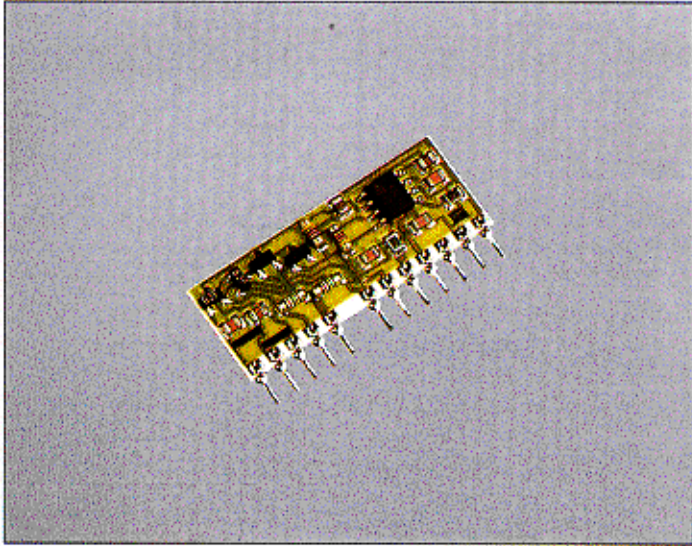




## SP2

Low noise balanced input microphone preamplifier



### General description

The SP2 is a high performance low noise microphone preamplifier.

Designed for professional audio mixer with very low noise channels.

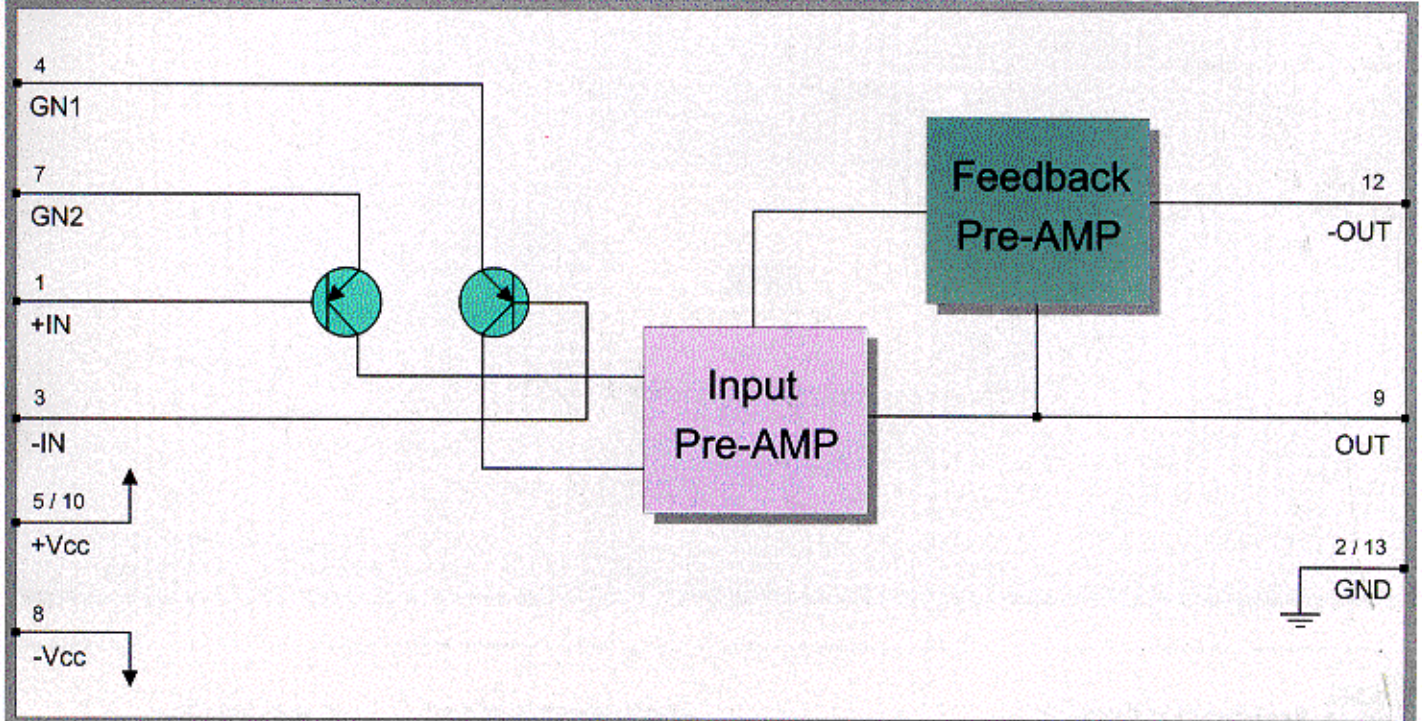
### Features

- Low noise bipolar transistors and input resistors
- Input clamp diodes protection
- SIL Package
- Thick film hybrid technology

### Applications

- Professional Audio Mixer
- Hi-Fi Systems
- Karaoke Systems
- Theatre and P. A. Equipments

### BLOCK DIAGRAM



## Electrical Characteristics

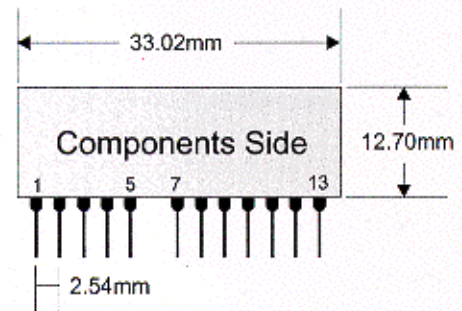
Ta = 25°C unless otherwise specified

CHARACTERISTICS	MIN	TYP	MAX	UNIT
V <sub>CC</sub> Supply Voltage	±9	±12	±18	VDC
I <sub>s</sub> Supply Current (V <sub>CC</sub> = 12V)		5.5		mA
F <sub>R</sub> Frequency response 10Hz - 100KHz			-3	dB
V <sub>i</sub> AF Input Sensitivity		-60		dB
G <sub>N</sub> Gain Control Range		40		dB
N <sub>s</sub> Noise		-73		dB
O <sub>UT</sub> Preamplifier Output Level		-10		dB
T <sub>OP</sub> Operating Temperature Range	-20		+80	°C

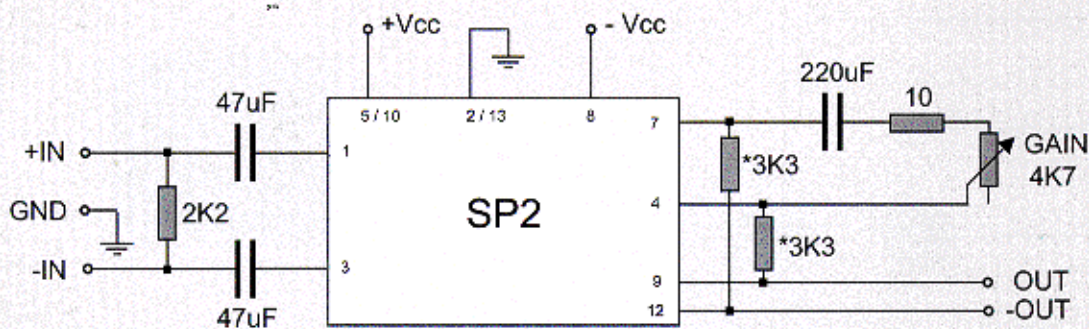
## Pin Description

1	+IN	+ Input
2	GND	Ground
3	-IN	- Input
4	GN1	Gain Control
5	+VCC	Positive supply voltage
7	GN2	Gain Control
8	-VCC	Negative supply voltage
9	OUT	Output
10	+VCC	Positive supply voltage
11	NC	No connetc
12	-OUT	Inverted Output
13	GND	Ground

## Mechanical Dimensions



## TYPICAL APPLICATION



\* Resistor value for gain setting  
Component typical values



R. F. Solutions Ltd.,  
Unit 21, Cliffe Industrial Estate,  
South Street,  
Lewes,  
E Sussex, BN8 6JL. England.

Tel +44 (0)1273 898 000. Fax +44 (0)1273 480 661.  
Email [sales@rfsolutions.co.uk](mailto:sales@rfsolutions.co.uk) <http://www.rfsolutions.co.uk>

RF Solutions is a member of the Low Power Radio Association.