

Microwave

24GHz K Band Amplifier

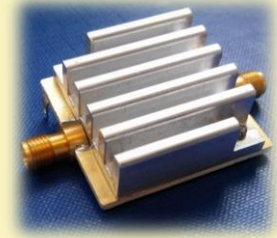
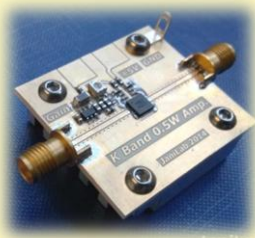
High Power ½ Watt Output Frequency: 22GHz-27 GHz



Features

- Saturated Output Power:
up to +27.5 dBm @ 15% PAE
- High Output IP 3: +33 dBm
- High Gain: 21.5 dB
- DC Supply: +5V @ 500mA (startup 1.5A 10ms)
- Gain control setting with trimmer
- PCB material Rogers RO4350B
- Input Return Loss: 11dB
- Output Return Loss: 15dB
- Output Power for 1 dB Compression (P1dB): 24.5dBm
- Saturated Output Power (Psat): 27dBm
- Output Third Order Intercept (IP 3): 33dBm
- High-Frequency good quality SMA connectors

Type: SRI 21-146-1000-00 (27GHz)



Typical Applications

- Point-to-Point Radios
- Point-to-Multi-Point Radios
- VSAT
- Military & Space

* we send the product with*



- PCB size: 33mm X 36 mm
- Full size: L=50mm with SMA-s
W= 33mm H= 25mm with FAN
- Weight with fan: 60g

Installation Guide

Please check the packaging, if everything was okay

Connect the output to antenna or instrument or dummy load.

Please connect the +5 V power supply to the PCB panel,

Optional Gain control DC: -2V to 0V (trimmer setting)

Absolute Maximum Ratings: DC power +6V, Input power: +26dBm

Warning

- Make sure power supply polarity (no protection)
- When Switching ON the peak current can reach 1.5 amps
therefore, the current limit to be set to 2 amps
- The maximum voltage +6V
- Do not leave open the RF output during operation
- The FAN is operating at required because the device overheat
- For the FAN to operate need another power supply because the phase noise increases,
or be applied separately LC filter unit between power supply and FAN

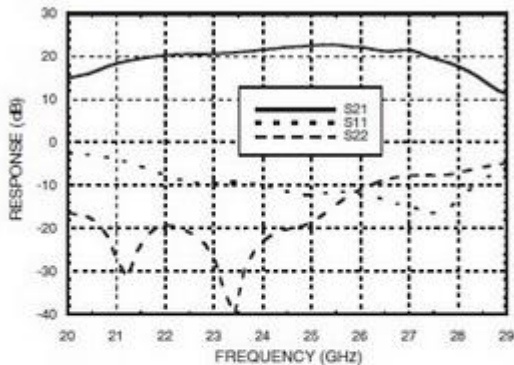
Package includes

1pc Microwave 0.5W Power amplifier + FAN

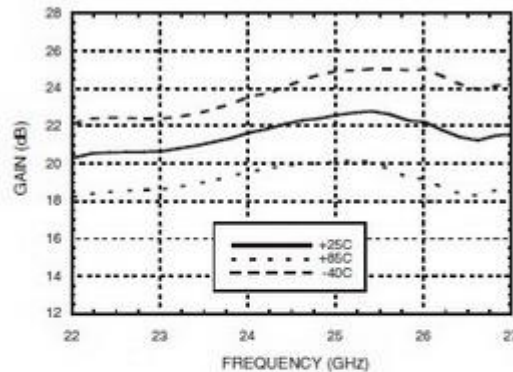
1pc Manual Eng

The Amplifier characteristics

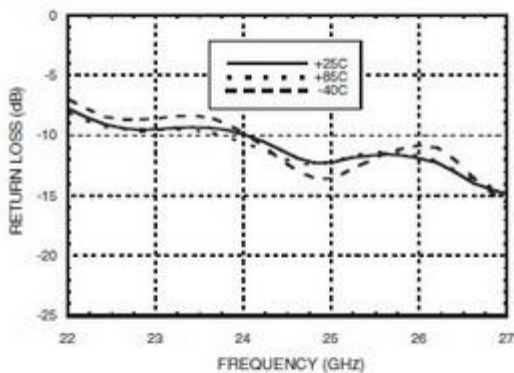
Broadband Gain & Return Loss vs. Frequency



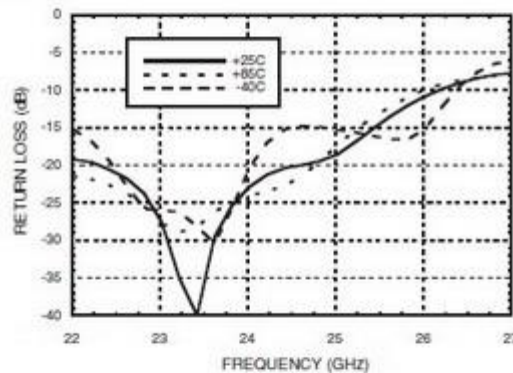
Gain vs. Temperature



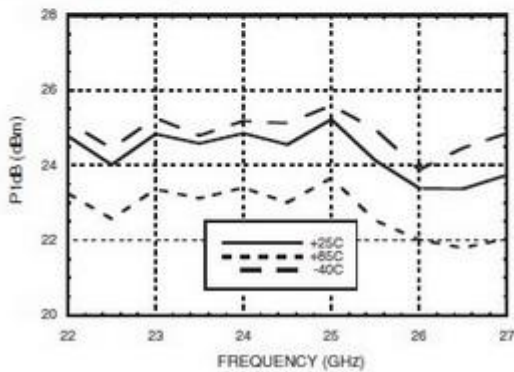
Input Return Loss vs. Temperature



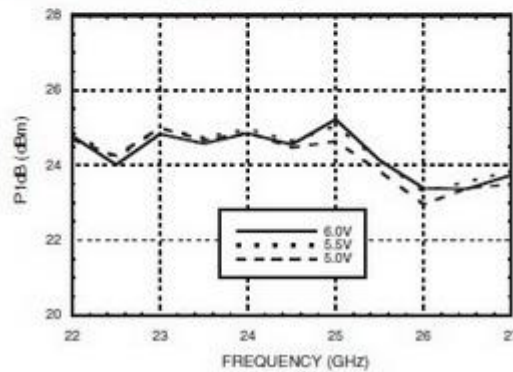
Output Return Loss vs. Temperature



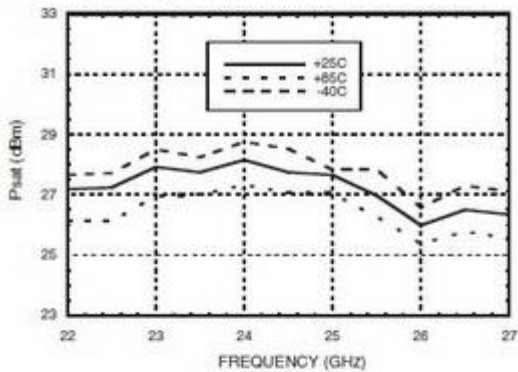
P1dB vs. Temperature



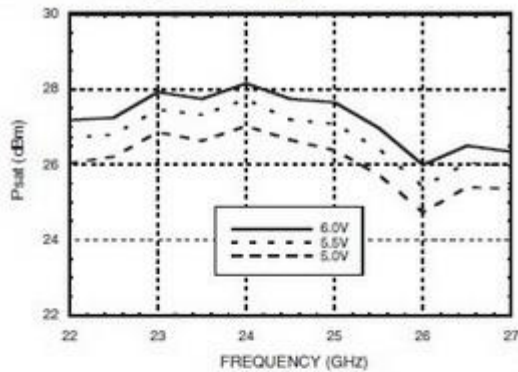
P1dB vs. Supply Voltage



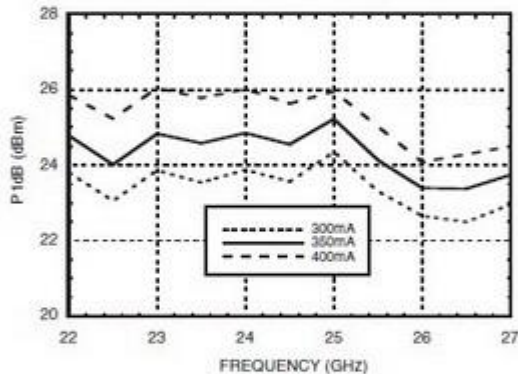
Psat vs. Temperature



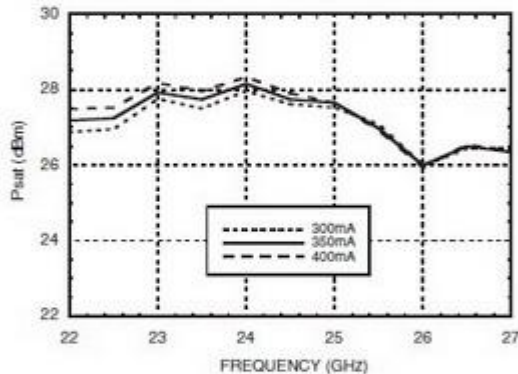
Psat vs. Supply Voltage



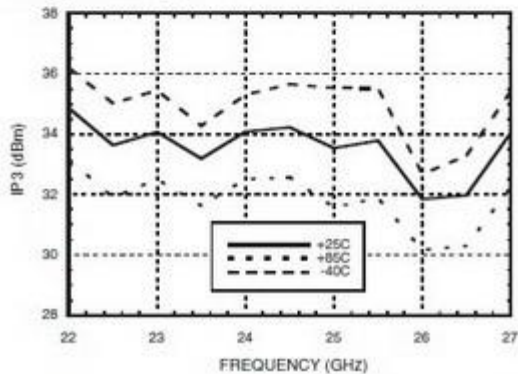
P1dB vs. Supply Current (Idd)



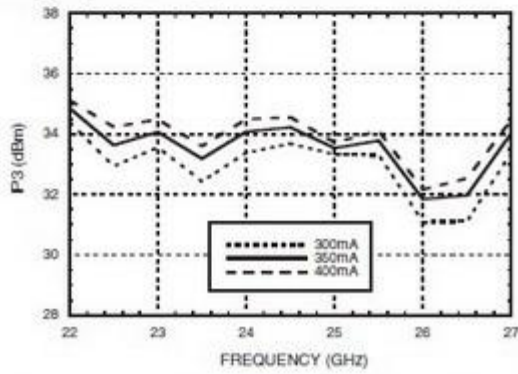
Psat vs. Supply Current (Idd)



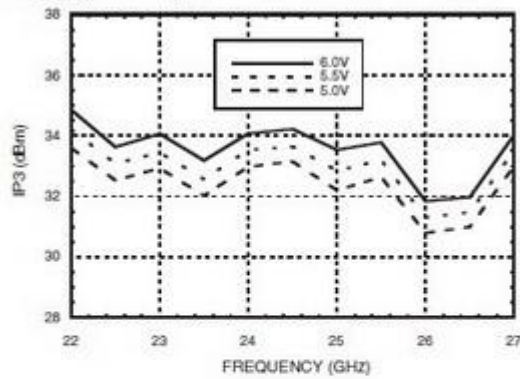
Output IP3 vs. Temperature, Pout/Tone = +14 dBm



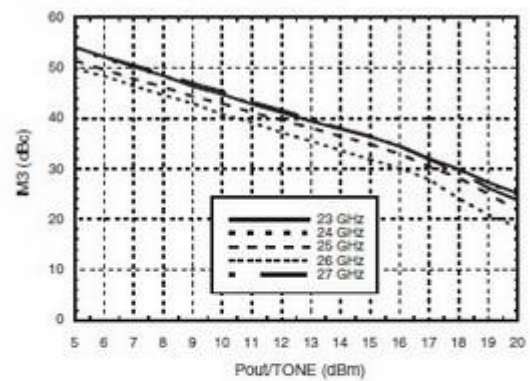
Output IP3 vs. Supply Current, Pout/Tone = +14 dBm



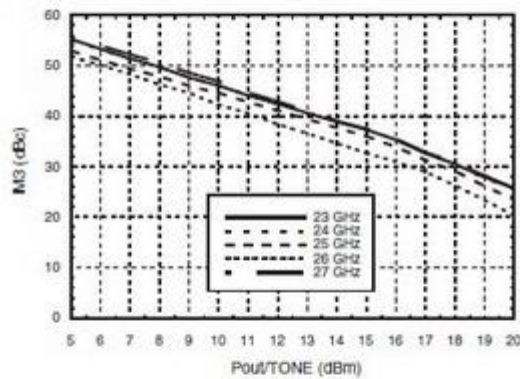
Output IP3 vs. Supply Voltage, Pout/Tone = +14 dBm



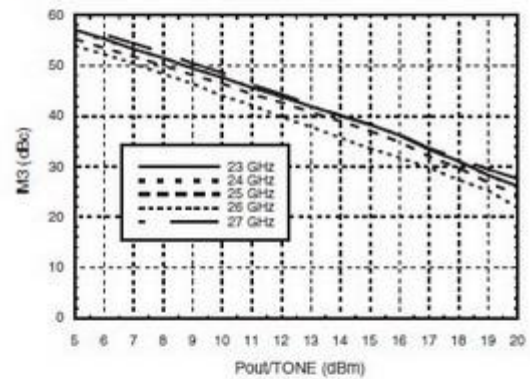
Output IM3 @ Vdd = +5V



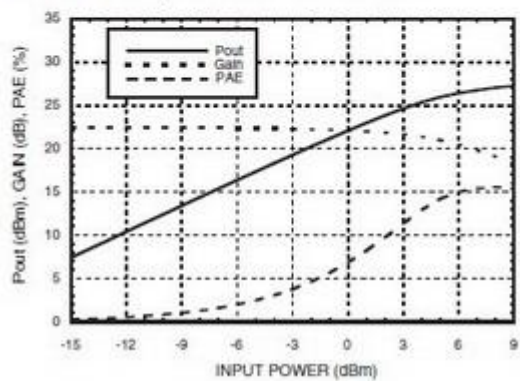
Output IM3 @ Vdd = +5.5V



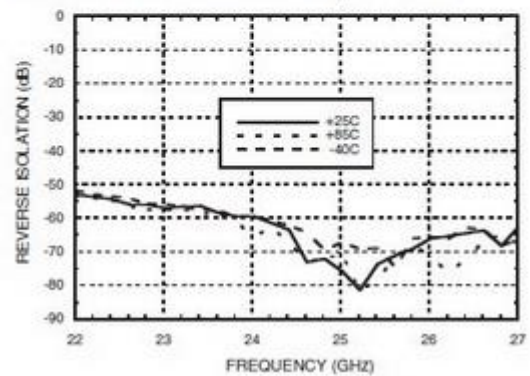
Output IM3 @ Vdd = +6V



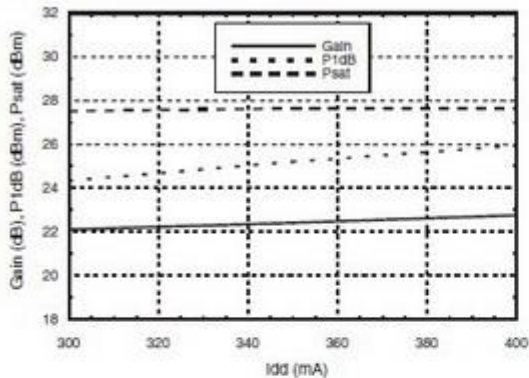
Power Compression @ 25 GHz



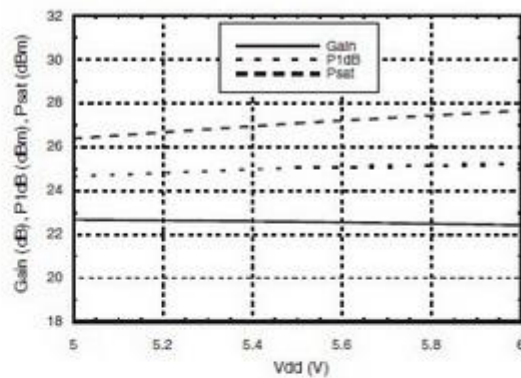
Reverse Isolation vs. Temperature



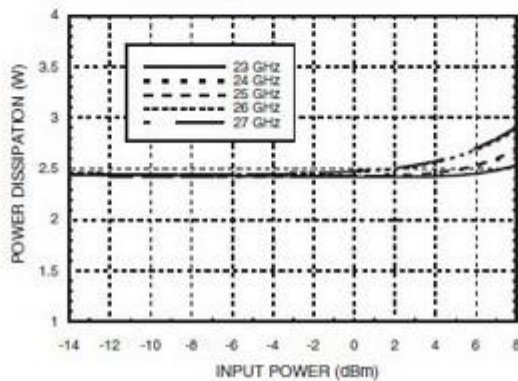
Gain & Power vs. Supply Current @ 25 GHz



Gain & Power vs. Supply Voltage @ 25 GHz



Power Dissipation



manufacturing company



Janos Papp

If you need for more information

please send an e-mail: info@janielelectronics.com