

# μPC1676G

## DESCRIPTION

The μPC1676G is a silicon monolithic integrated circuit employing small package (4pins mini mold) and designed for use as a wide band amplifier covers from HF band to UHF band.

## FEATURES

- Excellent frequency response : 1.2 GHz TYP.  
@ 3 dB down below flat gain.
- High power gain : 22 dB TYP. @ f = 0.5 GHz.
- High isolation.
- Super small package.
- Uni- and low voltage operation : V<sub>cc</sub> = 5 V
- Input and output matching 50 Ω.

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25 °C)

Supply Voltage	V <sub>cc</sub>	6	V
Total Power Dissipation	P <sub>T</sub>	200	mW
Operating Temperature	T <sub>opt</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C, V<sub>cc</sub> = 5 V)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Circuit Current	I <sub>cc</sub>	14	19	24	mA	No Signal
Power Gain	G <sub>P</sub>	19	22	24	dB	f = 0.5 GHz
Noise Figure	NF		4.5	6.0	dB	f = 0.5 GHz
Upper Limit Operating Frequency	f <sub>u</sub>	1.0	1.2		GHz	3 dB down below flat gain
Isolation	ISL	24	28		dB	f = 0.5 GHz
Input Return Loss	RL <sub>in</sub>	9	12		dB	f = 0.5 GHz
Output Return Loss	RL <sub>out</sub>	6	9		dB	f = 0.5 GHz
Maximum Output Level	P <sub>o</sub>	3	5		dBm	f = 0.5 GHz, P <sub>in</sub> = 0 dBm