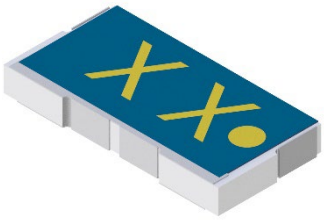
Surface Mount Attenuator
10 Watts



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

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

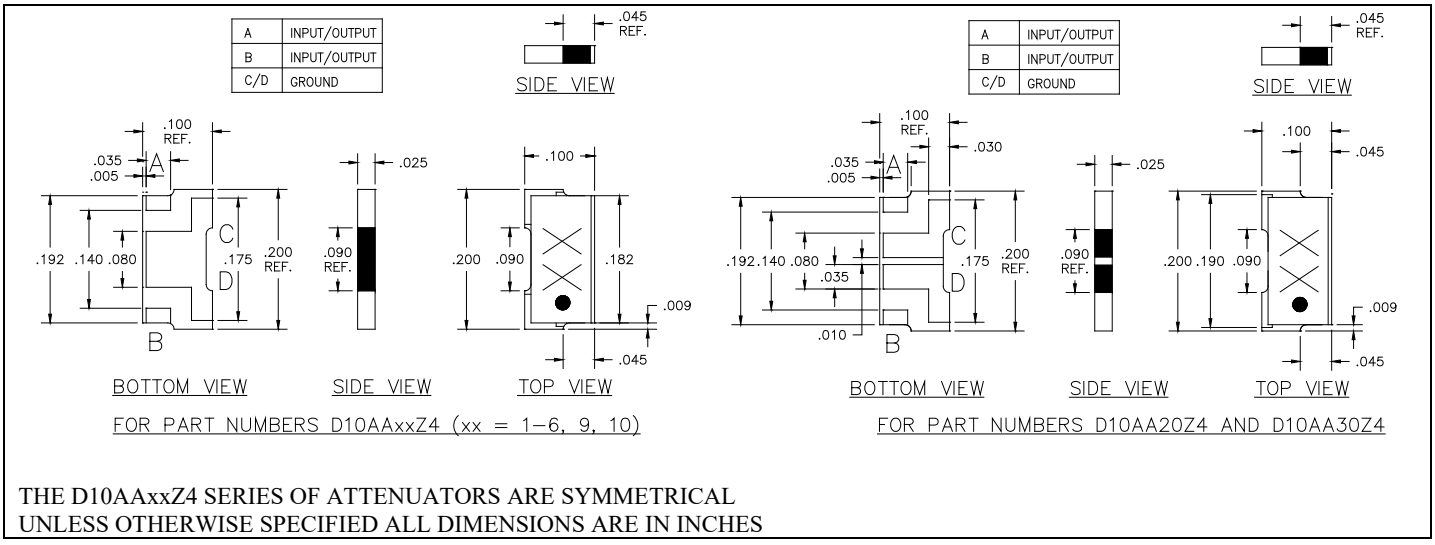
Tolerance is ±0.010”, unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

Electrical Specifications

Attenuation Value:	1 – 7, 9, 10, 20 & 30dB
Power:	10 Watts
Frequency Range:	DC – 4.0GHz
VSWR	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

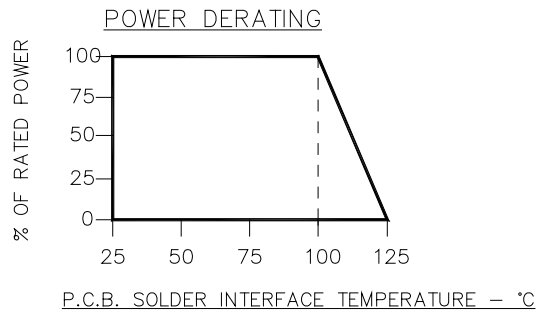


THE D10AAxxZ4 SERIES OF ATTENUATORS ARE SYMMETRICAL
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

Typical Specifications

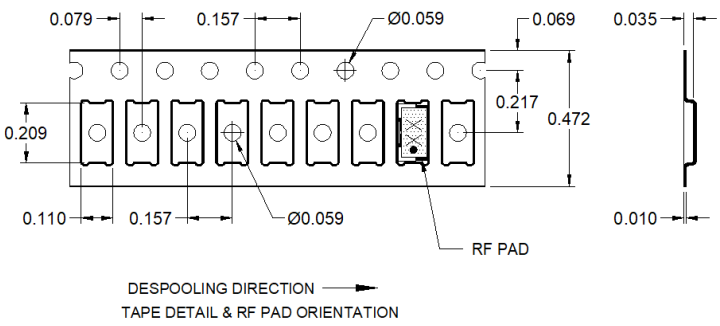
	Frequency Range DC – 3.0Ghz		Frequency Range 3.0 – 4.0Ghz	
PART NUMBER	**ATTENUATION (dB)**	**RL (dB)**	**ATTENUATION (dB)**	**RL (dB)**
D10AA1Z4	1 ±0.30	19	1 ±0.30	15
D10AA2Z4	2 ±0.30	19	2 ±0.30	15
D10AA3Z4	3 ±0.30	19	3 ±0.30	15
D10AA4Z4	4 ±0.30	19	4 ±0.40	14
D10AA5Z4	5 ±0.30	19	5.1 ±0.35	14.75
D10AA6Z4	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

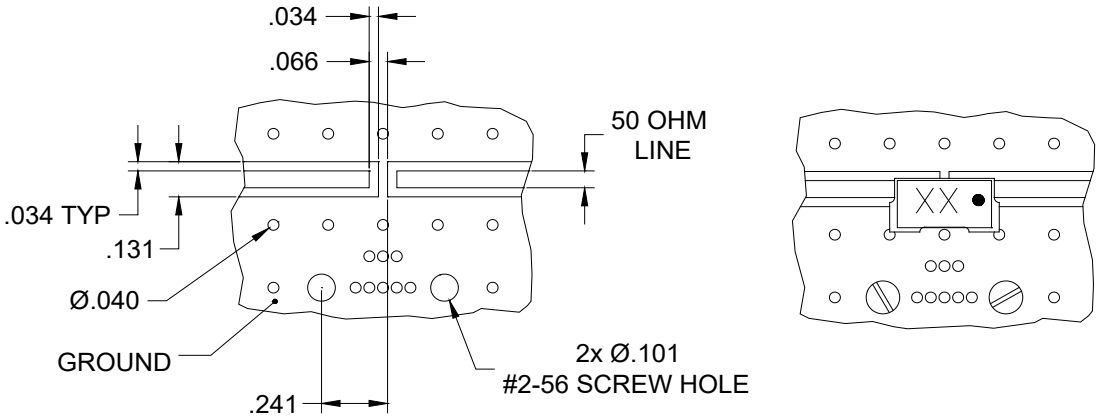


*Actual performance could be limited by the solder properties of the application

Tape and Reel



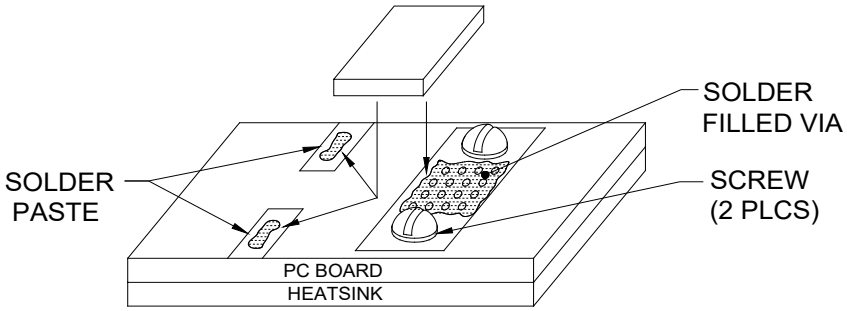
Mounting Footprint



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.

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