WAVEGUIDE

Fixed Attenuator

WR22-ATT-30+

50Ω 0.5 W 30 dB 33 to 50 GHz WR22 to WR22 Flange

KEY FEATURES

- 33 to 50 GHz
- WR22 Waveguide with Round Flange
- Excellent VSWR, 1.1:1 Typ.
- 500 mW Power Handling

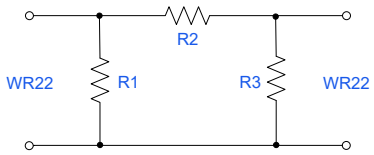


Generic photo used for illustration purposes only

APPLICATIONS

- Optical Communications
- Test & Measurement
- High-speed Data Systems
- Instrumentation
- Precision Measurements

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

The Mini-Circuits catalog model WR22-ATT-30+ is a precision fixed 30 dB 500 mW attenuator. WR22-ATT-30+ operates over an extremely wide frequency range with excellent VSWR and supports a broad range of system and testing applications. Precise performance, excellent VSWR and wide bandwidth make this model an ideal solution for systems requiring accurate attenuation across a very wide frequency range.

ELECTRICAL SPECIFICATIONS AT +25 °C, Z_0 = 50 Ω

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	33	-	50	GHz
Attenuation	33-36	22.0	29.4	38.0	dB
	36-39	22.0	30.2	38.0	
	39-42	22.0	30.7	38.0	
	45-48	22.0	31.2	38.0	
	48-50	22.0	32.1	38.0	
VSWR	33-36	-	1.1	1.7	:1
	36-39	-	1.1	1.7	
	39-42	-	1.1	1.7	
	45-48	-	1.1	1.7	
	48-50	-	1.1	1.7	

ABSOLUTE MAXIMUM RATINGS[1]

Parameter	Ratings
Operating Case Temperature	+10 °C to +40 °C
Storage Temperature	-40 °C to +85 °C

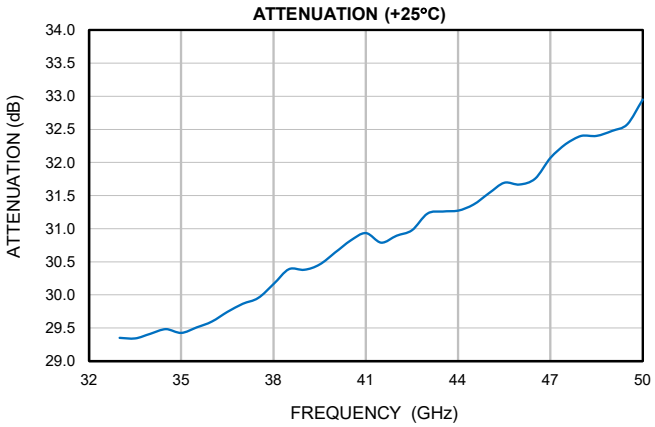
1. Permanent damage may occur if any of these limits are exceeded.

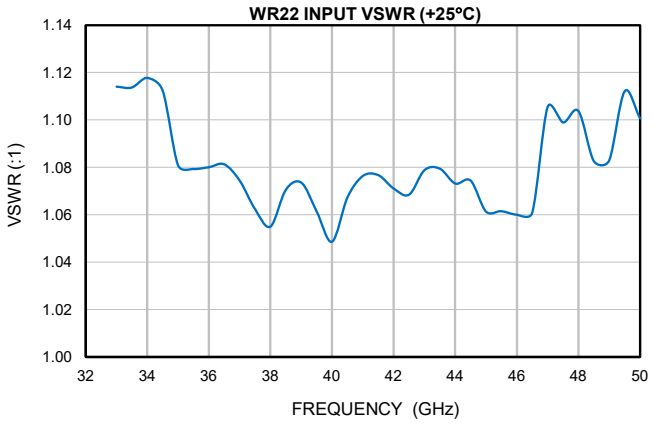
Fixed Attenuator

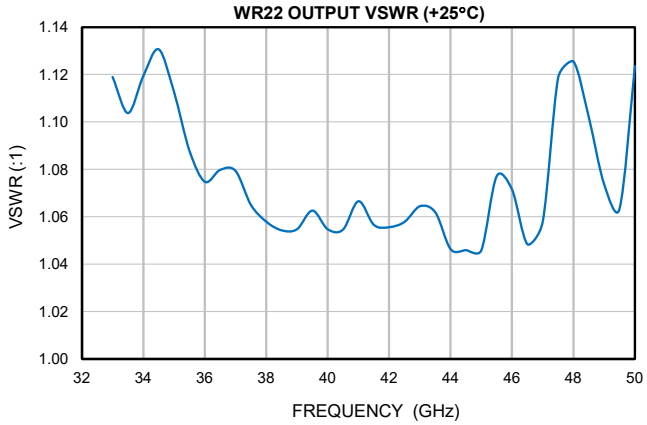
WR22-ATT-30+

50Ω 0.5 W 30 dB 33 to 50 GHz WR22 to WR22 Flange

TYPICAL PERFORMANCE GRAPHS







WAVEGUIDE

Fixed Attenuator

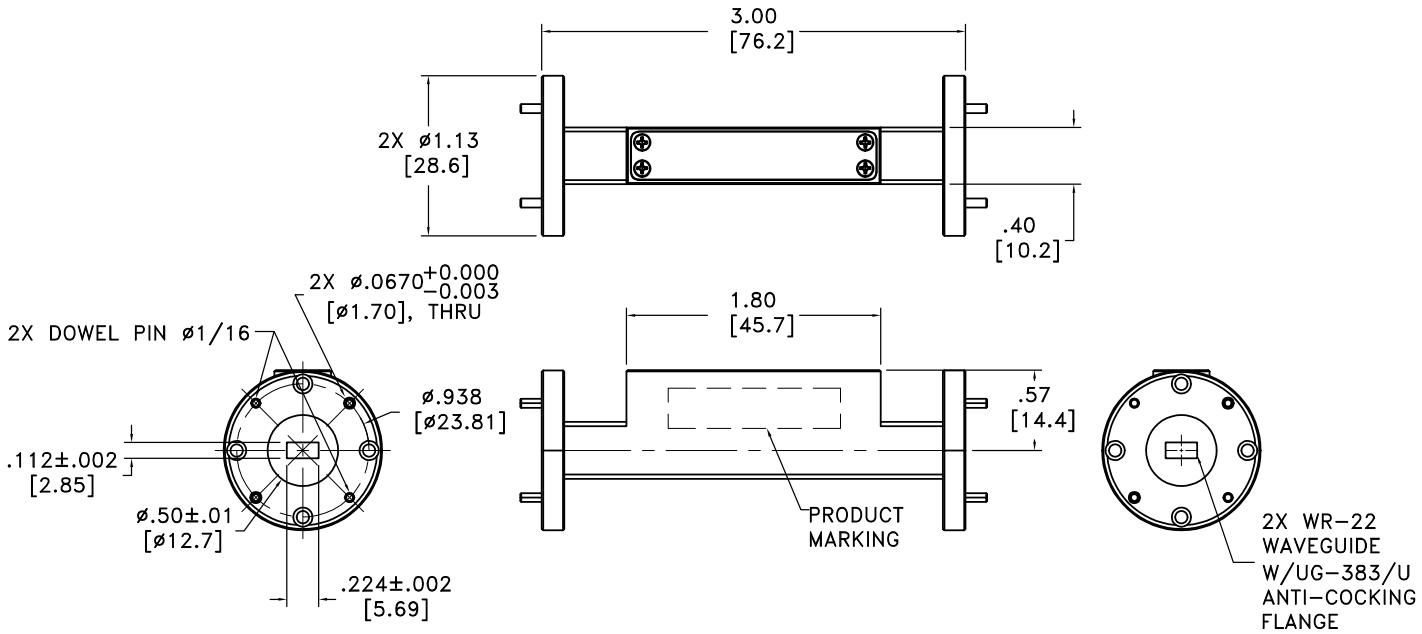
WR22-ATT-30+

50Ω 0.5 W 30 dB 33 to 50 GHz WR22 to WR22 Flange

COAXIAL CONNECTIONS

Description	RF1 PORT	RF2 PORT
Connector Type	WR22 Flange	WR22 Flange
Orientation	Straight	Straight

CASE STYLE DRAWING



Weight: 119.068 grams
Dimensions are in inches [mm]. Tolerances: 2 Pl.±.03; 3 Pl. ±.015

PRODUCT MARKING*: WR22-ATT-30+

*Marking may contain other features or characters for internal lot control.

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50Ω 0.5 W 30 dB 33 to 50 GHz WR22 to WR22 Flange

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	UW3808-1
RoHS Status	Compliant
Environmental Ratings	ENV145

NOTES

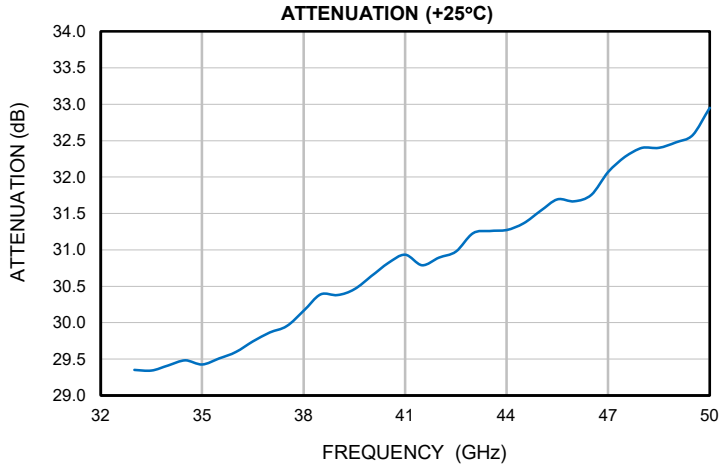
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

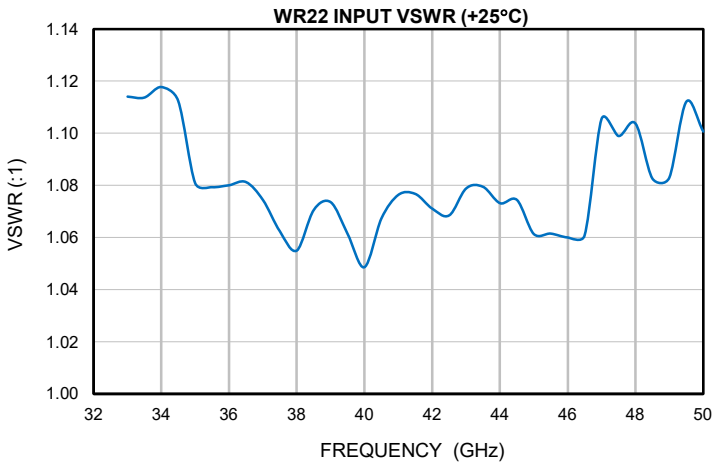
Fixed Attenuator WR22-ATT-30+

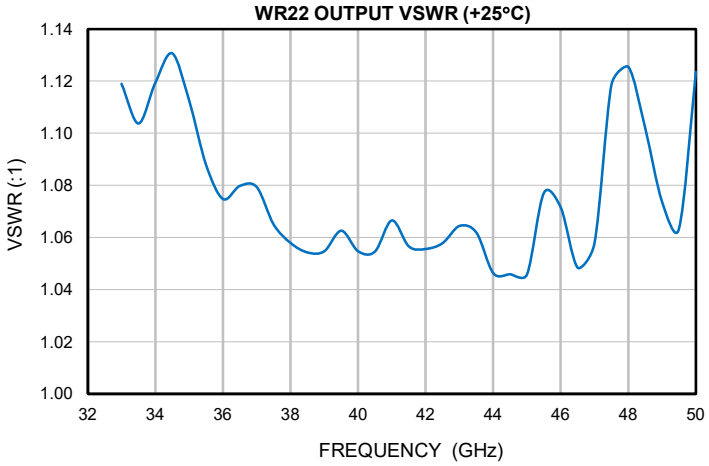
Typical Performance Data (+25°C)

FREQ.	ATTENUATION	WR22 INPUT VSWR	WR22 OUTPUT VSWR
(GHz)	(dB)	(:1)	(:1)
33.0	29.35	1.11	1.12
33.5	29.34	1.11	1.10
34.0	29.41	1.12	1.12
34.5	29.48	1.11	1.13
35.0	29.43	1.08	1.11
35.5	29.51	1.08	1.09
36.0	29.60	1.08	1.07
36.5	29.74	1.08	1.08
37.0	29.86	1.07	1.08
37.5	29.95	1.06	1.07
38.0	30.16	1.06	1.06
38.5	30.39	1.07	1.05
39.0	30.38	1.07	1.05
39.5	30.46	1.06	1.06
40.0	30.64	1.05	1.05
40.5	30.82	1.07	1.05
41.0	30.93	1.08	1.07
41.5	30.79	1.08	1.06
42.0	30.90	1.07	1.06
42.5	30.98	1.07	1.06
43.0	31.23	1.08	1.06
43.5	31.26	1.08	1.06
44.0	31.27	1.07	1.05
44.5	31.36	1.07	1.05
45.0	31.53	1.06	1.05
45.5	31.69	1.06	1.08
46.0	31.67	1.06	1.07
46.5	31.75	1.06	1.05
47.0	32.07	1.11	1.06
47.5	32.28	1.10	1.12
48.0	32.40	1.10	1.13
48.5	32.40	1.08	1.10
49.0	32.48	1.08	1.07
49.5	32.58	1.11	1.06
50.0	32.95	1.10	1.12

Typical Performance Curves



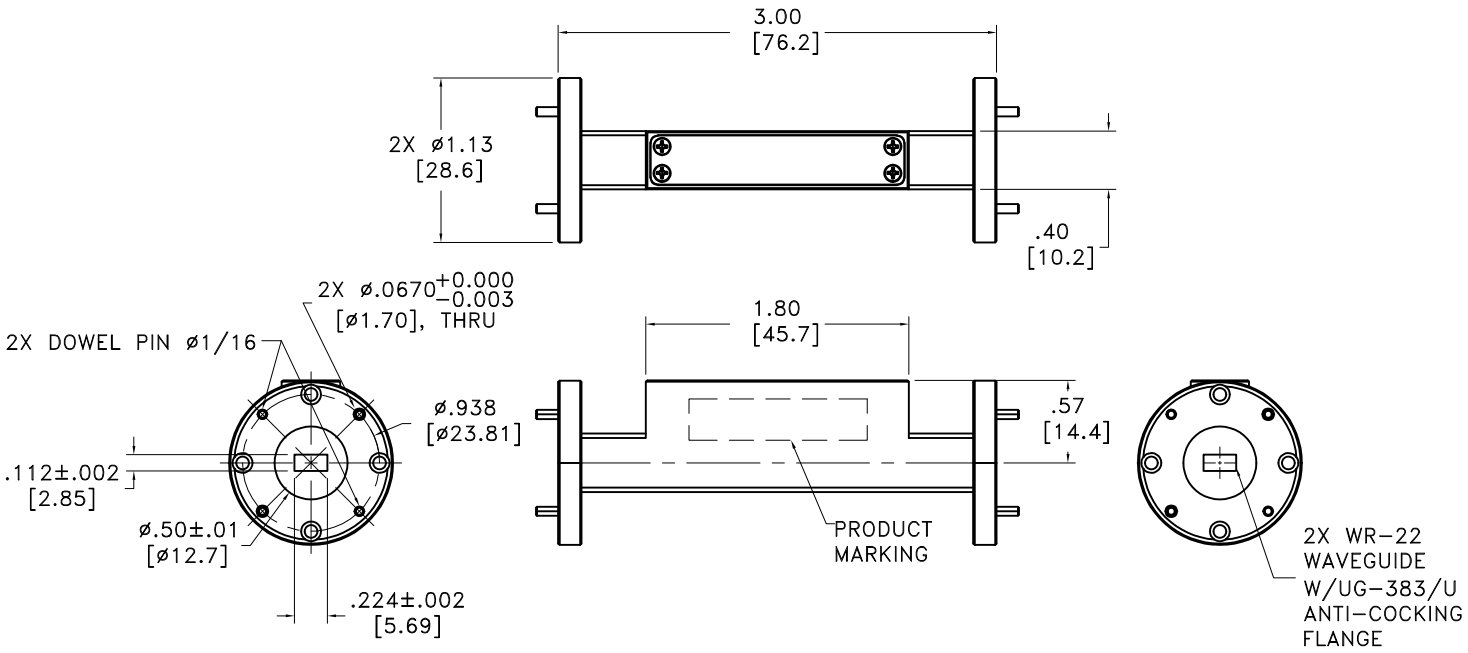




Case Style UW

Outline Dimensions

UW3808-1



Weight: 119.068 grams

Dimensions are in inches [mm]. Tolerances: 2 Pl.±.03; 3 Pl. ±.015

Notes:

1. Case material: Brass.
2. Case Finish: Gold plated.

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RF/IF MICROWAVE COMPONENTS

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Environmental Specifications ENV145

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	10° to 40° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet

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