

## 1W Linear Power Amplifier

### 1.2 ~ 3.0 GHz

The RPAM1230G01 is a compact, broadband linear amplifier ideal for use in test and measurement systems and RF Lab set-up.



### Key Features:

Broad Frequency Range:	1.2 ~ 3.0 GHz
High Power ( $P_{1dB}$ ):	30 dBm
Monitoring Parameters:	Through RS-232 Gain, $P_{FWD}$ , $P_{REV}$ , Supply Voltage, Supply Current, Temperature
Control parameter:	10 dB Gain Range; in 0.5 dB Step
Small size:	118 x 78 x 21.5 mm

### Absolute Maximum Ratings:

Parameters	Symbol	Value	Units
DC Power Supply Voltage	$V_{dd}$	15	V
DC Power Supply Current	$I_{dd}$	1000	mA
Total Power Dissipation	$P_{diss}$	13	W
RF Input Power	$P_{In,Max}$	+7	dBm
Maximum Operating Temp.	$T_{O,Max}$	+65	°C

### Electrical Specifications: (at room temperature)

Testing Item	Symbol	Test Constraints	Min	Typ	Max	Unit
Nominal Gain	$S_{21}$	1.2 ~ 3.0 GHz	31	33		dB
Gain Variation	$\Delta G$	1.2 ~ 3.0 GHz		$\pm 0.5$	$\pm 1.5$	dB
Input Reflection	$S_{11}$	1.2 ~ 3.0 GHz		-10		dB
Output Reflection	$S_{22}$	1.2 ~ 3.0 GHz		-10		dB
Output Power @ 1dB Gain Comp. Point	$P_{1dB}$	1.2 ~ 3.0 GHz	29	30		dBm
Output $IP_3$	OIP3	1.2 ~ 3.0 GHz		41		dBm
Current Consumption no RF	$I_{dq}$	$V_{dd} = +12 V$		600		mA
Power Supply Voltage	$V_{dd}$		11.5	12	14	V
Operating Heatsink Temperature	$T_O$		0		+50	°C

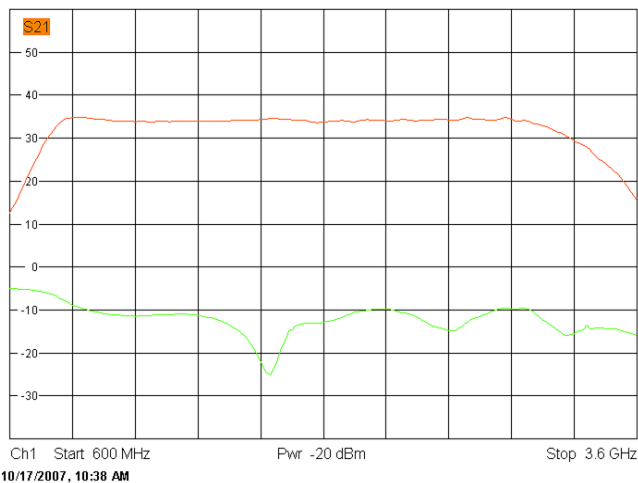
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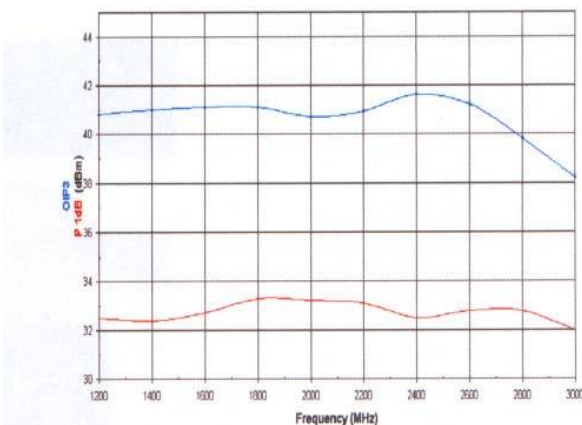
## Frequency Response

Trc1	S11	dB Mag	10 dB / Ref 0 dB	Cal
Trc3	S21	dB Mag	10 dB / Ref 0 dB	Cal



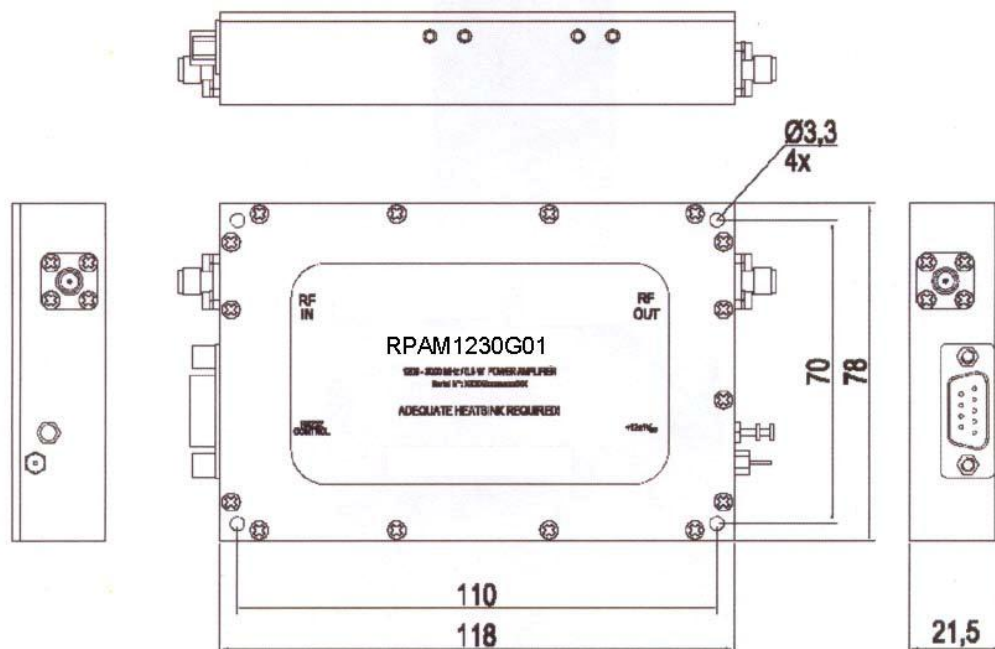
### FIG.1 Small signal performance

## RPAM1230G01 Power Amplifier Measurement



**FIG.2** OIP3 and  $P_{1dB}$

### Mechanical Outline:



Note: Proper heat sinking required

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**Ordering Information**

<b>Part Number</b>	RPAM1230G01
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