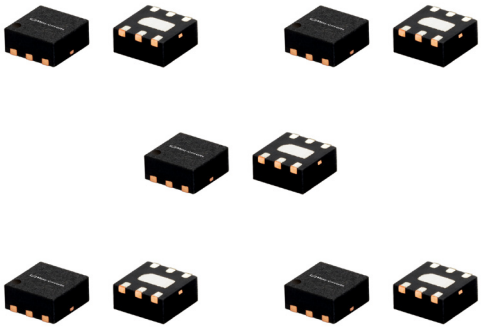
DESIGNER'S KIT K2-YAT-A+

Fixed Attenuators

50Ω DC to 18 GHz



FEATURES

- 2X2mm QFN Package
- Power Handling up to 2W
- Outstanding Accuracy and Flatness

MINI-CIRCUITS DESIGNER'S KITS SPEED UP THE SOLUTION

RoHS COMPLIANT

PRODUCT OVERVIEW

K2-YAT-A+ is a designer kit consisting of all 15 MMIC attenuator models (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 20, and 30 dB nominal attenuation values) from the YAT-A series. 10 units are included per model. YAT-A attenuators (ROHS compliant) are fixed value, absorptive attenuators fabricated using highly repetitive MMIC processing including thin film resistors on GaAs substrates. YAT-A attenuators contain through-wafer metalization vias to realize low thermal resistance and wideband operation. Models are packaged in 2 mm x 2 mm MCLP™, which fits into tiny spaces.

K2-YAT-A+ ELECTRICAL SPECIFICATIONS

(15 models, 10 of each, 150 pcs total)

Model No.[1]	Frequency (GHz) f_L-f_U	Attenuation (dB) Typ. DC-5 GHz	Attenuation (dB) Typ. 5-15 GHz	Attenuation (dB) Typ. 15-18 GHz	VSWR (:1) Typ. DC-5 GHz	VSWR (:1) Typ. 5-15 GHz	VSWR (:1) Typ. 15-18 GHz	Input Power[2] (W) Max.
YAT-0A+	DC-18	0.05	0.15	0.34	1.04	1.19	1.52	2.0
YAT-1A+	DC-18	0.93	0.92	0.97	1.08	1.18	1.60	2.0
YAT-2A+	DC-18	1.92	1.85	1.84	1.08	1.12	1.29	2.0
YAT-3A+	DC-18	2.90	2.98	3.11	1.11	1.20	1.37	2.0
YAT-4A+	DC-18	3.92	3.98	4.07	1.12	1.16	1.29	1.7
YAT-5A+	DC-18	4.89	4.96	5.03	1.09	1.14	1.25	1.4
YAT-6A+	DC-18	5.92	6.00	6.07	1.07	1.10	1.19	1.6
YAT-7A+	DC-18	7.03	7.07	7.10	1.06	1.11	1.17	1.3
YAT-8A+	DC-18	8.07	8.15	8.21	1.08	1.08	1.19	1.2
YAT-9A+	DC-18	8.92	8.90	8.93	1.08	1.09	1.21	1.1
YAT-10A+	DC-18	9.97	9.98	10.05	1.09	1.10	1.21	1.7
YAT-12A+	DC-18	12.04	12.11	12.23	1.11	1.11	1.22	1.1
YAT-15A+	DC-18	14.97	14.98	15.06	1.11	1.12	1.24	1.4
YAT-20A+	DC-18	20.05	20.15	20.31	1.11	1.10	1.21	0.8
YAT-30A+	DC-18	29.97	30.41	30.95	1.16	1.12	1.20	1.0

1. See individual model datasheets for more info.
2. RF Power at 25°C case temperature. Check individual model datasheet for derated power at 85°C.

REV. OR
ECO-008994
K2-YAT-A+
MCL NY
210729

Mini-Circuits

Environmental Specifications ENV08T1

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C or -45° to 85° C or -55° to 105° C or -40° to 105° C or -40° to 95° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C or -65° to 150° Ambient Environment	Individual Model Data Sheet
HTOL	1000 hours at 125°C	MIL-STD-883, Method 1005, Condition B
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Mechanical Shock	1.5Kg, 0.5 ms, 5 shock pulses, Y1 direction only	MIL-STD-883, Method 2002, Condition B, except Y1 direction only
Vibration (Variable Frequency)	50g peak	MIL-STD-883, Method 2007, Condition B
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102, Condition C
HAST	130°C, 85% RH, 96 hours	JESD22-A110
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 260°C peak	J-STD-020

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Specification	Test/Inspection Condition	Reference/Spec
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215