

### FEATURES

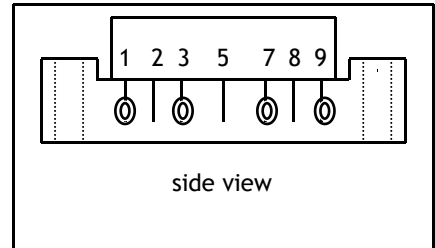
- GaAs active devices
- Power gain @25dB
- Low distortion
- Excellent linear gain
- Low noise figure
- High reliability
- Low cost

### DESCRIPTION

The SMG1225 is a GaAs hybrid push pull amplifier module. The part employs GaAs dies and is operated from 50MHz to 1218MHz with supply voltage +24V( DC)

### OUTLINE

PIN CONFIGURATION



### Pin Description

Pin	Description
1	Input
5	+V <sub>B</sub>
9	Output
2、3、7、8	GND

### QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNITS
G <sub>p</sub>	Power Gain	f=50 MHz	24.5	26.5	dB
I <sub>tot</sub>	Total current consumption(DC)	V <sub>B</sub> =24V	250	290	mA

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### LIMITING VALUES

In accordance with the Absolute Maximum Rating System

SYMBOL	PARAMETER	MIN.	MAX.	UNITS
$V_i$	RF input voltage	-	70	dBmV
$T_{stg}$	Storage temperature	-40	+100	°C
$T_{mb}$	Operating mounting base temperature	-30	+100	°C

### CHARACTERISTICS

(Bandwidth 50 to 1218MHz;  $T_{mb}=25^{\circ}\text{C}$ ,  $V_B=24\text{V}$ ,  $Z_S=Z_L=75\Omega$ )

SYMBOL	PARAMETER	UNIT	MIN.	TYP.	MAX.	CONDITIONS
$G_p$	Power Gain	dB	24.5	-	26.5	$f=50\text{MHz}$
$G_p$	Power Gain	dB	-	26	-	$f=870\text{MHz}$
$G_p$	Power Gain	dB	25.5	26.5	27	$f=1218\text{MHz}$
SL	Slope cable equivalent	dB	0.5	-	2.0	$f=50$ to $1218\text{ MHz}$
FL	Flatness of frequency response	dB	-	-	$\pm 0.5$	$f=50$ to $1218\text{ MHz}$
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-20	$f=50$ to $320\text{ MHz}$
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-19	$f=321$ to $640\text{ MHz}$
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-17	$f=641$ to $870\text{ MHz}$
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-16	$f=871$ to $1000\text{ MHz}$
$S_{11}$ & $S_{22}$	Input & Output Return Loss	dB	-	-	-15	$f=1001$ to $1218\text{ MHz}$
CTB	Composite Triple Beat	dB	-	-68	-63	PAL99 channels flat; $V_o=46\text{dBmV}$ ;
CSO	Composite Second Order distortion	dB	-	-66	-61	CTB measured at $543.25\text{ MHz}$ ;
$X_{mod}$	Cross Modulation	dB	-	-67	-	CSO measured at $544.5\text{ MHz}$ ;
$V_o$	Output Voltage	dBmV	60	-	-	$d_{im}=-60\text{dB}$
F	Noise Figure	dB	-	4.5	5.0	$f=50$ to $1218\text{ MHz}$
$I_{tot}$	Total Current Consumption	mA	250	270	290	$V_B=+24\text{V}$

The module normally operates at  $V_B=24\text{ V}(\pm 0.5)$ ,

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### MODULE DIMENSIONS

