

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

Features

- 1 dB steps from 0 to 70 dB Attenuation
- Rotary Dial Control
- SMA Female Connectors
- -20°C to +85°C Operating Temperature
- ±1.5 dB Typical Attenuation Accuracy

Applications

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

Description

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 ±1.5 dB typical at 6 GHz. The Brass package has SMA Female connectors, and operates within the temperature range of -20°C to 85°C.

Electrical Specifications

Description	Minimum	Typical	Maximum	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 5µs 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
Attenuation Accuracy	1.5					dB

Electrical Specification Notes:
Attenuation Accuracy specification is ±3.5% dB typ for any attenuation above 50dB.

Mechanical Specifications

Size	
Length	4.724 in [119.99 mm]
Width	1.181 in [30 mm]
Height	2.098 in [53.29 mm]
Weight	0.42 lbs [190.51 g]

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

Connectors

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

Environmental Specifications

Temperature

Operating Range -20 to 85 deg C

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.

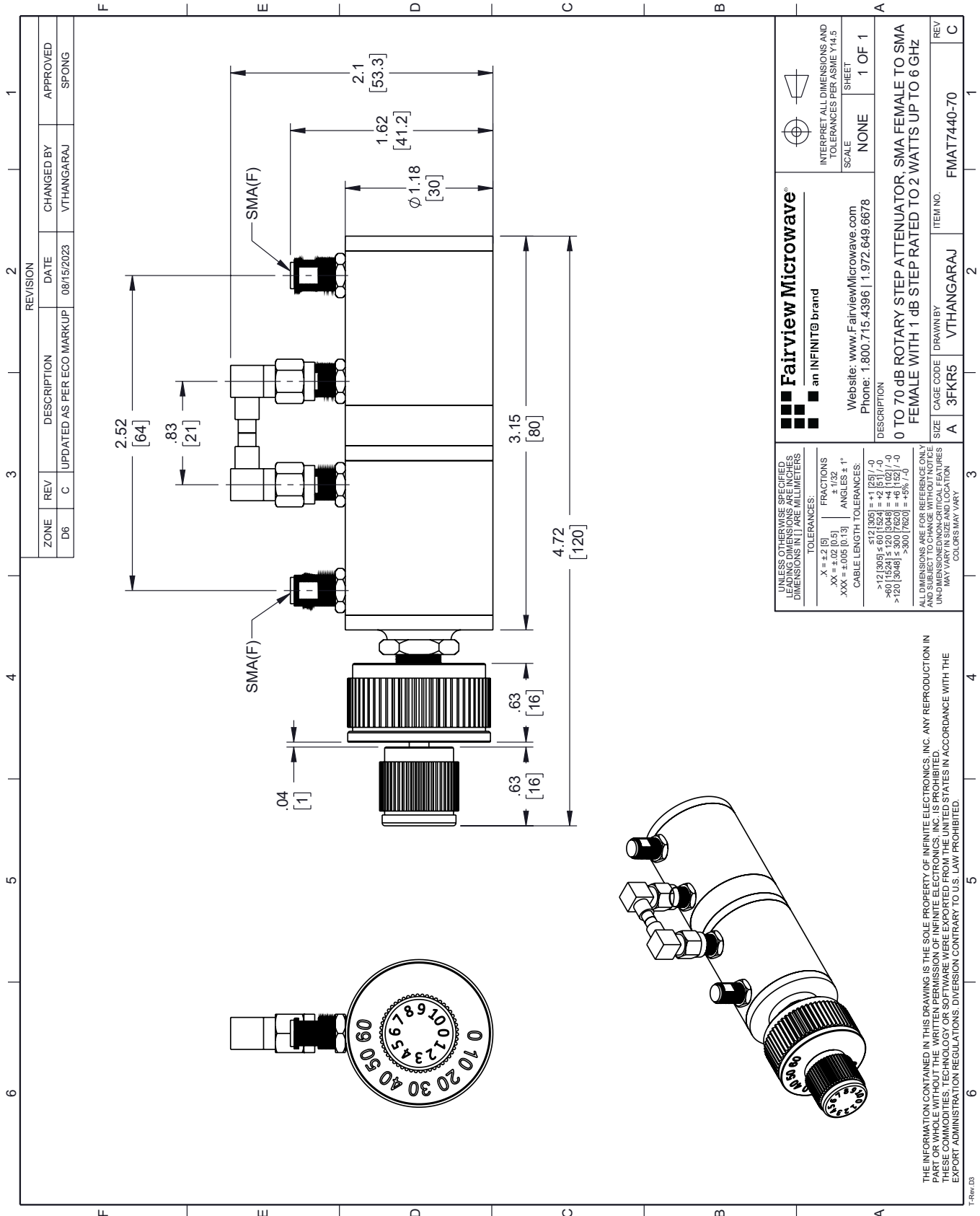
For additional information on this product, please click the following link: [0 to 70 dB Rotary Step Attenuator, SMA Female to SMA Female With 1 dB Step Rated to 2 Watts Up to 6 GHz FMAT7440-70](#)

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

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMAT7440-70 CAD Drawing

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



REVISION		REVISION	
ZONE	REV	DESCRIPTION	DATE
D6	C	UPDATED AS PER ECO MARKUP	08/15/2023
		CHANGED BY	APPROVED
		VTHANGARAJ	SPONG

<p>Fairview Microwave® an INFINITI® brand</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>	
<p>Website: www.FairviewMicrowave.com</p> <p>Phone: 1.800.715.4396 1.972.649.6678</p>		<p>DESCRIPTION: 0 TO 70 dB ROTARY STEP ATTENUATOR, SMA FEMALE TO SMA FEMALE WITH 1 dB STEP RATED TO 2 WATTS UP TO 6 GHz</p>	
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.</p> <p>TOLERANCES:</p> <p>.X = ±.2 [5]</p> <p>.XX = ±.02 [0.5]</p> <p>.XXX = ±.005 [0.13]</p> <p>FRACTIONS: ± 1/32</p> <p>ANGLES ± 1°</p> <p>CABLE LENGTH TOLERANCES:</p> <p><12 [305] ±.60 [1524]</p> <p>>12 [305] ±.60 [1524]</p> <p><60 [1524] ±.126 [3048]</p> <p>>60 [1524] ±.126 [3048]</p> <p>>120 [3048] ±.300 [7620]</p> <p>>300 [7620] ±.938 [23912]</p>		<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p>	
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	VTHANGARAJ	FMAT7440-70
REV			C

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

T-Rev_D3