

MINI-CIRCUITS DESIGNER'S KITS
SPEED UP
 THE SOLUTION!



RoHS compliant

DC to 8 GHz

Gali+, GVA+ Features

- Wideband, 50 Ω
- InGaP HBT microwave
- Up to 21.5 dBm output pwr.
- Noise figure from 2.7 dB
- Transient and ESD protected
- Miniature SOT-89 package
- Exposed metal bottom
- Excellent heat dissipation
- Low thermal resistance
- Fixed voltage operation, GVA $\overline{\text{84}}$



Kit K3-Gali_GVA+ Electrical specifications (4 models, 10 of each, 40 total)

Evaluation boards available
 See individual model data sheets.

Model	Freq. GHz ▲ f _L -f _U	Gain, dB Typical						Max. Pwr.* (dBm)			Dynamic Range*		VSWR (:1) Typ.		Max. Rating ¹		DC ² Operating Power @ pin 3				Therm. Resist. θ _{jc} Typ. °C/W	Evaluation Board	
		over frequency, GHz					Min@ 2 GHz	Output (1 dB Comp.) Typ. Min.	Input ¹	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	I (mA)	P (mW)	Current (mA)	Device Volt. Min. Max.						
**GVA $\overline{\text{84}}$ +	DC-6	24.1	21.7	18.4	16.0	14.6	12.5	17.4	20.5	19.5	13	5.6	35.8	1.3	2.6	160	1000	108	5.0	4.8	5.2	64	TB-410-84+
Gali $\overline{\text{74}}$ +	DC-1	25.1	21.8	18.0	15.3	13.4	-	20.0 [†]	18.3	18.0	10	2.7	38.0	1.2	1.6	130	700	80	4.8	4.3	5.3	120	TB-409-74+
Gali $\overline{\text{24}}$ +	DC-6	25.3	22.6	19.1	16.6	14.9	12.4	18.1	19.2	18.2	13	4.3	35.0	1.4	2.0	160	1000	80	5.8	5.4	6.2	64	TB-409-24+
Gali $\overline{\text{84}}$ +	DC-6	25.6	22.7	19.2	16.7	15.0	11.8	18.2	21.5	20.4	13	4.4	37.8	1.4	2.1	160	1000	100	5.8	5.4	6.2	64	TB-409-84+

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

▲ Low frequency cutoff determined by external coupling capacitors. f_U is the upper frequency limit for each model.

* Models tested at 1 GHz, Gali $\overline{\text{74}}$ IP3 at 0.1 GHz.

** Operated with +5 V supply voltage.

† Min. at 1 GHz.

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

2. Supply voltage must be connected to pin 3 through a bias resistor in order to prevent damage, except GVA $\overline{\text{84}}$ +

Reliability predictions are applicable at specified current and normal operating conditions.

