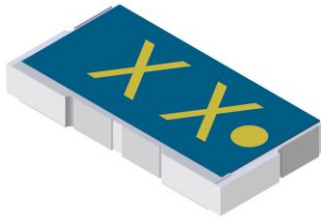


### Surface Mount Attenuator 10 Watts



The D10AAXXZ4 is high performance Alumina ( $Al_2O_3$ ) surface mount attenuator intended as a lower cost alternative to Aluminum Nitride (AlN) and Beryllium Oxide (BeO). The attenuator is well suited to all cellular frequency bands such as; AMPS, GSM, DCS, PCS, PHS and UMTS. The high power handling makes the part ideal for inter-stage matching, directional couplers, and for use in isolators.

#### Features:

- RoHS Compliant
- 10 Watts
- Low Cost
- DC – 4.0GHz
- Alumina Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	Alumina Ceramic
<b>Terminal Finish</b>	Matte Tin over Sulfamate Nickel
<b>Operating Temperature</b>	-55 to +125°C (see de rating chart)

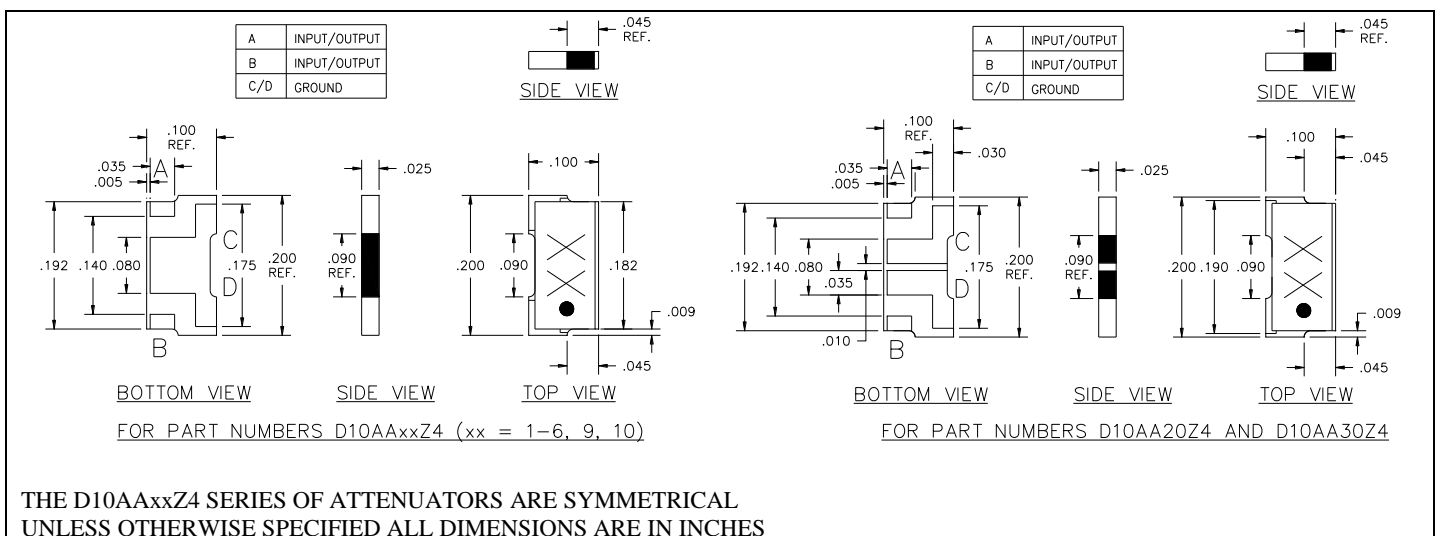
Tolerance is  $\pm 0.010"$ , unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

#### Electrical Specifications

<b>Attenuation Value:</b>	1 – 7, 9, 10, 20 & 30dB
<b>Power:</b>	10 Watts
<b>Frequency Range:</b>	DC – 4.0GHz
<b>VSWR</b>	See Specification Table

Specification based on unit properly installed using suggested mounting instructions and a 50 ohm nominal impedance. **Specifications subject to change.**

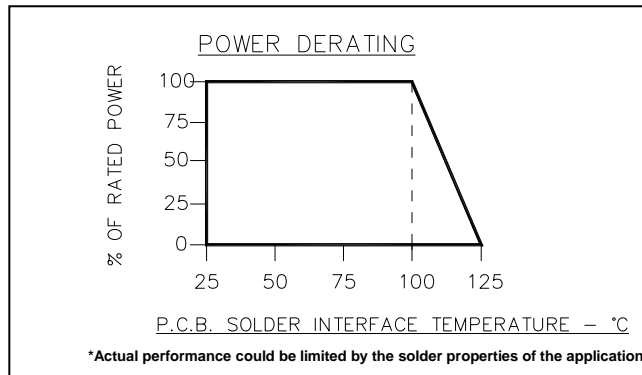
#### Outline Drawing



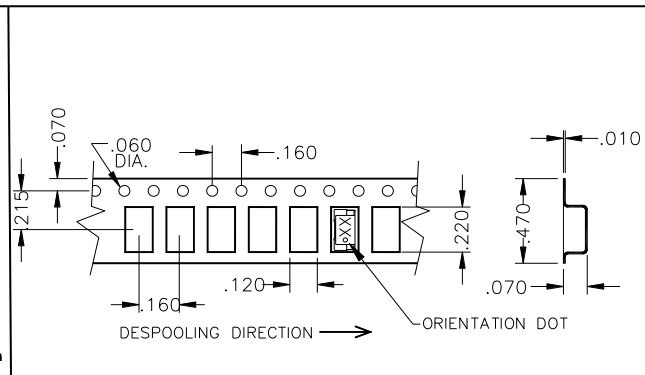
## Specifications

PART NUMBER	Frequency Range DC – 3.0Ghz		Frequency Range 3.0 – 4.0Ghz	
	ATTENUATION (dB)	RL (dB)	ATTENUATION (dB)	RL (dB)
D10AA1Z4	1 ±0.30	19	1 ±0.30	15
D10AA2Z4	2 ±0.30	19	2 ±0.30	15
D10AA3Z4	3 ±0.30	19	3 ±0.30	15
D10AA4Z4	4 ±0.30	19	4 ±0.40	14
D10AA5Z4	5 ±0.30	19	5.1 ±0.35	14.75
D10AA6Z4	6 ±0.30	19	6 ±0.30	15
D10AA7Z4	7 ±0.30	19	7 ±0.30	12
D10AA9Z4	9 ±0.25	19	9 ±0.30	12
D10AA10Z4	10 ±0.25	19	10 ±0.35	14.75
D10AA20Z4	20 ±0.50	19	19.5 ±0.50	14.75
D10AA30Z4	30 ±1.50	19	30.25 ±1.5	15

## Power De-rating



## Tape and Reel

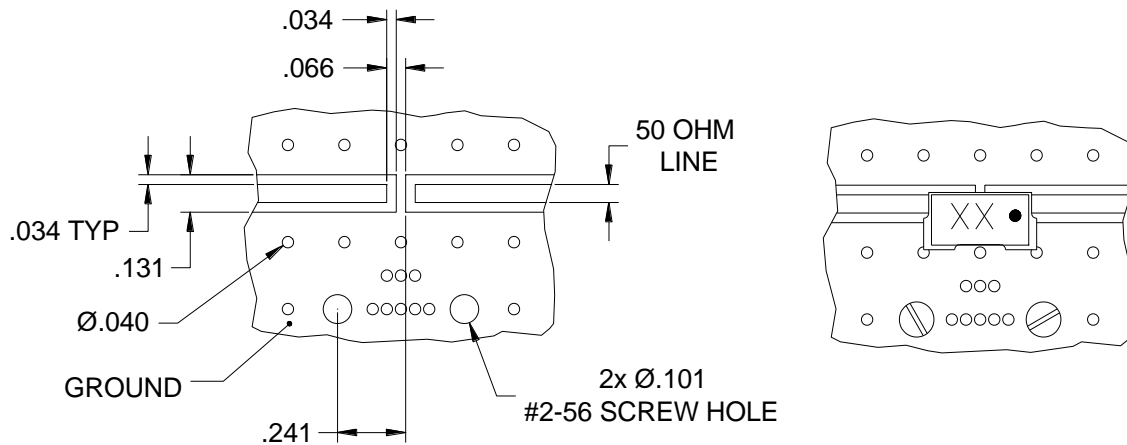


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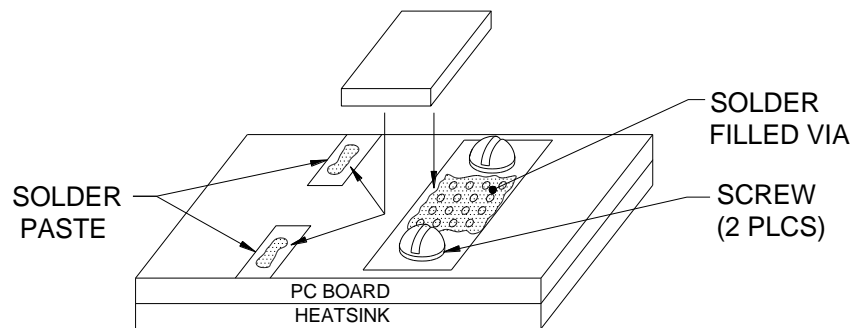
### Mounting Footprint



DIMENSIONS GIVEN IN INCHES.

FOR BEST THERMAL PERFORMANCE THE PCS SHOULD BE PLACED WITH THERMAL JOINT COMPOUND TO THE HEAT SINK.

### Mounting Procedure



### MOUNTING PROCEDURE

1. DRILL THERMAL VIAS THROUGH PCB AND FILL WITH SOLDER, SUCH AS Sn96.
2. SOLDER PART IN PLACE USING Sn96 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (260°C).
3. TO ENSURE GOOD THERMAL CONNECTIVITY TO HEAT SINK, DRILL AND TAP HEATSINK AND MOUNT PCB BOARD TO HEATSINK USING SCREWS.