Attenuator, Chip

Model KPA1020S

Features

- Versatile installation options (reflow or wire-bonding)
- Thin Film Resistor
- High-frequency and High-Power performance suitable for 5G and Wifi 6(e) and DAS applications

KPA1020S Attenuators are designed to reduce the signal power uniformly at different frequencies, temperatures and power levels. These surface mount Attenuators can be used in amplifiers, receivers, up/down converters, and switching networks. KPA1020S series are available with tinned lead-free solder terminals as standard, with tin-lead solder and wirebondable gold as other finish options. Other dB values and wrap options are available upon request.
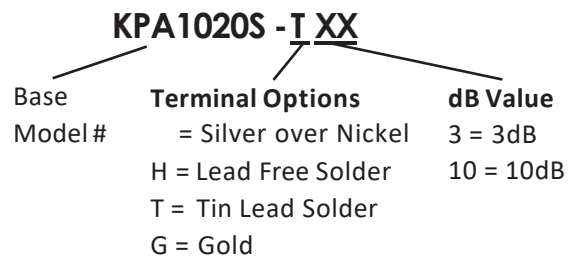
Frequency Range: DC to 8.0 GHz
Power: 20Watt

Material

Feature	Material
Substrate	Beryllium Oxide
Resistor Material	Proprietary Thin Film
Finish	Silver (Standard) *See "How to order" for tinning & other finish options*
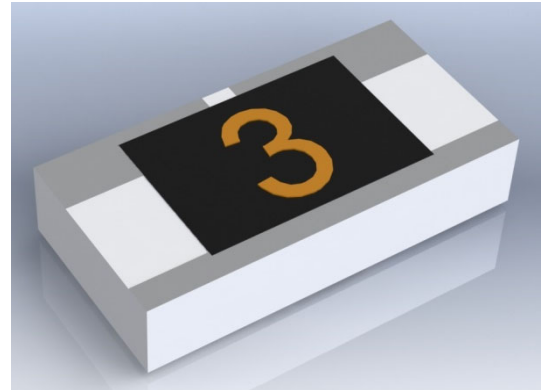
Technical Specifications (resistor side down)

Parameter	Value		
Frequency Range	DC to 8GHz		
Standard dB Values	1 thru 6, 10, 12 & 20dB		
Atten. Accuracy (dB)			

dB Value	DC – 4 GHz	4-6 GHz	6-8 GHz
1 – 7 dB	±0.5 dB	±0. 5 dB	±0. 5 dB
9 & 10 dB	±0.5 dB	±0.75 dB	±1.25 dB
12 dB	±0.5 dB	±1.25 dB	±2.0 dB
20 dB	±2.0 dB		

Parameter	Value
Impedance	50 Ohms
Power Handling*	20 Watts Max.

VSWR   DC – 4 GHz
                      4 - 6 GHz
                      6 – 8 GHz
	1.20:1 Max.
	1.35:1 Max.
	1.50:1 Max.

Operating Temp. Range	-55°C to +150°C

How to Order

KPA1020S - T XX

Base Model #	Terminal Options	dB Value
	= Silver over Nickel	3 = 3dB
	H = Lead Free Solder	10 = 10dB
	T = Tin Lead Solder	
	G = Gold	

Mounting surfaces shall not exceed 100°C. Max.

Design Specifications are Subject to change without notice.

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Attenuator, Chip

Model KPA1020S
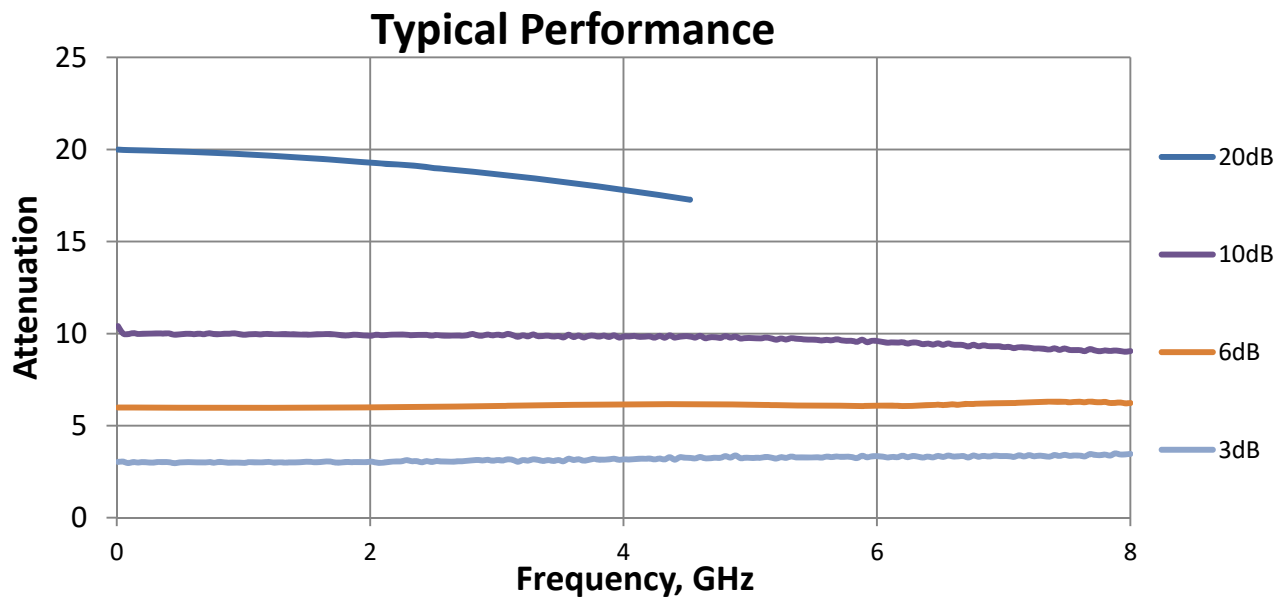
Frequency Range: DC to 8.0 GHz
Power: 20 Watt

Order Examples

Model Number: KPA1020S-H6

     Lead Free Solder, 6dB

Model Number: KPA1020S-3

     Silver, 3dB

Performance Characteristics

Typical Performance

Plot of Attenuation (0–25) vs Frequency, GHz (0–8) showing curves for 20dB, 10dB, 6dB, and 3dB.
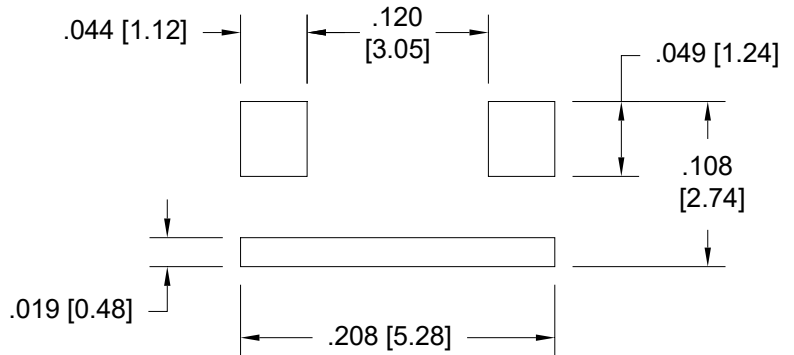
Attenuator, Chip

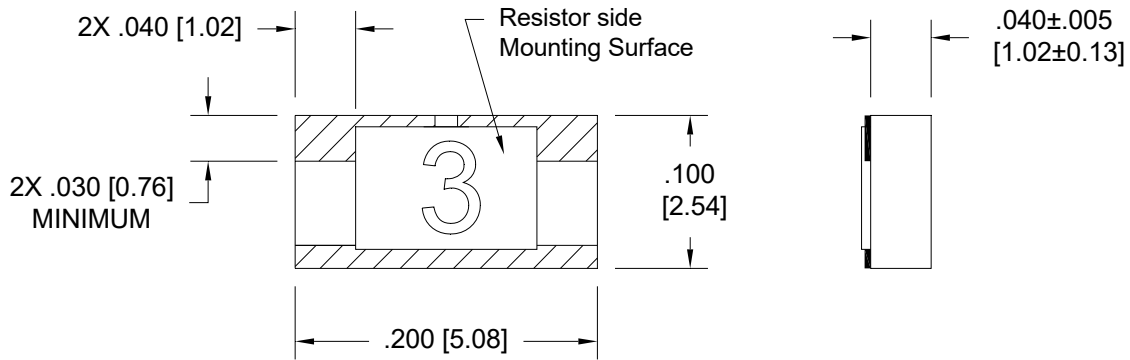*Model KPA1020S*

Frequency Range: DC to 8.0 GHz
Power: 20Watt

Physical Dimensions

Model Number: KPA1020S-3 shown

Tolerance: .XXX" = ±.005"

2X .040 [1.02]

Resistor side Mounting Surface

.040±.005 [1.02±0.13]

2X .030 [0.76] MINIMUM

.100 [2.54]

.200 [5.08]

.044 [1.12]

.120 [3.05]

.049 [1.24]

.108 [2.74]

.019 [0.48]

.208 [5.28]

Recommended Land Pattern

Dimensions are for substrate only and do not include terminal thickness or optional tinning thickness.

NOTE: Dimensions in Brackets [ ] are expressed in Millimeters and are for reference only.