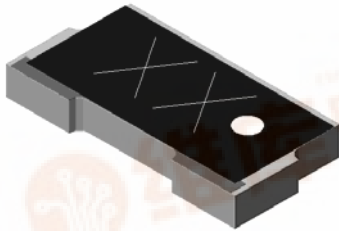




## Surface Mount Attenuator 7 Watts

### Description



The D10AAXXZ4 is high performance Alumina (Al<sub>2</sub>O<sub>3</sub>) 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.

### 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 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

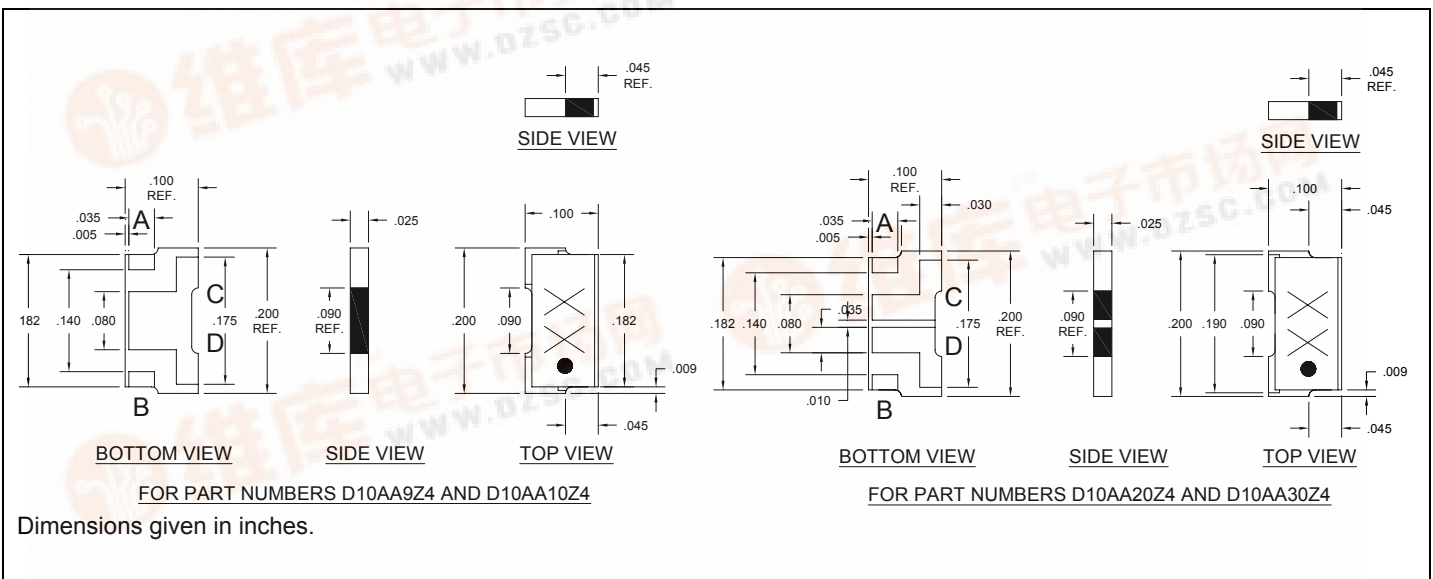
<b>Attenuation Value:</b>	1 – 6, 9, 10, 20 & 30dB
<b>Power:</b>	7 Watts
<b>Frequency Range:</b>	DC – 3.0 GHz
<b>V.S.W.R.:</b>	<1.25:1

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

### Features:

- RoHS compliant
- Lowest Cost
- True Surface Mount
- Alumina Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

### Outline Drawing



Rev. 6/24/05



# Model D10AAXZ4

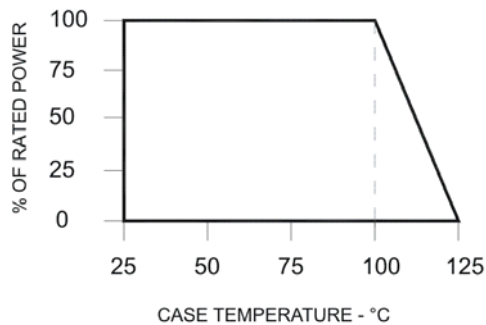
# Anaren



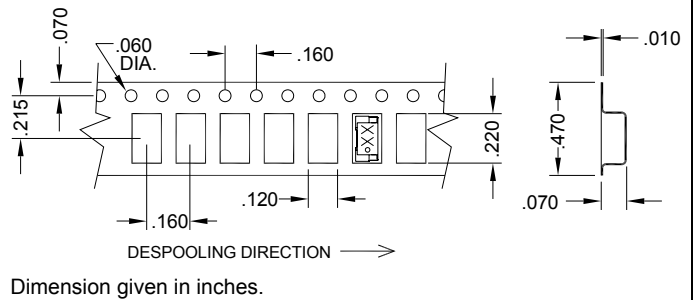
## Specifications:

PART NUMBER	ATTENUATION(dB)	TOL. (±dB)	POWER (WATTS)	VSWR	FREQ (GHZ)
D10AA1Z4	1	0.30	7	1.25:1	3.0
D10AA2Z4	2	0.30	7	1.25:1	3.0
D10AA3Z4	3	0.30	7	1.25:1	3.0
D10AA4Z4	4	0.30	7	1.25:1	3.0
D10AA5Z4	5	0.30	7	1.25:1	3.0
D10AA6Z4	6	0.30	7	1.25:1	3.0
D10AA9Z4	9	0.25	7	1.25:1	3.0
D10AA10Z4	10	0.25	7	1.25:1	3.0
D10AA20Z4	20	0.50	7	1.25:1	3.0
D10AA30Z4	30	1.50	7	1.25:1	3.0

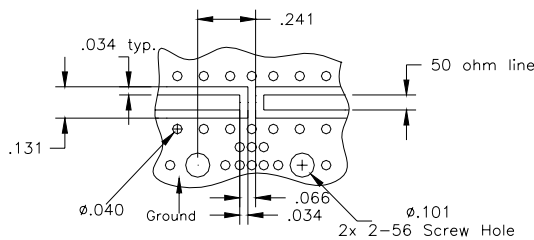
## Power De-rating:



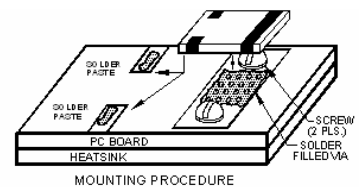
## Tape & Reel:



## Mounting Footprint and Procedure:



Dimension given in inches.  
For best thermal performance the PCB should be placed with thermal joint compound to the heat sink.



- 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.

USA/Canada: (315) 432-8909  
Toll Free: (800) 544-2414  
Europe: +44 2392-232392

Available on Tape and Reel For Pick and Place Manufacturing.



# Anaren

What'll we think of next?™

### Material Declaration

D10AAXXZ4

Matte Tin Finish

Material	Weight		(PPM)	CAS Number
	(lbs)	(g)		
Alumina	5.889E-05	2.671E-02	7.496E+05	1344-28-1
Diethylene Glycol Ethyl Ether Acetate	2.212E-07	1.004E-04	2.818E+03	1121-52
Dipropylene Glycol Monomethyl Ether	2.976E-7	1.350E-04	3.789E+03	3459-09-48
Epoxy resin and polymers	1.323E-06	6.000E-04	1.684E+4	1002
Matte Tin	1.381E-06	6.262E-04	1.758E+04	7440-31-5
Nickel	8.416E-07	3.817E-04	1.071E+04	7440-02-0
Polymer	6.507E-07	2.952E-04	8.285E+03	
Propylene Glycol Monomethyl Ether Acetate	1.775E-07	8.050E-05	2.259E+03	1086-56
Ruthenium	1.618E-06	7.341E-04	2.060E+04	12036-10-1
Silicon Oxide	7.490E-07	3.397E-04	9.534E+03	10097-28-6
Silver Alloy	1.062E-05	4.816E-03	1.352E+05	7440-22-4
<hr/>				
<b>Total Weight Calculated</b>	7.855E-05	3.563E-02		
<hr/>				
<b>Total Weight Measured</b>	7.932E-05	3.598E-02		

The values presented above are estimates at the current revision, and it is derived from vendor supplied data. While Anaren strives for accurate reporting, due to product and process variations at both Anaren and our suppliers, the quoted values are our best estimates only, and not measured absolute values. Product specifications are subject to change without notice.

