

# SERIES PPA

## ATTENUATORS

### High Power – DC-4 GHz

**RoHS**  
Compliant

**AEROFLEX**  
A passion for performance.

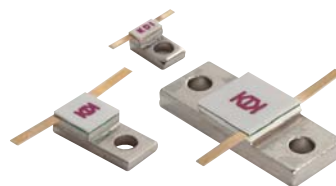
The Aeroflex/Inmet PPA Series of attenuators utilize a Beryllium Oxide chip and thin film technology to provide devices which can dissipate up to 100 Watts of RF power. The PPA series must be thermally bonded to a heat sink, using the mounting holes provided, in order to operate within the temperature rating indicated. The flange temperatures must not exceed 100°C under rated power conditions.

#### ORDERING INFORMATION

The Power Attenuators listed are available in 1 dB increments from 1 thru 20 dB. Specify by selecting any of the series listed and add the attenuation value desired to the basic series designation. (See Note 3)

#### EXAMPLE:

Basic Series PPA **PPA 20-10** Desired dB Value  
Power



#### GENERAL SPECIFICATIONS

|                       |                                               |
|-----------------------|-----------------------------------------------|
| Impedance             | 50 Ohms                                       |
| Operating Temp.       | -55 °C to +150°C                              |
| Attenuation Stability | 0.0001 dB/dB/°C                               |
| Substrate             | Beryllium Oxide Ceramic                       |
| Resistive Element     | Proprietary Thin Film                         |
| Flange                | Copper, Nickel Plated per QQ-N-290            |
| Tabs                  | Beryllium Copper, Gold Plated per MIL-G-45204 |
| Cover                 | Alumina Ceramic                               |

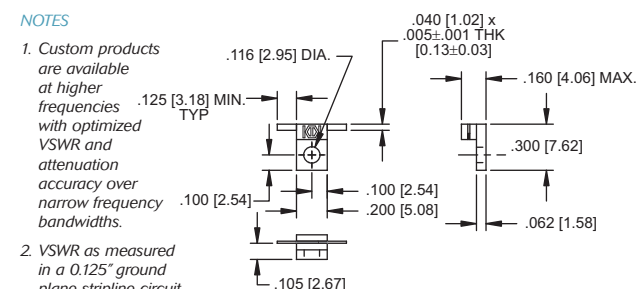
#### PERFORMANCE SPECIFICATIONS

| Model                           | Attenuation <sup>(1)</sup><br>1 dB Increments<br>(dB) | Frequency <sup>(1)</sup><br>Range | Input<br>Power<br>(Watts) | dB   | Attenuation Accuracy (1)<br>(dB)      |                              |                              | VSWR<br>(Typical) <sup>2</sup>                                      |
|---------------------------------|-------------------------------------------------------|-----------------------------------|---------------------------|------|---------------------------------------|------------------------------|------------------------------|---------------------------------------------------------------------|
|                                 |                                                       |                                   |                           |      | DC-1 GHz                              | 1-2.5 GHz                    | 2.5-4 GHz                    |                                                                     |
| PPA 10<br>11-20                 | 1-20                                                  | DC-4 GHz                          | 10                        | 1-10 | ±0.5<br>±1.0                          | ±0.5<br>±2.0                 | ±1.0<br>±3.0                 | 1.3:1                                                               |
| PPA 20<br>6-9<br>10-15<br>16-20 | 1-20                                                  | DC-4 GHz                          | 20                        | 1-5  | ±0.5<br>±0.5<br>±0.75<br>±1.0         | ±0.5<br>±0.5<br>±1.0<br>±2.0 | ±0.5<br>±1.0<br>±1.5<br>±3.0 | 1.15:1 – DC-1.0 GHz<br>1.35:1 – 1.0-2.5 GHz<br>1.50:1 – 2.5-4.0 GHz |
| PPA 50                          | 1-20                                                  | DC-1 GHz                          | 50                        |      | ±0.3 DC-500 MHz<br>±0.5 500 MHz-1 GHz |                              |                              | 1.25:1 – DC-500 MHz<br>1.50:1 – 500 MHz-1 GHz                       |
| PPA 100                         | 1-20                                                  | DC-500 MHz                        | 100                       |      | ±0.5                                  |                              |                              | 1.25:1 – DC-200 MHz<br>1.50:1 – 200-500 MHz                         |

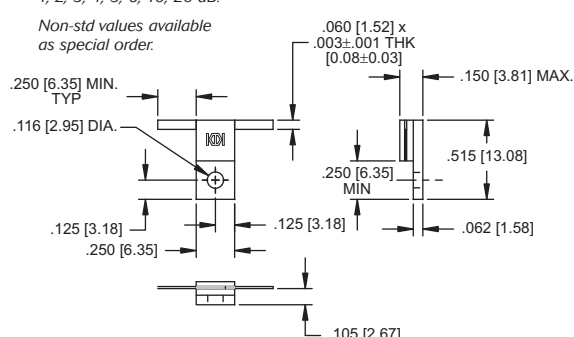
#### PHYSICAL DIMENSIONS

##### NOTES

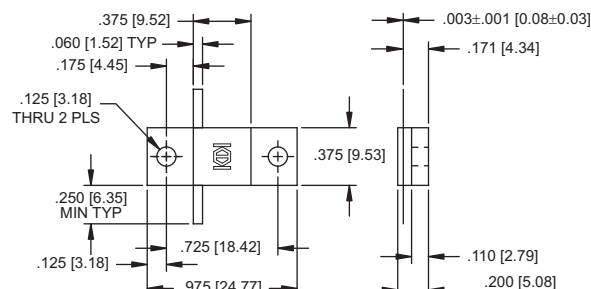
- Custom products are available at higher frequencies with optimized VSWR and attenuation accuracy over narrow frequency bandwidths.
- VSWR as measured in a 0.125" ground plane stripline circuit.
- Standard values 1, 2, 3, 4, 5, 6, 10, 20 dB.  
Non-std values available as special order.



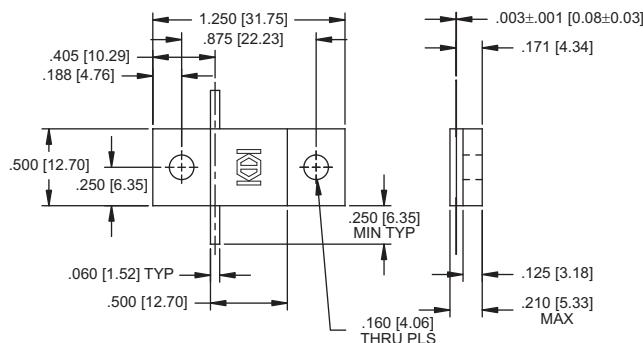
PPA10 OUTLINE



PPA20 OUTLINE



PPA50 OUTLINE



PPA100 OUTLINE

KEY: Inches [Millimeters] .XX ±.03 .XXX ±.010 [X ±0.8 .XX ±0.25]

**AEROFLEX**  
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