

# AN7420N

## FM Stereo Multiplex Demodulator

### ■ Description

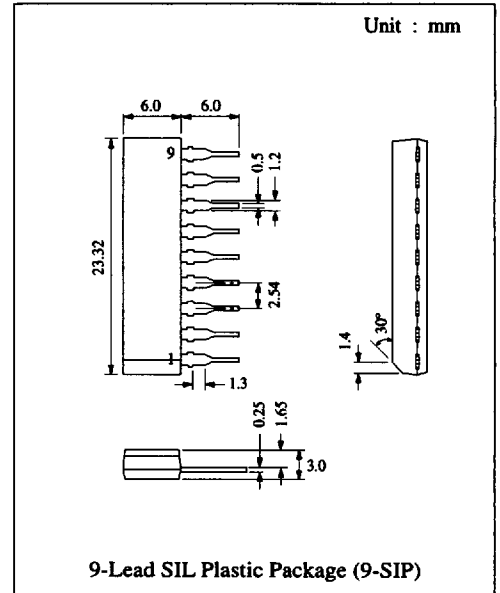
The AN7420N is a monolithic integrated circuit designed for low voltage operating FM stereo multiplex demodulator using PLL circuitry.

### ■ Features

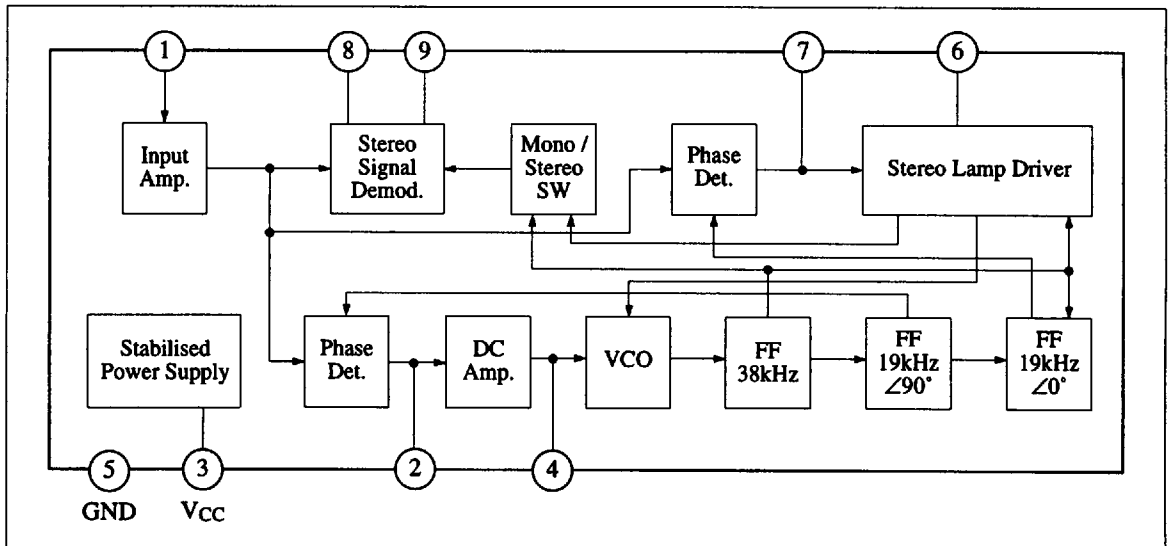
- Few peripheral components, simple alignment
- Low and wide voltage operation :  $V_{CC} = 3.5V \sim 12V$
- Provide with forced monaural and VCO stop circuits (pin7)
- No gain loss in multiplex stage with 0 dB voltage gain

### ■ 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)

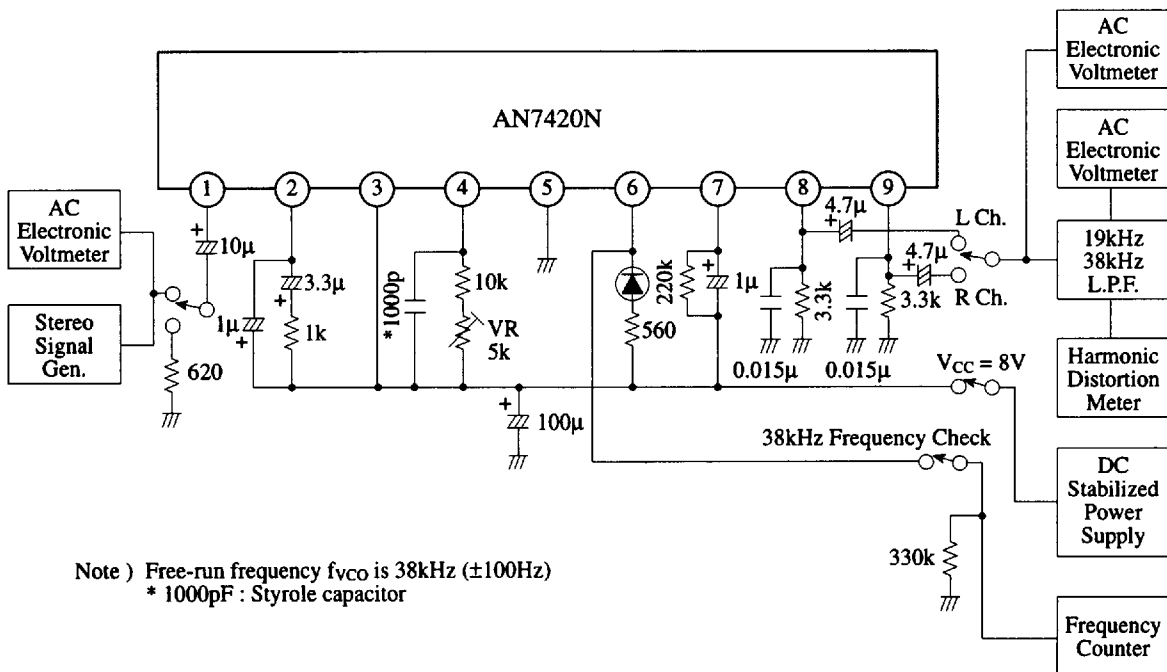
Item	Symbol	Rating	Unit
Supply Voltage	V <sub>CC</sub>	12	V
Load Current (LED)	I <sub>L</sub>	40	mA
Power Dissipation	P <sub>D</sub>	500	mW
Operating Ambient Temperature	Topr	-25 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +150	°C

Operating Supply Voltage Range: V<sub>CC</sub> = 3.5V ~ 12.0V

## ■ Electrical Characteristics (V<sub>CC</sub>=8V, Ta=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Total Current	I <sub>tot</sub>	Without input signal		11	18	mA
Separation	Sep	V <sub>(L+R)</sub> = 180mV, f <sub>m</sub> = 1kHz,	36	45		dB
Total Harmonic Distortion (Stereo)	THD	V <sub>p</sub> = 20mV		0.08	0.3	%
Output Voltage (Monaural)	V <sub>O</sub>	V <sub>in</sub> = 200mV, f <sub>m</sub> = 1kHz	160	200	250	mV
Channel Balance	CB			0	1.5	dB
Stereo Lamp ON Level	V <sub>p(ON)</sub>	Pilot signal 19kHz		9	15	mV
Stereo Lamp OFF Level	V <sub>p(OFF)</sub>		2	6		mV

## Test Circuit



■ Characteristics Curve

