1、General Description

The 74HC/HCT574 is an octal positive-edge triggered D-type flip-flop with 3-state outputs. The device features a clock (CP) and output enable ($\overline{OE}$) inputs. A HIGH on $\overline{OE}$ causes the outputs to assume a high-impedance OFF-state. Operation of the $\overline{OE}$ input does not affect the state of the flip-flops.

Features:

- Input levels:
  For 74HC574: CMOS level
  For 74HCT574: TTL level
- 3-state non-inverting outputs for bus oriented applications
- 8-bit positive, edge-triggered register
- Specified from -40℃ to +125℃
- Packaging information: DIP20/SOP20/TSSOP20

2、Block Diagram And Pin Description

2.1、Block Diagram

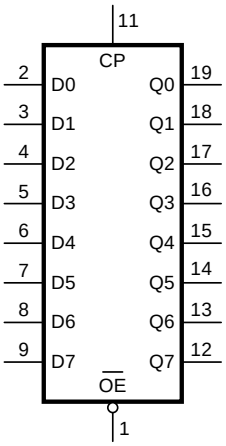


Figure 1. Logic symbol

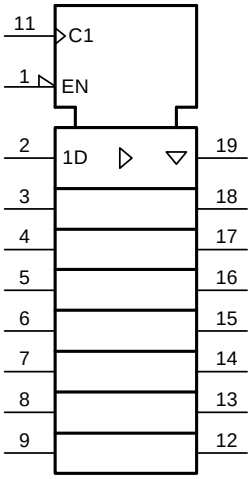


Figure 2. IEC logic symbol

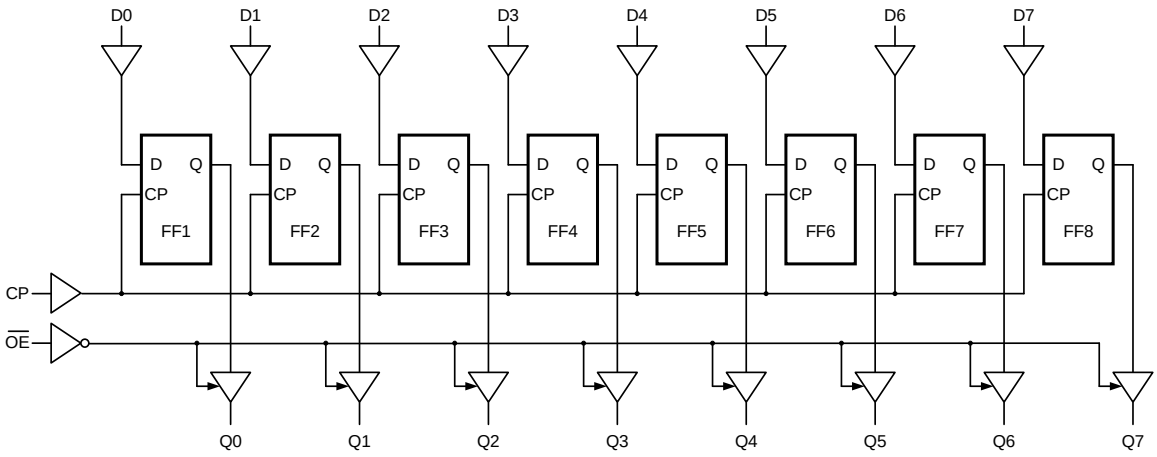


Figure 3. Logic diagram

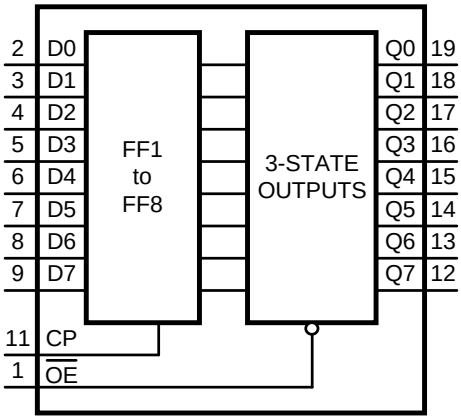
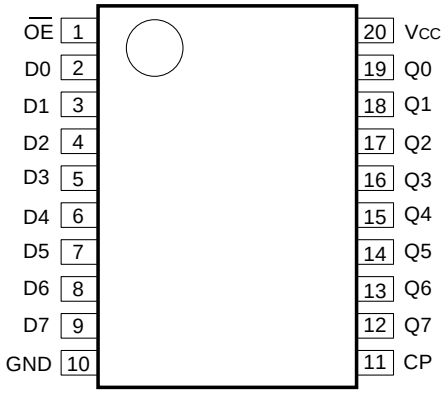


Figure 4. Functional diagram

2.2、Pin Configurations



2.3、Pin Description

Pin No.	Pin Name	Description
1	$\overline{OE}$	3-state output enable input (active LOW)
2	D0	data input
3	D1	data input
4	D2	data input
5	D3	data input
6	D4	data input
7	D5	data input
8	D6	data input
9	D7	data input
10	GND	ground (0V)
11	CP	clock input (LOW-to-HIGH, edge-triggered)
12	Q7	flip-flop output
13	Q6	flip-flop output
14	Q5	flip-flop output
15	Q4	flip-flop output
16	Q3	flip-flop output
17	Q2	flip-flop output

18	Q1	flip-flop output
19	Q0	flip-flop output
20	V_{CC}	supply voltage

2.4、Function Table

Operating modes	Input			Internal flip-flop	Output
	$\overline{OE}$	CP	Dn		Qn
Load and read register	L	↑	l	L	L
	L	↑	h	H	H
Load register and disable output	H	↑	l	L	Z
	H	↑	h	H	Z

Note:

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

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

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

↑=LOW-to-HIGH clock transition.

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	250		℃

3.2、Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
74HC574						
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
ambient temperature	T_{amb}	-	-40	-	+125	℃
74HCT574						
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
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
74HC574							
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
74HCT574							
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	-	0.16	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; other inputs at V_{CC} or GND; I_O=0A; V_{CC}=4.5V to 5.5V	per input pin; Dn inputs	-	50	180	uA
			per input pin; $\overline{OE}$ input	-	125	450	uA
			per input pin; CP input	-	150	540	uA
input capacitance	C_I	-		-	3.5	-	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
74HC574							
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		-	-	±2.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=6.0V; V_O=V_{CC} or GND		-	-	±2.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=6.0V		-	-	80	uA
74HCT574							
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		-	-	±2.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=5.5V; V_O=V_{CC} or GND		-	-	±2.0	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; I_O=0A; V_{CC}=4.5V to 5.5V;	per input pin; Dn inputs	-	-	225	uA
			per input pin; $\overline{OE}$ input	-	-	563	uA
			per input pin; CP 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
74HC574							
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		-	-	±4.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=6.0V; V_O=V_{CC} or GND		-	-	±4.0	uA
supply current	I_{CC}	V_I=V_{CC} or GND; I_O=0A; V_{CC}=6.0V		-	-	160	uA
74HCT574							
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		-	-	±4.0	uA
OFF-state output current	I_{OZ}	V_I=V_{IH} or V_{IL}; V_{CC}=5.5V; V_O=V_{CC} or GND		-	-	±4.0	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; other inputs at V_{CC} or GND; I_O=0A; V_{CC}=4.5V to 5.5V;	per input pin; Dn inputs	-	-	245	uA
			per input pin; $\overline{OE}$ input	-	-	613	uA
			per input pin; CP input	-	-	735	uA

3.3.4、AC Characteristics 1

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

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
74HC574							
CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=2.0V	-	47	150	ns
			V_{CC}=4.5V	-	17	30	ns
			V_{CC}=5.0V; C_L=15pF	-	14	-	ns
			V_{CC}=6.0V	-	14	26	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	see Figure 8	V_{CC}=2.0V	-	44	140	ns
			V_{CC}=4.5V	-	16	28	ns
			V_{CC}=6.0V	-	13	24	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	see Figure 8	V_{CC}=2.0V	-	39	125	ns
			V_{CC}=4.5V	-	14	25	ns
			V_{CC}=6.0V	-	11	21	ns
transition time	t_{THL}, t_{TLH}	Qn output; see Figure 6	V_{CC}=2.0V	-	14	60	ns
			V_{CC}=4.5V	-	5	12	ns
			V_{CC}=6.0V	-	4	10	ns
pulse width	t_W	CP; HIGH or LOW; see Figure 7	V_{CC}=2.0V	80	14	-	ns
			V_{CC}=4.5V	16	5	-	ns
			V_{CC}=6.0V	14	4	-	ns
Dn to CP set-up time	t_{su}	see Figure 7	V_{CC}=2.0V	60	6	-	ns
			V_{CC}=4.5V	12	2	-	ns
			V_{CC}=6.0V	10	2	-	ns
Dn to CP hold time	t_h	see Figure 7	V_{CC}=2.0V	5	0	-	ns
			V_{CC}=4.5V	5	0	-	ns
			V_{CC}=6.0V	5	0	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=2.0V	6.0	-	-	MHz
			V_{CC}=4.5V	30	-	-	MHz
			V_{CC}=5.0V; C_L=15pF	32	-	-	MHz
			V_{CC}=6.0V	35	-	-	MHz

74HCT574							
CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=4.5V	-	18	33	ns
			V_{CC}=5.0V; C_L=15pF	-	15	-	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	V_{CC}=4.5V; see Figure 8		-	19	33	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	V_{CC}=4.5V; see Figure 8		-	16	28	ns
transition time	t_{THL}, t_{TLH}	Qn; V_{CC}=4.5V; see Figure 6		-	5	12	ns
pulse width	t_W	CP; HIGH or LOW; V_{CC}=4.5V; see Figure 7		16	7	-	ns
Dn to CP set-up time	t_{su}	V_{CC}=4.5V; see Figure 7		12	3	-	ns
Dn to CP hold time	t_h	V_{CC}=4.5V; see Figure 7		5	-1	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=4.5V	30	-	-	MHz
			V_{CC}=5.0V; C_L=15pF	32	-	-	MHz

3.3.5、AC Characteristics 2

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

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
74HC574							
CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=2.0V	-	-	190	ns
			V_{CC}=4.5V	-	-	35	ns
			V_{CC}=6.0V	-	-	33	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	see Figure 8	V_{CC}=2.0V	-	-	175	ns
			V_{CC}=4.5V	-	-	35	ns
			V_{CC}=6.0V	-	-	30	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	see Figure 8	V_{CC}=2.0V	-	-	155	ns
			V_{CC}=4.5V	-	-	31	ns
			V_{CC}=6.0V	-	-	26	ns
transition time	t_{THL}, t_{TLH}	Qn output; see Figure 6	V_{CC}=2.0V	-	-	75	ns
			V_{CC}=4.5V	-	-	15	ns
			V_{CC}=6.0V	-	-	13	ns
pulse width	t_W	CP; HIGH or LOW; see Figure 7	V_{CC}=2.0V	100	-	-	ns
			V_{CC}=4.5V	20	-	-	ns
			V_{CC}=6.0V	17	-	-	ns
Dn to CP set-up time	t_{su}	see Figure 7	V_{CC}=2.0V	75	-	-	ns
			V_{CC}=4.5V	15	-	-	ns
			V_{CC}=6.0V	13	-	-	ns
Dn to CP hold time	t_h	see Figure 7	V_{CC}=2.0V	5	-	-	ns
			V_{CC}=4.5V	5	-	-	ns
			V_{CC}=6.0V	5	-	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=2.0V	4.8	-	-	MHz
			V_{CC}=4.5V	24	-	-	MHz
			V_{CC}=6.0V	28	-	-	MHz

74HCT574							
CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=4.5V	-	-	41	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	V_{CC}=4.5V; see Figure 8		-	-	41	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	V_{CC}=4.5V; see Figure 8		-	-	35	ns
transition time	t_{THL}, t_{TLH}	Qn; V_{CC}=4.5V; see Figure 6		-	-	15	ns
pulse width	t_W	CP; HIGH or LOW; V_{CC}=4.5V; see Figure 7		20	-	-	ns
Dn to CP set-up time	t_{su}	V_{CC}=4.5V; see Figure 7		15	-	-	ns
Dn to CP hold time	t_h	V_{CC}=4.5V; see Figure 7		5	-	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=4.5V	24	-	-	MHz

3.3.6、AC Characteristics 3

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

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
74HC574							
CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=2.0V	-	-	225	ns
			V_{CC}=4.5V	-	-	45	ns
			V_{CC}=6.0V	-	-	38	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	see Figure 8	V_{CC}=2.0V	-	-	210	ns
			V_{CC}=4.5V	-	-	42	ns
			V_{CC}=6.0V	-	-	36	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	see Figure 8	V_{CC}=2.0V	-	-	190	ns
			V_{CC}=4.5V	-	-	38	ns
			V_{CC}=6.0V	-	-	32	ns
transition time	t_{THL}, t_{TLH}	Qn output; see Figure 6	V_{CC}=2.0V	-	-	90	ns
			V_{CC}=4.5V	-	-	18	ns
			V_{CC}=6.0V	-	-	15	ns
pulse width	t_W	CP; HIGH or LOW; see Figure 7	V_{CC}=2.0V	120	-	-	ns
			V_{CC}=4.5V	24	-	-	ns
			V_{CC}=6.0V	20	-	-	ns
Dn to CP set-up time	t_{su}	see Figure 7	V_{CC}=2.0V	90	-	-	ns
			V_{CC}=4.5V	18	-	-	ns
			V_{CC}=6.0V	15	-	-	ns
Dn to CP hold time	t_h	see Figure 7	V_{CC}=2.0V	5	-	-	ns
			V_{CC}=4.5V	5	-	-	ns
			V_{CC}=6.0V	5	-	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=2.0V	4.0	-	-	MHz
			V_{CC}=4.5V	20	-	-	MHz
			V_{CC}=6.0V	24	-	-	MHz
74HCT574							

CP to Qn propagation delay	t_{PLH}, t_{PHL}	see Figure 6	V_{CC}=4.5V	-	-	50	ns
$\overline{OE}$ to Qn enable time	t_{PZH}, t_{PZL}	V_{CC}=4.5V; see Figure 8		-	-	50	ns
$\overline{OE}$ to Qn disable time	t_{PLZ}, t_{PHZ}	V_{CC}=4.5V; see Figure 8		-	-	42	ns
transition time	t_{THL}, t_{TLH}	Qn; V_{CC}=4.5V; see Figure 6		-	-	18	ns
pulse width	t_W	CP; HIGH or LOW; V_{CC}=4.5V; see Figure 7		24	-	-	ns
Dn to CP set-up time	t_{su}	V_{CC}=4.5V; see Figure 7		18	-	-	ns
Dn to CP hold time	t_h	V_{CC}=4.5V; see Figure 7		5	-	-	ns
maximum frequency	f_{max}	CP input; see Figure 6	V_{CC}=4.5V	20	-	-	MHz

4、Testing Circuit

4.1、AC Testing Circuit

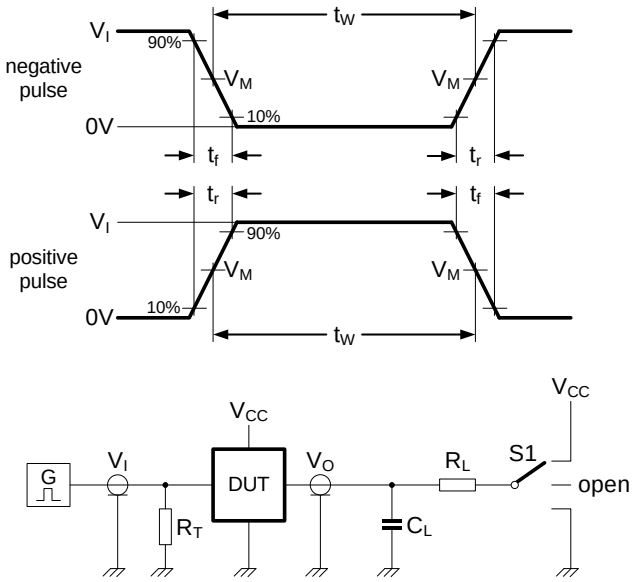


Figure 5. Test circuit for measuring switching times

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 the output impedance Z_o of the pulse generator.

S1=Test selection switch.

4.2、AC Testing Waveforms

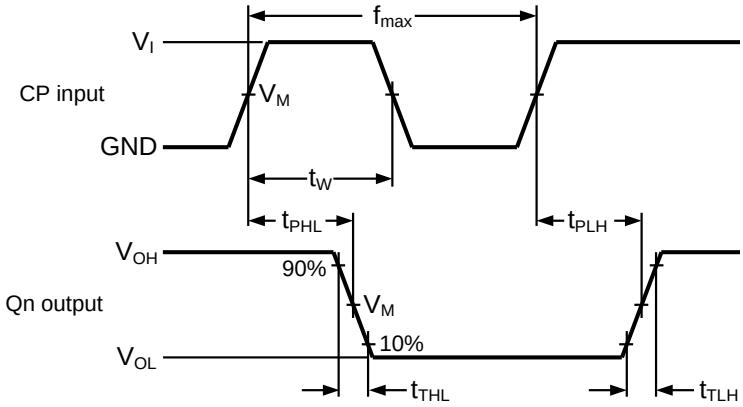


Figure 6. Propagation delay input (CP) to output (Qn), output transition time, clock input (CP) pulse width and the maximum frequency (CP)

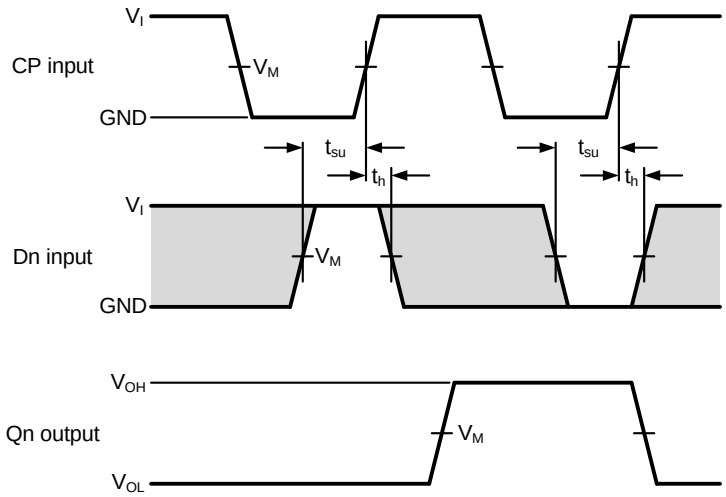


Figure 7. The data input (D) to clock input (CP) set-up times and clock input (CP) to data input (D) hold times

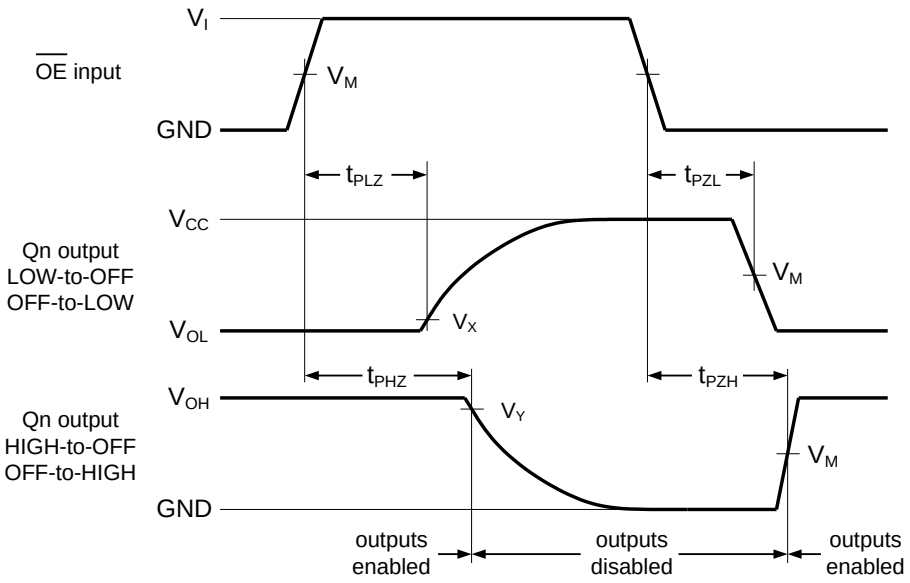


Figure 8. Enable and disable times

4.3、Measurement Points

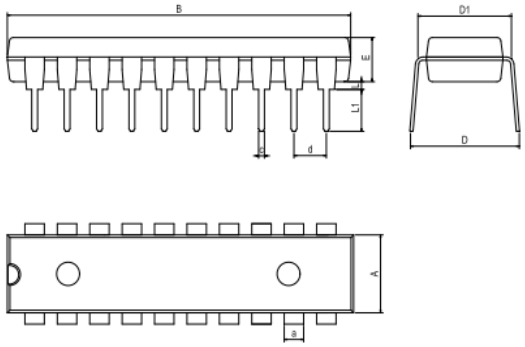
Type	Input	Output		
	V_M	V_M	V_X	V_Y
74HC574	$0.5\times V_{CC}$	$0.5\times V_{CC}$	$0.1\times V_{CC}$	$0.9\times V_{CC}$
74HCT574	1.3V	1.3V	$0.1\times V_{CC}$	$0.9\times V_{CC}$

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}
74HC574	V_{CC}	6ns	15pF, 50pF	1kΩ	open	GND	V_{CC}
74HCT574	3V	6ns	15pF, 50pF	1kΩ	open	GND	V_{CC}

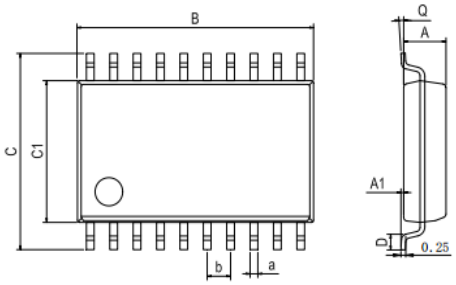
PIN DATA

DIP20



Dimensions In Millimeters(DIP20)										
Symbol:	A	B	D	D1	E	L	L1	a	c	d
Min:	6.10	24.95	8.40	7.42	3.10	0.50	3.00	1.50	0.40	2.54 BSC
Max:	6.68	26.55	9.00	7.82	3.55	0.70	3.60	1.55	0.50	

SOP20



Dimensions In Millimeters(SOP20L)									
Symbol:	A	A1	B	C	C1	D	Q	a	b
Min:	2.10	0.05	12.50	10.21	7.40	0.45	0	0.35	1.27 BSC
Max:	2.50	0.25	13.00	10.61	7.60	1.25	8	0.45	