

# UTC1366

# LINEAR INTEGRATED CIRCUIT

## VIDEO IF PROCESSOR FOR B/W TVs

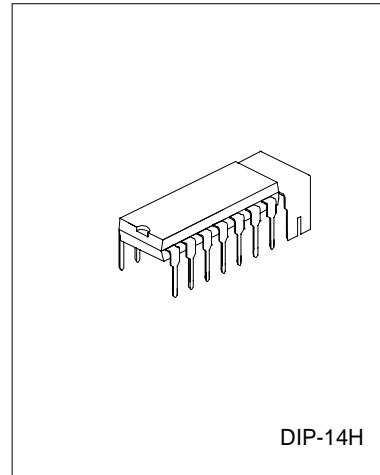
### DESCRIPTION

The UTC1366 is a monolithic integrated circuit designed for the VIF stage in B/W television receivers.

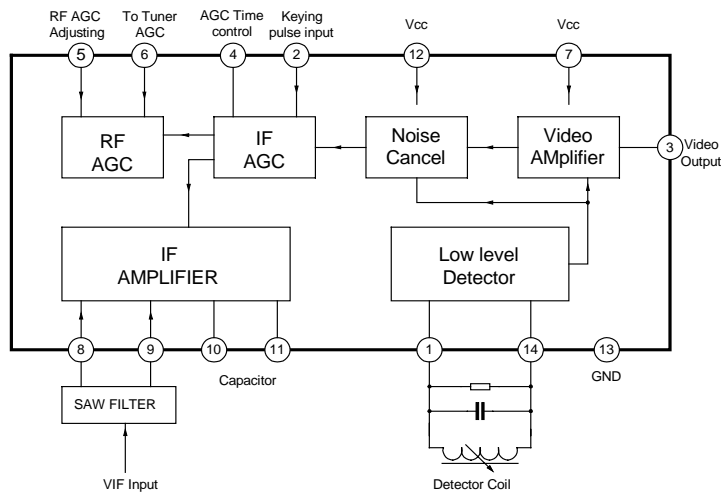
This IC has all functions, including a video low-level detector, RF AGC, IF AGC, and noise cancellor.

### FEATURES

- \*High input sensitivity:30dBμ (Typ)
- \*Used for both Keyed type AGC or Peak type AGC
- \*Suitable for the sound carrier frequency of 4.5M, 5.5M,6.5Mhz
- \*Few of external components.



### TYPICAL APPLICATION CIRCUIT



### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage (pin7)	Vcc	15	V
Input Signal Voltage	V <sub>8</sub> , V <sub>9</sub>	3	V <sub>p-p</sub>
Operating Temperature	T <sub>opr</sub>	-20 to +75	°C
Storage Temperature	T <sub>stg</sub>	-40 to 125	°C
Power dissipation	P <sub>D</sub>	0.875 free air, Ta=75°C	W



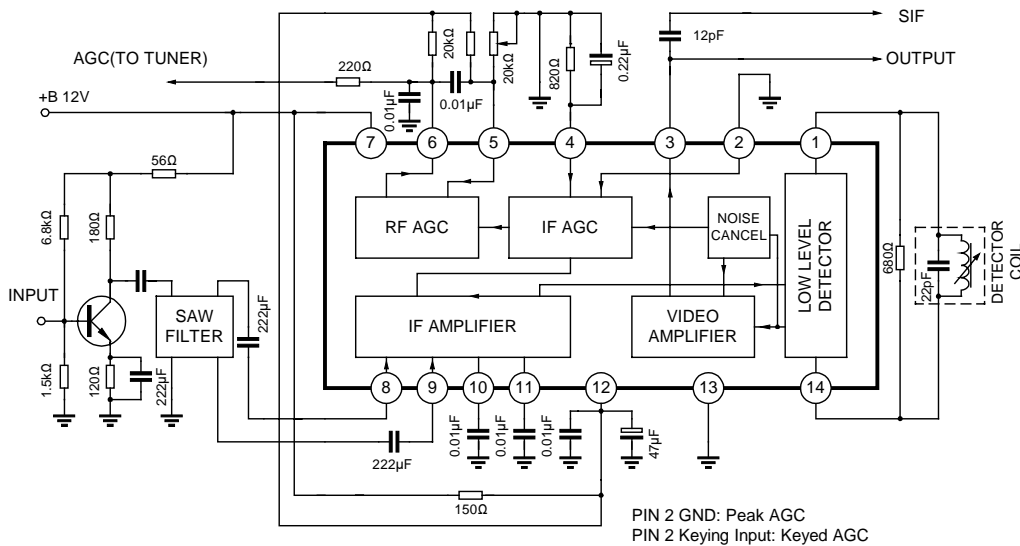
YOUWANG ELECTRONICS CO LTD

**ELECTRICAL CHARACTERISTICS**

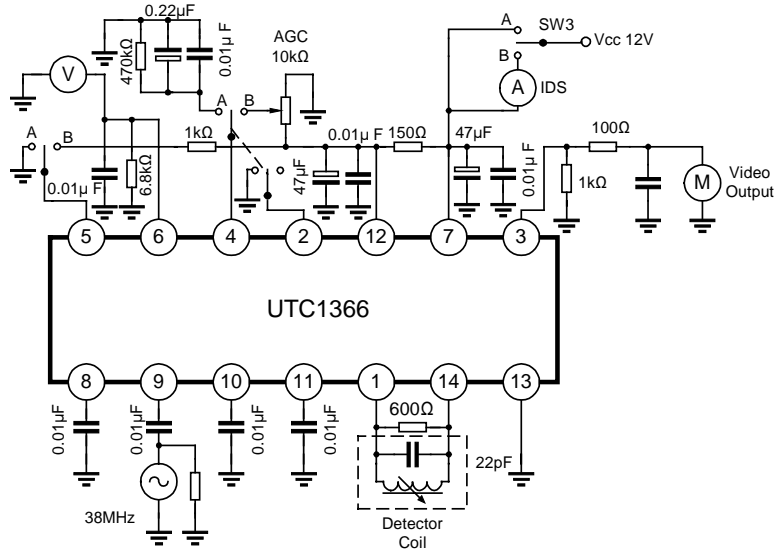
(Ta=25°C, Vcc=12V, fp=45.75MHz, fm=400Hz, unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Total supply current	I <sub>cc</sub>	(I7+I12), RA=150Ω	40	50	60	mA
Input sensitivity	S <sub>vi</sub>			30	35	dBμ
Maximum input voltage	V <sub>i(max)</sub>	MOD=80%, -1dB point	100			dBμ
Video Output Voltage	V <sub>o</sub>	MOD=80%, V <sub>i</sub> =3mVrms	1.0	1.4	1.7	Vp-p
Signal to Noise Ratio	S/N	MOD=80%~0%, V <sub>i</sub> =3mVrms	40	5		dB
RF AGC Voltage(high)	V <sub>6H</sub>	V <sub>5</sub> =0V	8	9	11	V
RF AGC Voltage(low)	V <sub>6L</sub>	V <sub>5</sub> =7V		0	0.5	V
Differential Gain	D.G.	Stair step FM=3.58MHz			10	%
Differential Phase	D.P.	Stair step FM=3.58MHz			10	degree
Video Detector band Width	Gv(F)	-3dB point	5.5			MHz
Input Resistance	R <sub>in</sub>			1.5		kΩ
Input Capacitance	C <sub>in</sub>			3.3		pF

**TYPICAL APPLICATION CIRCUIT**



TEST CIRCUIT



TYPICAL PERFORMANCE CHARACTERISTICS

