

WR-187 Waveguide Rotary Joint, CPR187F Flanges, Inline Style in Aluminum

Description

Waveguide rotary joints are used to connect waveguide components which need to rotate or change orientation during operation within a waveguide system. Designed to perform in harsh operating environment, FMW187RJ002 from Fairview is a WR-187 waveguide rotary joint that operates in the frequency range of 4.6 GHz to 5.4 GHz. This WR-187 waveguide rotary joint has a Max VSWR of 1.2:1. This waveguide rotary joint is made of painted aluminum and incorporates CPR187F/CPR187F flange interface with maximum rotary speed of 30 RPM and minimum life time of 500×10^4 Revolutions. Waveguide rotary joints are part of Fairview's comprehensive waveguide product offerings which are available in stock and ready for same-day shipment.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	4.6		5.4	GHz
VSWR			1.2:1	
VSWR 1, Rotational Variance			0.05	
Insertion Loss			0.25	dB
Input Power (CW)			600	Watts
Peak Power			20	kWatts
Insertion Loss Rotational Variance			0.05	dB
Phase Rotational Variance			2	Degrees

Mechanical Specifications

Temperature

Operating Temperature	-40 to 70 °C
Storage Temperature	-55 to 85 °C
Humidity	85% (Max)

Interface

Waveguide Size	WR-187
Flange Type 1	CPR-187F
Flange Type 2	CPR-187F
Body Material and Plating	Aluminum, Paint
Rotating Speed	30 RPM
Lifetime	500×10^4 Revolutions
Starting Torque	1.77 in-lbs [0.2 Nm]
Torque During Rotation	0.88 in-lbs [0.1 Nm]
IP Protection Level	IP54



Features:

- WR-187 Waveguide
- Operating Frequency Range from 4.6 GHz to 5.4 GHz
- CPR187F/CPR187F Flanges
- Inline Style Configuration
- 1.2:1 Max VSWR
- 600 Watts (CW) Max Power Handling
- Insertion loss(Max): 0.25 dB
- Rotating Speed (Max): 30 RPM
- Lifetime (Min): 500×10^4 Revolutions

Applications:

- Radar Systems
- Military and Space
- Wireless Radio Systems
- Communication Systems
- R&D Labs
- Maritime Waveguide Systems

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

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

Plotted and Other Data

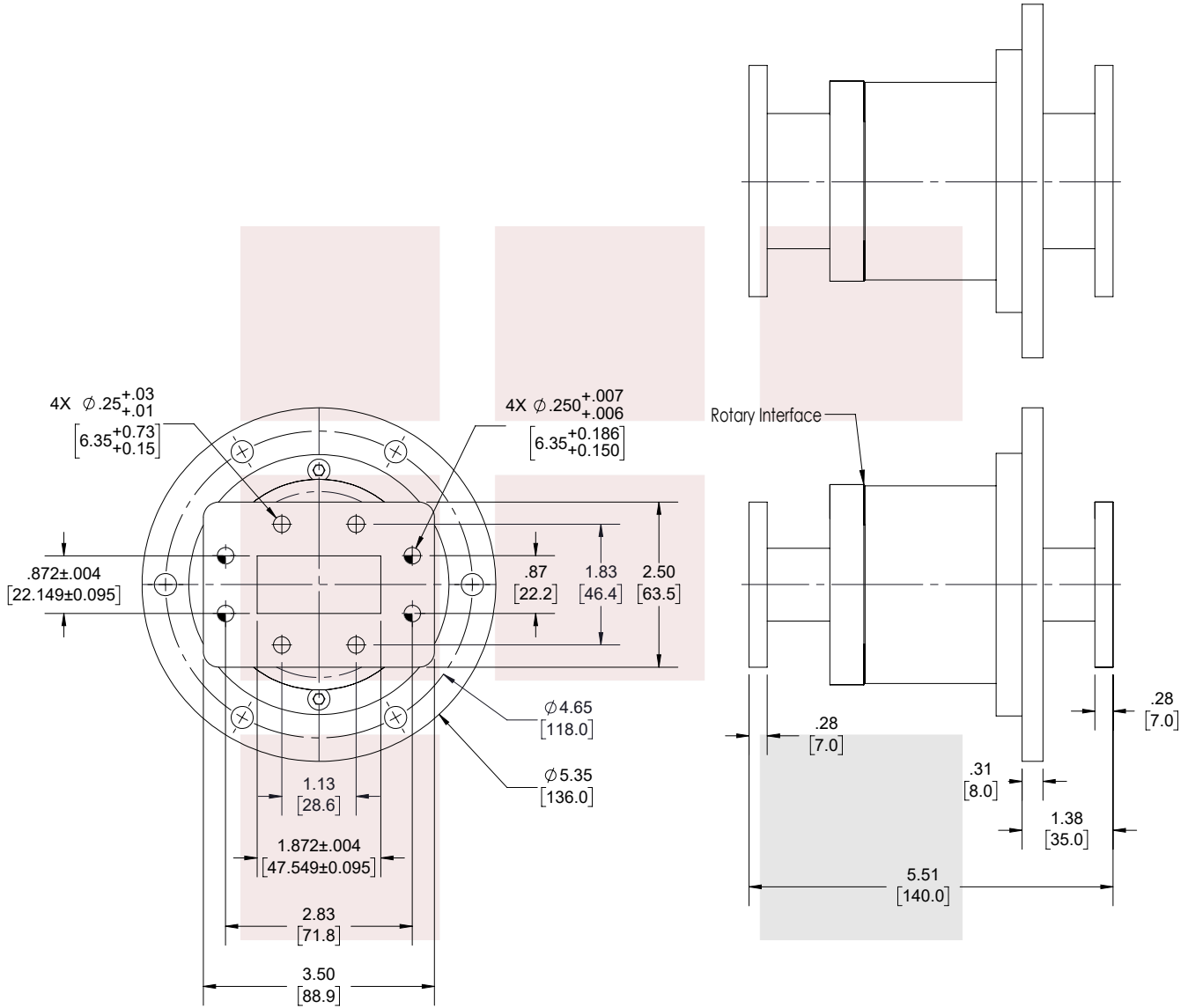
WR-187 Waveguide Rotary Joint, CPR187F Flanges, Inline Style in Aluminum from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-187 Waveguide Rotary Joint, CPR187F Flanges, Inline Style in Aluminum FMW187RJ0002](#)

URL: <https://www.fairviewmicrowave.com/undefined-url-for-pn-fmw187rj0002-fmw187rj0002-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/04/2021	SPONG



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.

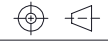
TITLE
WR-187 Waveguide Rotary Joint, CPR187F Flanges,
Inline Style in Aluminum

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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

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

THIRD-ANGLE PROJECTION



THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.

SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY MVEERAPPAN	ITEM NO. FMW187RJ0002	REV A
-----------	--------------------	------------------------	--------------------------	----------

T-Rev.D