

## 0 to 70 dB Rotary Step Attenuator, SMA Female to SMA Female With 1 dB Step Rated to 2 Watts Up to 6 GHz

The FMAT7440-70 is a Step Attenuator that has 70 dB of total attenuation with 1 dB step size and rotary dial design across a frequency range from DC to 6 GHz. The design is tried and true technology that offers exceptional performance characteristics that include 1.8 dB maximum insertion loss, and a maximum VSWR of 1.55:1 at 6 GHz. The design also features excellent attenuation accuracy with  $\pm 1.5$  dB typical at 6 GHz. The Brass package has SMA Female connectors, and operates within the temperature range of  $-20^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ .



### Electrical Specifications

| Description   | Min | Typ     | Max    | Units |
|---|-----|---------|--------|-------|
| Frequency Range   | DC  |         | 6      | GHz   |
| Impedance   |     | 50      |        | Ohms  |
| Insertion Loss  |     |         | 1.8    | dB    |
| Attenuation Value   |     | 0 to 70 |        | dB    |
| Step Size   |     | 1       |        | dB    |
| Step Type   |     | Rotary  |        |       |
| Input Power (CW)  |     |         | 2      | Watts |
| Input Power, Peak<br>5 $\mu$ s Pulse Width, 2% Duty Cycle |     |         | 100    | Watts |
| VSWR  |     |         | 1.55:1 |       |

### Specifications by Frequency

| Description     | F1        | F2 | F3 | F4 | F5 | Units |
|-----------------|-----------|----|----|----|----|-------|
| Range           | DC to 6   |    |    |    |    | GHz   |
| Atten. Accuracy | $\pm 1.5$ |    |    |    |    | dB    |

### Mechanical Specifications

|             |                      |
|-------------|----------------------|
| <b>Size</b> |                      |
| Length      | 4.724 in [119.99 mm] |
| Width       | 1.181 in [30 mm]     |
| Height      | 2.098 in [53.29 mm]  |
| Weight      | 0.959 lbs [435 g]    |

### Connectors

| Description                | Connector 1            | Connector 2   |
|----------------------------|------------------------|---------------|
| Type                       | SMA Female             | SMA Female    |
| Contact Material & Plating | Beryllium Copper, Gold |               |
| Body Material & Plating    | Brass, Nickel          | Brass, Nickel |

### Environmental Specifications

|                    |                 |
|--------------------|-----------------|
| <b>Temperature</b> |                 |
| Operating Range    | -20 to 85 deg C |

### Features:

- 1 dB steps from 0 to 70 dB Attenuation
- Rotary Dial Control
- SMA Female Connectors
- $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  Operating Temperature
- $\pm 1.5$  dB Typical Attenuation Accuracy

### Applications:

- Instrumentation
- Precision Measurements
- Prototyping and Characterization
- Production Systems

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**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

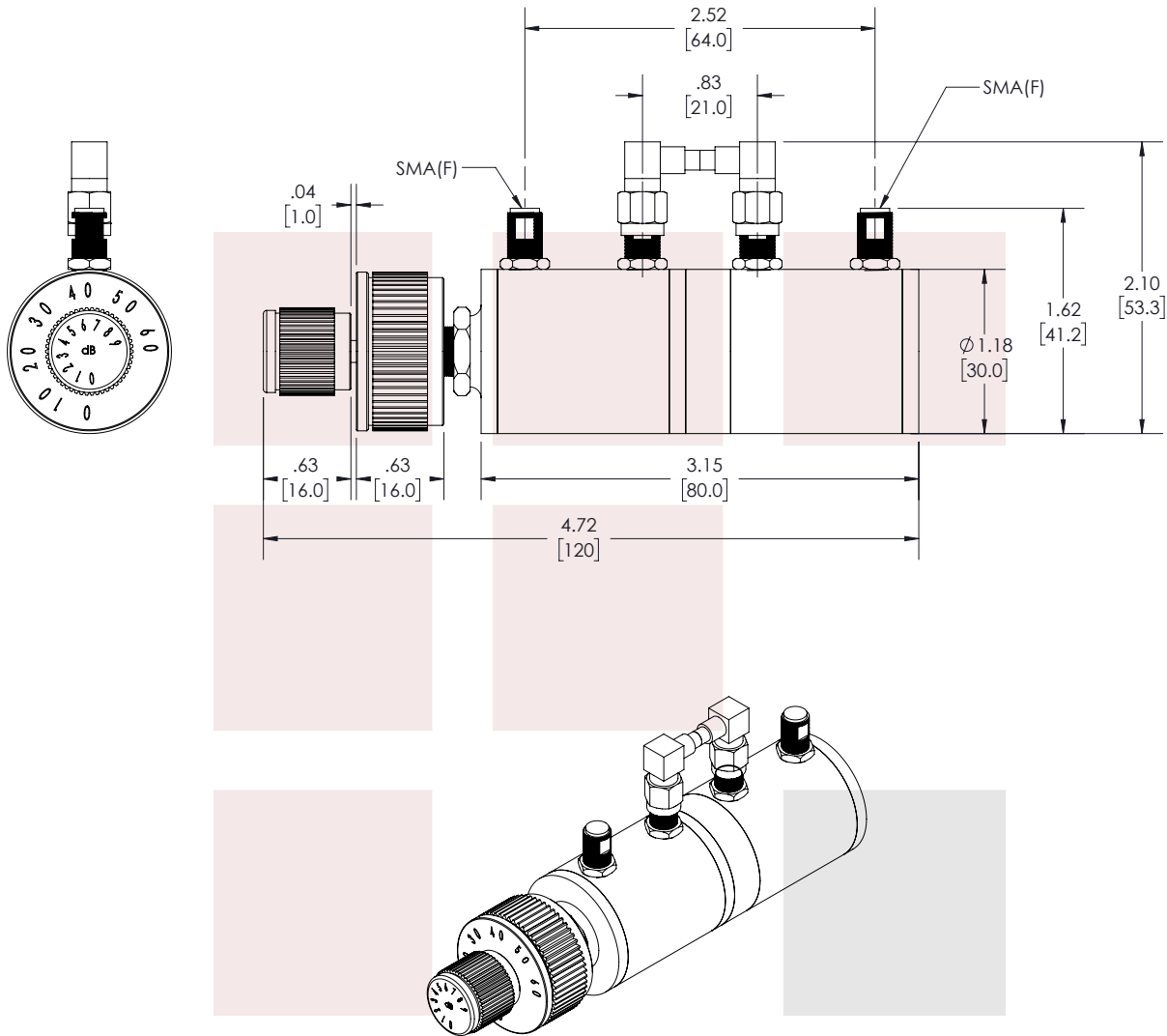
0 to 70 dB Rotary Step Attenuator, SMA Female to SMA Female With 1 dB Step Rated to 2 Watts Up to 6 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 70 dB Rotary Step Attenuator, SMA Female to SMA Female With 1 dB Step Rated to 2 Watts Up to 6 GHz FMAT7440-70](#)

URL: <https://www.fairviewmicrowave.com/70db-step-attenuator-1db-sma-female-dc-6-ghz-2-watts-fmat7440-70-p.aspx>

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| REVISIONS |                 |            |          |
|-----------|-----------------|------------|----------|
| REV.      | DESCRIPTION     | DATE       | APPROVED |
| A         | INITIAL RELEASE | 05/19/2022 | SPONG    |



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TITLE  
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

|                    |             |   |
|--------------------|-------------|---|
| .X = ±.2 [5.08]    | FRACTIONS   | L ≤ 12 [305] = +1 [25] / -0                 |
| .XX = ±.02 [.51]   | ± 1/32      | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0     |
| .XXX = ±.005 [.13] | ANGLES ± 1° | 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  |
|                    |             | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 |
|                    |             | 300 [7620] < L = +5%L / -0                  |

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

|           |                    |                       |                         |          |
|-----------|--------------------|-----------------------|-------------------------|----------|
| SIZE<br>A | CAGE CODE<br>3FKR5 | DRAWN BY<br>PSRINIVAS | ITEM NO.<br>FMAT7440-70 | REV<br>A |
|-----------|--------------------|-----------------------|-------------------------|----------|

T-Rev.D