

AN7420N

FM Stereo Multiplex Demodulator

■ Description

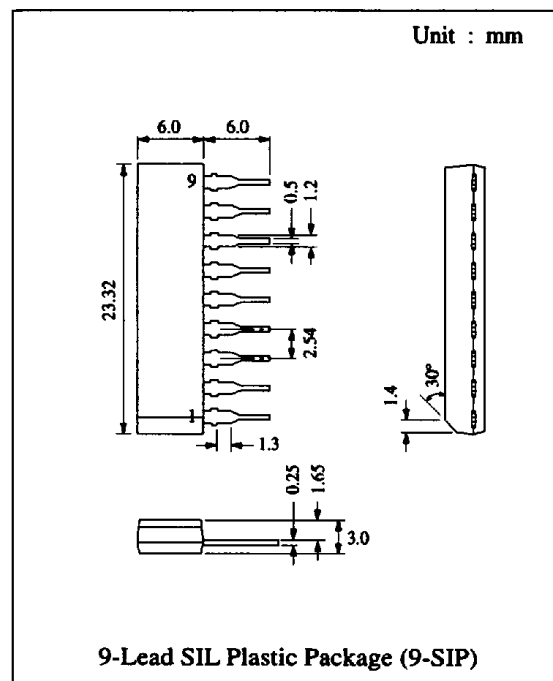
The AN7420N is a monolithic integrated circuit designed for low voltage operating FM stereo multiplex demodulator using PLL circuitry.

■ Features

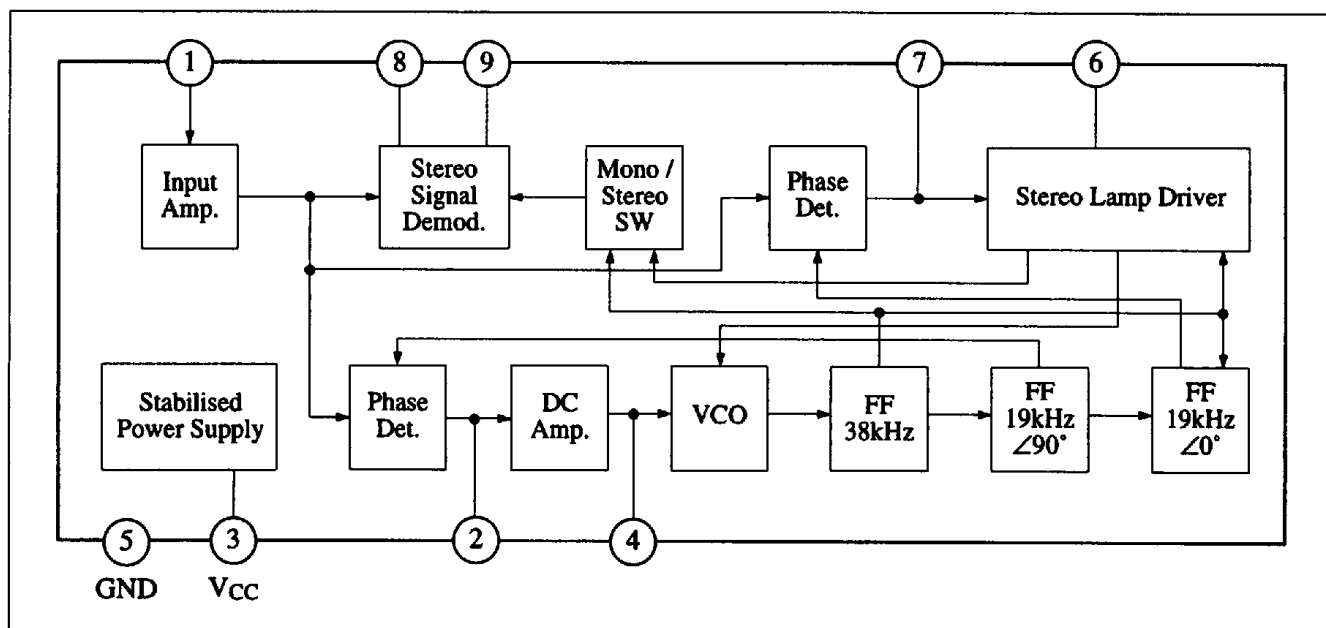
- Few peripheral components, simple alignment
- Low and wide voltage operation : $V_{CC} = 3.5V \sim 12V$
- Provide with forced monaural and VCO stop circuits (pin7)
- No gain loss in multiplex stage with 0 dB voltage gain

■ Pin

Pin No.	Pin Name
1	Composite Signal Input
2	PLL Low-pass Filter
3	V _{CC}
4	VCO RC Time Constant
5	GND
6	Stereo Indicator and VCO Frequency Monitor
7	Pilot Det. Low-pass Filter
8	L Channel Signal Output
9	R Channel Signal Output



■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

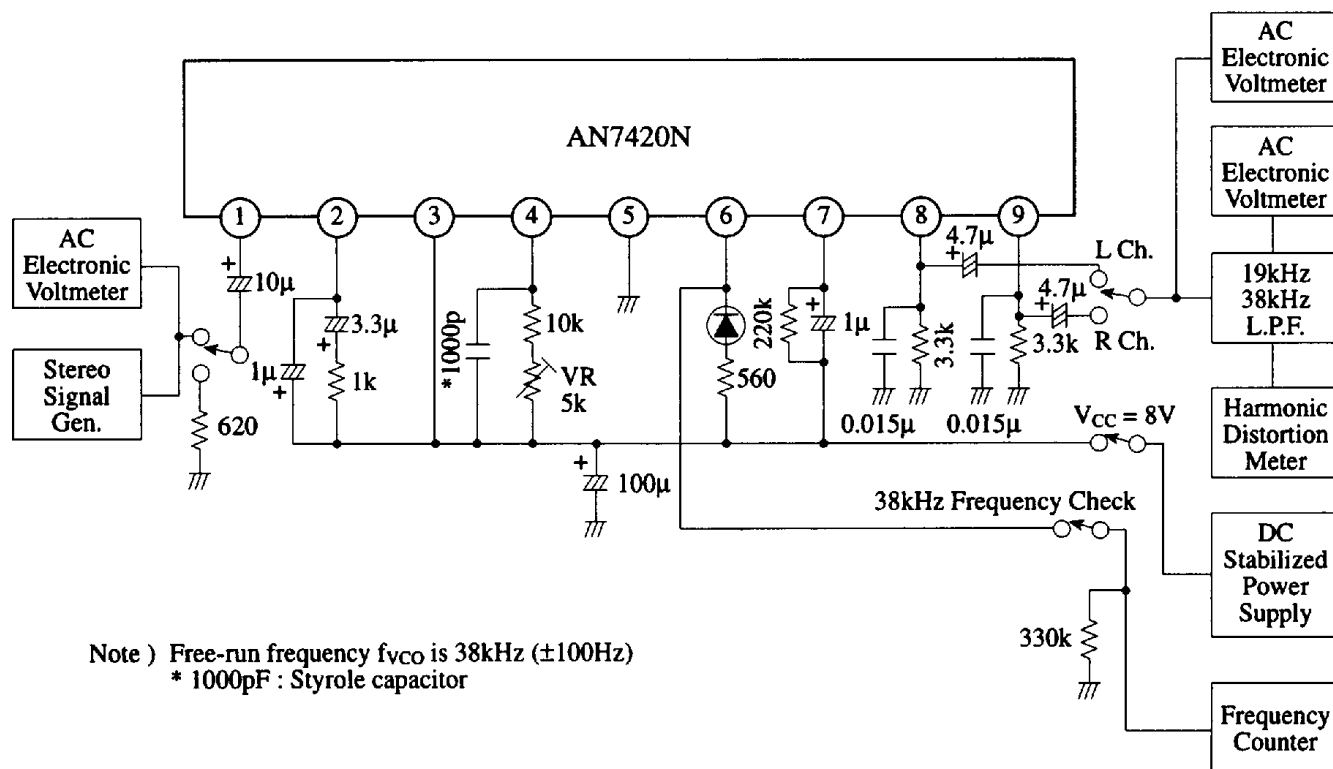
Item	Symbol	Rating	Unit
Supply Voltage	V_{CC}	12	V
Load Current (LED)	I_L	40	mA
Power Dissipation	P_D	500	mW
Operating Ambient Temperature	T_{opr}	-25 ~ +75	°C
Storage Temperature	T_{stg}	-40 ~ +150	°C

Operating Supply Voltage Range: $V_{CC} = 3.5V \sim 12.0V$

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

Item	Symbol	Condition	min.	typ.	max.	Unit
Total Current	I_{tot}	Without input signal		11	18	mA
Separation	Sep	$V_{(L+R)} = 180mV$, $f_m = 1kHz$, $V_p = 20mV$	36	45		dB
Total Harmonic Distortion (Stereo)	THD			0.08	0.3	%
Output Voltage (Monaural)	V_O	$V_{in} = 200mV$, $f_m = 1kHz$	160	200	250	mV
Channel Balance	CB			0	1.5	dB
Stereo Lamp ON Level	$V_{p(ON)}$	Pilot signal 19kHz		9	15	mV
Stereo Lamp OFF Level	$V_{p(OFF)}$		2	6		mV

Test Circuit



■ Characteristics Curve

