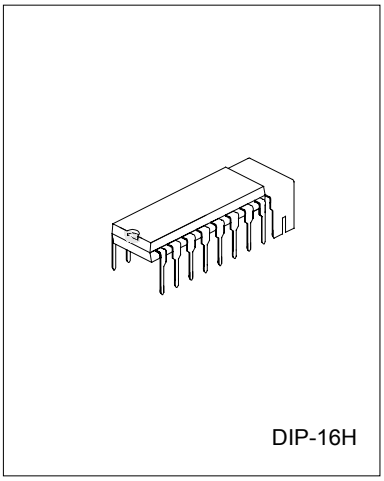
# UTC PC1379 LINEAR INTEGRATED CIRCUIT

## 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.

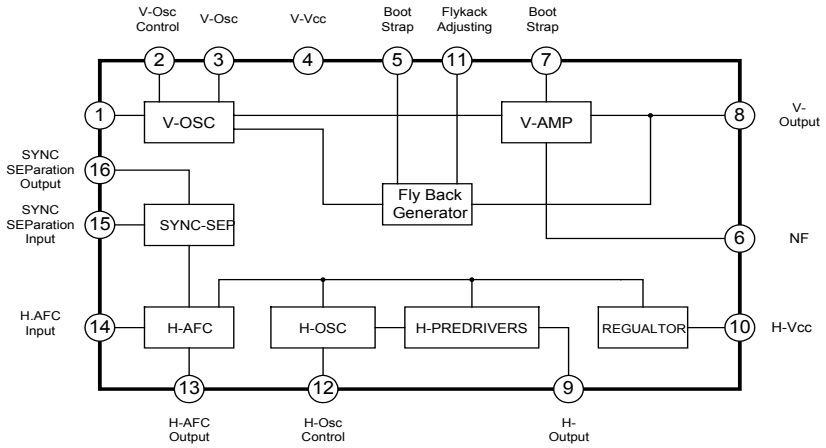
### FEATURES

*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

### BLOCK DIAGRAM



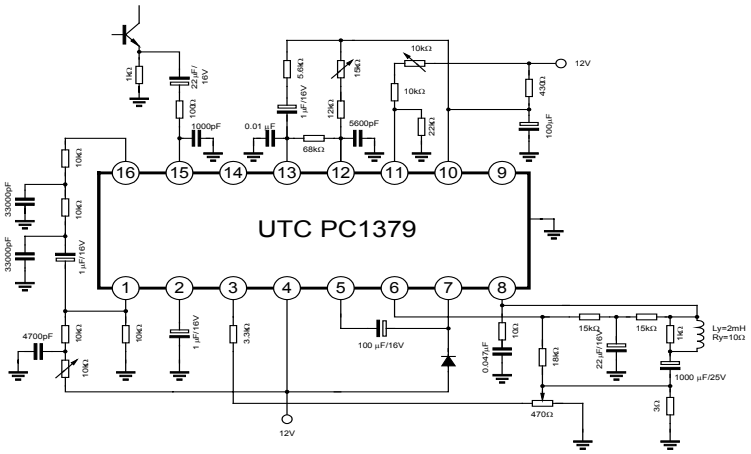
ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Vertical Supply Voltage | $V_{CC}$ | 15 | V |
| Horizontal Supply Current | $I_{10}$ | 30 | mA |
| Vertical Output Current | $I_8$ | -500 ~ +500 | ma peak |
| Horizontal Output Current(pulse) | $I_9$ | -15 ~ +5 | mA |
| Fly-back Generator Output Current | $I_6$ | -500 ~ +500 | ma peak |
| Operating Temperature | Topr | -20 ~ +75 | °C |
| Storage Temperature | Tstg | -55 ~ +155 | °C |
| Power Dissipation | $P_D$ | 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) SWA=2 | | 0.8 | 2 | Hz |
| | Fvo/Ta | Fvo=Fvo(-20°C)-Fvo(70°C) 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 |

TEST CIRCUIT




APPLICATION CIRCUIT