

UTC PC1379 LINEAR INTEGRATED CIRCUIT

1-CHIP DEFLECTION 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

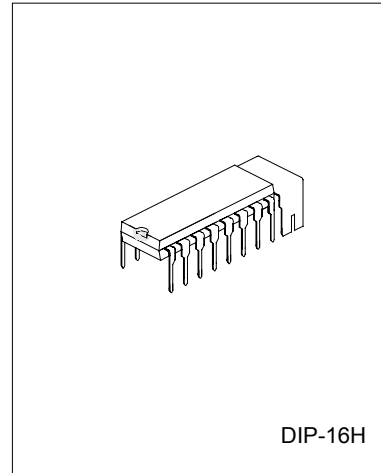
FUNCTIONS

HORIZONTAL SECTION

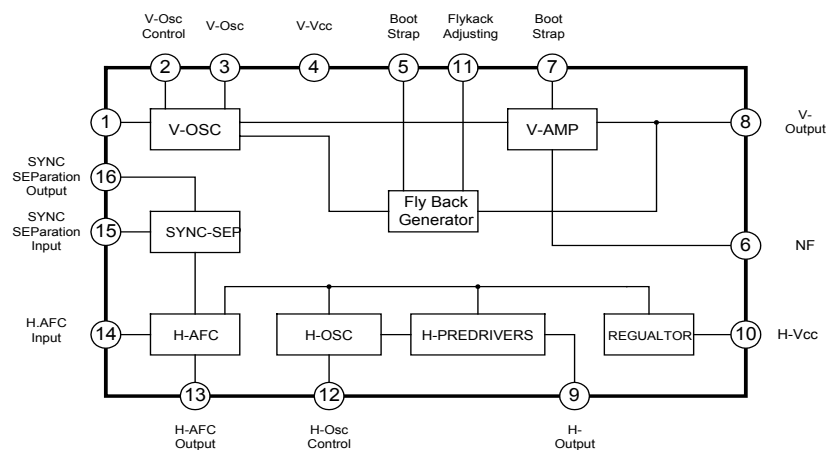
- *SYNC separation
- *Horizontal Oscillators
- *Horizontal Pre-drivers
- *Horizontal AFCs
- *Shunt Regulator(Typical 6.7V)

VERTICAL SECTION

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



BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

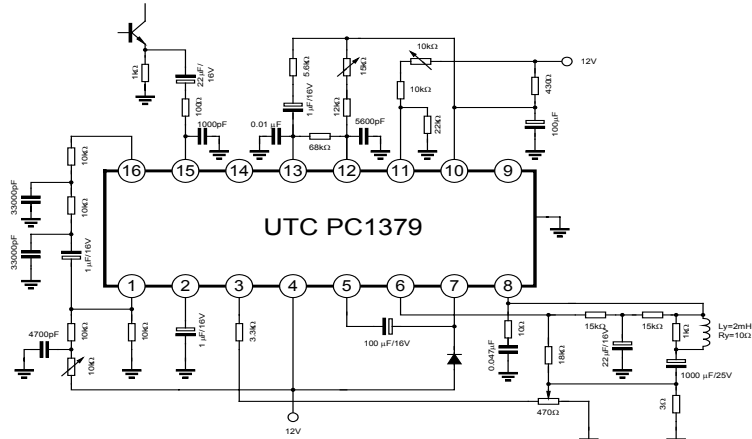
PARAMETER	SYMBOL	VALUE	UNIT
Vertical Supply Voltage	V _{CC}	15	V
Horizontal Supply Current	I ₁₀	30	mA
Vertical Output Current	I ₈	-500 ~ +500	ma peak
Horizontal Output Current(pulse)	I ₉	-15 ~ +5	mA
Fly-back Generator Output Current	I ₆	-500 ~ +500	ma peak
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-55 ~ +155	°C
Power Dissipation	P _D	1.3	W

ELECTRONICAL CHARACTERISTICS(Ta=25°C,V_{CC}=12V,I₁₀=12mA, unless otherwise specified)

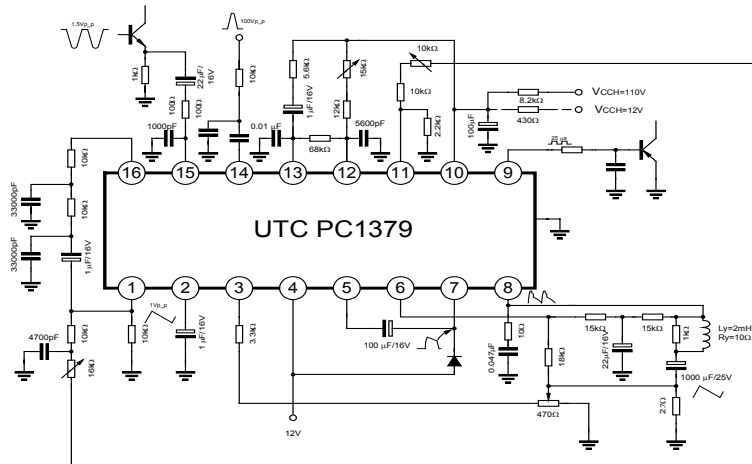
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Recommend Vertical Supply Voltage	V _{CC}		9.6	12	14	V
Horizontal Supplu Current	I ₁₀		6.5	12	18	mA
Vertical Supply Current	I _{CC} (1)	SWA=2		85	100	mA
Vertical Supply Current	I _{CC} (2)	No Input Signal, SWA=2	6	12	20	mA
Vertical Free Running Frequency	F _{VO}	SWA=1	55	60	65	Hz
Drift of Vertical Free Running Frequency	F _{VO} /V _{CC}	F _{VO} =F _{VO} (14.4V)-F _{VO} (9.6V) SWA=2		0.8	2	Hz
	F _{VO} /T _a	F _{VO} =F _{VO} (-20°C)-F _{VO} (70°C) SWA=2		1.5	2	Hz
Vertical Output Center Voltage	V _{mid}	SWA=2	5.3	5.8	6.3	V
Vertical Output Current	I _B	SWA=2	450	500	550	mAp-p
Horizontal Supply Voltage	V ₁₀	SWB=2	6.2	6.7	7.2	V
Horizontal Free Running Frequency	F _{HO}	I ₁₀ =12mA SWB=1	15	15.75	16.5	KHZ
Horizontal Output Pulse Width	THPW	F _{HO} =15. 75KHZ. SWB=2	23	25	27	US
Horizontal Output Current	I ₉	SWB=2	0.8	1.3	2.0	mA

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TEST CIRCUIT



APPLICATION CIRCUIT



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