



AiP74LV595

8-Bit Serial-In, Serial or Parallel-Out Shift Register with Output Latches; 3-State

Product Specification

Specification Revision History:

Version	Date	Description
2025-10-A0	2025-10	New
2026-03-A1	2026-03	Modify the parameters



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1、General Description

The AiP74LV595 is an 8 stage serial shift register with a storage register and 3-state outputs. Both the shift and storage register have separate clocks. It is a low-voltage Si-gate CMOS device and is pin and functionally compatible with the AiP74HC595 and AiP74HCT595.

Data is shifted on the positive-going transitions of the SHCP input. The data in the shift register is transferred to the storage register on a positive-going transition of the STCP input. If both clocks are connected together, the shift register will always be one clock pulse ahead of the storage register.

The shift register has a serial input (DS) and a serial output (Q7S) for cascading the device. It is also provided with an asynchronous reset input \overline{MR} (active LOW) for all 8 shift register stages. The storage register has 8 parallel 3-state bus driver outputs. Data in the storage register appears at the output whenever the output enable input (\overline{OE}) is LOW.

Features:

- Wide operating voltage: 1.0V to 5.5V
- 5.5 V tolerant inputs/outputs
- Power-down mode
- Specified from -40°C to +125°C
- Packaging information: DIP16/SOP16/SSOP16/TSSOP16



Ordering Information:

Tube packing specifications:

Part number	Packaging form	Marking code	Tube quantity	Boxed tube quantity	Boxed quantity	Notes	Moisture sensitivity level
AiP74LV595 DA16.TB	DIP16	74LV595	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm	-

Reel packing specifications:

Part number	Packaging form	Marking code	Reel quantity	Boxed reel quantity	Notes	Moisture sensitivity level
AiP74LV595 SA16.TR	SOP16	74LV595	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 9.9mm×3.9mm Pin spacing:1.27mm	MSL3
AiP74LV595 VA16.TR	SSOP16	74LV595	2500 PCS/reel	5000 PCS/box	Dimensions of plastic enclosure: 6.2mm×5.3mm Pin spacing:0.65mm	MSL3
AiP74LV595 TA16.TR	TSSOP16	74LV595	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing:0.65mm	MSL3

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

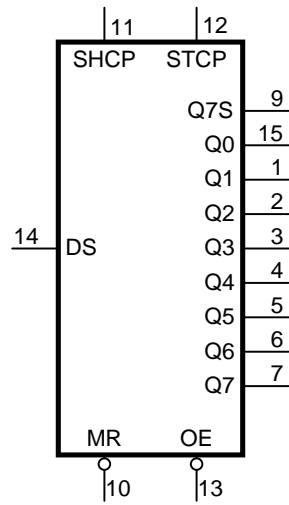


Figure 1. Functional diagram

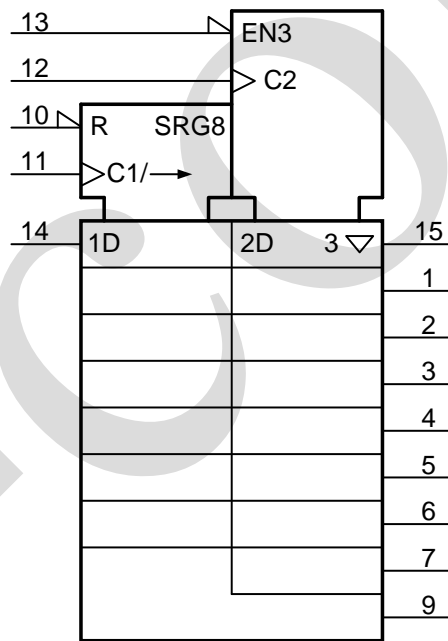


Figure 2. IEC Logic symbol

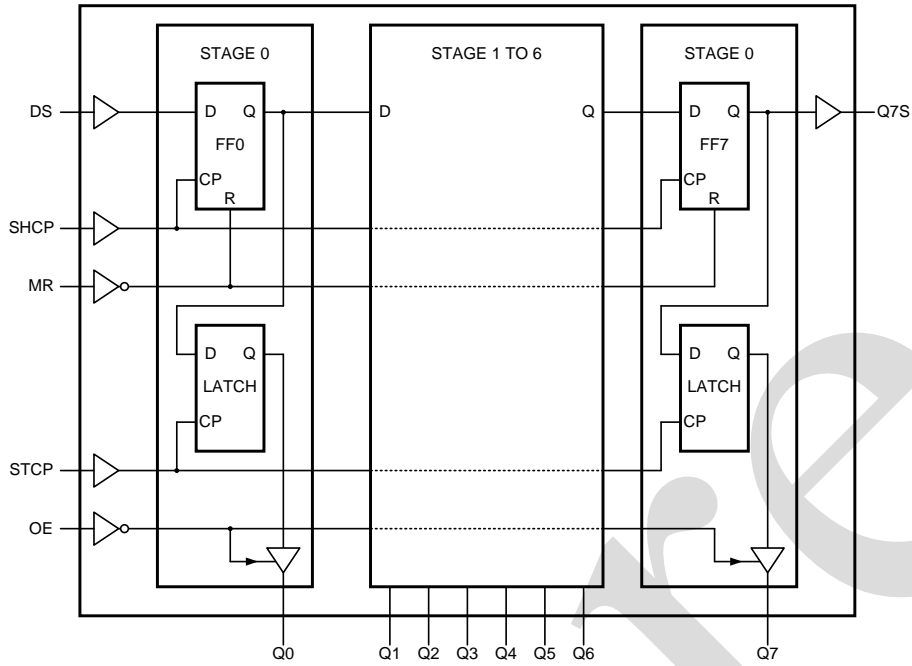


Figure 3. Logic diagram

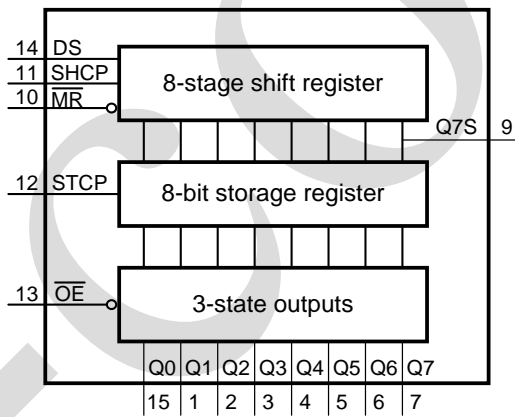
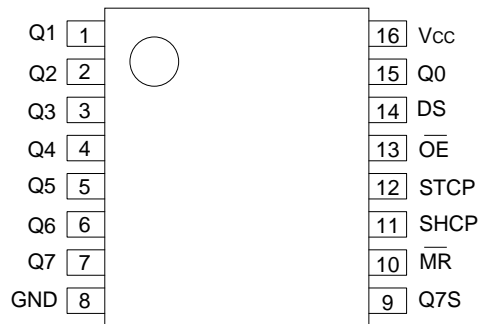


Figure 4. Function Block Diagram

2.2. Pin Configurations





2.3、Pin Description

Pin No.	Pin Name	Description
1	Q1	parallel data output
2	Q2	parallel data output
3	Q3	parallel data output
4	Q4	parallel data output
5	Q5	parallel data output
6	Q6	parallel data output
7	Q7	parallel data output
8	GND	ground (0V)
9	Q7S	serial data output
10	$\overline{\text{MR}}$	master reset (active LOW)
11	SHCP	shift register clock input
12	STCP	storage register clock input
13	$\overline{\text{OE}}$	output enable input (active LOW)
14	DS	serial data input
15	Q0	parallel data output
16	V _{cc}	supply voltage

2.4、Function table

Control				Input	Output		Function
SHCP	STCP	$\overline{\text{OE}}$	$\overline{\text{MR}}$	DS	Q7S	Qn	
X	X	L	L	X	L	NC	a LOW-level on $\overline{\text{MR}}$ only affects the shift registers
X	↑	L	L	X	L	L	empty shift register loaded into storage register
X	X	H	L	X	L	Z	shift register clear; parallel outputs in high-impedance OFF-state
↑	X	L	H	H	Q6S	NC	logic HIGH-level shifted into shift register stage 0. Contents of all shift register stages shifted through, e.g. previous state of stage 6 (internal Q6S) appears on the serial output (Q7S)
X	↑	L	H	X	NC	QnS	contents of shift register stages (internal QnS) are transferred to the storage register and parallel output stages
↑	↑	L	H	X	Q6S	QnS	contents of shift register shifted through; previous contents of the shift register is transferred to the storage register and the parallel output stages

Note:

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

↑=LOW-to-HIGH clock transition; NC=no change.



3、Electrical Parameter

3.1、Absolute Maximum Ratings

($T_{amb}=25^{\circ}\text{C}$, voltages are referenced to GND (ground=0V), unless otherwise specified)

Characteristic	Symbol	Conditions	Min.	Max.	Unit
supply voltage	V_{CC}	-	-0.5	+7.0	V
input voltage	V_I	-	-0.5	+7.0	V
input clamping current	I_{IK}	$V_I < -0.5\text{V}$ or $V_I > V_{CC} + 0.5\text{V}$	-	+20	mA
output clamping current	I_{OK}	$V_O > V_{CC}$ or $V_O < 0$	-	± 50	mA
output current	I_O	$V_O = -0.5\text{V}$ to $(V_{CC} + 0.5\text{V})$	-	± 25	mA
supply current	I_{CC}	-	-	+50	mA
ground current	I_{GND}	-	-50	-	mA
storage temperature	T_{stg}	-	-65	+150	$^{\circ}\text{C}$
total power dissipation	P_{tot}	-	-	500	mW
soldering temperature	T_L	10s	DIP	245	$^{\circ}\text{C}$
			SOP/SSOP/TSSOP	260	$^{\circ}\text{C}$
electrostatics discharge	ESD	HBM	2000		V

3.2、Recommended Operating Conditions

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
supply voltage	V_{CC}	-	1.0	3.3	5.5	V
input voltage	V_I	-	0	-	V_{CC}	V
output voltage	V_O	-	0	-	V_{CC}	V
ambient temperature	T_{amb}	-	-40	-	+125	$^{\circ}\text{C}$



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	Min.	Typ.	Max.	Unit	
HIGH-level input voltage	V_{IH}	$V_{CC}=1.2\text{V}$	0.9	-	-	V	
		$V_{CC}=2.3\text{V}$ to 2.7V	1.4	-	-	V	
		$V_{CC}=2.7\text{V}$ to 3.6V	2.0	-	-	V	
		$V_{CC}=4.5\text{V}$ to 5.5V	$0.7V_{CC}$	-	-	V	
LOW-level input voltage	V_{IL}	$V_{CC}=1.2\text{V}$	-	-	0.3	V	
		$V_{CC}=2.3\text{V}$ to 2.7V	-	-	0.6	V	
		$V_{CC}=2.7\text{V}$ to 3.6V	-	-	0.8	V	
		$V_{CC}=4.5\text{V}$ to 5.5V	-	-	$0.3V_{CC}$	V	
HIGH-level output voltage	V_{OH}	$V_I=V_{IH}$ or V_{IL}	$I_O=-100\mu\text{A}$; $V_{CC}=1.2\text{V}$	-	1.2	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=2.0\text{V}$	1.8	2.0	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=2.7\text{V}$	2.5	2.7	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=3.0\text{V}$	2.8	3.0	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=4.5\text{V}$	4.3	4.5	-	V
			$I_O=-6\text{mA}$; $V_{CC}=3.0\text{V}$	2.4	2.82	-	V
			$I_O=-12\text{mA}$; $V_{CC}=4.5\text{V}$	3.6	4.2	-	V
LOW-level output voltage	V_{OL}	$V_I=V_{IH}$ or V_{IL}	$I_O=100\mu\text{A}$; $V_{CC}=1.2\text{V}$	-	0	-	V
			$I_O=100\mu\text{A}$; $V_{CC}=2.0\text{V}$	-	0	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=2.7\text{V}$	-	0	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=3.0\text{V}$	-	0	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=4.5\text{V}$	-	0	0.2	V
			$I_O=6\text{mA}$; $V_{CC}=3.0\text{V}$	-	0.25	0.4	V
			$I_O=12\text{mA}$; $V_{CC}=4.5\text{V}$	-	0.35	0.55	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; $V_{CC}=5.5\text{V}$	-	-	± 1	μA	
OFF-state output current	I_{OZ}	$V_I=V_{IH}$ or V_{IL} ; $V_O=V_{CC}$ or GND; $V_{CC}=3.6\text{V}$	-	-	± 5	μA	
power-off leakage current	I_{OFF}	V_I or $V_O=5.5\text{V}$; $V_{CC}=0\text{V}$	-	-	± 5	μA	
supply current	I_{CC}	$V_I=V_{CC}$ or GND; $I_O=0\text{A}$; $V_{CC}=5.5\text{V}$	-	-	20	μA	
additional supply current	ΔI_{CC}	per input; $V_I=V_{CC}-0.6\text{V}$; $V_{CC}=2.7\text{V}$ to 3.6V	-	-	500	μA	



3.3.2、DC 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	
HIGH-level input voltage	V_{IH}	$V_{CC}=1.2\text{V}$	0.9	-	-	V	
		$V_{CC}=2.3\text{V}$ to 2.7V	1.4	-	-	V	
		$V_{CC}=2.7\text{V}$ to 3.6V	2.0	-	-	V	
		$V_{CC}=4.5\text{V}$ to 5.5V	$0.7V_{CC}$	-	-	V	
LOW-level input voltage	V_{IL}	$V_{CC}=1.2\text{V}$	-	-	0.3	V	
		$V_{CC}=2.3\text{V}$ to 2.7V	-	-	0.6	V	
		$V_{CC}=2.7\text{V}$ to 3.6V	-	-	0.8	V	
		$V_{CC}=4.5\text{V}$ to 5.5V	-	-	$0.3V_{CC}$	V	
HIGH-level output voltage	V_{OH}	$V_I=V_{IH}$ or V_{IL}	$I_O=-100\mu\text{A}$; $V_{CC}=2.0\text{V}$	1.8	-	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=2.7\text{V}$	2.5	-	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=3.0\text{V}$	2.8	-	-	V
			$I_O=-100\mu\text{A}$; $V_{CC}=4.5\text{V}$	4.3	-	-	V
			$I_O=-6\text{mA}$; $V_{CC}=3.0\text{V}$	2.2	-	-	V
			$I_O=-12\text{mA}$; $V_{CC}=4.5\text{V}$	3.5	-	-	V
LOW-level output voltage	V_{OL}	$V_I=V_{IH}$ or V_{IL}	$I_O=100\mu\text{A}$; $V_{CC}=2.0\text{V}$	1.8	-	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=2.7\text{V}$	2.5	-	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=3.0\text{V}$	2.8	-	0.2	V
			$I_O=100\mu\text{A}$; $V_{CC}=4.5\text{V}$	4.3	-	0.2	V
			$I_O=6\text{mA}$; $V_{CC}=3.0\text{V}$	-	-	0.5	V
			$I_O=12\text{mA}$; $V_{CC}=4.5\text{V}$	-	-	0.65	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; $V_{CC}=5.5\text{V}$	-	-	± 1	μA	
OFF-state output current	I_{OZ}	$V_I=V_{IH}$ or V_{IL} ; $V_O=V_{CC}$ or GND; $V_{CC}=3.6\text{V}$	-	-	± 10	μA	
power-off leakage current	I_{OFF}	V_I or $V_O=5.5\text{V}$; $V_{CC}=0\text{V}$	-	-	± 10	μA	
supply current	I_{CC}	$V_I=V_{CC}$ or GND; $I_O=0\text{A}$; $V_{CC}=5.5\text{V}$	-	-	160	μA	
additional supply current	ΔI_{CC}	per input; $V_I=V_{CC}-0.6\text{V}$; $V_{CC}=2.7\text{V}$ to 3.6V	-	-	850	μA	



3.3.3、AC Characteristics 1

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
propagation delay	t_{PLH}, t_{PHL}	SHCP to Q7S; see Figure 6	$V_{CC}=2.3\text{V}$ to 2.7V	-	9.4	22.2	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	-	6.6	15	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	-	4.5	9.4	ns
		STCP to Qn; see Figure 7	$V_{CC}=2.3\text{V}$ to 2.7V	-	8.4	15.8	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	-	6	13.5	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	-	4.3	8.5	ns
HIGH to LOW propagation delay	t_{PHL}	\bar{MR} to Q7S; see Figure 9	$V_{CC}=2.3\text{V}$ to 2.7V	-	8.7	16.3	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	-	6.2	13.7	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	-	4.5	9.1	ns
\bar{OE} to Qn enable time	t_{PZH}, t_{PZL}	see Figure 10	$V_{CC}=2.3\text{V}$ to 2.7V	-	10.9	20.3	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	-	7.8	13.5	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	-	5.4	10	ns
\bar{OE} to Qn disable time	t_{PLZ}, t_{PHZ}	see Figure 10	$V_{CC}=2.3\text{V}$ to 2.7V	-	9.2	16.7	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	-	6.3	15.2	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	-	2.7	7.2	ns
pulse width	t_w	SHCP HIGH or LOW; see Figure 6	$V_{CC}=2.3\text{V}$ to 2.7V	7.5	-	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	5.5	-	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	5	-	-	ns
		STCP HIGH or LOW; see Figure 7	$V_{CC}=2.3\text{V}$ to 2.7V	7.5	-	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	5.5	-	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	5	-	-	ns
		\bar{MR} LOW; see Figure 9	$V_{CC}=2.3\text{V}$ to 2.7V	6.5	-	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	5	-	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	5.2	-	-	ns
set-up time	t_{su}	DS to SHCP; see Figure 8	$V_{CC}=2.3\text{V}$ to 2.7V	5.5	-	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	3.5	-	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	3	-	-	ns
		SHCP to STCP; see Figure 7	$V_{CC}=2.3\text{V}$ to 2.7V	9	-	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	8.5	-	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	5	-	-	ns
DS to SHCP hold time	t_h	see Figure 8	$V_{CC}=2.3\text{V}$ to 2.7V	1.5	-10	-	ns
			$V_{CC}=3.0\text{V}$ to 3.6V	1.5	-4	-	ns
			$V_{CC}=4.5\text{V}$ to 5.5V	2	-3	-	ns
maximum frequency	f_{max}	SHCP or STCP; see Figure 6 and Figure 7	$V_{CC}=2.3\text{V}$ to 2.7V $C_L=15\text{pF}$	45	80	-	MHz
			$V_{CC}=2.3\text{V}$ to 2.7V $C_L=50\text{pF}$	40	70	-	MHz
			$V_{CC}=3.0\text{V}$ to 3.6V $C_L=15\text{pF}$	70	120	-	MHz
			$V_{CC}=3.0\text{V}$ to 3.6V $C_L=50\text{pF}$	50	105	-	MHz
			$V_{CC}=4.5\text{V}$ to 5.5V $C_L=15\text{pF}$	115	170	-	MHz



		$V_{CC}=4.5V$ to $5.5V$ $C_L=50pF$	98	140	-	MHz
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3.3.4、AC Characteristics 2

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
propagation delay	t_{PLH}, t_{PHL}	SHCP to Q7S; see Figure 6	$V_{CC}=2.3V$ to $2.7V$	-	-	23.2	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	16	ns
			$V_{CC}=4.5V$ to $5.5V$	-	-	10.4	ns
		STCP to Qn; see Figure 7	$V_{CC}=2.3V$ to $2.7V$	-	-	16.8	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	14.5	ns
			$V_{CC}=4.5V$ to $5.5V$	-	-	9.5	ns
HIGH to LOW propagation delay	t_{PHL}	\overline{MR} to Q7S; see Figure 9	$V_{CC}=2.3V$ to $2.7V$	-	-	17.3	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	14.7	ns
			$V_{CC}=4.5V$ to $5.5V$	-	-	10.1	ns
\overline{OE} to Qn enable time	t_{PZH}, t_{PZL}	see Figure 10	$V_{CC}=2.3V$ to $2.7V$	-	-	21.3	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	14.5	ns
			$V_{CC}=4.5V$ to $5.5V$	-	-	11	ns
\overline{OE} to Qn disable time	t_{PLZ}, t_{PHZ}	see Figure 10	$V_{CC}=2.3V$ to $2.7V$	-	-	17.7	ns
			$V_{CC}=3.0V$ to $3.6V$	-	-	16.2	ns
			$V_{CC}=4.5V$ to $5.5V$	-	-	8.2	ns
pulse width	t_w	SHCP HIGH or LOW; see Figure 6	$V_{CC}=2.3V$ to $2.7V$	8.5	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	6.5	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	6	-	-	ns
		STCP HIGH or LOW; see Figure 7	$V_{CC}=2.3V$ to $2.7V$	8.5	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	6.5	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	6	-	-	ns
		\overline{MR} LOW; see Figure 9	$V_{CC}=2.3V$ to $2.7V$	7.5	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	6	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	6.2	-	-	ns
set-up time	t_{su}	DS to SHCP; see Figure 8	$V_{CC}=2.3V$ to $2.7V$	6.5	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	4.5	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	4	-	-	ns
		SHCP to STCP; see Figure 7	$V_{CC}=2.3V$ to $2.7V$	10	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	9.5	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	6	-	-	ns
DS to SHCP hold time	t_h	see Figure 8	$V_{CC}=2.3V$ to $2.7V$	2.5	-	-	ns
			$V_{CC}=3.0V$ to $3.6V$	2.5	-	-	ns
			$V_{CC}=4.5V$ to $5.5V$	3	-	-	ns
maximum frequency	f_{max}	SHCP or STCP; see Figure 6 and Figure 7	$V_{CC}=2.3V$ to $2.7V$ $C_L=15pF$	45	-	-	MHz
			$V_{CC}=2.3V$ to $2.7V$ $C_L=50pF$	40	-	-	MHz
			$V_{CC}=3.0V$ to $3.6V$ $C_L=15pF$	70	-	-	MHz
			$V_{CC}=3.0V$ to $3.6V$	50	-	-	MHz



			$C_L=50\text{pF}$				
			$V_{CC}=4.5\text{V to }5.5\text{V}$ $C_L=15\text{pF}$	115	-	-	MHz
			$V_{CC}=4.5\text{V to }5.5\text{V}$ $C_L=50\text{pF}$	98	-	-	MHz

4、Testing Circuit

4.1、AC Testing Circuit

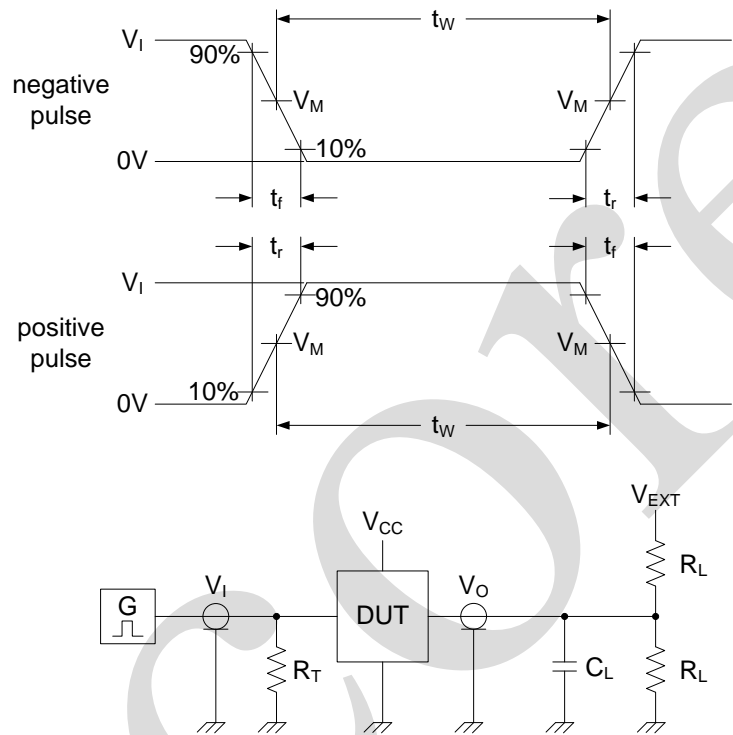


Figure 5. Test circuit for measuring switching times

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 output impedance Z_o of the pulse generator.

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



4.2、AC Testing Waveforms

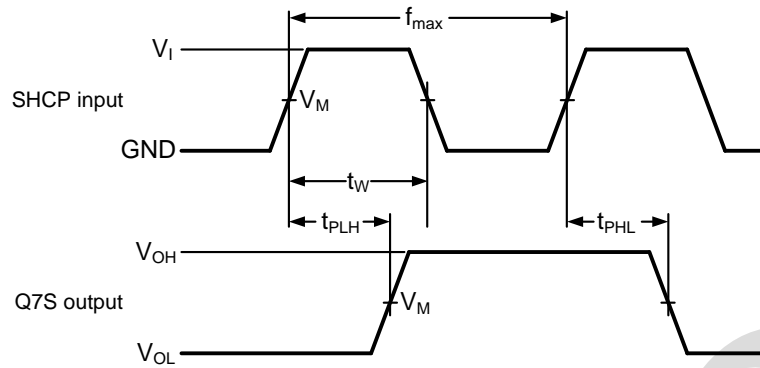


Figure 6. Shift clock pulse, maximum frequency and input to output propagation delays

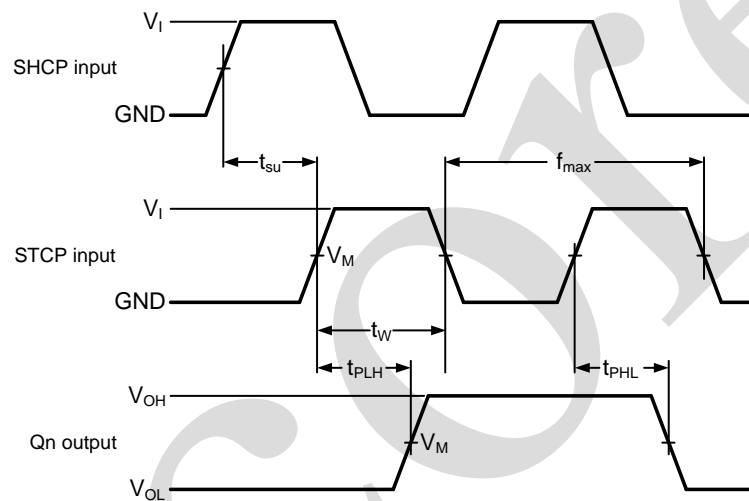


Figure 7. Storage clock to output propagation delays

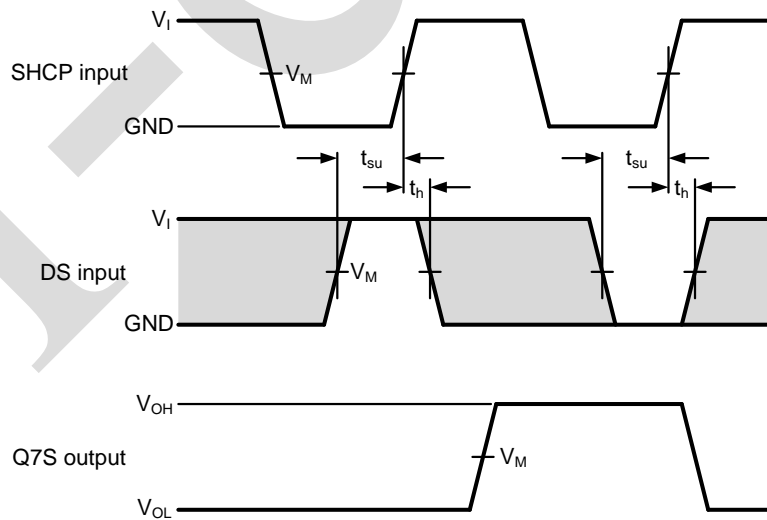


Figure 8. Data set-up and hold times

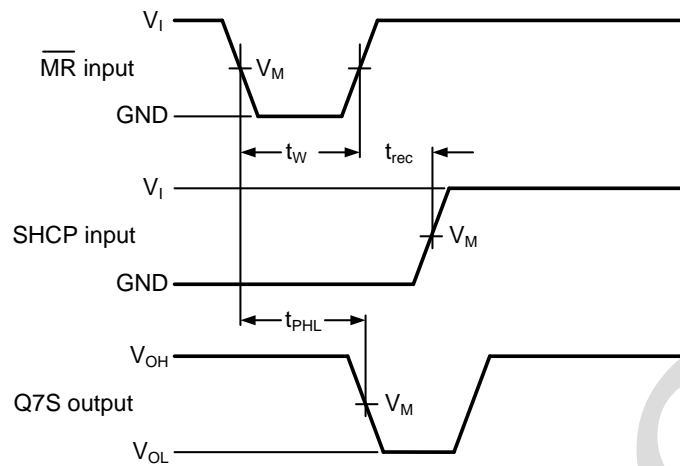


Figure 9. Master reset to output propagation delays

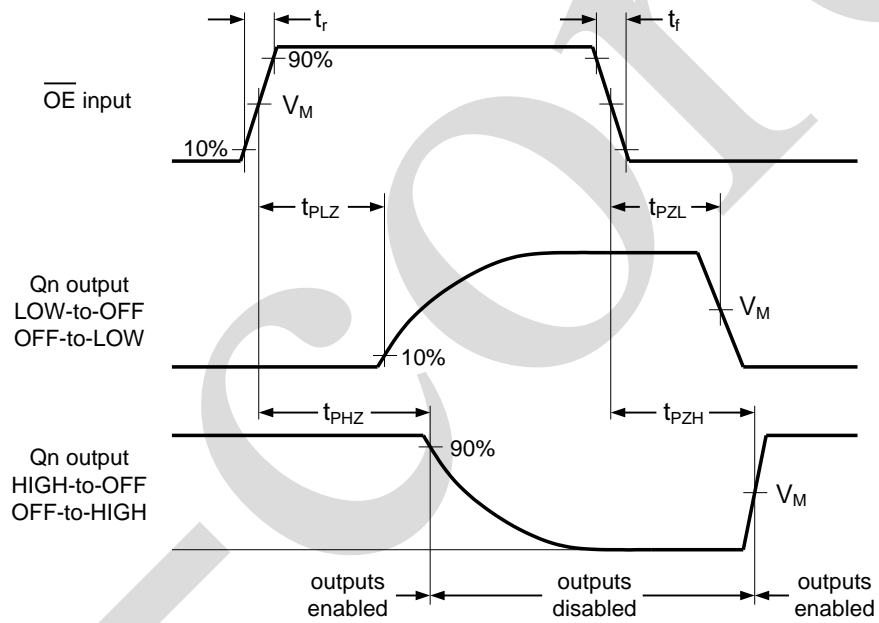


Figure 10. Enable and disable times



4.3、Measurement Points

Supply voltage	Input	Output		
V_{CC}	V_M	V_M	V_X	V_Y
<2.7V	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{OL} + 0.1 \times V_{CC}$	$V_{OH} - 0.1 \times V_{CC}$
2.7V to 3.6V	1.5V	1.5V	$V_{OL} + 0.3V$	$V_{OH} - 0.3V$
$\geq 4.5V$	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{OL} + 0.3V$	$V_{OH} - 0.3V$

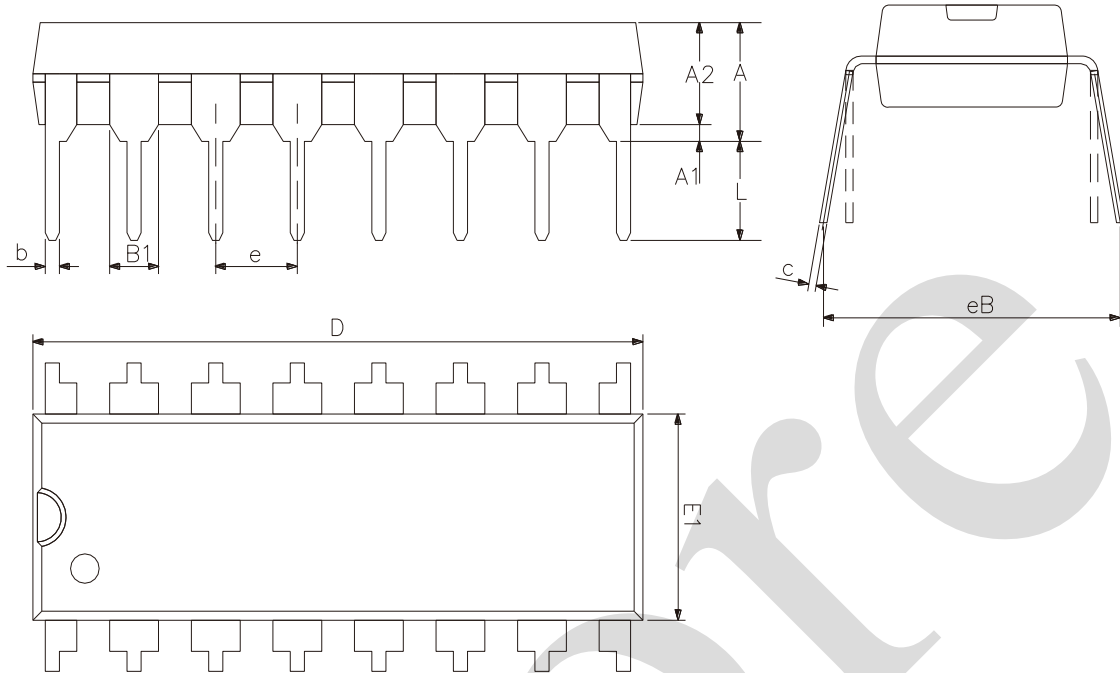
4.4、Test Data

Supply voltage	Input		Load		Test
V_{CC}	V_I	t_r, t_f	C_L	R_L	t_{PHL}, t_{PLH}
<2.7V	V_{CC}	$\leq 3.0ns$	50pF	1k Ω	open
2.7V to 3.6V	2.7V	$\leq 3.0ns$	50pF, 15pF	1k Ω	open
$\geq 4.5V$	V_{CC}	$\leq 3.0ns$	50pF	1k Ω	open



5、Package Information

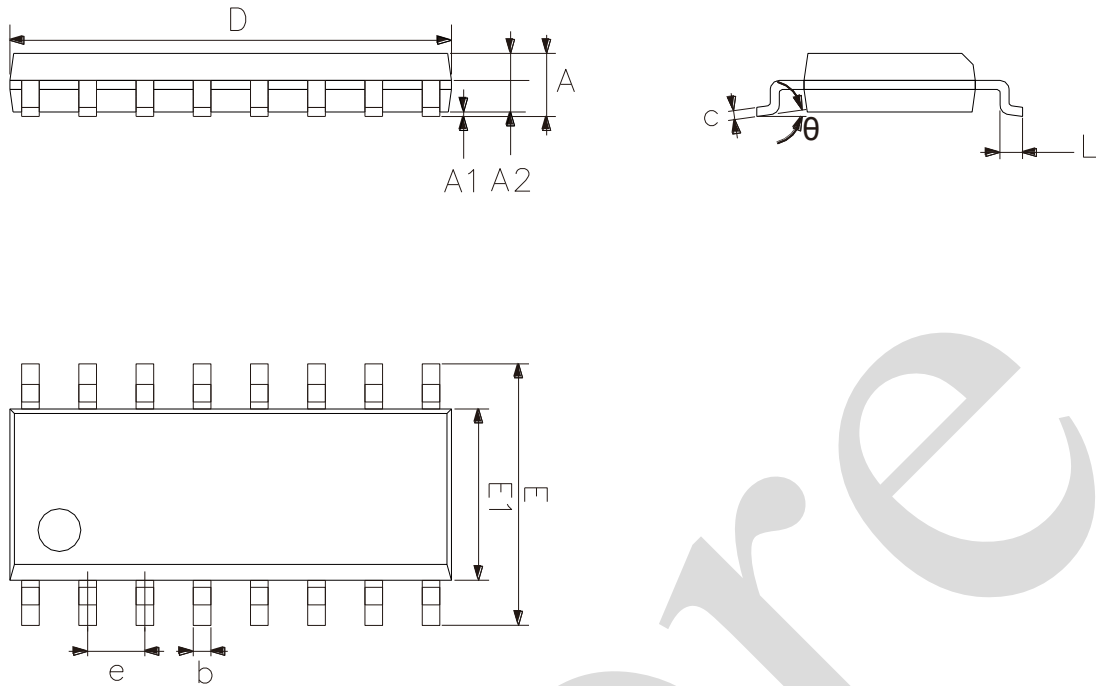
5.1、DIP16



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



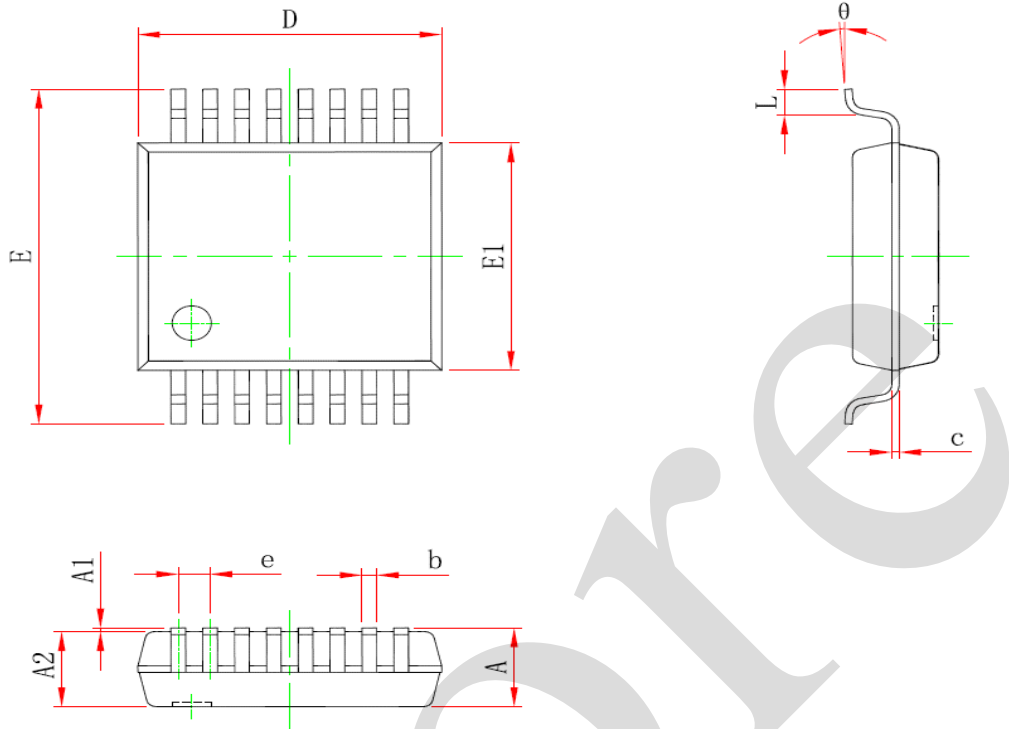
5.2、SOP16



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°



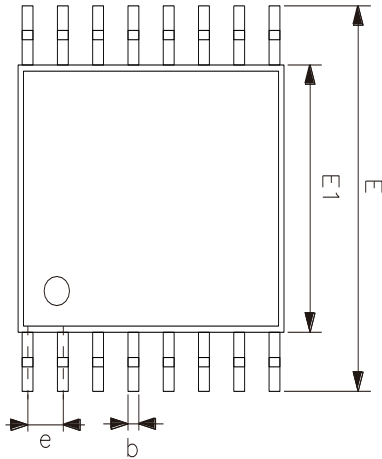
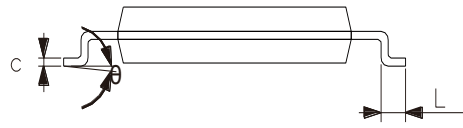
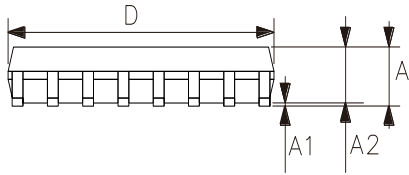
5.3、SSOP16



2026/03/A	Dimensions In Millimeters		
	Symbol	Min.	Max.
	D	5.90	6.50
	b	0.22	0.38
	e	0.65	
	E1	5.00	5.60
	E	7.40	8.20
	L	0.55	0.95
	A2	1.65	1.85
	A1	0.05	--
	A	1.75	2.00
	θ	0°	8°



5.4. 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°



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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