

Seamless High Power Flexible Waveguide



JMC1200S

**Flexible Non Twistable
Seamless Waveguide**

HIGH POWER

Seamless Flexible Non Twistable Waveguide

Flexible and twistable rectangular waveguides are used in a wide variety of satcom, VSAT and telecom applications that carry high frequency radio (microwave communications) signals. Seamless waveguides are manufactured by corrugating and forming a brass metal tube so it will flex in the E and H planes only. The seamless construction generally allows for greater power and pressure handling although length is limited to 36 inches or 1 meter.

Internal waveguide finishes include base metal with corrosion protection or silver plated in order to reduce insertion loss and increase power handling.

The flexible waveguide core is protected from the environment by a molded rubber jacket or other external finishes providing durability and full axis of motion over the operating temperature range of -55 to +140 degrees Celsius with silicone rubber or painted finish and -20 to 100 degrees Celsius with neoprene rubber or vinyl coating.

Electrical Specifications

Add 0.03 to VSWR for Choke flanges

Waveguide Size		Frequency	Insertion loss		VSWR		Power Rating	
IEC	EIA	Operating	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
R	WR	GHz	dB/ft. (m) -P Un-plated	dB/ft. (m) -S Silver Plated	24 in. (0.6 m)	36 in. (1 m)	Watts -P Un-plated	Watts -S Silver Plated
26	340	2.20-3.30	0.03 (0.10)	0.01 (0.04)	1.07	1.08	6000	12000
32	284	2.60-3.95	0.04 (0.12)	0.02 (0.07)	1.07	1.08	4000	10000
40	229	3.22-4.90	0.04 (0.14)	0.02 (0.07)	1.07	1.08	4000	8000
48	187	3.94-5.99	0.05 (0.17)	0.03 (0.10)	1.09	1.10	3000	6500
58	159	4.64-7.05	0.07 (0.22)	0.04 (0.13)	1.09	1.10	2500	6000
70	137	5.85-8.20	0.09 (0.30)	0.05 (0.16)	1.09	1.10	2000	5500
84	112	7.05-10.00	0.11 (0.36)	0.06 (0.20)	1.10	1.11	1500	4000
100	90	8.20-12.40	0.13 (0.42)	0.09 (0.30)	1.10	1.11	1000	3500
120	75	10.00-15.00	0.17 (0.55)	0.12 (0.40)	1.11	1.12	750	2000
140	62	12.40-18.00	0.27 (0.90)	0.15 (0.50)	1.12	1.13	400	1000
180	51	14.50-22.00	0.44 (1.45)	0.20 (0.66)	1.14	1.15	200	500
220	42	18.00-26.50	0.61 (2.00)	0.30 (0.98)	1.17	1.22	100	300
260	34	22.00-33.00	0.73 (2.40)	0.35 (1.15)	1.21	1.26	100	250
320	28	26.50-40.00	0.82 (2.70)	0.49 (1.60)	1.24	1.29	75	200

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Mechanical Specifications

Waveguide Size		Bending Radius Rating				Length Tolerance	Internal Pressure Rating	
IEC	EIA	Static Minimum -S or -N Silicone or Neoprene Jacket		Static Minimum -V or -P Vinyl or Painted Finish		Static	Static Maximum -S or -N Silicone or Neoprene Jacket	Static Maximum -V or -P Vinyl or Painted Finish
R	WR	E-Plane In. (mm)	H-Plane In. (mm)	E-Plane In. (mm)	H-Plane In. (mm)	+/- inches/foot (%)	PSIG (kPa)	PSIG (kPa)
26	340			4.3 (109)	6.0 (153)	0.13 (1%)		5 (34)
32	284			2.9 (75)	5.5 (140)	0.13 (1%)		5 (34)
40	229			2.1 (54)	3.3 (83)	0.13 (1%)		5 (34)
48	187			1.9 (49)	3.0 (76)	0.13 (1%)		10 (69)
58	159			1.6 (41)	2.3 (57)	0.13 (1%)		10 (69)
70	137	2.4 (60)	3.4 (86)	1.5 (38)	2.1 (53)	0.13 (1%)	30 (207)	10 (69)
84	112	2.2 (57)	3.3 (83)	1.4 (36)	1.8 (46)	0.13 (1%)	35 (242)	15 (103)
100	90	2.0 (51)	2.9 (73)	1.3 (33)	1.7 (44)	0.13 (1%)	45 (311)	15 (103)
120	75	1.8 (46)	2.5 (64)	1.2 (32)	1.5 (38)	0.13 (1%)	45 (311)	15 (103)
140	62	1.1 (29)	2.2 (57)	0.7 (18)	1.3 (33)	0.13 (1%)	45 (311)	15 (103)
180	51			0.7 (18)	1.3 (33)	0.13 (1%)		15 (103)
220	42	0.9 (22)	1.2 (32)	0.6 (15)	1.0 (25)	0.13 (1%)	45 (311)	15 (103)
260	34	0.9 (22)	1.2 (32)	0.6 (15)	1.0 (25)	0.13 (1%)	45 (311)	15 (103)
320	28	0.8 (20)	1.1 (29)	0.5 (13)	0.9 (23)	0.13 (1%)	45 (311)	15 (103)



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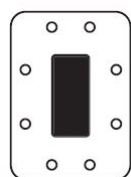
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Waveguide Flanges

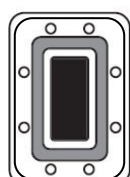
Brass and aluminum waveguide flanges are manufactured in-house and maintained in inventory reducing product lead time so we can respond quickly to market demands. Both North American (EIA) and European (IEC) standard waveguide flanges are available in corrosion protected base metal or plated finishes.

Rectangular Flanges



FLAT
Contact

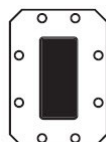
CPR -02
UDR -22



GROOVED
Contact

CPRG -01
PDR -21

Number of holes
for some flange
styles depends on
waveguide size

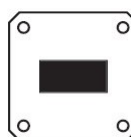


MINIATURE
Contact

CMR -09,10,11
UER -30

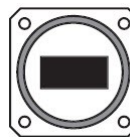
Square Flanges

WR28 to WR112 / R84 to R220



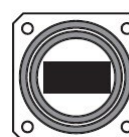
FLAT

COVER -03
UBR -23



GROOVED

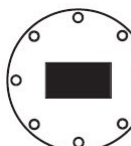
COVER -04
PBR -24



CHOKE -05
CBR -25

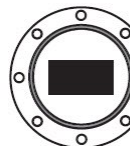
Round Flanges

WR137 to WR340 / R26 to R70



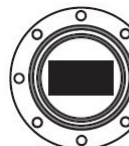
FLAT

COVER -06
UAR -26



GROOVED

COVER -07
PAR -27



CHOKE -08
CAR -28

Accessories

Hardware, fixing and clamping kit accessories are available for use with our flexible waveguide products. Consult our web site www.jupitermicrowave.com for accessory part numbers.

Flange Hardware Kits

Hardware kits are available for WR-28 (R320) through WR-340 (R26) waveguide flange sizes.



Kits include stainless steel screws, flat and lock washers, and depending on the flange type, either rectangular or O-ring silicone gaskets.

Flange Quick Disconnect Kits

Quick Disconnect clamp kits are available for WR-28 (R320) through WR-137 (R70) waveguide sizes and flange types.

Kits include nylon alignment screws, mating clamps, a retaining ring, and depending on the flange type, either rectangular or O-ring silicone gaskets.



Fast waveguide connection and easy installation.

Excellent choice for mobile and transportable applications.

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Part Number Guide

JMC1200S		-08	-36	IN	-V	-03	-04	-S	-S
Flex Type									
Seamless Flex Non Twist	JMC1200S								
Waveguide Size									
R26 / WR340	-340								
R32 / WR284	-01								
R40 / WR229	-02								
R48 / WR187	-03								
R58 / WR159	-04								
R70 / WR137	-05								
R84 / WR112	-06								
R100 / WR90	-07								
R120 / WR75	-08								
R140 / WR62	-09								
R180 / WR51	-10								
R220 / WR42	-11								
R260 / WR34	-12								
R320 / WR28	-13								
Flex Length									
Unit Length									
inch	IN								
mm	MM								
External Jacket / Finish Type									
Silicone	-S								
Neoprene	-N								
Vinyl	-V								
Paint	-P								
Flange Finish									
-S	Silver Plated								
-N	Nickel Plated								
-T	Tin Plated								
-G	Gold Plated								
-R	Iridite								
Internal Waveguide Finish									
Silver Plated	-S								
Iridite	-R								
North American (EIA) Flange Type								Flange Type (IEC) European	
CPRG - Grooved Contact	-01	-21	PDR - Rectangular Grooved						
CPRF - Contact Flat	-02	-22	UDR - Rectangular Flat						
Cover Flat - Square	-03	-23	UBR - Square Flat						
Cover Grooved - Square	-04	-24	PBR - Square Grooved						
Choke—Square	-05	-25	CBR - Square Choke						
Cover F WR137 - Round	-06	-26	UAR70 - Round Plain						
Cover G WR137 - Round	-07	-27	PAR70 - Round Grooved						
Choke WR137 - Round	-08	-28	CAR70 - Round Choke						
CMR - Standard Holes	-09								
CMR - Clear Holes	-10	-30	UER - Clear Holes						
CMR - Tapped Holes	-11	-99	Special - Customer Specified						

Standard

Brass Flanges

Special Request

Aluminium Flanges -A