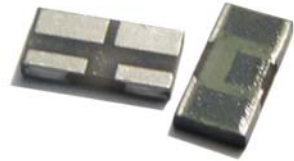


IMS

V Series Surface Mount Thick Film Attenuator on AlN

The V Series surface mount thick film on Aluminum Nitride attenuators are compact, high performance devices especially suited to high power RF and microwave applications. IMS design principles assure a proper balance between a well behaved frequency response and optimal thermal performance for our attenuators, whose architecture maximizes allowable dissipated power for the upper dB levels.



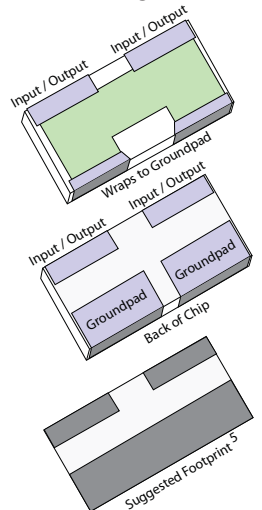
V Series

| Part | Dimensions | Power Rating ¹ |
|-----------------|------------------------------|---------------------------|
| VGX-2010 | 0.197" X 0.097" X 0.035" Max | 20W |
| VGX-3725 | 0.375" X 0.250" X 0.035" Max | 90W |

V Series Specifications

| | |
|--|------------------------------------|
| Value Range: | 0dB, 1dB to 30dB |
| Standard Impedance: | 50Ω Nominal |
| VSWR (Max): | 1.6:1 up to 6 GHz ² |
| DC Attenuation Stability: | .0001 dB/ dB/ deg. C ³ |
| Operating Temperature: | -55 deg. C to 150 deg. C |
| Nominal Thermal Resistance: ⁴ | ~2.5°C/ W (2010), ~0.6°C/ W (3725) |
| Architecture: | Thick Film on Aluminum Nitride |
| Attachment: | Solder or Epoxy |

WA Style



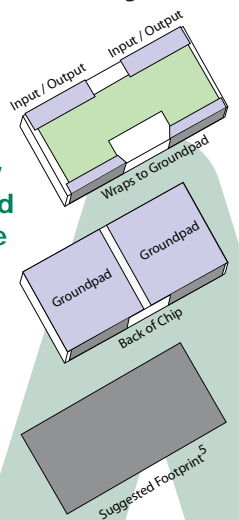
For other impedances, values, substrate thicknesses, sizes or power levels, consult the factory.

Attenuation Accuracy (DC)

| Increment (dB) | Accuracy |
|----------------|-----------|
| 0, 1 - 3 | +/- 0.2dB |
| 3.5 - 13 | +/- 0.3dB |
| 13.5 - 30 | +/- 0.5dB |

Proper use of RF principles at the circuit level will allow acceptable thermal and electrical performance up to 10 GHz.

SG Style



Ordering Information

SAMPLE P/N: VG3-2010 WA02D5

Prefix for AlN attenuators

Substrate Thickness:
G - 0.025"

Termination Metallization:
3 - PtAg
C - PtAg w/ Solder

Case Size:
2010 3725

dB Increment
(D0 denotes whole value)
-OR-
(D5 denotes whole value + .5dB,
available up to 16.5dB)
Note: 0.5dB Unavailable

dB Whole Value (00-30)

Termination Style:
WA - Wraparound
SG - Single Wrap to Ground

- 1 Baseplate maintained at or below 100°C
- 2 Mounted in a matched continuous, 50Ω microstrip system
- 3 Based on TCR and resistor tolerance at DC
- 4 Based on a max power, max film temp. of 150°C and baseplate temp. of 100°C
- 5 Groundpads must be shorted during assembly

To
30dB

To
0.2dB
Accuracy

To
90W
Rated Power

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Ver 2 07/2010 Specifications Subject to Change Without Notice