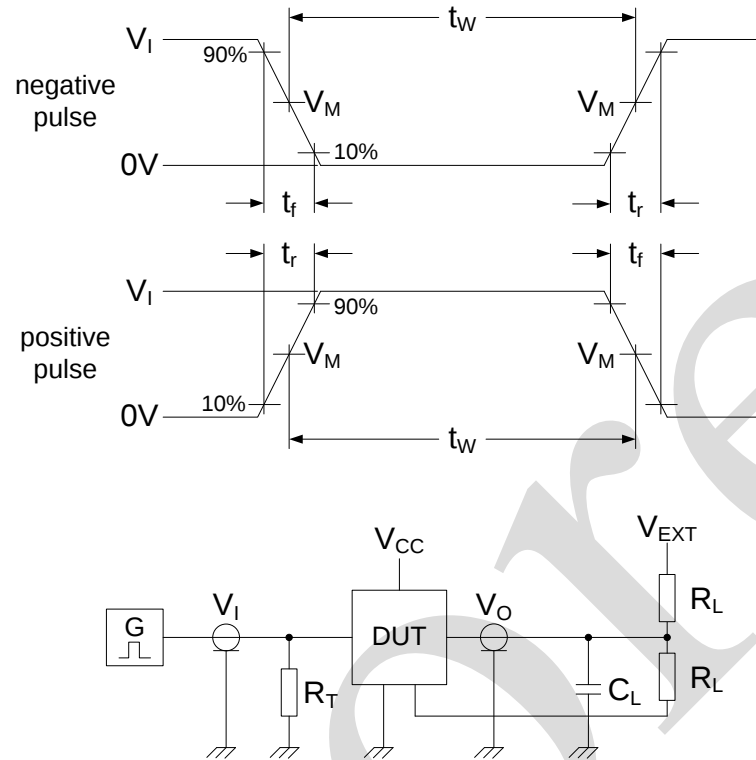


Figure 3. Test circuit for switching times

Definitions for test circuit:

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.

R_L =Load resistance.

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

4.2、AC Testing Waveforms

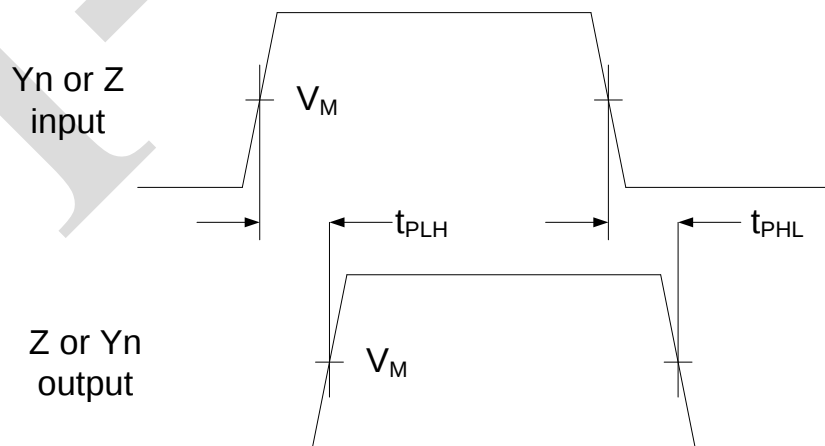
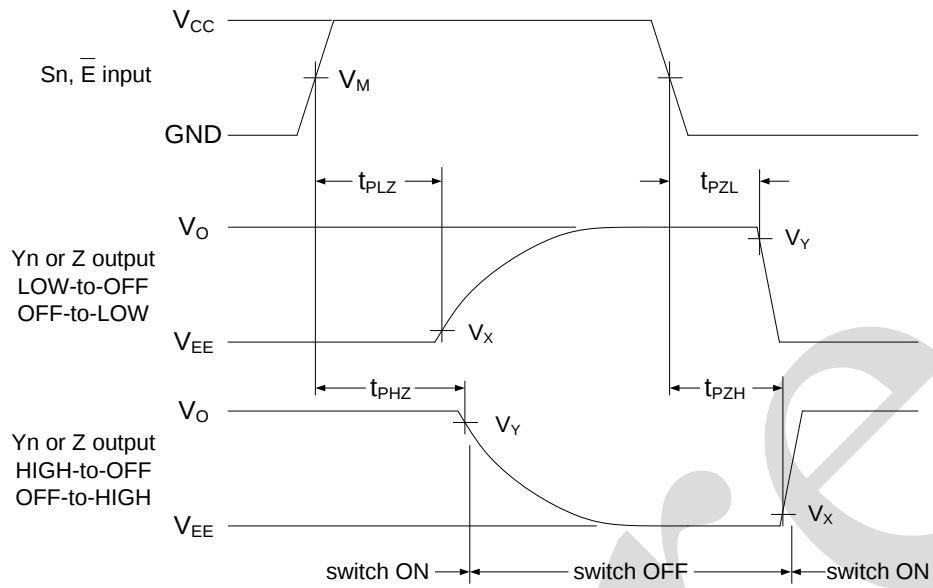
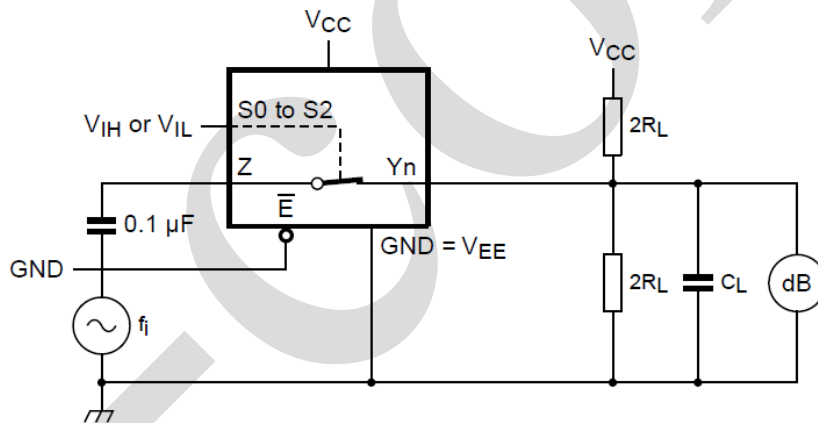


Figure 4. Yn to Z, Z to Yn propagation delays



4.3、AC Testing Circuit 2



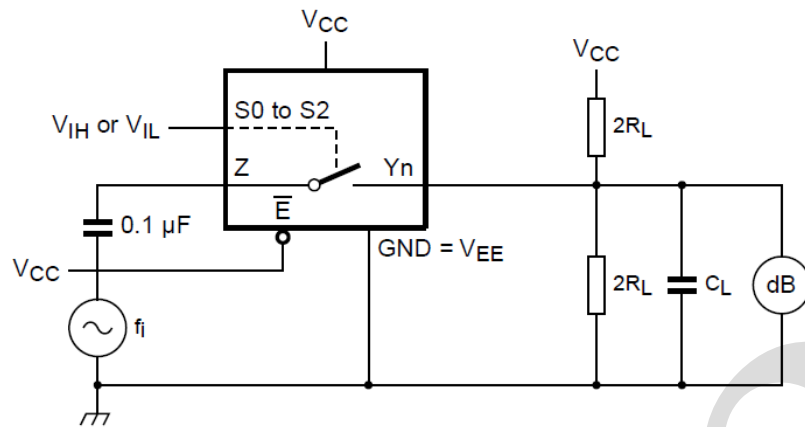


Figure 7. Test circuit for measuring isolation (OFF-state)

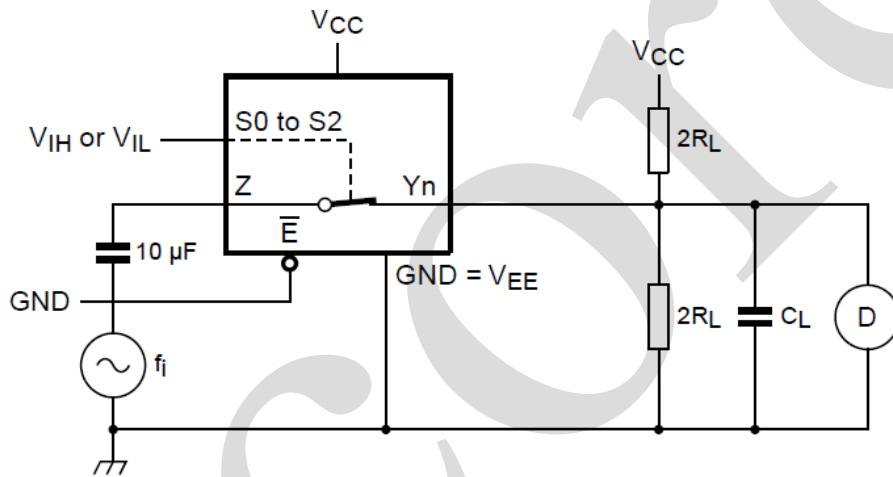
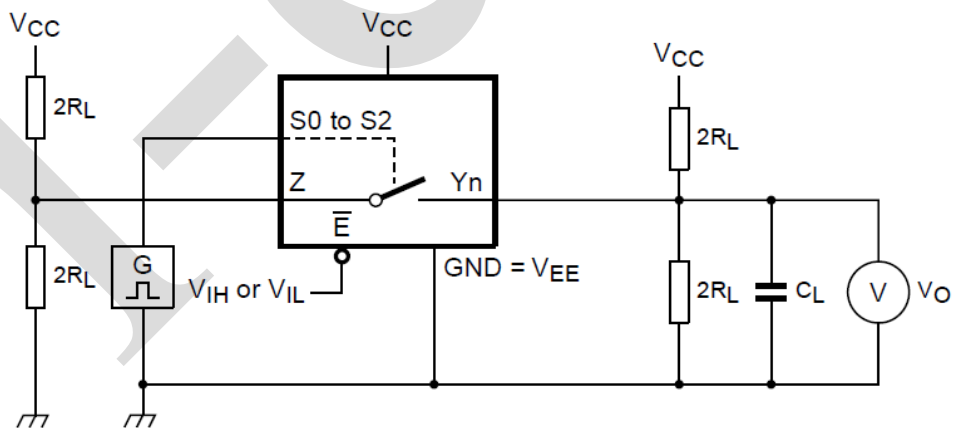
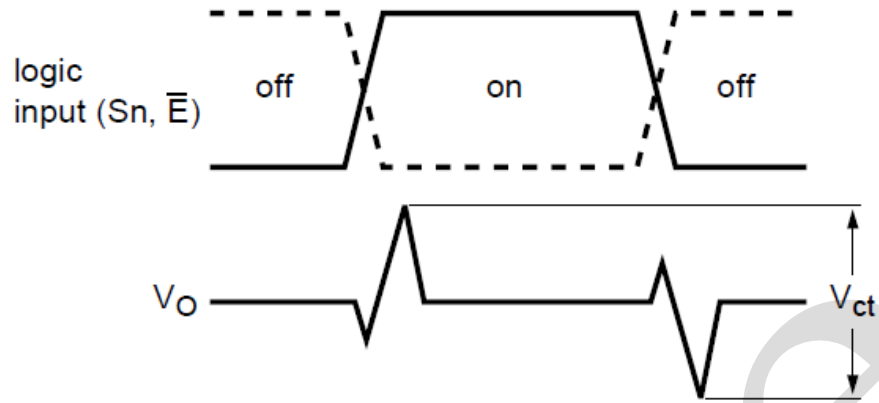


Figure 8. Test circuit for measuring total harmonic distortion



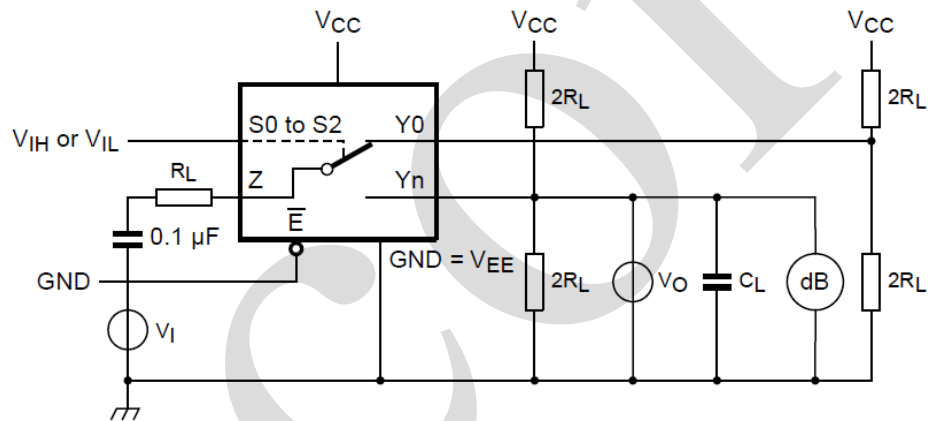
a. Test circuit



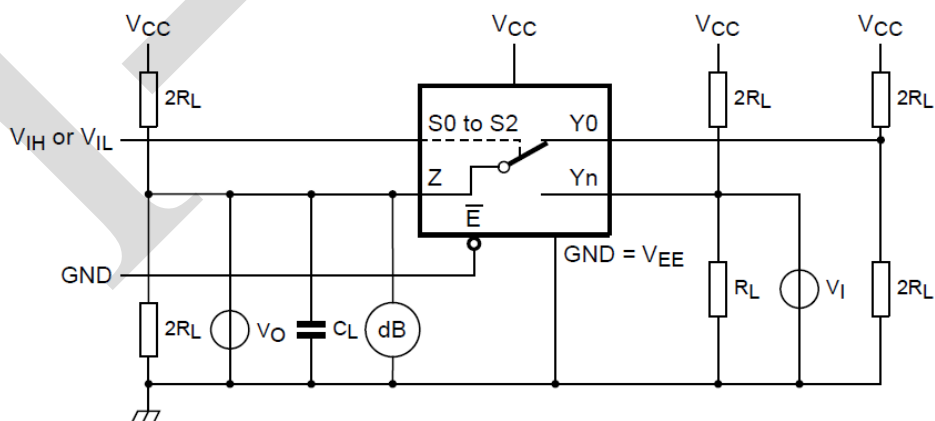
b. Input and output pulse definitions

V_I may be connected to S_n or $\bar{E}$.

Figure 9. Test circuit for measuring crosstalk voltage between digital inputs and switch



a. Switch closed condition.



b. Switch open condition

Figure 10. Test circuit for measuring crosstalk between switches



4.4、On Resistance Test Circuit

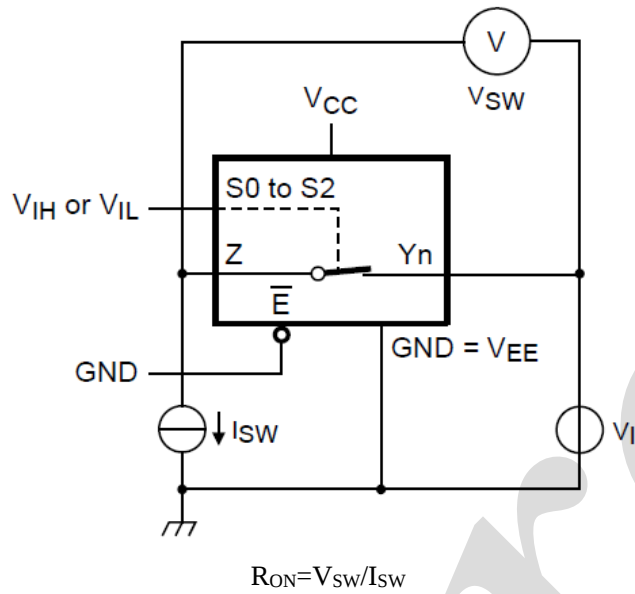


Figure 11. Test circuit for measuring R_{ON}

4.5、DC Testing Circuit

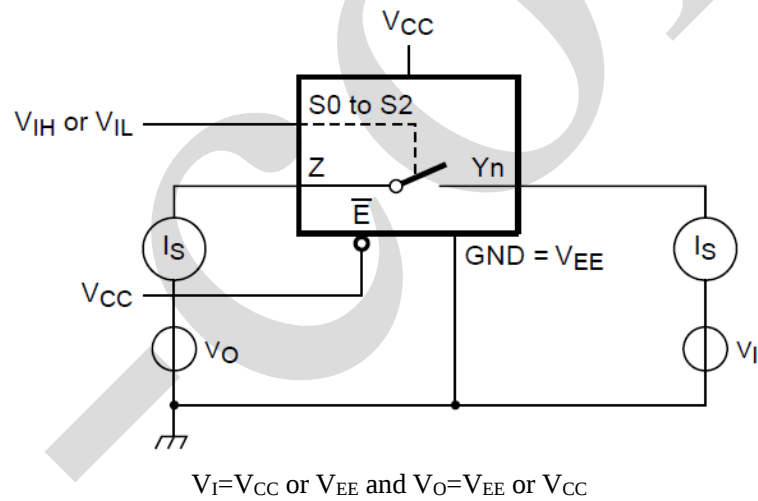
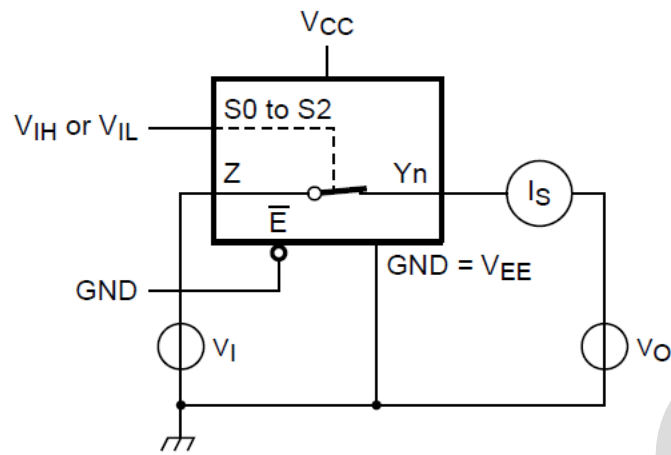


Figure 12. Test circuit for measuring OFF-state leakage current



$V_I = V_{CC}$ or V_{EE} and $V_O = \text{open circuit}$

Figure 13. Test circuit for measuring ON-state leakage current

4.6、Measurement Points

Supply voltage	Input	Output		
V_{CC}	V_M	V_M	V_X	V_Y
$<2.7V$	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{EE} + 0.1V_{CC}$	$V_O - 0.1V_{CC}$
2.7V to 3.6V	1.5V	1.5V	$V_{EE} + 0.3V$	$V_O - 0.3V$
$>3.6V$	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{EE} + 0.1V_{CC}$	$V_O - 0.1V_{CC}$

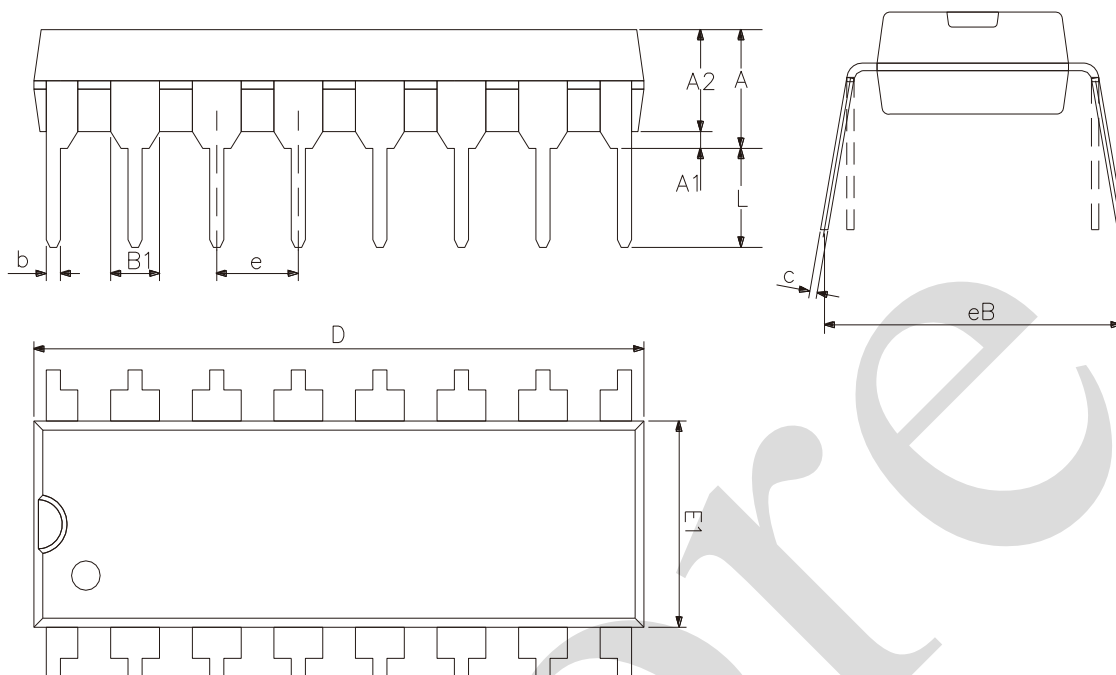
4.7、Test Data

Supply voltage	Input		Load		V_{EXT}		
V_{CC}	V_I	t_r, t_f	C_L	R_L	t_{PHL}, t_{PLH}	t_{pZH}, t_{pHZ}	t_{pZL}, t_{pLZ}
$<2.7V$	V_{CC}	$\leq 6ns$	50pF	1k Ω	open	V_{EE}	$2 \times V_{CC}$
2.7V to 3.6V	2.7V	$\leq 6ns$	15 pF, 50pF	1k Ω	open	V_{EE}	$2 \times V_{CC}$
$>3.6V$	V_{CC}	$\leq 6ns$	50pF	1k Ω	open	V_{EE}	$2 \times V_{CC}$



5、Package Information

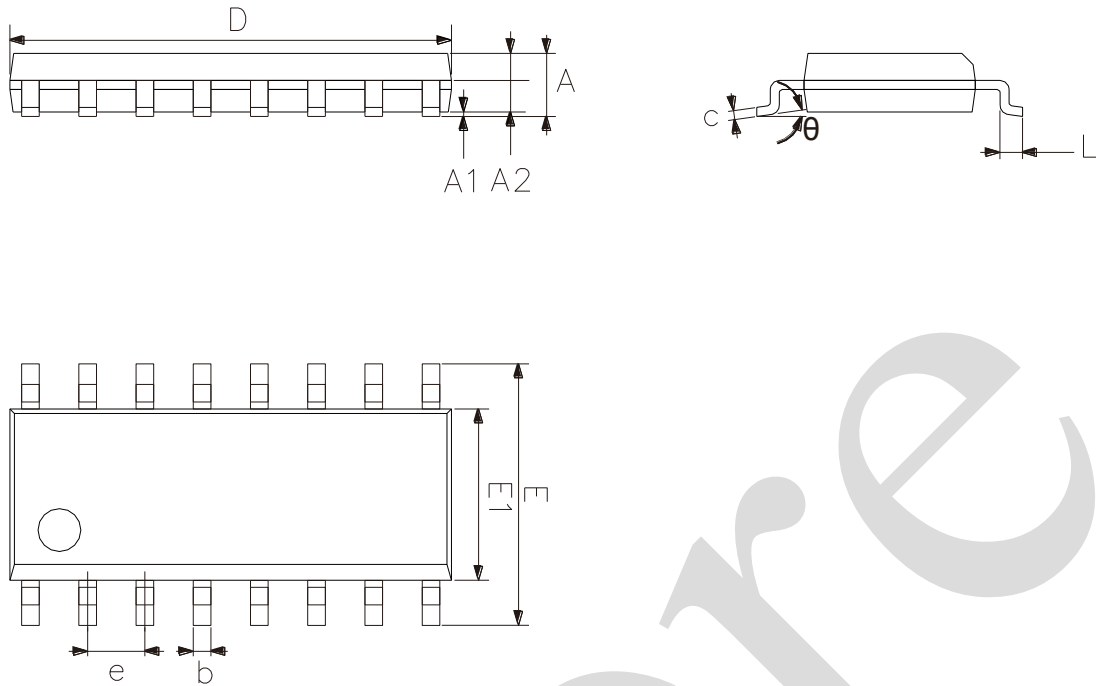
5.1、DIP16



2023/12/A	Dimensions In Millimeters	
Symbol	Min	Max
A2	3.00	3.60
A1	0.51	—
A	3.60	5.33
L	3.00	3.60
b	0.36	0.56
B1	1.52	
D	18.80	19.94
E1	6.20	6.60
e	2.54	
c	0.20	0.36
eB	7.62	9.30



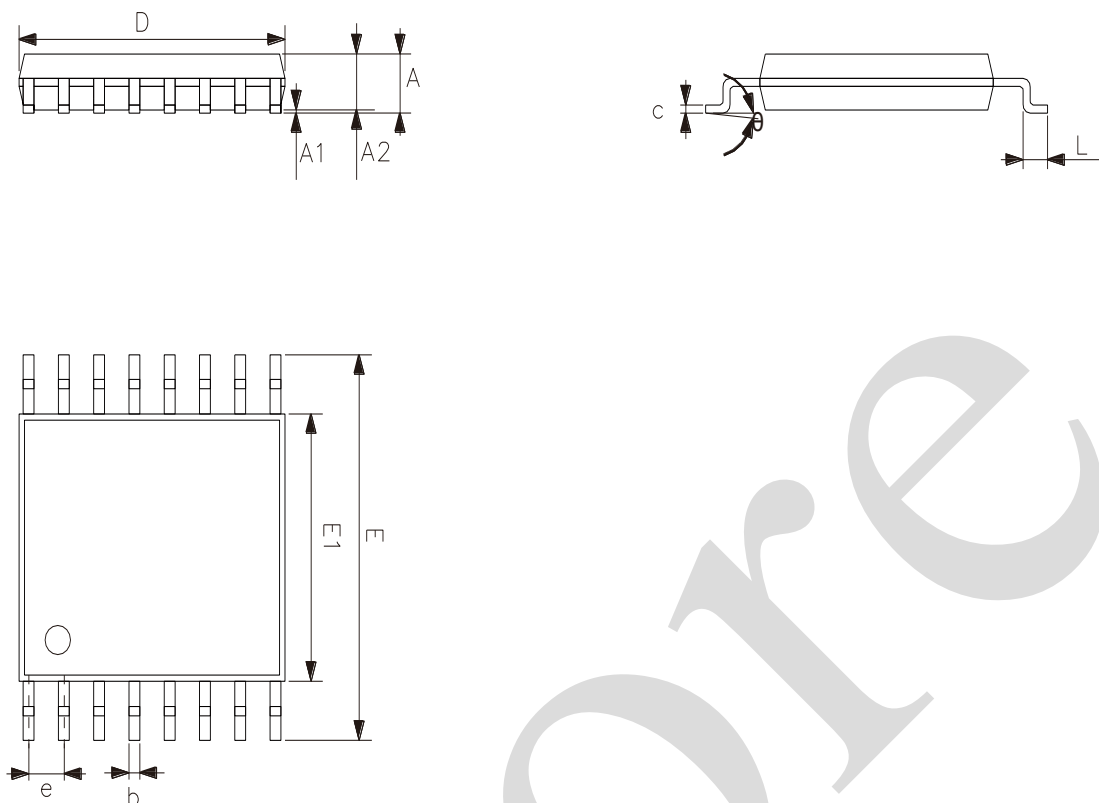
5.2、SOP16



2023/12/A	Dimensions In Millimeters	
Symbol	Min.	Max.
A	1.35	1.80
A1	0.10	0.25
A2	1.25	1.55
b	0.33	0.51
c	0.19	0.25
D	9.50	10.10
E	5.80	6.30
E1	3.70	4.10
e	1.27	
L	0.35	0.89
θ	0°	8°



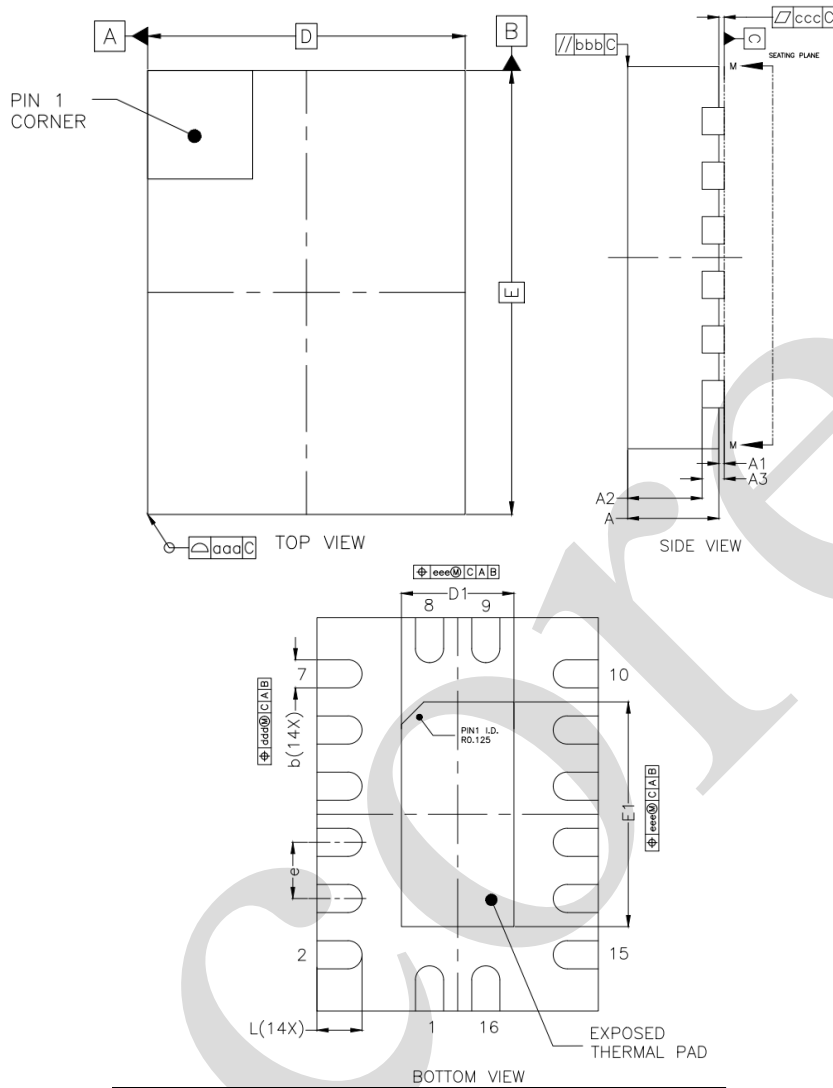
5.3、TSSOP16



2023/12/A	Dimensions In Millimeters	
Symbol	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
θ	0°	8°



5.4、DHVQFN16



2023/12/A	Dimensions In Millimeters	
Symbol	Min	Max
A	0.80	1.00
A1	0.00	0.05
A2	0.60	0.70
A3	0.20	
D	2.40	2.60
E	3.40	3.60
e	0.50	
b	0.18	0.30
L	0.30	0.50
D1	0.85	1.15
E1	1.85	2.15



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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