



# Fixed Coaxial Attenuators

## 2082 Series

### OSM (SMA) Miniature

#### Features

- DC - 18 GHz, Round Body
- Thin Film Technology
- Complete In-House Capability
- Broadband Operation

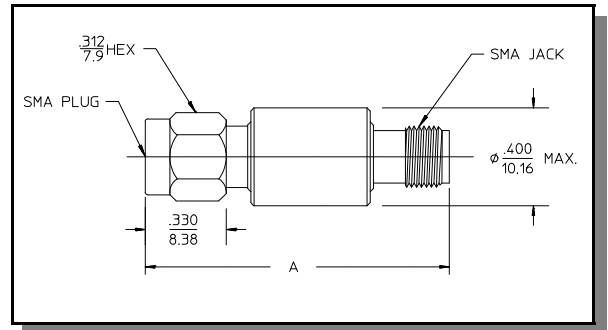
#### Description

SMA Miniature series fixed attenuators offer precision reliable performance in a compact package. Maximum electrical flexibility can be achieved by choosing the proper unit from the series listed below. Rugged construction and thermal stability assure high performance in military and space applications.

#### Specifications

| Part Number<br>Plug - Jack | Attenuation (dB) |
|----------------------------|------------------|
| 2082-6191-00               | 0.0 ± 0.30       |
| 2082-6191-01               | 1.0 ± 0.30       |
| 2082-6191-02               | 2.0 ± 0.30       |
| 2082-6191-03               | 3.0 ± 0.30       |
| 2082-6192-04               | 4.0 ± 0.30       |
| 2082-6192-05               | 5.0 ± 0.30       |
| 2082-6192-06               | 6.0 ± 0.30       |
| 2082-6193-07               | 7.0 ± 0.50       |
| 2082-6193-08               | 8.0 ± 0.50       |
| 2082-6193-09               | 9.0 ± 0.50       |
| 2082-6193-10               | 10.0 ± 0.50      |
| 2082-6194-11               | 11.0 ± 0.75      |
| 2082-6194-12               | 12.0 ± 0.75      |
| 2082-6194-13               | 13.0 ± 0.75      |
| 2082-6194-14               | 14.0 ± 0.75      |
| 2082-6194-15               | 15.0 ± 0.75      |
| 2082-6194-16               | 16.0 ± 0.75      |
| 2082-6194-17               | 17.0 ± 0.75      |
| 2082-6194-18               | 18.0 ± 0.75      |
| 2082-6194-19               | 19.0 ± 0.75      |
| 2082-6194-20               | 20.0 ± 0.50      |
| 2082-6195-30               | 30.0 ± 0.75      |

#### Outline Drawing

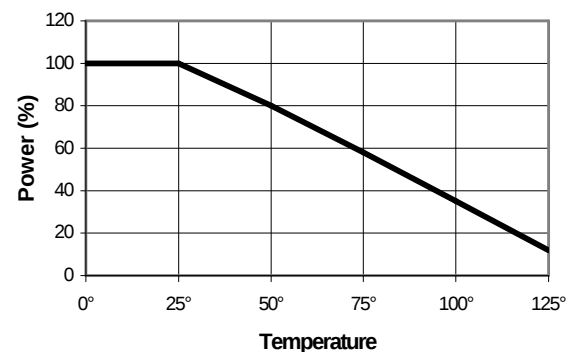


| dB     | Dim. A         | Weight            |
|--------|----------------|-------------------|
| 0 - 30 | 1.24 (31.5 mm) | .26 oz. Max. (8g) |

NOTE: All dimensions are ± .020, except mounting hole diameters (± .005) and mounting hole locations (± .010).

| Frequency                                                     | Power                                                   |
|---------------------------------------------------------------|---------------------------------------------------------|
| DC - 18.0 GHz                                                 | 2 Watts Average<br>500 Watts Peak<br>See Derating Curve |
| VSWR                                                          | Finish                                                  |
| DC - 4 GHz, 1.15<br>4 - 12.4 GHz, 1.25<br>12.4 - 18 GHz, 1.35 | Passivated Stainless Steel                              |

#### Power Derating



## 5 and 10 Watt

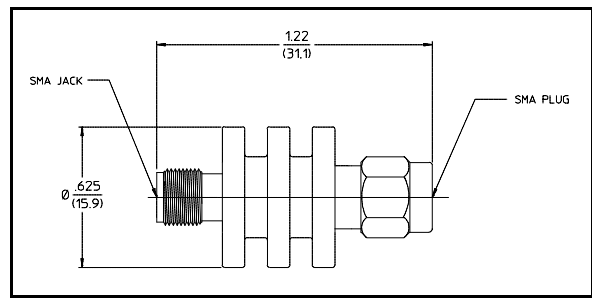
### Features

- Low VSWR
- DC - 18.0 GHz
- Flat Attenuation
- Precision SMA Connectors
- No Hazardous Beryllium Oxide
- N Custom Capability

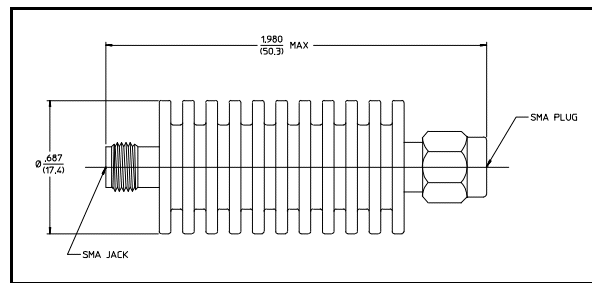
### Description

The 5 and 10 Watt units have been designed for use where stable, broadband, medium power units are required. They feature stainless steel connectors and black anodized aluminum heat sink bodies. Standard connector configuration is plug-jack.

### 5 Watt



### 10 Watt



### 5 Watt SMA

| Part Number  | Attenuation (dB) | Frequency Range (GHz) |
|--------------|------------------|-----------------------|
| 2082-6524-03 | 3.0 ± 0.30       | DC - 18.0             |
| 2082-6524-06 | 6.0 ± 0.30       |                       |
| 2082-6524-10 | 10.0 ± 0.50      |                       |
| 2082-6524-20 | 20.0 ± 0.75      |                       |

| Power                                              | Weight                                                           |
|----------------------------------------------------|------------------------------------------------------------------|
| (Avg): 5 Watts CW (25°C)<br>(Peak): 500 Watts Max. | 0.5 oz. (14g) Max.                                               |
| Temperature Range                                  | VSWR                                                             |
| -55°C to +125°C                                    | DC to 4 GHz, 1.15<br>4 to 12.4 GHz, 1.25<br>12.4 to 18 GHz, 1.35 |

### 10 Watt SMA

| Part Number  | Attenuation (dB) | Frequency Range (GHz) |
|--------------|------------------|-----------------------|
| 2082-6502-03 | 3.0 ± 0.30       | DC - 18.0             |
| 2082-6502-06 | 6.0 ± 0.30       |                       |
| 2082-6502-10 | 10.0 ± 0.50      |                       |
| 2082-6502-20 | 20.0 ± 0.75      |                       |

| Power                                               | Weight                                                           |
|-----------------------------------------------------|------------------------------------------------------------------|
| (Avg): 10 Watts CW (25°C)<br>(Peak): 500 Watts Max. | 1.0 oz. (28g) Max.                                               |
| Temperature Range                                   | VSWR                                                             |
| -55°C to +125°C                                     | DC to 8 GHz, 1.20<br>8 to 12.4 GHz, 1.30<br>12.4 to 18 GHz, 1.40 |

## SMA Subminiature

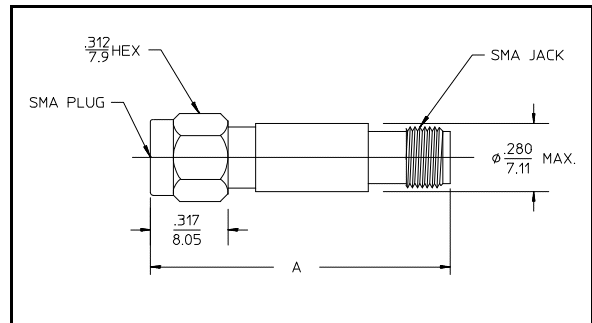
### Features

- Small Size, .86 and 1.02 Overall Length
- Thin Film Technology
- Light Weight
- Broadband Operation
- Rugged Construction
- Complete In-House Capability

### Description

SMA subminiature series attenuators are extremely compact; as small as 0.28 inches in diameter and 0.86 inches long. This series was designed for broadband precision operation where flat frequency response and minimum size and weight are necessary. The rugged construction and thermal stability assure high performance in military and space applications.

### Outline Drawing



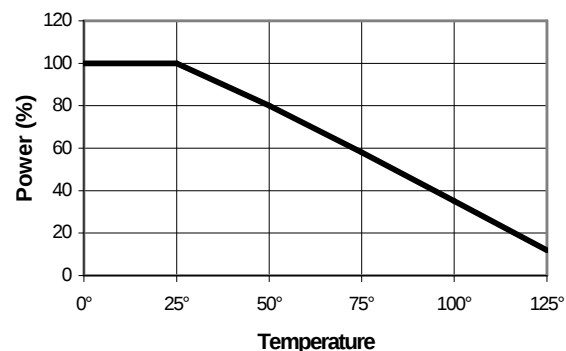
| dB      | Dim. A         | Weight            |
|---------|----------------|-------------------|
| 0 - 12  | 0.86 (21.8 mm) | .18 oz. Max. (5g) |
| 13 - 30 | 1.02 (25.9 mm) | .21 oz. Max. (6g) |

### Specifications

| Part Number<br>Plug - Jack | Attenuation (dB) |
|----------------------------|------------------|
| 2082-6040-00               | 0.0 ± 0.30       |
| 2082-6040-01               | 1.0 ± 0.30       |
| 2082-6040-02               | 2.0 ± 0.30       |
| 2082-6040-03               | 3.0 ± 0.30       |
| 2082-6041-04               | 4.0 ± 0.30       |
| 2082-6041-05               | 5.0 ± 0.30       |
| 2082-6041-06               | 6.0 ± 0.30       |
| 2082-6042-07               | 7.0 ± 0.50       |
| 2082-6042-08               | 8.0 ± 0.50       |
| 2082-6042-09               | 9.0 ± 0.50       |
| 2082-6042-10               | 10.0 ± 0.50      |
| 2082-6043-11               | 11.0 ± 0.75      |
| 2082-6043-12               | 12.0 ± 0.75      |
| 2082-6043-13               | 13.0 ± 0.75      |
| 2082-6043-14               | 14.0 ± 0.75      |
| 2082-6043-15               | 15.0 ± 0.75      |
| 2082-6043-16               | 16.0 ± 0.75      |
| 2082-6043-17               | 17.0 ± 0.75      |
| 2082-6043-18               | 18.0 ± 0.75      |
| 2082-6043-19               | 19.0 ± 0.75      |
| 2082-6043-20               | 20.0 ± 0.50      |
| 2082-6044-30               | 30.0 ± 0.75      |

| Frequency                                                     | Power                                                   |
|---------------------------------------------------------------|---------------------------------------------------------|
| DC - 18.0 GHz                                                 | 2 Watts Average<br>500 Watts Peak<br>See Derating Curve |
| VSWR                                                          | Finish                                                  |
| DC - 4 GHz, 1.15<br>4 - 12.4 GHz, 1.25<br>12.4 - 18 GHz, 1.35 | Passivated Stainless Steel                              |

### Power Derating

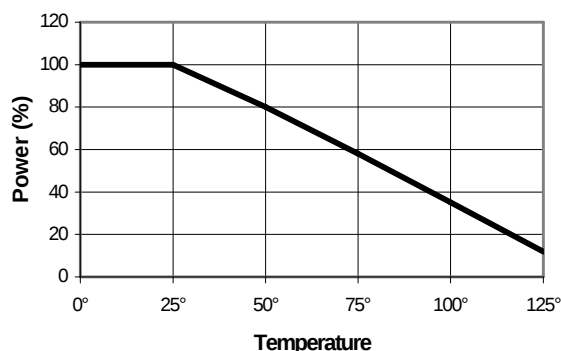


## SMA Miniature, Round Body

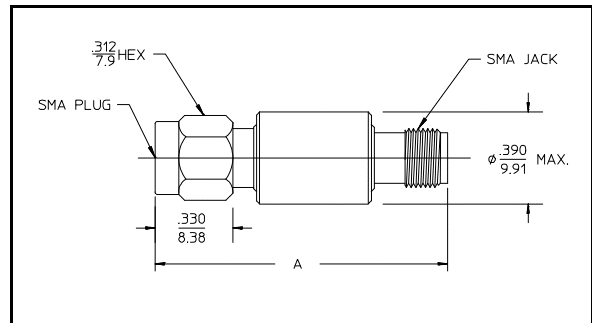
## Description

Any standard attenuator shown below is available with any combination of plug and jack connectors, as well as attenuation values as identified in part number table on previous page. Contact factory for part numbers and complete specifications.

## Power Derating



## Outline Drawing



| dB      | Dim. A         | Weight             |
|---------|----------------|--------------------|
| 0 - 30  | 1.24 (31.5 mm) | .30 oz. Max. (8g)  |
| 31 - 60 | 1.80 (45.7 mm) | .40 oz. Max. (11g) |

## Specifications

| Part Number<br>Plug - Jack | Attenuation (dB) |
|----------------------------|------------------|
| 2082-6171-03               | 3.0 ± 0.30       |
| 2082-6172-06               | 6.0 ± 0.30       |
| 2082-6173-10               | 10.0 ± 0.5       |
| 2082-6174-20               | 20.0 ± 0.50      |
| 2082-6175-30               | 30.0 ± 0.75      |
| 2082-6176-40               | 40.0 ± 1.00      |

| Frequency        | Power                                                   |
|------------------|---------------------------------------------------------|
| DC - 4 GHz       | 2 Watts Average<br>500 Watts Peak<br>See Derating Curve |
| VSWR             | Finish                                                  |
| DC - 4 GHz, 1.15 | Passivated Stainless Steel                              |