

AN5791

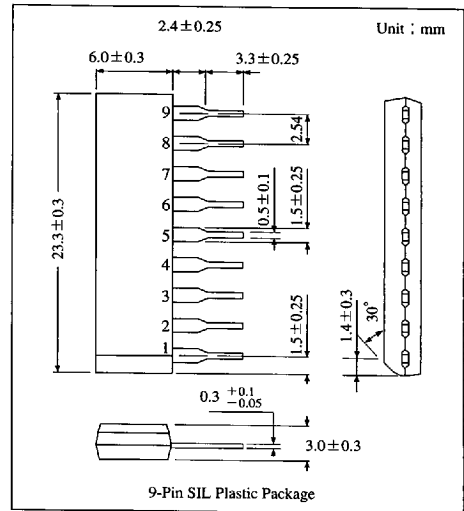
Phase Shift and Width Adjust IC for CRT Display

Overview

The AN5791 is an integrated circuit designed for phase shift and width adjustment circuit for CRT display.

Features

- Processing for both negative and positive sync. signals
- Wide range of possible phase shift ($1\ \mu\text{s}$ to $40\ \mu\text{s}$)
- Possible output pulse width $2\ \mu\text{s}$ to $40\ \mu\text{s}$

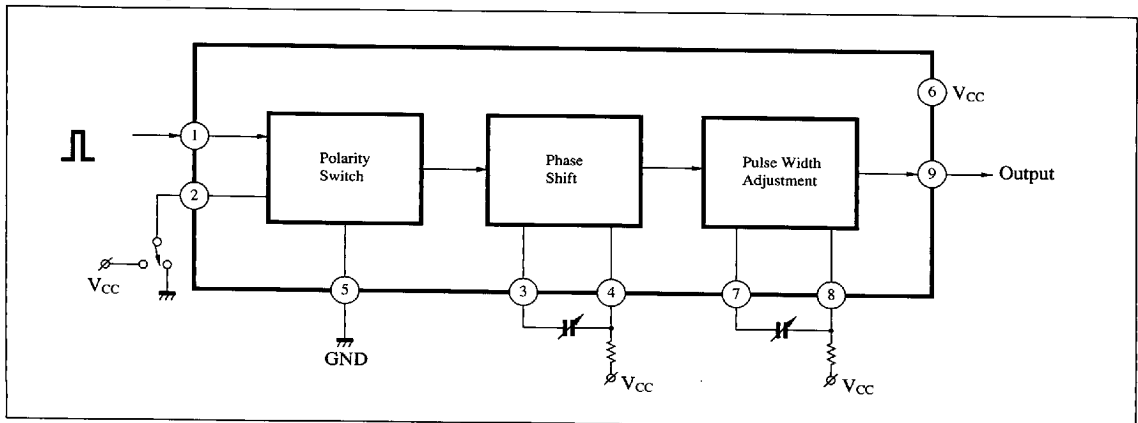


ICs for TV

Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	H. sync. input	6	V _{cc}
2	Polarity switch	7	Trigger for pulse width
3	Trigger for phase shift	8	Pulse width adj.
4	Phase shift adj.	9	Output
5	GND		

Block Diagram



Panasonic

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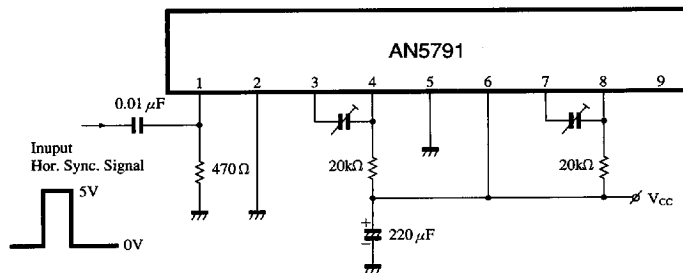
■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	13.2	V
Power dissipation	P_D	640	mW
Temperature	Operating ambient temperature	T_{opr}	-20 to +70
	Storage temperature	T_{stg}	-40 to +150

■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Circuit current	I_6	$V_{CC} = 11\text{V}$	18	25	32	mA
Circuit voltage (1)	V_{3-5}	$V_{CC} = 11\text{V}$	1.3	1.6	1.9	V
Circuit voltage (2)	V_{7-5}	$V_{CC} = 11\text{V}$	1.3	1.6	1.9	V
Polarity changeover voltage (1)	V_{2-5}	Positive polarity signal input	0	—	0.4	V
Polarity changeover voltage (2)	V_{2-5}	Negative polarity signal input	2.5	—	5.5	V
Phase shift time	$t_{(1)}$	$V_{CC} = 11\text{V}$	4.5	5.0	5.5	μs
Enable pulse shift time	$t_{(2)}$	$V_{CC} = 11\text{V}$	1	—	40	μs
Phase-shift-time supply voltage dependency	$\Delta t_{(1)}/V_{CC}$	$V_{CC} = 9.9\text{V}$ to 12.1V	—	—	5	%
Phase-shift-time ambient temperature dependency	$\Delta t_{(1)}/T_a$	$V_{CC} = 11\text{V}$, $T_a = -20$ to $+60^\circ\text{C}$	—	—	5	%
Output pulse width	$\tau_{(HD1)}$	$V_{CC} = 11\text{V}$	4.4	4.9	5.4	μs
Enable output pulse width	$\tau_{(HD2)}$	$V_{CC} = 11\text{V}$	2	—	40	μs
Output-pulse-width supply voltage dependency	$\Delta \tau_{(HD1)}/V_{CC}$	$V_{CC} = 9.9\text{V}$ to 12.1V	—	—	5	%
Output-pulse-width ambient temperature dependency	$\Delta \tau_{(HD1)}/T_a$	$V_{CC} = 11\text{V}$, $T_a = -20$ to $+60^\circ\text{C}$	—	—	5	%

■ Application Circuit



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