

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

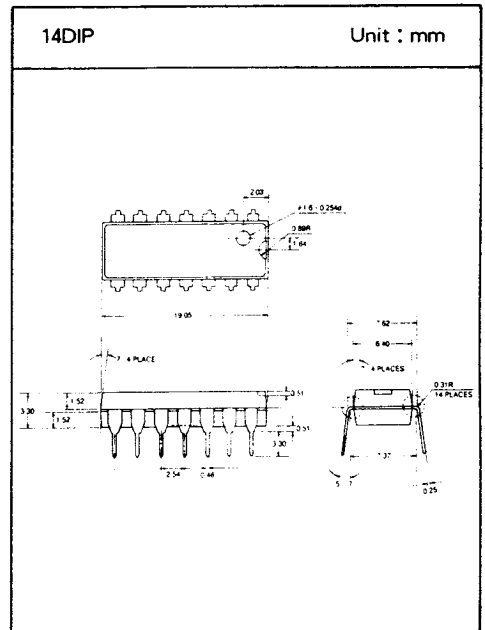
- Horizontal oscillator & AFC
- X-Ray protector
- AFC sawtooth wave generator
- Horizontal pulse duty setting
- Horizontal phase shifter

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 | $^{\circ}\text{C}$ |



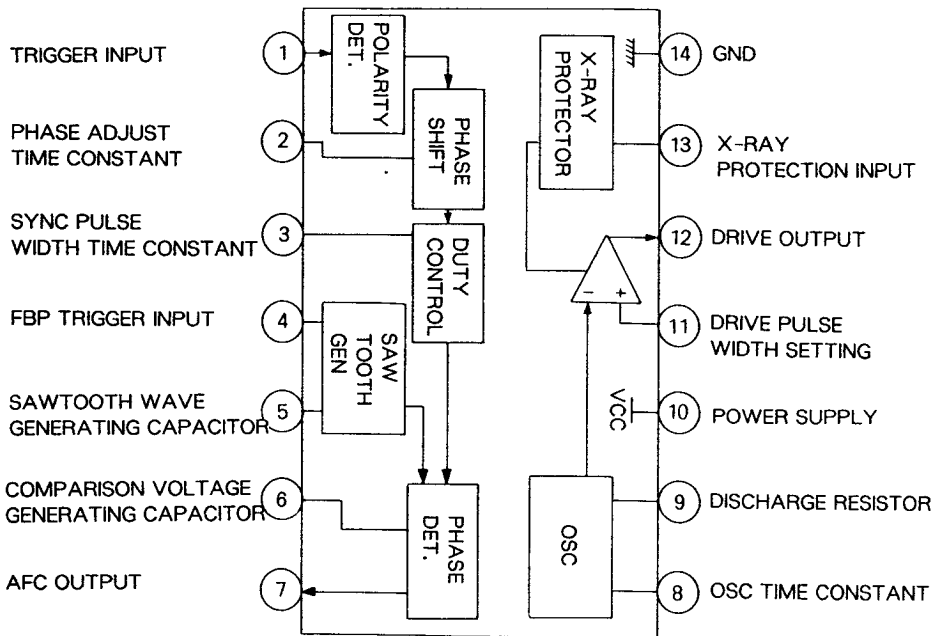
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OPERATING CONDITION

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

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

BLOCK DIAGRAM



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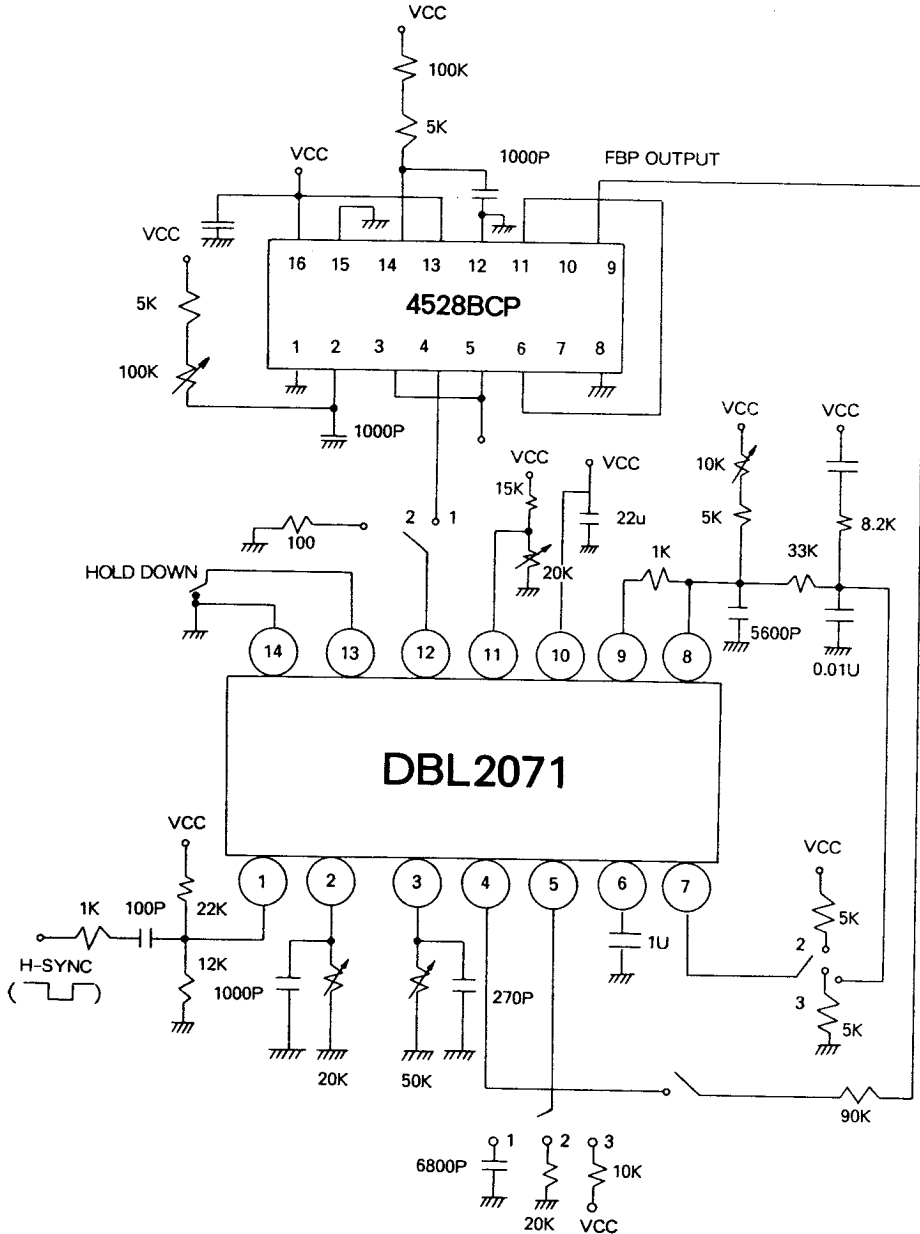
ELECTRICAL CHARACTERISTICS

(V_{pin10} = 12V, P_a = 25°C)

| CHARACTERISTICS | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--|---------------------|--|-------|------|------|-------|
| Supply Current | I _{cc} | V _{cc} = 12V | 12 | 21 | 30 | mA |
| Oscillation Start Voltage | V _{osc(H)} | | — | — | 4.0 | V |
| Free-Running Frequency | F _{no} | Fh = 15.734KHz | -750 | — | 750 | Hz |
| AFC DC Loop Current | I _{afc} | 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 _{s(H)} | V10 = 12 + 1V 15.734KHz at 12V | -50 | — | 50 | Hz |
| Frequency Drift with Amboent Temperature | F _{t(H)} | Ta = -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 _{src5} | Pin4 : GND Load : 20Kohm | 220 | 260 | 320 | μA |
| Sawtooth Gen. Current Sink | I _{sik5} | Pin4 : 1.0V Load : 10Kohm | 400 | 500 | 600 | μA |
| Pulse Width | T _{pw} | Pin11 : 6.0V | 37 | 40 | 47 | % |
| Pull-in Range | F _{pull} | | ±400 | — | — | Hz |

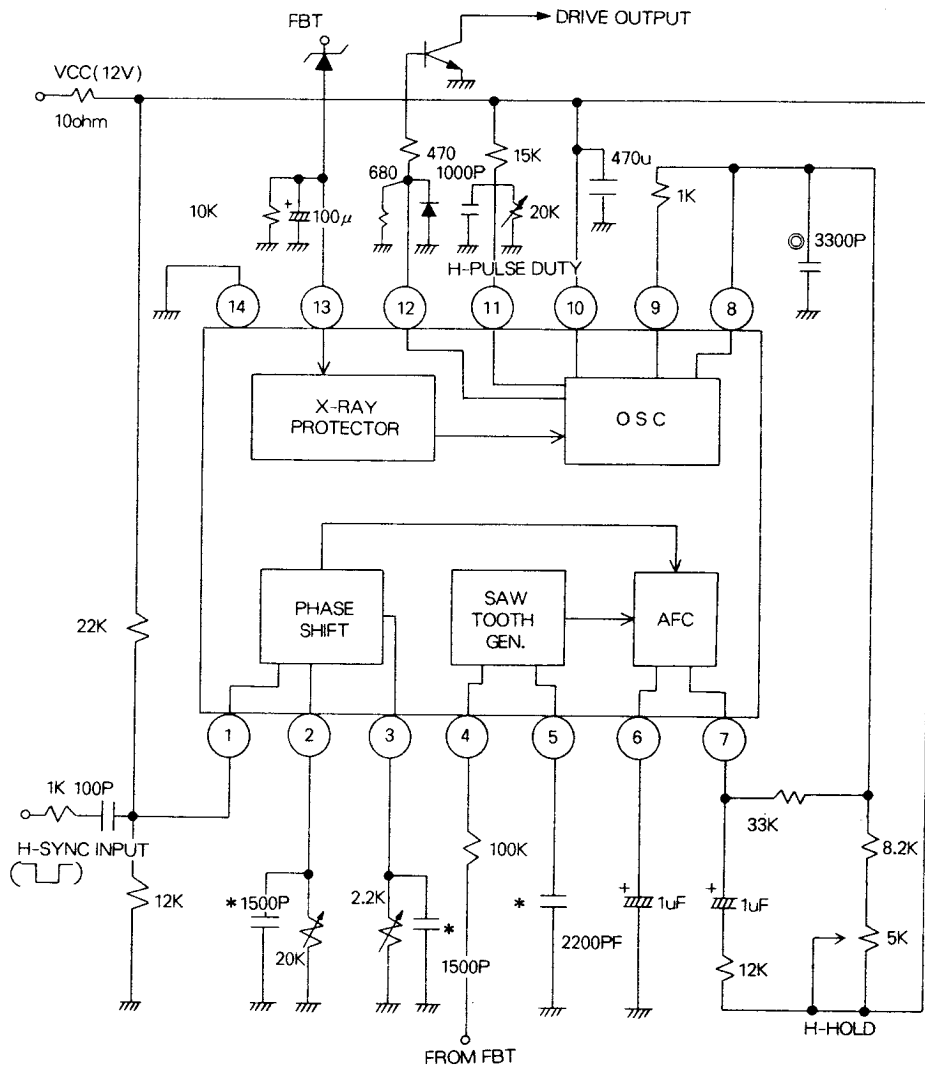
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TEST CIRCUIT



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APPLICATION CIRCUIT



POLYESTER FILM CAPACITOR

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

© POLYPROPYLENE FILM CAPACITOR

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