

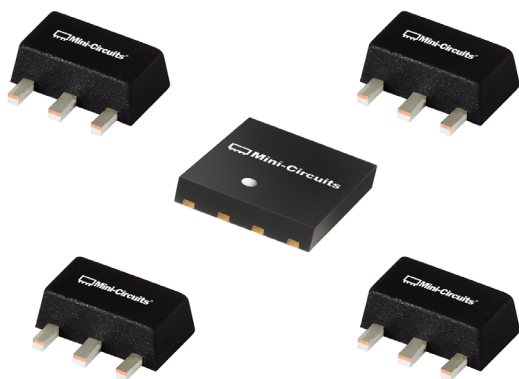


Mini-Circuits®

DESIGNER'S KIT K1-PHA+

Monolithic Amplifiers

50Ω 30 MHz to 8 GHz



FEATURES

- Up to 30 dBm output power
- Variety of gains: From 10 dB to 18 dB typ.
- Variety of packages: SOT-89, MCLP 5 x 6 mm
- Ruggedized design
- Low thermal resistance

MINI-CIRCUITS DESIGNER'S KITS
SPEED UP
THE SOLUTION



KIT K1-PHA+ ELECTRICAL SPECIFICATIONS

(5 models, 5 of each, 25 total)

Model	Freq. (GHz)	Operating Voltage (V)	Operating Current (mA)	Gain Typ. (dB)	Return Loss Typ. (dB)		P1dB Typ. (dBm)	OIP3 Typ. (dBm)	NF (dB)	Maximum Ratings ¹		Thermal Resistance θ _{jc} Typ. °C/W	Evaluation Board
					Input	Output				Input Power (mW)	DC Voltage on Pin 3 (V)		
PHA-1+	0.05	4	95	17.3	10.6	13.5	20.0	34.4	1.8	250	6	60	TB-313 and TB-545-1+
	3.0			11.4	10.1	13.4	20.1	33.3	2.5				
	6.0			9.2	7.3	9.7	19.2	31.2	3.6				
	0.05	4.5	119	17.5	10.7	13.7	21.5	36.8	1.9				
	3.0			11.8	10.4	14.1	21.6	36.3	2.5				
	6.0			9.6	7.3	10.2	20.3	33.9	3.7				
	0.05	5	146	17.2	11.7	14.5	22.2	41.4	1.7				
	3.0			11.8	10.2	15.3	22.7	42.3	2.3				
	6.0			9.7	8.6	11	21.6	38.8	3.5				
PHA-1H+	0.05	5	132	17.7	11.9	14.2	22.1	39.6	1.7	250	6	36.1	TB-313 and TB-545-1H+
	0.8			15.9	18.2	22.9	21.8	40.6	1.8				
	2.0			13.8	12.5	19.7	22.6	40.4	2.2				
	3.0			12.1	10.8	17.1	22.2	40.8	2.4				
	4.0			10.9	10.3	15.5	22.5	41.4	2.6				
	6.0			9.6	8.1	13.7	22.0	41.0	3.4				
	0.05	5	40.8	15.1	20	26	16.5	24.1	2.8				
	4.0			13.2	11	13	15.9	23.4	3.1				
	8.0			10	6	6	13.2	20.9	4.7				
PHA-83W+	0.05	9	110	16.7	23	17	23.8	36.6	3.3	250 (5 minutes max)	10.5	41	TB-PHA-83W+
	4.0			15.7	13	18	23.3	35.5	3.3				
	8.0			14.2	4	5	18.5	31.9	5.1				
	0.05	9	182	15.3	10.7	13.2	25.3	47	4.1				
	0.45			15.5	11.4	10.7	26.2	44.3	3.9				
	0.9			15.2	10.7	10.2	25.8	45	4.0				
PHA-101+	1.5	11	350	15.0	9.5	8.9	25.4	43.8	4.2	79 (continuous) 250 (5 minutes max)	14	16.1	TB-962+
	0.03			18.3	21.2	15.1	28.4	51	3.2				
	0.5			17.9	21.7	16.4	30.2	48.5	3.3				
	1.0			17	19.5	19.4	30.4	46.1	3.5				
	2.0			14.7	20.3	22.5	28.1	43.2	4.4				
	2.7			12.7	14.9	9.8	25.7	39.4	5.4				

1. Permanent damage may occur if any of these limits are exceeded.

www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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