WAVEGUIDE TO COAX

Adapter

WR28-KFR+

50Ω 26.5 to 40 GHz (Right-Angle 2.92mm-F to WR28 UG-599/U Sq. Cover Flange)

THE BIG DEAL

- Ka-Band frequency range, 26.5 to 40 GHz
- Excellent VSWR, 1.2:1 typ.
- Low insertion loss, 0.15dB typ.
- Compact design
- UG-599/U waveguide cover flange
- 2.92mm-F connector

Generic photo used for illustration purposes only

Model No.	WR28-KFR+
Case Style	UW3144
Connector 1	2.92 mm-F
Connector 2	WR28 UG-599/U SQ. Cover Flange

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

APPLICATIONS

- Instrumentation and Lab use
- Rapid Prototyping
- Waveguide Systems
- Radars
- Communications
- Industrial, Scientific and Medical
- 5G Cellular Mobile

PRODUCT OVERVIEW

Mini-Circuits' WR28-KFR+ is a waveguide to coax adapter operating from 26.5 to 40 GHz. This product features a WR28 waveguide with a precision standard UG-599/U-Flange transitioning to 2.92 mm-F coaxial connector. The WR28-KFR+ is machined from aluminum alloy 6061-T6 and gold-plated to ensure repeatable RF performance. This adapter has numerous applications in laboratories, Ka-Band communications, Radars and more.

KEY FEATURES

Feature	Advantages
Wideband, 26.5 to 40 GHz	Full operating frequency range of WR-28 waveguide
Low insertion loss/excellent VSWR	Key for critical waveguide to coax requirements

REV. A
ECO-011480
WR28-KFR+
MCL NY
220118

ELECTRICAL SPECIFICATIONS AT 25°C

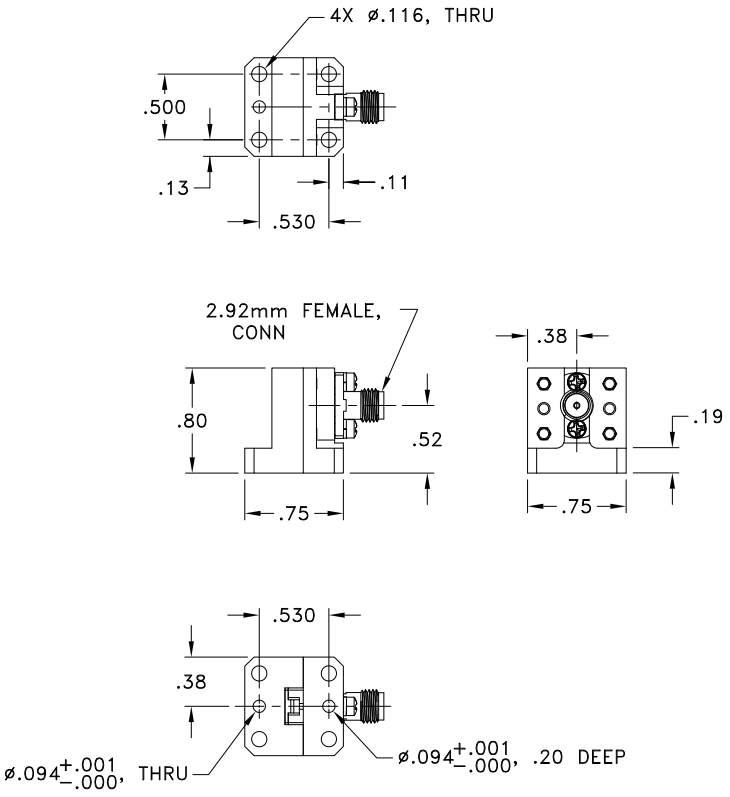
Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		26.5		40	GHz
Insertion Loss	26.5 - 40		0.15	0.40	dB
	26.5 - 29		0.15		
	33 - 36		0.2		
	37 - 40		0.15		
VSWR	26.5 - 40		1.2	1.38	:1
	26.5 - 29		1.15		
	33 - 36		1.25		
	37 - 40		1.2		

MAXIMUM RATINGS

Parameter	Ratings
Operating Case Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

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

OUTLINE DRAWING

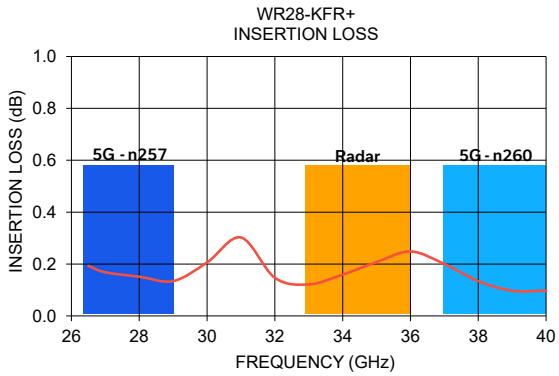


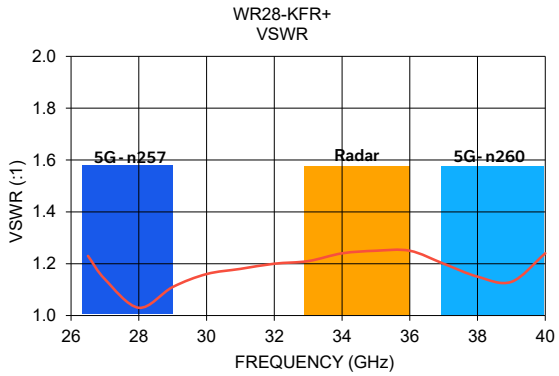
Weight: 54 grams.

Dimensions are in inches (mm). Tolerances: 2 Pl. ±.03; 3 Pl. ±.015

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
26.50	0.19	1.23
27.0	0.17	1.14
28.0	0.15	1.03
29.0	0.13	1.11
30.0	0.21	1.16
31.0	0.30	1.18
32.0	0.15	1.20
33.0	0.12	1.21
34.0	0.16	1.24
35.0	0.21	1.25
36.0	0.25	1.25
37.0	0.20	1.20
38.0	0.13	1.15
39.0	0.10	1.13
40.0	0.10	1.24





NOTES

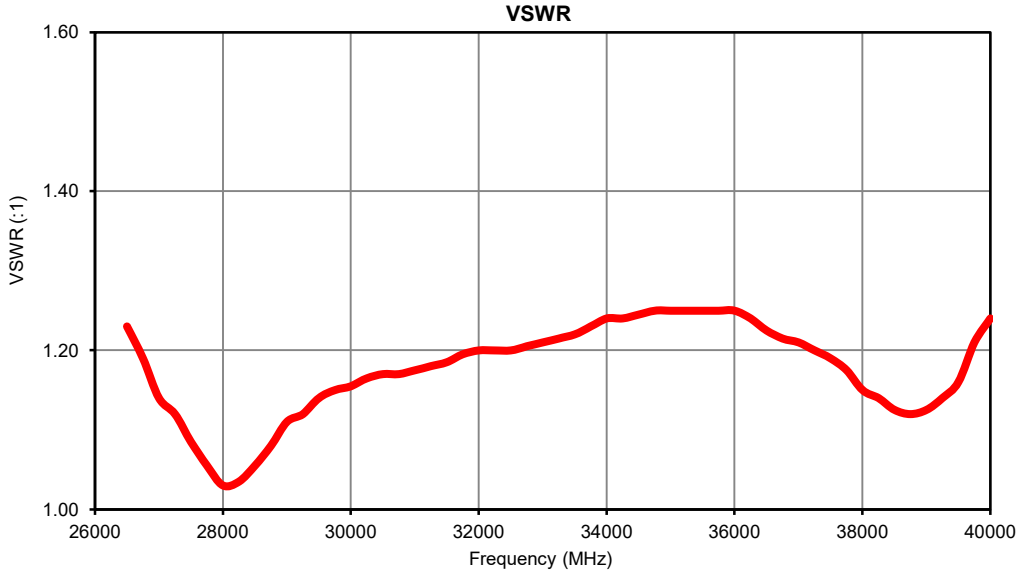
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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/MCLStore/terms.jsp

Adapter, Coaxial to Waveguide WR28-KFR+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	VSWR (:1)
26500	0.19	1.23
26750	0.18	1.19
27000	0.17	1.14
27250	0.16	1.12
27500	0.16	1.09
27750	0.16	1.06
28000	0.15	1.03
28250	0.15	1.04
28500	0.14	1.06
28750	0.14	1.08
29000	0.13	1.11
29250	0.14	1.12
29500	0.15	1.14
29750	0.17	1.15
30000	0.21	1.16
30250	0.25	1.17
30500	0.29	1.17
30750	0.31	1.17
31000	0.30	1.18
31250	0.27	1.18
31500	0.23	1.19
31750	0.19	1.20
32000	0.15	1.20
32250	0.12	1.20
32500	0.11	1.20
32750	0.11	1.21
33000	0.12	1.21
33250	0.13	1.22
33500	0.15	1.22
33750	0.15	1.23
34000	0.16	1.24
34250	0.17	1.24
34500	0.18	1.25
34750	0.19	1.25
35000	0.21	1.25
35250	0.23	1.25
35500	0.24	1.25
35750	0.25	1.25
36000	0.25	1.25
36250	0.24	1.24
36500	0.22	1.23
36750	0.21	1.22
37000	0.20	1.21
37250	0.18	1.20
37500	0.16	1.19
37750	0.15	1.18
38000	0.13	1.15
38250	0.12	1.14
38500	0.11	1.13
38750	0.10	1.12
39000	0.10	1.13
39250	0.09	1.14
39500	0.09	1.16
39750	0.09	1.21
40000	0.10	1.24

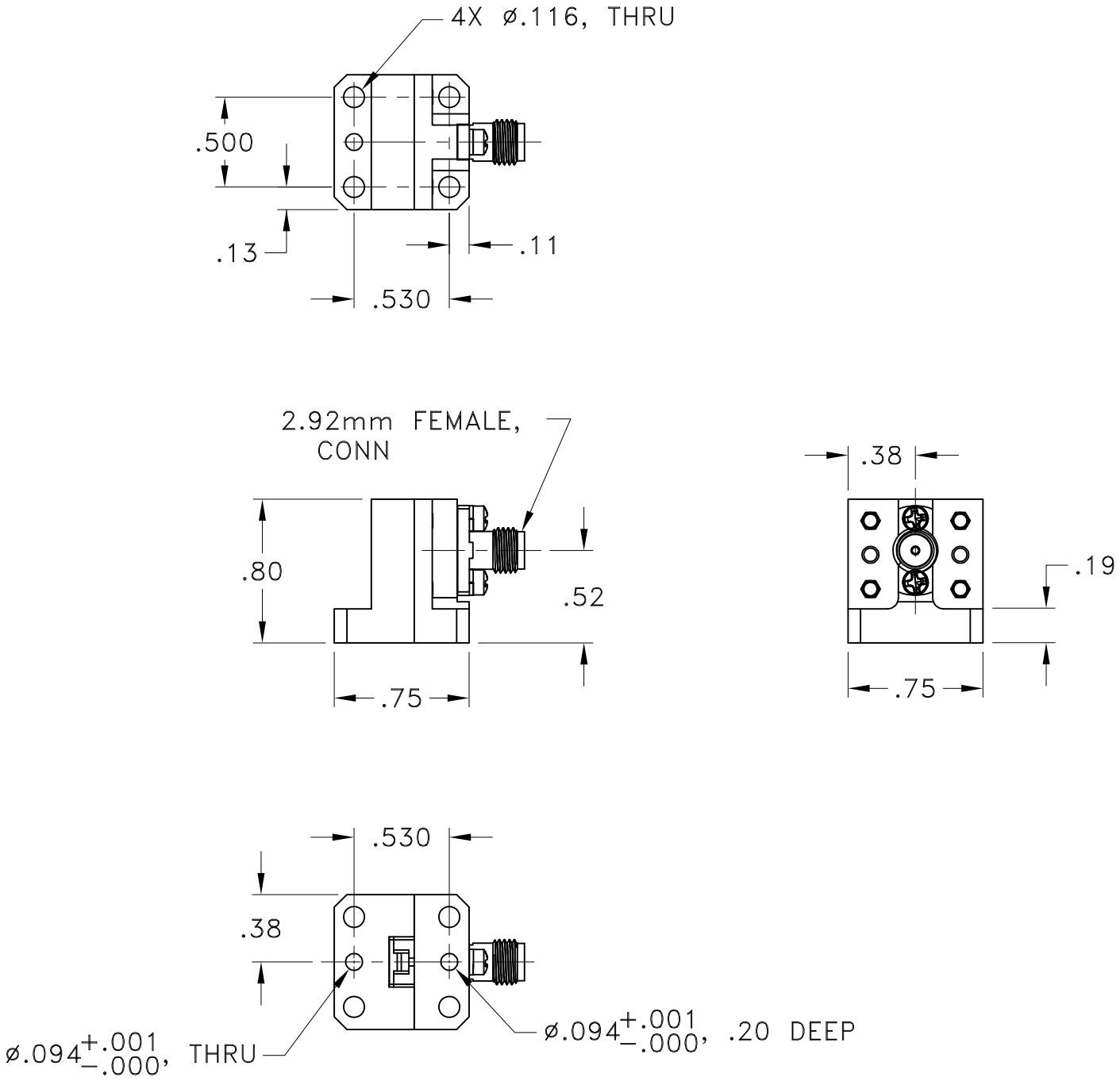
Typical Performance Curves



Case Style UW

Outline Dimensions

UW3144



Weight: 54 grams.

Dimensions are in inches (mm). Tolerances: 2 Pl. ±.03; 3 Pl. ±.015

Notes:

1. **Case material: Aluminum.**
2. **Case finish: Gold Plating.**

Mini-Circuits

Environmental Specifications ENV131

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	-40° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition B except over -55° to 100°C