

# UTC PC1379 LINEAR INTEGRATED CIRCUIT

## 1-CHIP DEFECTION SYSTEM

### DESCRIPTION

The UTC PC1379 consists of a vertical system, including function and a horizontal system, including an AFC function. It is for use in small size color TVs, B/W TV receivers and monitors.

### FEATURES

- \*Low power consumption, direct deflection coil driving capability(Fly-back voltage two times as high supply voltage is supplied during fly-back period only)
- \*Variable circuit of vertical retrace time on chip

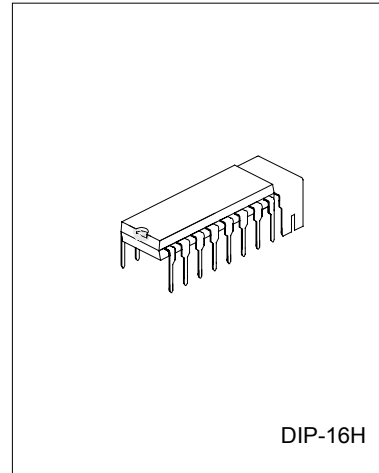
### FUNCTIONS

#### HORIZONTAL SECTION

- \*SYNC separation
- \*Horizontal Oscillators
- \*Horizontal Pre-drivers
- \*Horizontal AFCs
- \*Shunt Regulator(Typical 6.7V)

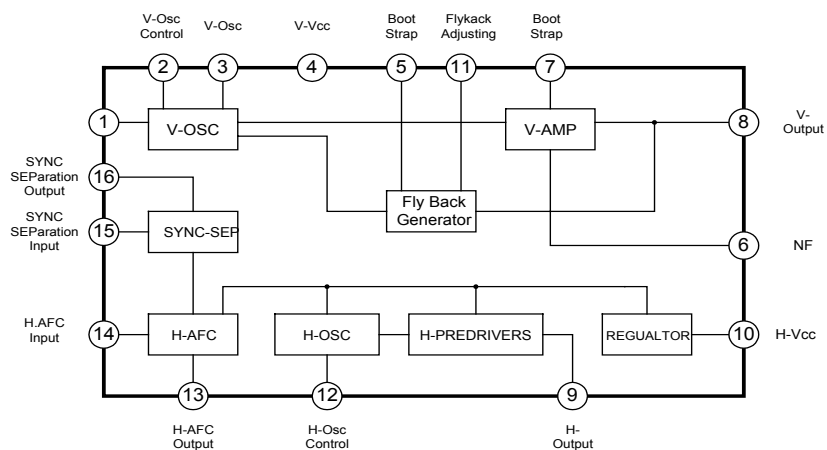
#### VERTICAL SECTION

- \*Vertical Oscillator
- \*Vertical Pre-drivers
- \*Vertical Output
- \*Fly-back generators



DIP-16H

### BLOCK DIAGRAM



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## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

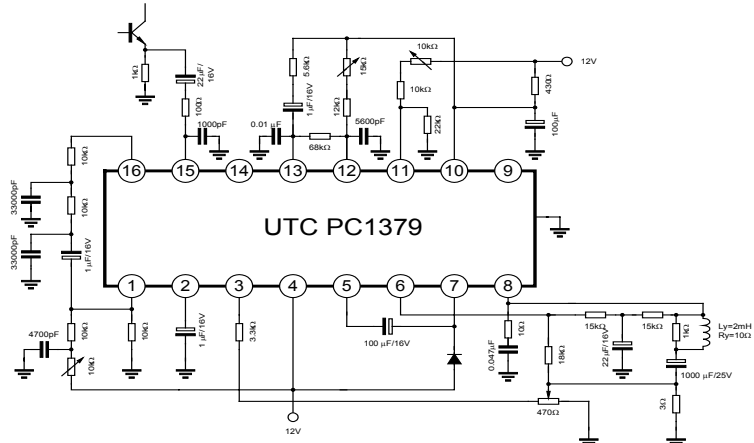
| PARAMETER                         | SYMBOL | VALUE       | UNIT    |
|-----------------------------------|--------|-------------|---------|
| Vertical Supply Voltage           | Vcc    | 15          | V       |
| Horizontal Supply Current         | I10    | 30          | mA      |
| Vertical Output Current           | I8     | -500 ~ +500 | ma peak |
| Horizontal Output Current(pulse)  | I9     | -15 ~ +5    | mA      |
| Fly-back Generator Output Current | I6     | -500 ~ +500 | ma peak |
| Operating Temperature             | Topr   | -20 ~ +75   | °C      |
| Storage Temperature               | Tstg   | -55 ~ +155  | °C      |
| Power Dissipation                 | Pd     | 1.3         | W       |

## ELECTRONICAL CHARACTERISTICS(Ta=25°C,VCC=12V,I10=12mA, unless otherwise specified)

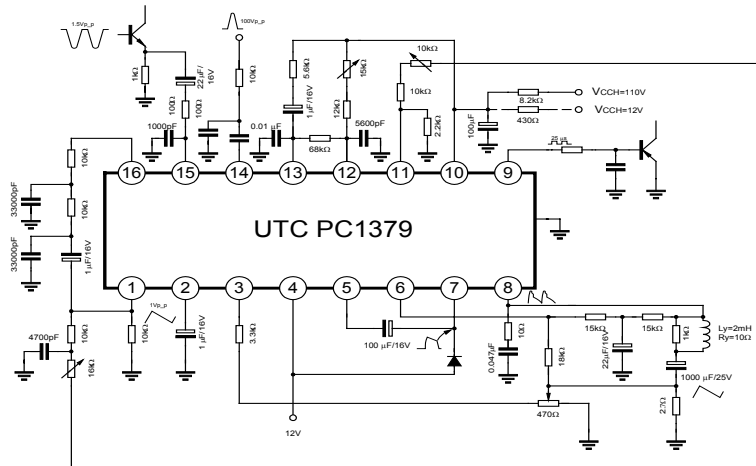
| PARAMETER                                | SYMBOL  | TEST CONDITIONS                   | MIN | TYP   | MAX  | UNIT  |
|--|---------|-----------------------------------|-----|-------|------|-------|
| Recommend Vertical Supply Voltage        | Vcc     |                                   | 9.6 | 12    | 14   | V     |
| Horizontal Supplu Current                | I10     |                                   | 6.5 | 12    | 18   | mA    |
| Vertical Supply Current                  | Icc(1)  | SWA=2                             |     | 85    | 100  | mA    |
| Vertical Supply Current                  | Icc(2)  | No Input Signal, SWA=2            | 6   | 12    | 20   | mA    |
| Vertical Free Running Frequency          | Fvo     | SWA=1                             | 55  | 60    | 65   | Hz    |
| Drift of Vertical Free Running Frequency | Fvo/Vcc | Fvo=Fvo(14.4V)-Fvo(9.6V)<br>SWA=2 |     | 0.8   | 2    | Hz    |
|  | Fvo/Ta  | Fvo=Fvo(-20°C)-Fvo(70°C)<br>SWA=2 |     | 1.5   | 2    | Hz    |
| Vertical Output Center Voltage           | Vmid    | SWA=2                             | 5.3 | 5.8   | 6.3  | V     |
| Vertical Output Current                  | IB      | SWA=2                             | 450 | 500   | 550  | mAp-p |
| Horizontal Supply Voltage                | V10     | SWB=2                             | 6.2 | 6.7   | 7.2  | V     |
| Horizontal Free Running Frequency        | FHO     | I10=12mA SWB=1                    | 15  | 15.75 | 16.5 | KHZ   |
| Horizontal Output Pulse Width            | THPW    | FHO=15.75KHZ. SWB=2               | 23  | 25    | 27   | US    |
| Horizontal Output Current                | I9      | SWB=2                             | 0.8 | 1.3   | 2.0  | mA    |

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## TEST CIRCUIT



## APPLICATION CIRCUIT



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