

# DBL 2071

## HORIZONTAL PROCESSOR FOR MONITOR SET

The DBL2071, is a monolithic integrated circuit encapsuled in a 14 dual-in-line package designed for horizontal deflection signal processor for a CRT display.

This IC can use with the DBL2054D (Vertical deflection IC).

### FUNCTIONS

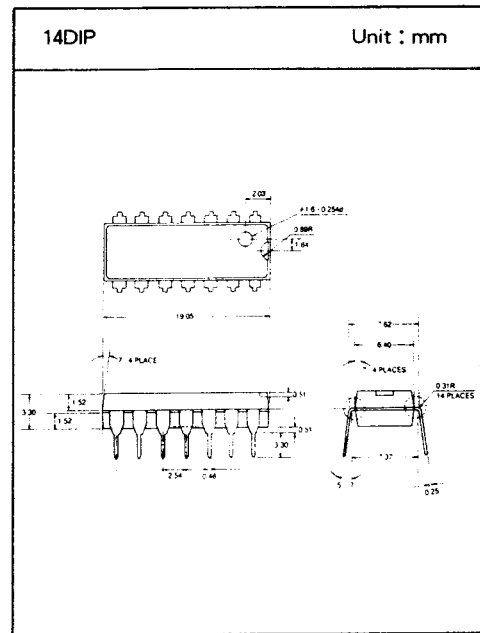
- Horizontal oscillator & AFC
- X-Ray protector
- AFC sawtooth wave generator
- Horizontal pulse duty setting
- Horizontal phase shifter

### FEATURES

- The horizontal oscillation frequency is stable from 15KHz to 100KHz.
- The horizontal display can be shifted right or left.
- The horizontal synchronizing pulse input can be used intact regardless of the difference in pulse polarity and pulse width.
- The AFC feedback sawtooth wave can be obtained by simply applying a flyback pulse to the IC as a trigger pulse.
- Any duty of horizontal pulse can be set.

### MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Supply Voltage	$V_{cc}(\text{max})$	14	V
Power Dissipation	$P_d$	520	mW
Operating Temperature	$T_{opr}$	-20 ~ +70	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$



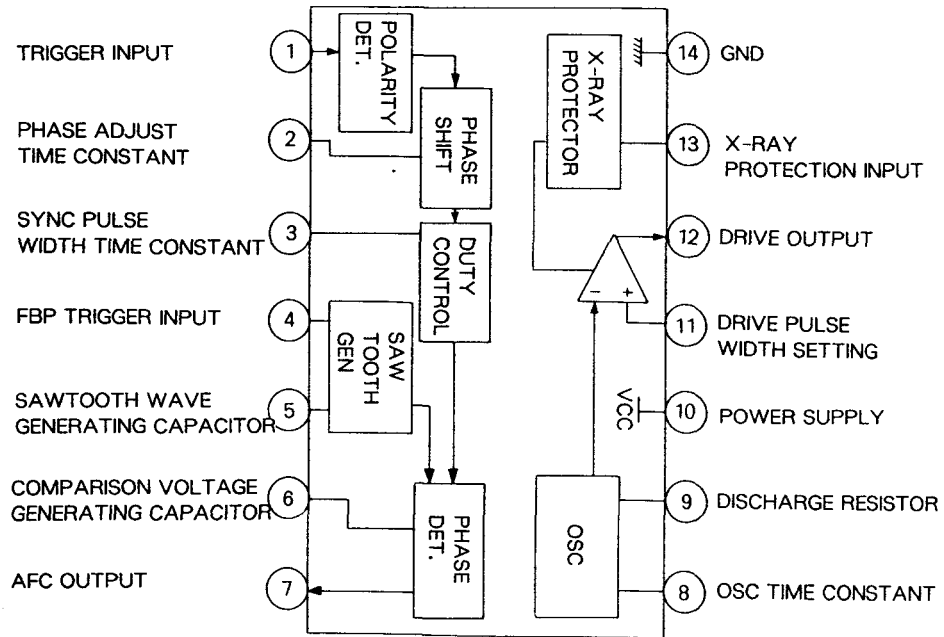
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## □ OPERATING CONDITION

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

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage	$V_{cc}$	9.0	12.0	13.5	V
Hor. Pulse Voltage	$V_p$	2.0	5.0	6.0	$V_{p-p}$

## □ BLOCK DIAGRAM



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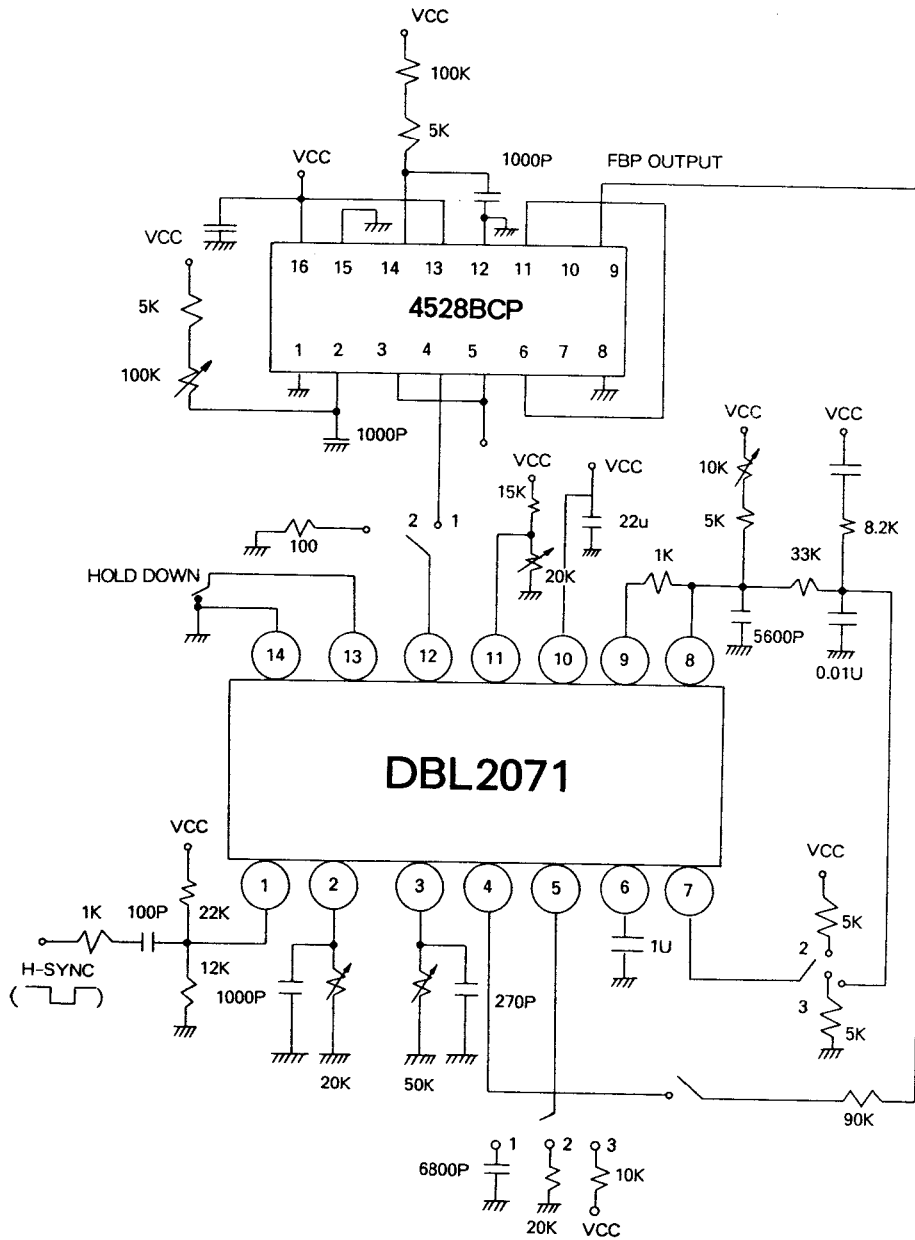
## □ ELECTRICAL CHARACTERISTICS

(V<sub>pin10</sub> = 12V, P<sub>s</sub> = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I <sub>cc</sub>	V <sub>cc</sub> = 12V	12	21	30	mA
Oscillation Start Voltage	V <sub>osc</sub> (H)		—	—	4.0	V
Free-Running Frequency	F <sub>fr</sub>	Fh = 15.734KHz	—750	—	750	Hz
AFC DC Loop Current	I <sub>afc</sub>	Pin2 : GND Pin3 : 5.0V, Pin : 4.0V Pin5 : 4.0V(+), 6.0V(—) Load : 5Kohm	±0.85	—	±1.6	mA
Frequency Drift with supply Voltage	F <sub>v</sub> (H)	V10 = 12 + 1V 15.734KHz at 12V	—50	—	50	Hz
Frequency Drift with Ambient Temperature	F <sub>t</sub> (H)	T <sub>a</sub> = —10 to +60°C	—2.9	—	2.9	Hz/°C
Comparison Wave Shaping Input Voltage	V4		0.6	0.65	0.8	V
X-Ray Protector Starting Voltage	V13		0.5	0.75	0.9	V
Horizontal Drive Current	I12	Pin8 : 3.0V Pin11 : 6.0V Load : 100ohm	6.0	9.0	12.0	mA
Sawtooth Gen. Current Source	I <sub>srcs</sub>	Pin4 : GND Load : 20Kohm	220	260	320	μA
Sawtooth Gen. Current Sink	I <sub>sks</sub>	Pin4 : 1.0V Load : 10Kohm	400	500	600	μA
Pulse Width	T <sub>pw</sub>	Pin11 : 6.0V	37	40	47	%
Pull-in Range	F <sub>pull</sub>		±400	—	—	Hz

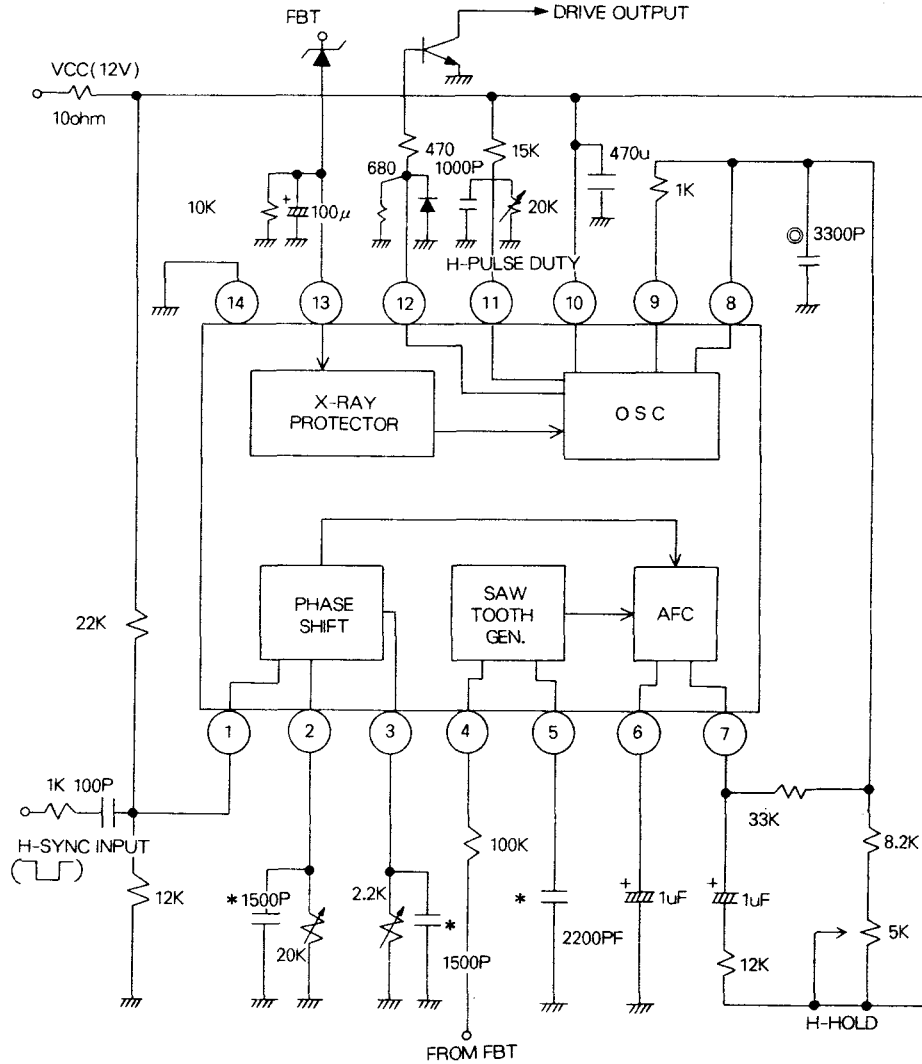
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## □ TEST CIRCUIT



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## APPLICATION CIRCUIT



### POLYESTER FILM CAPACITOR

- Temperature Range :  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Rated Voltage :  $100\text{V}_{\text{DC}}$
- Tolerance :  $\pm 5\%$

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