

### Surface Mount Attenuator 30 Watts, 30dB



The D30NA30Z4 is a high performance Aluminum Nitride (AlN) chip attenuator intended as a cost competitive alternative to 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. The attenuator is also RoHS compliant!

#### Features:

- RoHS Compliant
- 30 Watts
- Low Cost
- DC – 3.0GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	AlN Ceramic
<b>Terminal Finish</b>	Matte Tin over Nickel Barrier
<b>Operating Temperature</b>	-55 to +200°C (see de rating chart)

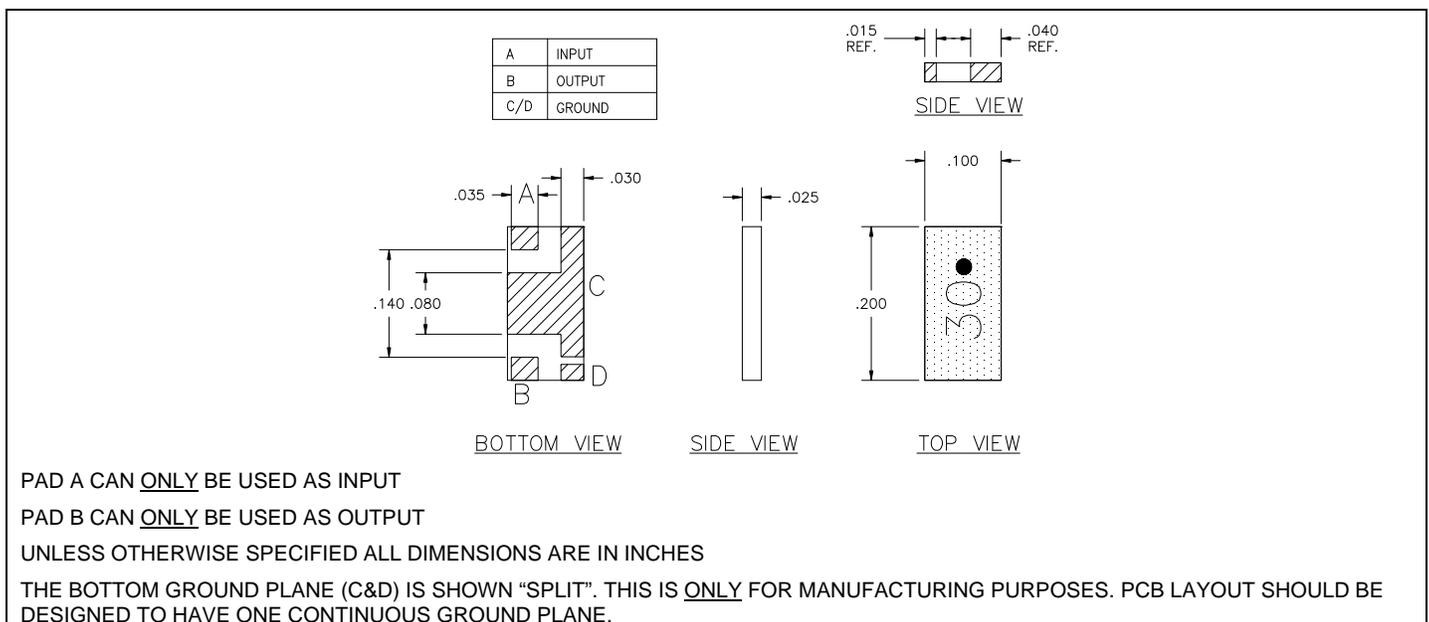
Tolerance is  $\pm 0.010"$ , unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

#### Electrical Specifications

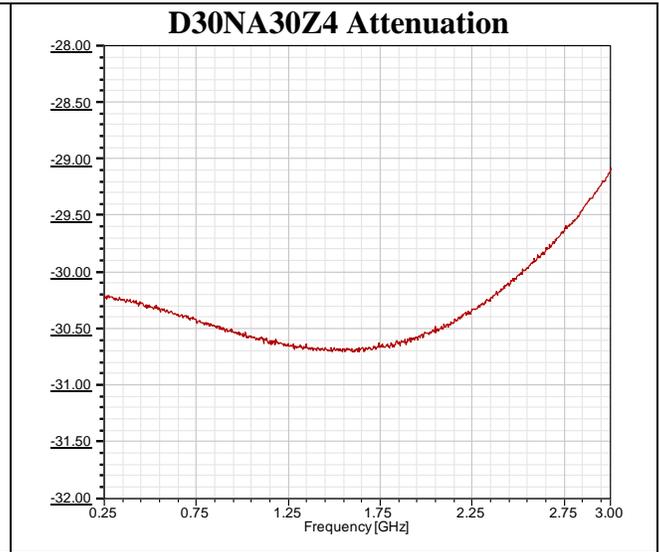
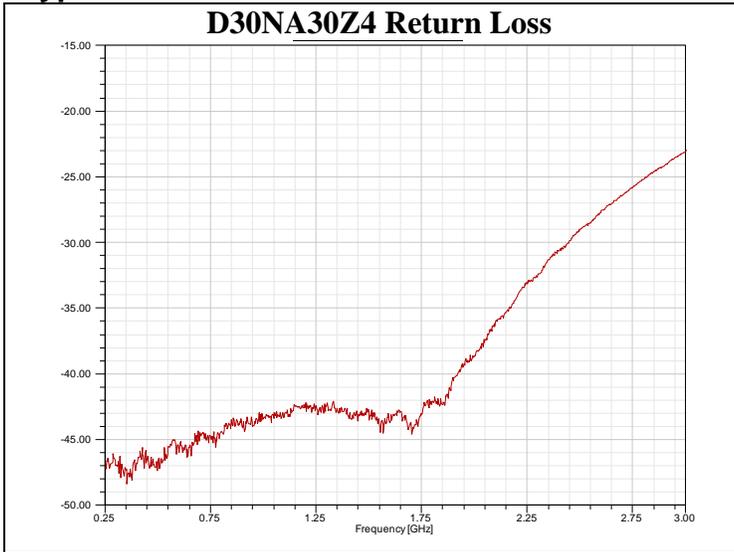
<b>Attenuation Value:</b>	30dB	+1dB, -1dB; DC – 2.7GHz +1dB, -1.5dB; DC – 3.0GHz
<b>Power:</b>	30 Watts	
<b>Frequency Range:</b>	DC – 3.0GHz	
<b>Input Return Loss:</b>	20dB	

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

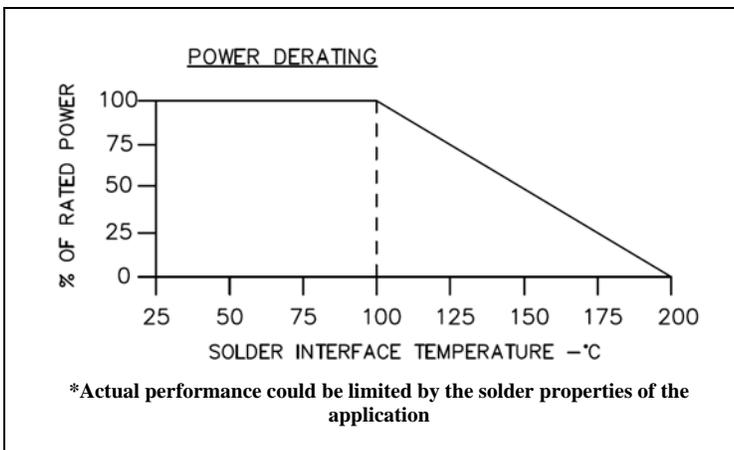
#### Outline Drawing



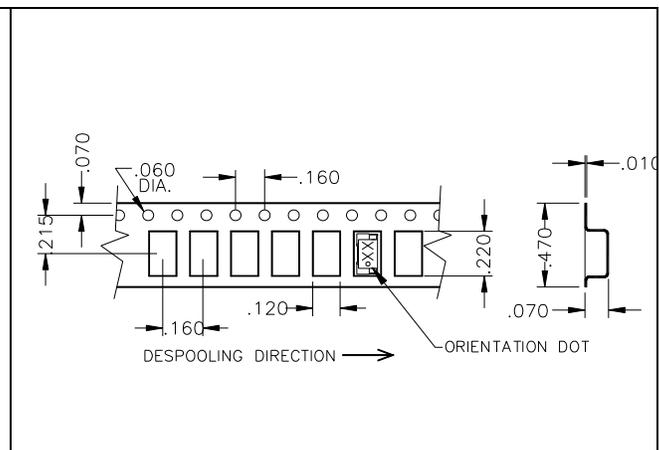
## Typical Performance:



## Power De-rating:



## Mounting Footprint:



## Tape and Reel:

**Tape and Reel Dimensions:**

- Carrier width: .241
- Carrier hole diameter: .131
- Carrier hole offset: .034 typ.
- Carrier hole diameter: .040
- Carrier hole offset: .034
- Carrier hole diameter: .068
- Carrier hole offset: .034
- Carrier hole diameter: .101
- Carrier hole offset: .034
- Carrier hole diameter: 2x 2-56 Screw Hole
- Carrier hole diameter: 50 ohm line

**Mounting Procedure:**

- DRILL THERMAL VIA THROUGH PCB AND FILL WITH SOLDER, SUCH AS Sn98.
- SOLDER PART IN PLACE USING Sn98 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (280°C)
- TO ENSURE GOOD THERMAL CONNECTIVITY TO HEAT SINK, DRILL AND TAP HEAT SINK AND MOUNT PCB BOARD TO HEAT SINK USING SCREWS.

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