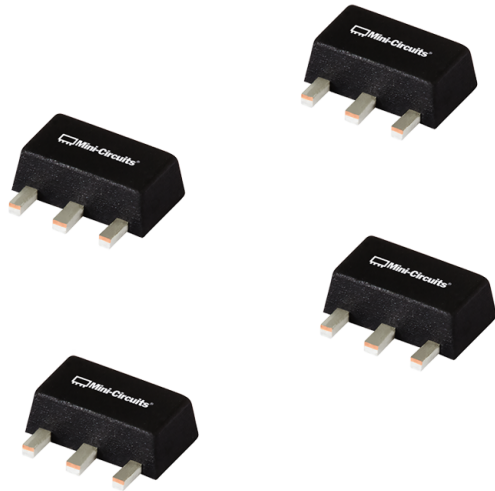




DESIGNER'S KIT K1-GVA+

Monolithic Amplifiers

50Ω DC to 7 GHz



FEATURES

- Fixed 5V operation
- Up to 21 dBm output power
- Choice of gain, from 10 dB to 24 dB typ. @ 100 MHz
- Transient and ESD protected
- Miniature SOT-89 package
- Ruggedized design
- Low thermal resistance

MINI-CIRCUITS DESIGNER'S KITS
SPEED UP
THE SOLUTION



Evaluation boards available.
See individual model data sheets



K1-GVA+ ELECTRICAL SPECIFICATIONS

(kit includes 4 models, 10 of each, 40 total)

| Model | Freq. ¹ (GHz) | Gain (dB) Typical | | | | | | | | Maximum Power (dBm) @ 2 GHz | | | Dynamic Range @ 2 GHz | | VSWR (:1) Typ. | | Max. Rating ² | | DC ³ Operating Power @ pin 3 | | | | Therm. Resist. θ _{jc} Typ. °C/W | Evaluation Board |
|---------|-----------------------------|----------------------|----------------|------|------|------|------|------|------|-----------------------------------|----------------------------|--------------------|-----------------------------|------|-------------------|-----------|-----------------------------|---------|---|------|--------------|------|--|---------------------|
| | | Over frequency, GHz | | | | | | | | Output (1dB Compr.) Typ. | Input ² Typ. | NF (dB) Typ. | IP3 (dBm) Typ. | In | Out | I (mA) | P (mW) | Current | | | Device Volt. | | | |
| | | f _c | f _u | 0.1 | 1 | 2 | 3 | 4 | 6 | | | | | | | | | 7 | Min @ 2 GHz | Typ. | Min | Typ. | | |
| GVA-81+ | DC-7 | 10.5 | 10.5 | 10.0 | 9.3 | 8.7 | 8.1 | 7.6 | 9.0 | 19.7 | 17.5 | 20 | 7.4 | 36.6 | 1.3 | 1.4 | 160 | 1000 | 103 | 5.0 | 4.8 | 5.2 | 65 | TB-410-81+ |
| GVA-82+ | DC-7 | 15.3 | 14.9 | 13.8 | 12.5 | 11.7 | 10.6 | 9.9 | 12.4 | 20.6 | 18.0 | 20 | 6.6 | 36.0 | 1.3 | 1.7 | 160 | 840 | 106 | 5.0 | 4.8 | 5.2 | 68 | TB-410-82+ |
| GVA-83+ | DC-7 | 20.5 | 19.3 | 17.1 | 15.2 | 13.8 | 12.3 | 11.2 | 15.4 | 18.6 | 17.3 | 20 | 6.2 | 31.5 | 1.3 | 1.7 | 120 | 740 | 72 | 5.0 | 4.8 | 5.2 | 88 | TB-410-83+ |
| GVA-84+ | DC-6 | 24.1 | 21.7 | 18.4 | 16.0 | 14.6 | 12.5 | - | 17.4 | 20.6 | 19.6 | 13 | 5.5 | 36.6 | 1.3 | 2.6 | 160 | 1000 | 108 | 5.0 | 4.8 | 5.2 | 64 | TB-410-84+ |

Protected under U.S. Patent 6,943,629

1. Low frequency cutoff determined by external coupling capacitors and RF choke (RFC). f_u is the upper frequency limit for each model.

2. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.

3. Supply voltage must be connected to pin 3 directly through RF choke, GVA-83+ requires a 7.5 ohm bias resistor.

