

# HA118121FP

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## Electronic View Finder for Video Camera

HA118121FP can be used with both a 5V or 8V supply voltage. An on-chip filter means fewer external components and reduced mounting area requirements.

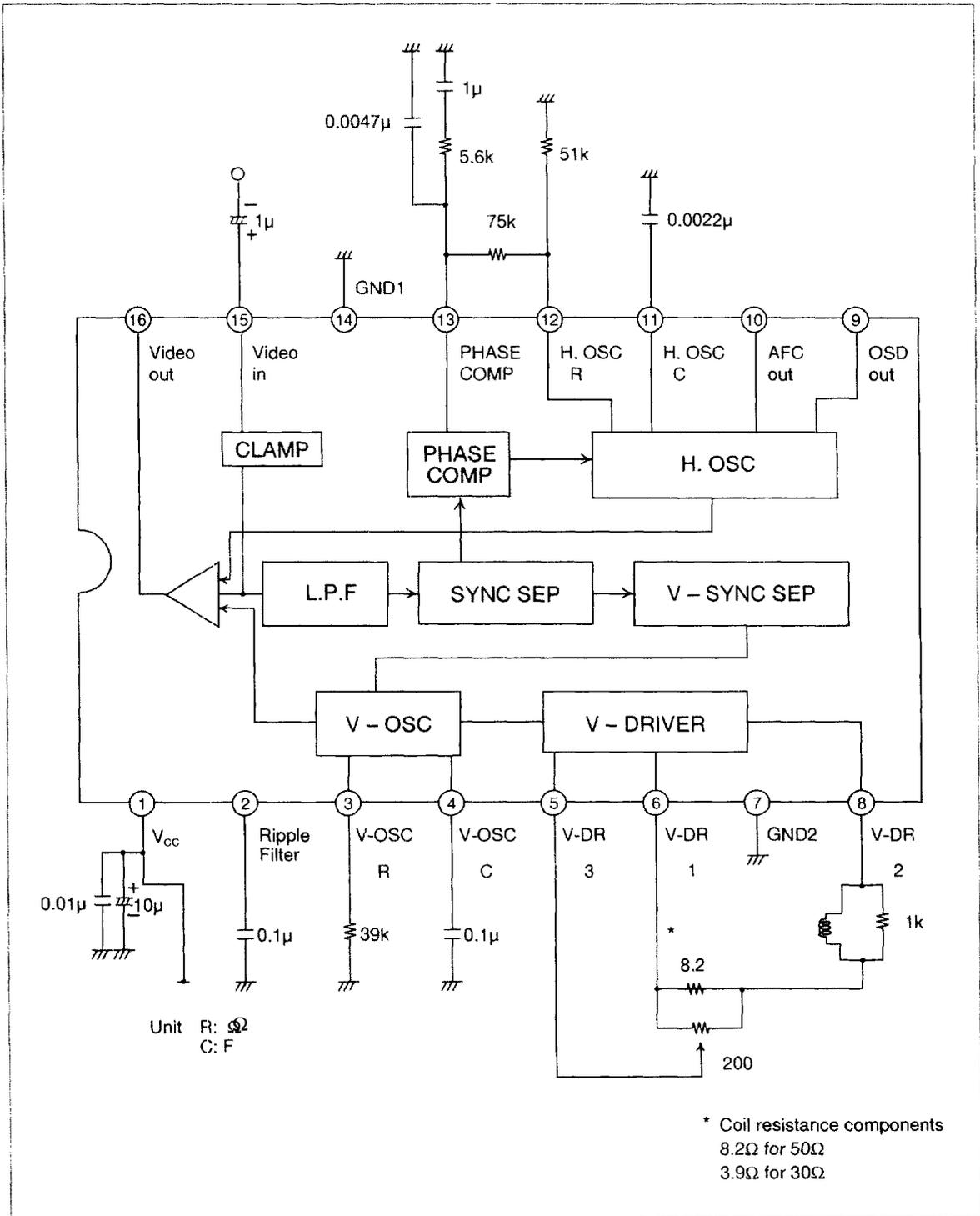
### Functions

- Video amplifier (6dB inverted)
- SYNC SEP and V-SYNC SEP circuitry
- H-OS and V-OSC circuitry
- Linear V-driver circuitry

### Features

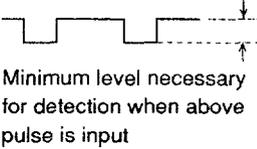
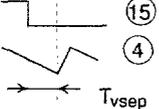
- Applicable with both 5V and 8V supply voltage
- On-chip low-pass filter for SYNC SEP eliminates any problems caused by video signals that include chroma signals
- Supply voltage stabilizer circuitry plus circuit configuration to resist supply ripple
- Linear V-driver allows direct connection of a vertical deviation coil
- Non-adjustable H-OSC
- On-chip video amplifier with outstanding characteristics (10MHz minimum)
- Large chemical capacitors not required, so compact SOP package allows reduced mounting area requirements
- Adaptable to PAL applications with a change in T-OSC oscillator constant

Block Diagram



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## Electrical Characteristics ( $V_{CC} = 5V$ or $8V$ , $T_a = 25^\circ C$ )

Item	Symbol	Min	Typ	Max	Unit	Test Conditions	Test Pin
Supply current	$I_{CC}$	—	40	—	mA	No signal VIDEO OUT no load AFC OUT no load OSD OUT no load	Pin 1
Video amplifier gain	$G_V$	—	6.0	—	dB	Input signal 5MHz, 1Vpp RL = 2kW	Pin 16
Video amplifier maximum input level	$V_{IN}$ MAX	(1.3)	—	—	Vpp	Maximum input level not exceeding RL = 2kW, THD = 0.5%	Pin 15
Minimum synchronization separation input level	$V_{DET}$ MIN	(200)	—	—	mV	 Minimum level necessary for detection when above pulse is input	Pin 15
Video signal HD duration	$T_H$	—	8	—	$\mu s$		Pin 16
Video signal VD duration	$T_V$	—	0.7	—	ms		Pin 16
AFC OUT HD duration	$T_H$ AFC	—	11.0	—	$\mu s$		Pin 10
OSD OUT HD duration	$T_H$ OSD	—	11.0	—	$\mu s$		Pin 9
AFC OUT output voltage	$V_{AFC}$	—	7.1	—	Vpp	No load	Pin 10
OSD OUT output voltage	$V_{OSD}$	—	7.8	—	Vpp	No load	Pin 9
Horizontal free oscillation frequency*	$f_H$ FREE	—	15.7	—	kHz		Pin 11
AFC lock range*	$f_{CAP}$	—	$\pm 2.4$	—	kHz		Pin 11
AFC control sensitivity	$K_{AFC}$	—	340	—	Hz/ $\mu A$	Frequency change with change in current at pin 12	Pin 12
Vertical free oscillation frequency*	$f_V$ FREE	—	45	—	Hz		Pin 4
Vertical separation time	T VSEP	—	40	—	$\mu s$		Pin 4
Vertical deviation output-1*	V VD1	—	2.8	—	Vpp		Pin 6
Vertical deviation output-2*	V VD2	—	2.8	—	Vpp		Pin 8

\* Refer to the block diagram for external circuitry.