DESIGNER'S KIT K2-KAT-DG+

Fixed Attenuators

50Ω DC to 50 GHz



FEATURES

- Ultra-Wideband operation, DC to 50 GHz
- Power Handling up to 2W
- Outstanding Accuracy and Flatness

MINI-CIRCUITS DESIGNER'S KITS SPEED UP THE SOLUTION

RoHS COMPLIANT

K2-KAT-DG+ ELECTRICAL SPECIFICATIONS

(15 models, 5 of each, 75pcs. total)

Model	Frequency (GHz) f_L-f_U	Attenuation (dB) Typ.					VSWR (:1) Typ.					Input Power[1] (W) Max.
		5 GHz	15 GHz	26.5 GHz	43.5 GHz	43.5 - 50 GHz	5 GHz	15 GHz	26.5 GHz	43.5 GHz	43.5 - 50 GHz	
KAT-0-DG+	DC-50	0.1±0.1	0.1±0.1	0.2±0.2	0.5±0.5	1.0 ± 0.1	1.1	1.1	1.2	1.5	1.3	2
KAT-1-DG+	DC-50	1.0±0.1	1.0±0.1	1±0.1	1.0±0.3	1.4 ± 0.5	1.1	1.1	1.1	1.3	1.8	2
KAT-2-DG+	DC-50	2.0±0.1	2.0±0.1	2.0±0.2	1.9±0.6	1.8 ± 0.3	1.1	1.1	1.1	1.3	1.6	2
KAT-3-DG+	DC-50	2.9±0.1	3.0±0.1	3.0±0.1	2.8±0.6	2.7 ± 0.5	1.1	1.1	1.1	1.3	1.4	2
KAT-4-DG+	DC-50	4.0±0.1	4.0±0.1	3.9±0.2	3.6±0.7	3.8 ± 0.4	1.1	1.2	1.2	1.2	1.6	1.7
KAT-5-DG+	DC-50	5.0±0.1	5.0±0.1	5.0±0.1	4.7±0.5	5.1 ± 0.3	1.1	1.1	1.1	1.2	1.5	1.4
KAT-6-DG+	DC-50	6.0±0.1	6.0±0.1	6.0±0.1	5.9±0.4	6.5 ± 0.4	1.1	1.1	1.1	1.2	1.7	1.6
KAT-7-DG+	DC-50	7.0±0.1	7.0±0.1	7.0±0.2	6.8±0.5	7.3 ± 0.4	1.1	1.1	1.1	1.2	1.6	1.3
KAT-8-DG+	DC-50	8.0±0.1	8.0±0.1	8.0±0.1	7.9±0.5	8.3 ± 0.3	1.1	1.1	1.1	1.2	1.4	1.2
KAT-9-DG+	DC-50	9.0±0.1	9.0±0.1	9.0±0.1	8.9±0.5	9.3 ± 0.4	1.2	1.2	1.2	1.2	1.5	1.1
KAT-10-DG+	DC-50	10.0±0.1	10.0±0.1	9.9±0.2	9.7±0.5	10.6 ± 0.2	1.2	1.2	1.2	1.2	1.4	1.7
KAT-12-DG+	DC-50	12.0±0.1	12.0±0.1	12.0±0.2	11.8±0.6	12.7 ± 0.2	1.2	1.2	1.2	1.2	1.3	1.1
KAT-15-DG+	DC-50	15.0±0.1	14.9±0.1	14.8±0.1	14.4±0.9	15.2 ± 0.2	1.2	1.2	1.2	1.2	1.3	1.4
KAT-20-DG+	DC-50	20±0.1	20±0.1	19.9±0.3	19.3±1.4	19.8 ± 0.3	1.2	1.2	1.2	1.2	1.5	0.8
KAT-30-DG+	DC-50	29.9±0.1	30.0±0.4	30.2±0.3	30.2±1.0	31.5 ± 0.9	1.1	1.2	1.2	1.2	1.5	1

1. RF Power at 25°C case temperature. Check Individual Model Data Sheet for derated power at 85°C

ASSEMBLY AND HANDLING PROCEDURE

1. Storage
Dice should be stored in a dry nitrogen purged desiccators or equivalent.

2. ESD
MMIC GaAs Attenuator dice are susceptible to electrostatic and mechanical damage. Die are supplied in anti-static protected material, which should be opened in clean room conditions at an appropriately grounded anti-static workstation. Devices need careful handling using correctly designed collets, vacuum pickup tips or sharp anti-static tweezers to deter ESD damage to dice.

3. Die Attach
The die mounting surface must be clean and flat. Using conductive silver filled epoxy, recommended epoxies are DieMat DM6030HK-PT/H579 or Ablestik 84-1LMISR4. Apply sufficient epoxy to meet required epoxy bond line thickness, epoxy fillet height and epoxy coverage around total die periphery. Parts shall be cured in a nitrogen filled atmosphere per manufacturer's cure condition. It is recommended to use antistatic die pick up tools only.

4. Wire Bonding
Bond pad openings in the surface passivation above the bond pads are provided to allow wire bonding to the dice gold bond pads. Thermosonic bonding is used with minimized ultrasonic content. Bond force, time, ultrasonic power and temperature are all critical parameters. Suggested wire is pure gold, 1 mil diameter. Bonds must be made from the bond pads on the die to the package or substrate. All bond wires should be kept as short as low as reasonable to minimize performance degradation due to undesirable series inductance.