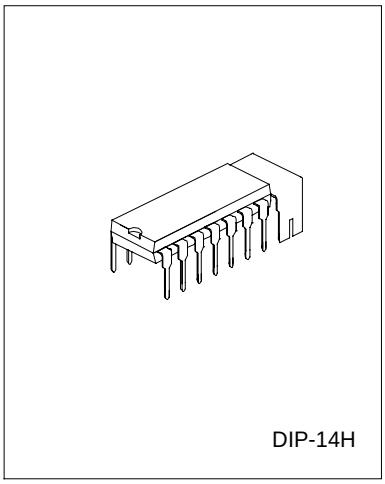
VIDEO IF PROCESSOR FOR B/W TVs



DESCRIPTION

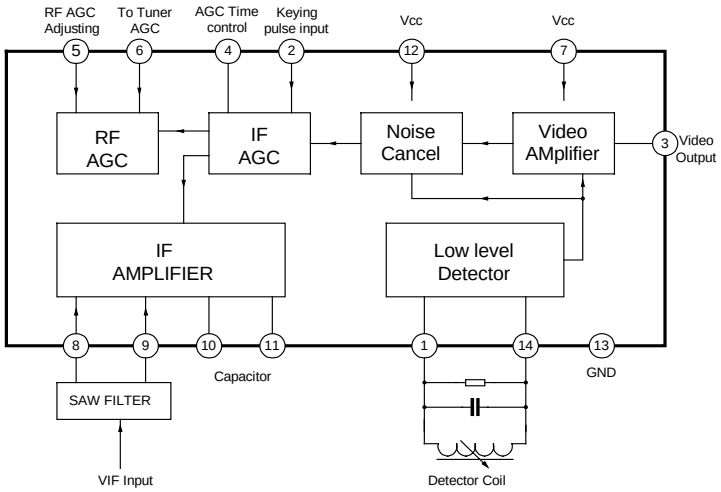
The UTC1366 is a monolithic integrated circuit designed for the VIF stage in B/W television receivers.

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

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)

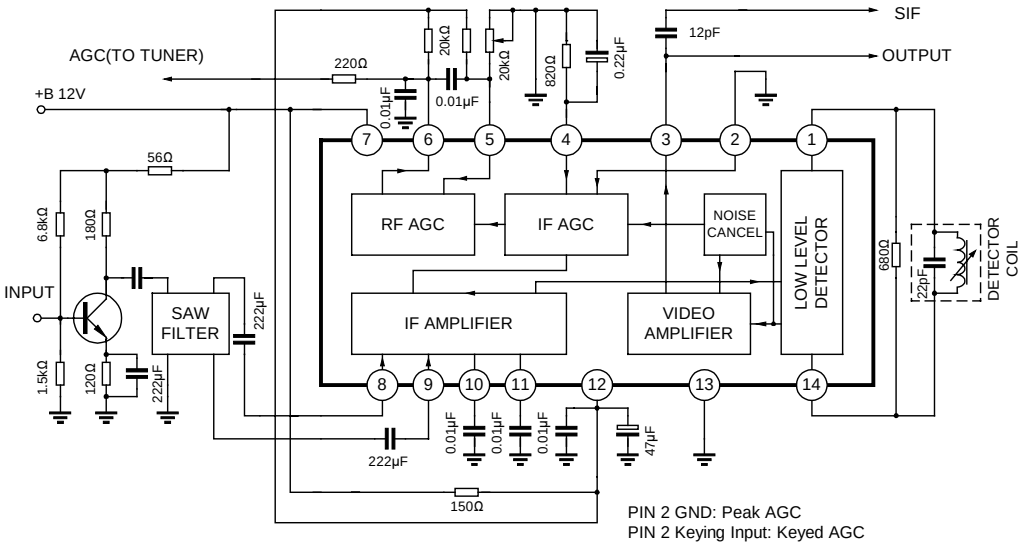
Characteristic	Symbol	Value	Unit
Supply Voltage(pin7)	Vcc	15	V
Input Signal Voltage	V_8,V_9	3	Vp-p
Operating Temperature	Topr	-20 to +75	°C
Storage Temperature	Tstg	-40 to 125	°C
Power dissipation	P_D	0.875 free air,Ta=75°C	W

ELECTRICAL CHARACTERISTICS

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

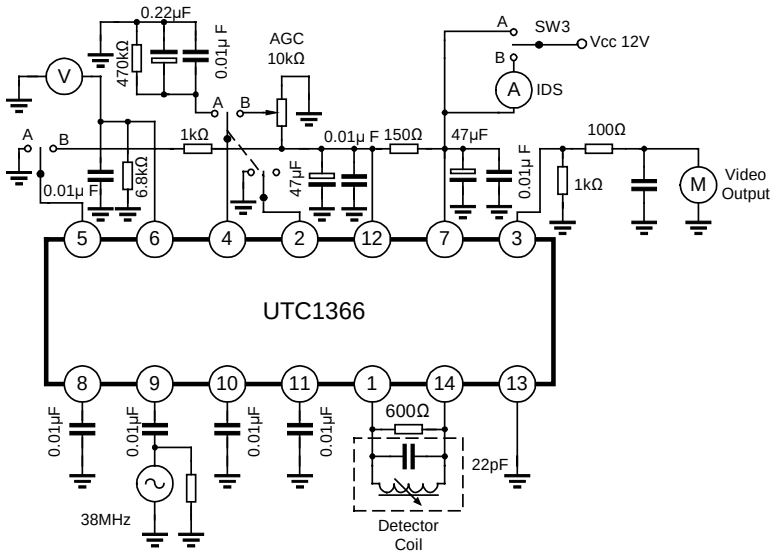
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Total supply current	Icc	(I_7+I_{12}), R_A=150Ω	40	50	60	mA
Input sensitivity	S_{VI}			30	35	dBμ
Maximum input voltage	Vi(max)	MOD=80%,-1dB point	100			dBμ
Video Output Voltage	Vo	MOD=80%,Vi=3mVrms	1.0	1.4	1.7	Vp-p
Signal to Noise Ratio	S/N	MOD=80%~0%,Vi=3mVrms	40	5		dB
RF AGC Voltage(high)	V_{6H}	V5=0V	8	9	11	V
RF AGC Voltage(low)	V_{6L}	V5=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	$G_{V(F)}$	-3dB point	5.5			MHz
Input Resistance	Rin			1.5		kΩ
Input Capacitance	Cin			3.3		pF

TYPICAL APPLICATION CIRCUIT



PIN 2 GND: Peak AGC
PIN 2 Keying Input: Keyed AGC

TEST CIRCUIT



TYPICAL PERFORMANCE CHARACTERISTICS