

# ATTENUATOR

## COAXIAL DC-18 GHz SMA



DATA SHEET

PART SERIES: 42WXX.XXF

SHEET 1 OF 2  
Dwg 1013295

EN 15-1664  
Revision C

### FEATURES

- Superior Attenuation Accuracy
- Low VSWR
- Rugged Construction
- MIL-DTL-3933
- High Reliability

### APPLICATIONS

- Amplifier Stabilization
- Improve VSWR Between Stages
- Balance Channels
- Overload Protection
- Set Amplification Gain/Power
- Sample Output Power
- Military

### GENERAL DESCRIPTION

Florida RF Labs Coaxial Attenuators offer superior attenuation accuracy, with extended broadband frequency operation. This series is manufactured with stainless steel body and rugged construction for the most demanding environments.

### ORDERING INFORMATION

Part Identifier:

42WXX.XXF

Attenuation Value



### SPECIFICATIONS

#### 1.0 ELECTRICAL

|                               |  |
|-------------------------------|--|
| Nominal Impedance:            | 50 ohms  |
| Frequency Range:              | DC - 18 GHz  |
| Attenuation Values Available: | See Table 1  |
| Attenuation Accuracy:         | See Table 1  |
| Input Power CW:               | 2 Watts @ derated linearly from 25 °C to 10% @125°C    |
| Peak Power:                   | 20 Watts (based on 10us pulse width and 1% duty cycle) |
| VSWR:                         | See Table 1  |

| TABLE 1    |  |            |  | ATTENUATION ACCURACY (dB) |  |               |  |
|------------|--|------------|--|---------------------------|--|---------------|--|
| dB VALUE   |  |            |  | DC – 18 GHz               |  |               |  |
| 0 – 6.0    |  |            |  | ± 0.3                     |  |               |  |
| 7.0 – 20.0 |  |            |  | ± 0.5                     |  |               |  |
| 21 - 30    |  |            |  | ± 0.75                    |  |               |  |
| VSWR (MAX) |  |            |  |                           |  |               |  |
| dB VALUE   |  | DC – 4 GHz |  | 4-12.4 GHz                |  | 12.4 – 18 GHz |  |
| 0 - 30     |  | 1.15:1 Max |  | 1.25:1 Max                |  | 1.35:1 Max    |  |

#### 2.0 ENVIRONMENTAL

|                            |                     |
|----------------------------|---------------------|
| Operating Temperature:     | -55°C to +150°C     |
| Non-operating Temperature: | -65°C to +150°C     |
| Temperature Coefficient:   | +/-200 PPM / °C max |

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### 3.0 MARKING

Unit Marking:

FRFL and part number, legibility and permanency per MIL-STD-130

### 4.0 QUALITY ASSURANCE

Sample Inspect Per MIL-STD-105, Level II, 1.0% AQL.

Visual and Mechanical Examination for Conformance to Outline Drawing

Measure Attenuation and VSWR

Data Retention – Standard

### 5.0 PACKAGING

Standard Packaging:

Tube

### 6.0 MECHANICAL

Body and Nut Material:

Stainless Steel

Body and Nut Finish:

Passivated

Center Contact Material:

Beryllium Copper

Center Contact Finish:

Gold Plated

Dielectric:

Teflon

Resistive Element:

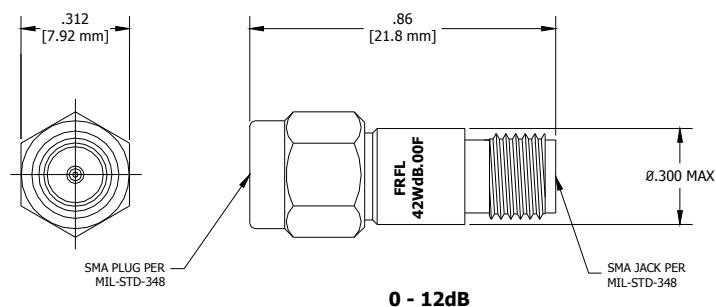
Thick Film

Torque:

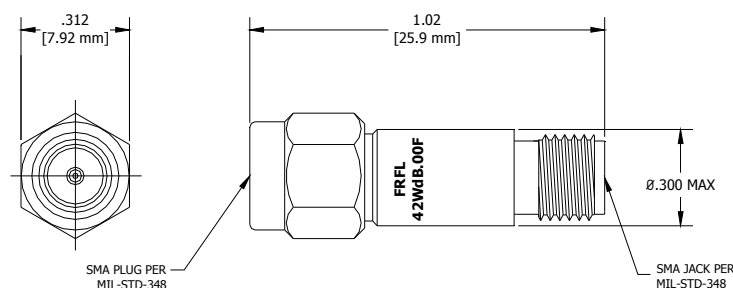
8 in-lbs maximum

Metric Dimensions:

Provided for reference only



**0 - 12dB**



**13 - 20dB & 30dB**

Unless Otherwise Specified: TOLERANCE: X.XX =  $\pm 0.03$  X.XXX =  $\pm 0.010$