



# Fixed Attenuators



## FEATURES

- One unit each of 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 dB precision attenuators
- Input power up to 2W Max.
- Excellent VSWR, 1.20:1 to 1.35:1 typ.
- Excellent flatness, 0.20 to 0.30 dB typ.
- BNC Male and Female connectors
- Length less than 2"
- Wideband, DC to 2 GHz, 50Ω

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



## PRODUCT OVERVIEW

K2-HAT-A+ is a designer's kit consisting of ten different attenuator models in the HAT-A+ family. There is one unit per model for a total of ten units. Mini-Circuits' HAT-A series are fixed attenuators operating from DC to 2000 MHz with excellent attenuation flatness. This attenuator series supports testing and measurement applications. Precise performance, excellent VSWR and rugged unibody construction make these models an ideal solution for systems requiring precise attenuation.

## K2-HAT-A+ ELECTRICAL SPECIFICATIONS

(10 models, 1 of each, 10 total)

Model No. <sup>1</sup>	Frequency (GHz) $f_L$ - $f_U$	Nominal Attenuation <sup>2</sup> (dB) DC-2 GHz Typ.	Attenuation Flatness <sup>3</sup> (dB)				VSWR (:1)			Input Power <sup>4</sup> (W) Max.
			DC-0.5 GHz	DC-1 GHz	DC-2 GHz	DC-0.5 GHz	DC-1 GHz	DC-2 GHz		
			Typ.	Typ.	Typ.	Typ.	Typ.	Typ.		
HAT-1A+	DC-2	1	0.10	0.15	0.20	1.10	1.15	1.35	2.0	
HAT-2A+	DC-2	2	0.10	0.15	0.20	1.10	1.15	1.30	2.0	
HAT-3A+	DC-2	3	0.10	0.15	0.20	1.15	1.20	1.30	2.0	
HAT-4A+	DC-2	4	0.10	0.20	0.20	1.20	1.20	1.25	1.7	
HAT-5A+	DC-2	5	0.15	0.15	0.20	1.10	1.15	1.20	1.4	
HAT-6A+	DC-2	6	0.10	0.15	0.20	1.10	1.15	1.20	1.6	
HAT-7A+	DC-2	7	0.15	0.15	0.20	1.15	1.20	1.20	1.3	
HAT-8A+	DC-2	8	0.15	0.15	0.20	1.20	1.20	1.25	1.2	
HAT-9A+	DC-2	9	0.10	0.15	0.20	1.20	1.20	1.25	1.1	
HAT-10A+	DC-2	10	0.20	0.25	0.30	1.20	1.20	1.25	1.7	

1. See individual model data sheets for more info.

2. Attenuation varies by 0.3 dB max over temperature.

3. Flatness = variation over band divided by 2.

4. RF Power at 25°C. Check individual model datasheet for derated power at 85°C.