

FLEXWELL® Elliptical Waveguide Connectors

Introduction



RFS supplies a complete line of high quality, premium performance elliptical waveguide connectors. These connectors provide a low VSWR transition to a rectangular waveguide interface.

RFS waveguide connectors are machined with a multi-step transition from elliptical to rectangular cross-section. This multi-step transition results in a compact design with superior electrical performance. Connectors are available with either EIA or IEC flange interfaces.

Sealing Method

RFS offers two types of connectors for sealing purposes.

Plast 2000 Sealing

Plast 2000 has a very good adhesion to the metallic parts of the connector and to the waveguide. The curing process depends on the humidity and temperature of the air. Under normal conditions, sealing against moisture is accomplished in a very short time. Plast 2000, to be purchased separately, is supplied in tubes of 20ccm and 70ccm. The 20ccm tube can be inserted directly into connector body. An injection gun is recommended when installation is carried on a large number of connectors. These connectors have been carefully designed for excellent VSWR performance without the use of any tuning screws. Model numbers on these connectors end with a letter "P" to designate the use of Plast 2000 sealing.

Exception all connectors with gasket and shrinking sleeves for E250, E300 and E380 series as well as all overmoded waveguides.



Gasket Sealing

In this design, the connector is sealed between the backnut and the waveguide with a conical shaped threaded gasket. The threaded gasket is held in place with an internal pressure plate to create a gas tight waveguide assembly that will not leak even if the waveguide is flexed near the connector. A seal between the connector backnut and the waveguide transition is achieved with a specially shaped flat gasket that encompasses the waveguide flare and connector bolt holes. Careful dimensional tolerances assure a safe contact between the flare and the waveguide transition, which includes a 1/8" NPT female pressure inlet and plug. A heat shrink boot is supplied for application over the elliptical waveguide and the connector backnut to provide strain relief and additional weatherproofing. Model number on these connectors end with a letter "G" for designation of gasket sealing.

Quick and Easy to Install

FLEXWELL® waveguide connectors are designed for quick and easy assembly in the field using either standard hand tools or flanging tools depending on connector type.

Connector Types

FLEXWELL® elliptical waveguide connectors are available in standard (non-tuneable), tuneable pre-tuned and fixed tuned versions. Fixed tuned connectors are available only with pressurized flanges (P-type). U-type flanges can be provided by the use of a shim.

FLEXWELL® connectors are offered with interface to EIA and IEC standard waveguide flanges.

Waveguide Splices

Electrically compensated elliptical waveguide splices, which do not degrade system performance, are available for field repairs of damaged waveguide runs. The construction and assembly of the waveguide splice is similar to the waveguide connector design.



FLEXWELL® Elliptical Waveguide Connectors

Connector Overview

Standard

WAVEGUIDE TYPE	FREQUENCY BAND, GHz	FLANGE IEC-TYPE	FLANGE EIA-TYPE
E30	2.3 - 2.5		7/8 EIA
	2.5 - 2.7		7/8 EIA
	2.7 - 3.1	PDR 32	
E38	3.6 - 4.2	PDR 40	CPR229G
E46	4.4 - 5.0	PDR 48	
ES46	4.4 - 5.0	PDR 48	UG148/149/U
	4.4 - 5.0		CPR187G
E60	5.6 - 6.425	PDR 70	
	5.725 - 6.425		UG343/344/U
	5.925 - 6.425		UG343/344/U
	5.925 - 6.425		CPR137G
E65	5.9 - 7.15	PDR 70	
	6.4 - 7.15	PDR 70	
	5.725-6.875		CPR137G
	6.425 - 7.125		UG343/344/U
	6.425 - 7.125		CPR137G
E78	7.1 - 8.5	PDR 70	
	7.1 - 7.8	PDR 84	CPR137G
	7.75 - 8.5	PDR 84	
	7.1 - 8.5	PBR 84	
	7.125 - 8.5		CPR112G
	7.1 - 7.8	PBR 84	
	7.75 - 8.5	PBR 84	
E105	10.0 - 11.7	PDR 100	
	10.5 - 11.7		CPR90G
E130	10.7 - 12.75	PDR 120	
	11.7 - 13.25		WR75 Choke/Cover
	12.2 - 13.25	PDR 120	
	12.2 - 13.25	PBR 120	
E150	13.4 - 14.5	PBR 120	WR75 Contact
	13.4 - 14.5		WR75 Choke/Cover
	14.0 - 15.35	PDR 140	
	14.0 - 15.35	PBR 140	
E185	17.3 - 19.7	PDR 180	
	17.7 - 19.7	PBR 220	UG595/596/U
E220	21.2 - 23.6	PBR 220	
E250	24.25 - 26.5	PBR 220	
	24.25 - 26.5	PBR 260	
E300	27.5 - 33.4	PBR 320	
E380	37.0 - 39.5	PBR 320	

Overmoded

WAVEGUIDE TYPE	FREQUENCY BAND, GHz	FLANGE IEC-TYPE
EO11	10.7 - 11.7	PDR 100
EO15	12.75 - 14.5	PDR 120
	14.0 - 15.35	PDR 140
EO19	17.7 - 19.7	PBR 220
EO22	21.2 - 23.6	PBR 220
EO38	37.0 - 39.5	PBR 320

Premium

WAVEGUIDE TYPE	FREQUENCY BAND, GHz	FLANGE IEC-TYPE
EP38	3.6 - 4.2	PDR 40
EP46	4.4 - 5.0	PDR 48
ESP46	4.4 - 5.0	PDR 48
EP58	4.4 - 6.2	PDR 48
EP60	5.6 - 6.425	PDR 70
EP65	5.9 - 7.15	PDR 70
	6.4 - 7.15	PDR 70
EP70	6.4 - 7.8	PDR 70
EP78	7.1 - 8.5	PDR 70
	7.1 - 7.8	PDR 84
	7.75 - 8.5	PDR 84
	7.1 - 8.5	PBR 84
	7.1 - 7.8	PBR 84
	7.75 - 8.5	PBR 84
EP100	9.0 - 10.0	PBR 100
EP105	10.0 - 11.7	PDR 100
EP130	10.7 - 12.75	PDR 120
	12.2 - 13.25	PDR 120
	12.2 - 13.25	PBR 120
EP150	13.4 - 14.5	PBR 120
	14.0 - 15.35	PDR 140
	14.0 - 15.35	PBR 140
EP185	17.3 - 19.7	PDR 180
	17.7 - 19.7	PBR 220

PLAST 2000 CONSUMPTION

FLEXWELL	Minimum Capacity in cm³
E30	120
E38	100
E46	70
ES46	70
EP58	60
E60	50
E65	50
EP70	50
E78	50
EP100	20
E105	20
E130	20
E150	20
E185	20
E220	20

Grounding Kits

Radio Frequency Systems offers three types of Grounding kits.

- Pre-formed Grounding Kit
- Standard (non Pre-formed) Grounding Kit
- High Speed Grounding Kit

Pre-formed Grounding Kit, GKIT

The grounding kit with pre-formed copper strap facilitates installation with a pre-formed copper strap that eliminates the need for a coiling tool. This kit has been verified by independent labs to protect coax from the damaging effects of lightning current in excess of 200kA. One 3/8" two-hole ground lug and all bus bar attachment hardware are also included along with the required mastic and electrical tape for weatherproofing. 1/pkg



Standard Grounding Kit

Standard (Non Pre-formed) Grounding Kit, GKIT-ST

Grounding Kits are used to ground the waveguide to the steel construction of the tower. The contact parts are made of solid copper to guarantee high current conduction. The grounding kits include a copper strip already for simple installation. A watertight installation is ensured. The kits are available for waveguides E30 to E380.



High Speed Grounding Kit

High Speed Grounding Kit, GKIT-HS

For different waveguides sizes high speed grounding kits are available too. The high speed grounding kit is pre-assembled. The grounding body consists of stainless steel, which is vulcanized with Ethylene-Propylene rubber. The contact surface is a tinned copper mesh. The standard grounding wire is pre-assembled with stainless steel screws. Safety washers prevent the screws from loosening. A simple but helpful detail, especially when mounting the grounding kit on the top of a tower.



Hangers

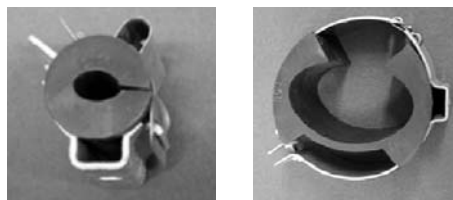
Radio Frequency Systems offers three types of hangers:

- Standard (non insulated) hanger
- Universal Clamps
- RSB clips

Standard Hanger Kit (Non-Insulated), CLAMP

Stainless steel hangers are available to fix elliptical waveguides to tower. Hanger spacing is depending on waveguide size. Hanger may be attached to angle adapters, tower standoffs, member mounting holes with up to 3/8"-16 hardware or to round member adapters through slot in the hanger. 10/pkg

Standard Hanger Kit (Non-Insulated)



Universal Clamps, CLAMP-R

The universal clamp can be used for the installation of FLEXWELL elliptical waveguides for proper and secure

Universal Clamps

tension. The clamps can be used as universal device for mounting of waveguide on any profile. Hot galvanized steel clamps are available for E30 to E220 waveguides.

All clamps are provided with a rubber clamp lining to secure a proper installation and to avoid any damage of the waveguide. The clamps can be fixed on different profiles. Suitable fixing hardware is available. 10/pkg

FLEXWELL® Elliptical Waveguide Accessories

RSB Clip

The RSB clip is designed for installation of FLEXWELL elliptical waveguide types E105 to E380 and overmoded waveguide types E022 and E038. The clip is a universal clamp device which can be used in many mounting configurations. The clip is manufactured from stainless steel and is resistant against most environmental conditions. 10/pkg.

All RSB clips are provided with a rubber clamp lining for proper installation. 10/pkg.

A 'Rucksack' option is available for small waveguide sizes E220 to E380 and E038. It provides an optimal use of existing space.

Angle Member Adapter Kit

Fastens hangers to tower angle members without drilling. Angle adapter includes a tower member set screw and a 3/8" hanger mounting screw. The hanger mounting screw may be located in either of two mounting holes. 10/pkg.

Installation tools

Hoisting Grips

Hoisting grips are used to distribute the force introduced into a waveguide when hoisted using a winch which is usually the case when waveguide size and/or length lead to an overall weight that cannot be operated manually. They consist of a wire mesh and hold the waveguide by means of friction over the complete length when pulled.

Two types are available for each waveguide size; the closed version -used when the top connector is installed after the waveguide is hoisted- and the open version - used in case where the top connector is installed prior to hoisting the waveguide. Also in the later case the closed version might be used if it shall be left on the waveguide replacing the top cable clamp. Waveguide with factory-installed connectors can be delivered with pre-installed hoisting grips on customer request. The maximum hoisting length per grip is 70 m (230 ft). 1/pkg

Bending Tool

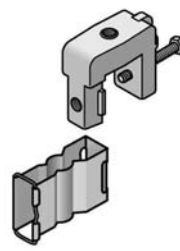
Bending Tools provide perfect forming of FLEXWELL Elliptical waveguide bends during installation. The tool avoids undercutting of the minimum bending radii. Two forms included, one for E plane and one for H plane bends. 1/pkg.



Bending Tool



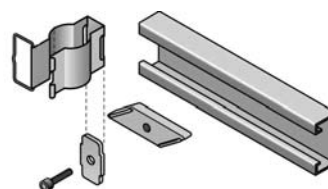
RSB Clip



RSB-Cleat



Universal Clamping Plate (HUA-M8)



RSB Clamping Plate (RSB-315)



Tube mounting (TRB-8)



Rucksack option



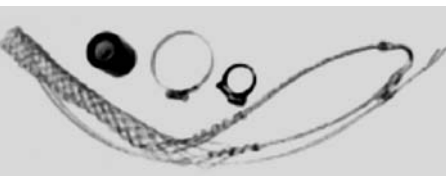
Round Member Adapter



Angle Member Adapter Kit



Universal Installation Cleat (MKD-001-01)



Hoisting Grips

FLEXWELL® Elliptical Waveguide Accessories

Flanging tools

Flanging tools* have been developed to simplify the installation and thus reducing costs. The flanging tools from RFS are designed to produce a perfect termination every time eliminating the need for any reworking of the termination.

The tool consists of two parts. The tool and a die.

Different types of flanging tools are available depending on waveguide sizes:

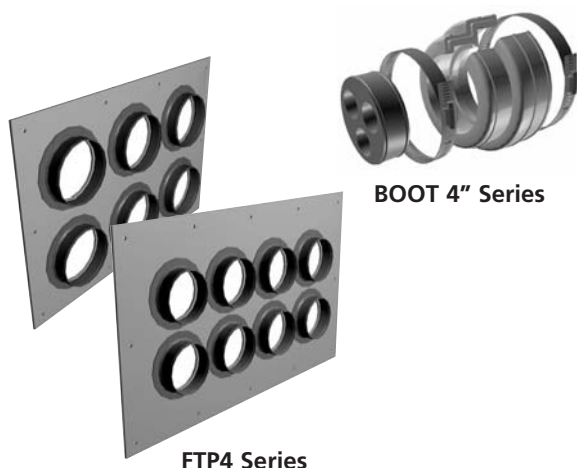
- A Basic Tool for E30 to E150
- A Compact Tool for E105 to E380
- A Mini Tool for E185 to E380

A separate die is required for each waveguide size.

* Not applicable for gasket type connectors

Round Member Tower Stand-off Kit

Constructed of heavy stainless steel, the stand-offs provide 2-1/2" (63 mm) tower clearance to hangers when running waveguide over tower cross members, flanges and other tower obstacles. The kit consists of ten stainless steel tower stand-offs with stainless steel hardware. Use with threaded rod kit for additional tower clearance. 1/pkg.



FTP4 Series

BOOT 4" Series

ORDERING INFORMATION

FEED-THROUGH ENTRY PANELS

Model	Description
FTP4-1X1	Feed through entry panel, 102mm (4"), 1 hole, 1x1
FTP4-1X2	Feed through entry panel, 102mm (4"), 2 holes, 1x2
FTP4-1X3	Feed through entry panel, 102mm (4"), 3 holes, 1x3
FTP4-1X4	Feed through entry panel, 102mm (4"), 4 holes, 1x4
FTP4-2X2	Feed through entry panel, 102mm (4"), 4 holes, 2x2
FTP4-2X3	Feed through entry panel, 102mm (4"), 6 holes, 2x3
FTP4-2X4	Feed through entry panel, 102mm (4"), 8 holes, 2x4
FTP4-2X5	Feed through entry panel, 102mm (4"), 10 holes, 2x5
FTP4-2X6	Feed through entry panel, 102mm (4"), 12 holes, 2x6
FTP4-3X3	Feed through entry panel, 102mm (4"), 9 holes, 3x3
FTP4-3X4	Feed through entry panel, 102mm (4"), 12 holes, 3x4

PORT COVER FOR ENTRY PANELS

Model	Description
FTP4-PC	Port cover for 102mm (4") entry panel



Basic Tool w/o die



Compact Tool with die



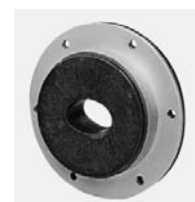
Mini Tools



WFS Series



WF Series



WFT Series

Wall / Roof Feed Through

RFS offers two types of Wall/Roof feed through systems:

WFT Series Single Entry Feed Through

The single entry feed through system seals elliptical waveguide at building entrance. It consists of a rubber boot and aluminum split fastening ring.

WF Series Standard Feed Through

The standard feed through system consists of a rubber boot, stainless steel clamp, fixing and sealing material.

Waveguide Repair Kit

The repair kit is used to mend a small puncture hole in the outer conductor of copper elliptical waveguide. The kit is not intended to repair crushed waveguide. Supplied components include copper foil wrap (1-1/2" dia.), adhesive tape, sanding cloth and wrap-around heat shrink sleeve. Required tools are: sharp knife, alcohol cleaner, heat gun or wide flame torch. 1/pkg.

FLEXWELL® Elliptical Waveguide

Connector & Accessory Reference Guide (See installation hardware on separate table)

E30 (2.7 - 3.1 GHz)

Connector, PDR32, 2.7 - 3.1 GHz, Plast 2000	D32-030FP-U
Connector, 7/8" EIA (GB), 2.5 - 2.7 GHz, Gasket	78EB-030FG
Connector, 7/8" EIA (GP), 2.5 - 2.7 GHz, Gasket	78E-030FG
Splice, 2.5 - 3.1 GHz, Gasket	SPLICE-030
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-030
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-030
Grounding Kit	GKIT-ST-030
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-030
Universal clamp with clamp lining for angle iron 50 mm (1.9 inch)	CLAMP-R-030-A5
Universal clamp with clamp lining for angle iron 80 mm (3.2 inch)	CLAMP-R-030-A8
Universal clamp with clamp lining for anchor bars with 18 to 22 mm (0.7 to 0.8 inch) slot	CLAMP-R-030-AC
Universal clamp with clamp lining for flat iron up to 15 mm (0.6 inch)	CLAMP-R-030-AF
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-030L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L09
Wall/Roof Feed-Through, Aluminum plate	WFT-030
Flanging die, basic Tool	FDIE-B030*
Basic Tool	FTOOL-B020030*

E38 SERIES (3.6 - 4.2 GHz)

Connector, PDR40, 3.6 - 4.2 GHz, Plast 2000	D40-038FP-U
Connector, CPR229G, 3.6 - 4.2 GHz, Gasket, only E38	C229-038TG
Splice, N/A, 3.4 - 4.2 GHz, Gasket	SPLICE-038
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-038
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-038
Grounding kit	GKIT-ST-038
Universal clamp with clamp lining	CLAMP-R-038
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L08
Bending Tool Kit	BENDTOOL-038060
Wall/Roof Feed-Through, Aluminum plate	WFT-038
Wall/Roof Feed-Through, Stainless Steel plate	WF-038
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-038
Flanging die, basic tool	FDIE-B038*
Basic Tool	FTOOL-B038150*

E46 SERIES (4.4 - 5.0 GHz)

Connector, PDR48, 4.4 - 5.0 GHz, Plast 2000	D48-046FP
Splice, N/A, 4.4 - 5.0 GHz, Gasket	SPLICE-046
Grounding Kit	GKIT-ST-046
Universal clamp with clamp lining	CLAMP-R-046
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L07
Bending Tool Kit	BENDTOOL-038060
Wall/Roof Feed-Through, Aluminum plate	WFT-046
Wall/Roof Feed-Through, Stainless Steel plate	WF-046
Flanging die, basic Tool	FDIE-B046*
Basic Tool	FTOOL-B038150*

ES46 SERIES (4.4-5.0 GHz)

Connector, PDR48, 4.4 - 5.0 GHz, Plast 2000	D48-S46FP
Connector, CPR187G, 4.4 - 5.0 GHz, Gasket, only ES46	C187-S46FG
Connector, CPR187G, 4.4 - 5.0 GHz, Gasket, only ES46	C187-S46TG
Connector, UG-148/149/U, 4.4 - 5.0 GHz, Gasket	G148-S46TG
Splice, N/A, 4.4 - 5.0 GHz, Gasket	SPLICE-S46
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-046
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-046

ES46 SERIES (4.4-5.0 GHz) CONT'D

Grounding Kit	GKIT-ST-S46
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-046
Universal clamp with clamp lining	CLAMP-R-S046
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-046L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L07
Bending Tool Kit	BENDTOOL-038060
Wall/Roof Feed-Through, Aluminum plate	WFT-046
Wall/Roof Feed-Through, Stainless Steel plate	WF-046
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-046
Flanging die, basic Tool	FDIE-B546*
Basic Tool	FTOOL-B038150*

EP58 (4.4 - 6.2 GHz)

Connector, PDR48, 4.4 - 6.2 GHz, Plast 2000	D48-058FP
Grounding Kit	GKIT-ST-058
Universal clamp with clamp lining	CLAMP-R-058
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L06
Bending Tool Kit	BENDTOOL-038060
Wall/Roof Feed-Through, Stainless Steel plate	WF-058/060
Flanging die, basic Tool	FDIE-B058*
Basic Tool for E38 to E150	FTOOL-B038150*

E60 SERIES (5.6 - 6.425 GHz)

Connector, CPR137G, 5.725 - 6.425 GHz, Gasket, only E60	C137-060FG
Connector, PDR70, 5.6 - 6.425 GHz, Plast 2000	D70-060FP-W
Connector, CPR137G, 5.925 - 6.425 GHz, Gasket, only E60	C137-060TG
Connector, UG-343/344/U, 5.925 - 6.425 GHz, Gasket	G343-060FG
Connector, UG-343/344/U, 5.925 - 6.425 GHz, Gasket	G343-060TG
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-060
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-060
Grounding Kit	GKIT-ST-060
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-060
Universal clamp with clamp lining	CLAMP-R-060
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-060L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L06
Bending Tool Kit	BENDTOOL-038060
Bending Tool Kit	BENDTOOL-058078
Wall/Roof Feed-Through, Aluminum plate	WFT-060
Wall/Roof Feed-Through, Stainless Steel plate	WF-058/060
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-060
Flanging die, basic Tool	FDIE-B060*
Basic Tool	FTOOL-B038150*

E65 SERIES (5.9 - 7.15 GHz)

Connector, UG-343/344/U, 6.425 - 7.125 GHz, Gasket, only E65	G343-065FG
Connector, CPR137G, 6.425 - 7.125 GHz, Gasket, only E65	C137-065FG
Connector, PDR70, 6.4 - 7.125 GHz, Plast 2000	D70-065FP-U
Connector, PDR70, 5.9 - 7.125 GHz, Plast 2000	D70-065FP-W
Connector, UG-343/344/U, 5.725 - 7.125 GHz, Gasket	G343-065TG
Connector, CPR137G, 5.725 - 6.875 GHz, Gasket	C137-065TG
Connector, PDR70, 6.4 - 7.125 GHz, Plast 2000	D70-065FP-U
Splice, N/A, 6.425 - 7.125 GHz, Gasket	SPLICE-065
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-065
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-065
Grounding Kit	GKIT-ST-065
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-065

* Not applicable for gasket type connectors

Connector & Accessory Reference Guide (See installation hardware on separate table)

E65 SERIES (5.9 - 7.15 GHz) CONT'D

Universal clamp with clamp lining	CLAMP-R-065
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-065L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L05
Bending Tool Kit	BENDTOOL-065078
Wall/Roof Feed-Through, Aluminum plate	WFT-065
Wall/Roof Feed-Through, Stainless Steel plate	WF-065
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-065
Flanging die, basic Tool	FDIE-B065*
Basic Tool	FTOOL-B038150*

EP70 (6.4 - 7.8 GHz)

Connector, PDR70, 6.4 - 7.75 GHz, Plast 2000	D70-070FP
Grounding Kit	GKIT-ST-070
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-070
Universal clamp with clamp lining	CLAMP-R-070
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L05
Bending Tool Kit	BENDTOOL-058078
Wall/Roof Feed-Through, Stainless Steel plate	WF-070
Flanging die, basic Tool	FDIE-B070*
Basic Tool	FTOOL-B038150*

E78 SERIES (7.1 - 8.5 GHz)

Connector, PDR70, 7.125 - 8.5 GHz, Plast 2000	D70-078FP-W
Connector, UG-51/52/U, 7.125 - 8.50 GHz, Gasket, only E78	G51-078FG
Connector, CPR137G, 7.125 - 7.75 GHz, Gasket, only E78	C137-078FG
Connector, UG-343/344/U, 7.125 - 7.75 GHz, Gasket, only E78	G343-078FG
Connector, CPR112G, 7.125 - 8.50 GHz, Gasket, only E78	C112-078FG
Connector, PDR84, 7.1 - 7.8 GHz, Plast 2000	D84-078FP-L
Connector, PDR84, 7.125 - 8.5 GHz, Plast 2000	D84-078FP-W
Connector, PBR84, 7.1 - 7.8 GHz, Plast 2000	B84-078FP-L
Connector, PDR84, 7.75 - 8.5 GHz, Plast 2000	D84-078FP-U
Connector, PBR84, 7.75 - 8.5 GHz, Plast 2000	B84-078FP-U
Connector, PBR84, 7.125 - 8.5 GHz, Plast 2000	B84-078FP-W
Connector, CPR112G, 7.125 - 8.50 GHz, Gasket	C112-078TG
Connector, UG-51/52/U, 7.125 - 8.50 GHz, Gasket	G51-078TG
Connector, CPR137G, 7.125 - 7.75 GHz, Gasket	C137-078TG
Connector, UG-343/344/U, 7.125 - 7.75 GHz, Gasket	G343-078TG
Splice, 7.125 - 8.5 GHz, Gasket	SPLICE-078
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-078
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-078
Grounding Kit	GKIT-ST-078
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-078
Universal clamp with clamp lining	CLAMP-R-078-E
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-078L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L05
Bending Tool Kit	BENDTOOL-065078
Bending Tool Kit	BENDTOOL-058078
Wall/Roof Feed-Through, Aluminum plate	WFT-078
Wall/Roof Feed-Through, Stainless Steel plate	WF-078/L15
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-078
Flanging die, basic Tool	FDIE-B078*
Basic Tool	FTOOL-B038150*

EP100 (9.0 - 10.0 GHz)

Connector, PBR100, 9.0 - 10.0 GHz, Plast 2000	B100-100FP-U
Grounding Kit	GKIT-ST-100
Universal clamp with clamp lining	CLAMP-R-100
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L04

EP100 (9.0 - 10.0 GHz) CONT'D

Bending Tool Kit	BENDTOOL-100220
Wall/Roof Feed-Through, Stainless Steel plate	WF-100
Flanging die, basic Tool	FDIE-B100*
Basic Tool	FTOOL-B038150*

E105 SERIES (10.7 - 11.7 GHz)

Splice, 10.5 - 11.70 GHz, Gasket	SPLICE-105
Connector, CPR90G, 10.50 - 11.70 GHz, Gasket, only E105	C90-105FG
Connector, PDR100, 10.0 - 11.7 GHz, Plast 2000	D100-105FP-W
Connector, CPR90G, 10.50 - 11.70 GHz, Gasket, only E105	C90-105TG
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-105
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-105
Grounding Kit	GKIT-ST-105
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-105
Universal clamp with clamp lining	CLAMP-R-105
RSB Clip with clamp lining	RSB-105
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-105L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L04
Bending Tool Kit	BENDTOOL-100220
Bending Tool Kit	BENDTOOL-105185
Wall/Roof Feed-Through, Aluminum plate	WFT-105
Wall/Roof Feed-Through, Stainless Steel plate	WF-105/L19
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-105
Flanging die, basic Tool	FDIE-B105*
Flanging die, compact Tool	FDIE-C105*
Basic Tool	FTOOL-B038150*
Compact Tool	FTOOL-C105380*

E130 SERIES (10.7 - 13.25 GHz)

Connector, WR75 choke/cover, 11.7 - 13.25 GHz, Gasket, only E130	G75-130FG
Connector, PDR120, 10.7 - 12.75 GHz, Plast 2000	D120-130FP-L
Connector, PDR120, 12.2 - 13.25 GHz, Plast 2000	D120-130FP-U
Connector, PBR120, 12.2 - 13.25 GHz, Plast 2000	B120-130FP-U
Connector, WR75 choke/cover, 11.7 - 13.25 GHz, Gasket, only E130	G75-130TG
Splice, 10.95 - 13.25 GHz, Gasket	SPLICE-130
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-130
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-130
Grounding Kit	GKIT-ST-130
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-130
Universal clamp with clamp lining	CLAMP-R-130
RSB Clip with clamp lining	RSB-130
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-130L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L03
Bending Tool Kit	BENDTOOL-100220
Bending Tool Kit	BENDTOOL-105185
Wall/Roof Feed-Through, Aluminum plate	WFT-130
Wall/Roof Feed-Through, Stainless Steel plate	WF-130
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-130
Flanging die, compact Tool	FDIE-C130*
Compact Tool	FTOOL-C105380*

E150 SERIES (13.4 - 15.35 GHz)

Connector, UG-419/541/U, 13.40 - 15.35 GHz, Gasket, only E150	G419-150FG
Connector, PBR120, 13.4 - 14.5 GHz, Plast 2000	B120-150FP
Connector, PDR140, 14.0 - 15.35 GHz, Plast 2000	D140-150FP

* Not applicable for gasket type connectors

FLEXWELL® Elliptical Waveguide

Connector & Accessory Reference Guide (See installation hardware on separate table)

E150 SERIES (13.4 - 15.35 GHz) CONT'D

Connector, PBR140, 14.0 - 15.35 GHz, Plast 2000	B140-150FP
Connector, UG-419/541/U, 14.40 - 15.35 GHz, Gasket, only E150	G419-150TG
Connector, PBR140, 13.40 - 15.35 GHz, Gasket	B140-150TG
Connector, WR75 contact, 13.40 - 14.50 GHz, Gasket	K75-150TG
Connector, WR75 choke/cover, 13.40 - 14.50 GHz, Gasket	Z75-150TG
Splice, N/A, 13.40 - 15.35 GHz, Gasket	SPLICE-150
Grounding Kit, Pre-formed Copper Strap-Factory attached Lug-24" Wire	GKIT-24-150
Grounding Kit, Pre-formed Copper Strap-Field attachable Lug-60" Wire	GKIT-60-150
Grounding Kit	GKIT-ST-150
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-150
Universal clamp with clamp lining	CLAMP-R-150
RSB Clip with clamp lining	RSB-150
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-150L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L03
Bending Tool Kit	BENDTOOL-100220
Bending Tool Kit	BENDTOOL-105185
Wall/Roof Feed-Through, Aluminum plate	WFT-150
Wall/Roof Feed-Through, Stainless Steel plate	WF-150
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-150
Flanging die, compact Tool	FDIE-C150*
Compact Tool	FTOOL-C105380*

E185 SERIES (17.3 - 19.7 GHz)

Connector, PDR180, 17.3 - 19.7 GHz, Plast 2000	D180-185FP
Connector, PBR220, 17.7 - 19.7 GHz, Plast 2000	B220-185FP
Connector, UG-595/596/U, 17.70 - 19.70 GHz, Gasket, only E185	G595-185TG
Splice, N/A, 17.70 - 19.70 GHz, Gasket	SPLICE-185
Grounding Kit, Pre-formed Copper Strap-Factory attached lug-24" Wire	GKIT-24-185
Grounding Kit, Pre-formed Copper Strap-Field attachable lug-60" Wire	GKIT-60-185
Grounding Kit	GKIT-ST-185
High Speed Grounding Kit	GKIT-HS-185
Standard Hanger Kit, Non-insulated, stainless steel	CLAMP-185
Universal clamp with clamp lining	CLAMP-R-185
RSB Clip with clamp lining	RSB-185
Hoisting Grip, Lace-Up, single loop configuration	HOIST1-185L
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L02
Bending Tool Kit	BENDTOOL-100220
Bending Tool Kit	BENDTOOL-105185
Wall/Roof Feed-Through, Aluminum plate	WFT-185
Wall/Roof Feed-Through, Stainless Steel plate	WF-185
Feed Through Boot Assembly w/1 hole - 4"	BOOT4-185
Flanging die, compact Tool	FDIE-C185*
Flanging die, mini Tool	FDIE-M185*
Compact Tool	FTOOL-C105380*
Mini Tool	FTOOL-M185380*

E220 (21.2 - 23.6 GHz)

Connector, PBR220, 21.2 - 23.6 GHz, Plast 2000	B220-220FP
Grounding Kit	GKIT-ST-220
Universal clamp with clamp lining	CLAMP-R-220
RSB Clip with clamp lining	RSB-220
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L02
Bending Tool Kit	BENDTOOL-100220
Wall/Roof Feed-Through, Stainless Steel plate	WF-220/L38
Flanging die, compact Tool	FDIE-C220*
Flanging die, mini Tool	FDIE-M220*

E220 (21.2 - 23.6 GHz) CONT'D

Compact Tool	FTOOL-C105380*
Mini Tool	FTOOL-M185380*

E250 (24.25 - 26.5 GHz)

Connector, PBR220, 24.25 - 26.5 GHz, Gasket with Shrinking Sleeve	B220-250FP
Connector, PBR260, 24.25 - 26.5 GHz, Gasket with Shrinking Sleeve	B260-250FP
Grounding Kit	GKIT-ST-250
RSB Clip with clamp lining	RSB-250
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L01
Wall/Roof Feed Through	WFS-2
Flanging die, compact Tool	FDIE-C250
Flanging die, mini Tool	FDIE-M250
Compact Tool	FTOOL-C105380
Mini Tool	FTOOL-M185380

E300 (27.5 - 33.4 GHz)

Connector, PBR320, 27.5 - 33.4 MHz, Gasket with Shrinking Sleeve	B320-300FP
Grounding Kit	GKIT-ST-300
RSB Clip with clamp lining	RSB-300
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L01
Wall/Roof Feed-Through	WFS-2
Flanging die, compact Tool	FDIE-C300
Flanging die, mini Tool	FDIE-M300
Compact Tool	FTOOL-C105380
Mini Tool	FTOOL-M185380

E380 (37.0 - 39.5 GHz)

Connector, PBR320, 37.0 - 39.5 GHz, Gasket with Shrinking Sleeve	B320-380FP
Grounding Kit	GKIT-ST-380
RSB Clip with clamp lining	RSB-380
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L01
Wall/Roof Feed Through	WFS-1
Bending Tool Kit	BENDTOOL-L38380
Flanging die, compact Tool	FDIE-C380
Flanging die, mini Tool	FDIE-M380
Compact Tool	FTOOL-C105380
Mini Tool	FTOOL-M185380

E011 (10.7 - 11.7 GHz)

Connector, PDR100, 10.7 - 11.7 GHz, Gasket with Shrinking Sleeve	D100-L11FP
Grounding Kit	GKIT-ST-L11
Universal clamp with clamp lining	CLAMP-R-L11
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L05
Bending Tool Kit	BENDTOOL-058078
Wall/Roof Feed-Through, Stainless Steel plate	WF-L11
Flanging die, basic Tool	FDIE-BL11
Basic Tool	FTOOL-B038150

E015 (12.75 - 15.35 GHz)

Connector, PDR120, 12.7 - 14.5 GHz, Gasket with Shrinking Sleeve	D120-L15FP
Connector, PDR140, 14.0 - 15.35 GHz, Gasket with Shrinking Sleeve	D140-L15FP
Grounding Kit	GKIT-ST-L15
Universal clamp with clamp lining	CLAMP-R-L15
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L05
Bending Tool Kit	BENDTOOL-058078
Wall/Roof Feed-Through, Stainless Steel plate	WF-078/L15
Flanging die, basic Tool	FDIE-BL15
Basic Tool	FTOOL-B038150

* Not applicable for gasket type connectors

Connector & Accessory Reference Guide (See installation hardware on separate table)

EO19 (17.7 - 19.7 GHz)

Connector, PBR220, 17.7 - 19.7 GHz, Gasket with Shrinking Sleeve	B220-L19FP
Grounding Kit	GKIT-ST-L19
Universal clamp with clamp lining	CLAMP-R-L19
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L04
Bending Tool Kit	BENDTOOL-100220
Wall/Roof Feed-Through, Stainless Steel plate	WF-105/L19
Flanging die, compact Tool	FDIE-CL19
Compact Tool	FTOOL-C105380

EO22 (21.2 - 23.6 GHz)

Connector, PBR220, 21.2 - 23.6 GHz, Gasket with Shrinking Sleeve	B220-L22FP
Grounding Kit	GKIT-ST-L22
Universal clamp with clamp lining	CLAMP-R-L22
Hoisting grip, Lace-up, two loop configuration	HOIST2-L03
Wall/Roof Feed-Through	WFS-4
Bending Tool Kit	BENDTOOL-100220
Flanging die, compact Tool	FDIE-CL22
Compact Tool	FTOOL-C105380

EO38 (37.0 - 39.5 GHz)

Connector, PBR320, 37.0 - 39.5 GHz, Gasket with Shrinking Sleeve	B320-L38FP
Grounding Kit	GKIT-ST-L38
High Speed Grounding Kit	GKIT-HS-L38
RSB Clip with clamp lining	RSB-L38
Hoisting grip, Lace-Up, two loop configuration	HOIST2-L02
Bending Tool Kit	BENDTOOL-L38380
Wall/Roof Feed-Through, Stainless Steel plate	WF-220/L38
Flanging die, compact Tool	FDIE-CL38
Flanging die, mini Tool	FDIE-ML38
Compact Tool	FTOOL-C105380
Mini Tool	FTOOL-M185380

Installation Hardware

INSTALLATION HARDWARE	MODEL NUMBER	USABLE WITH
AC-profile 200mm with 2 holes	AC7-020H	
Universal clamping plate for slot anchor bar (Kit of 10)	HUA-M8	Universal clamp, Standard Hanger Kit
Universal installation cleat including screw M8 (Kit of 10)	MKD-001-01	Universal clamp, Standard Hanger Kit
Angle Member Adapter, 3/8"	ANGLE-CLPI	Standard Hanger Kit, non insulated
Hardware for clamps on tubes bigger 1"	TRB-8	RSB-clip, Universal clamp, Standard Hanger Kit
RSB Cleat	RSB-310	RSB-clip
RSB clamping plate for anchor bar	RSB-315	RSB-clip
Rucksack option for RSB Clip	RSB-78-R	RSB-clip
Round Member Adapter, 25-40 mm	RMA-40	RSB-clip , TRB-8
Round Member Adapter, 40-60 mm	RMA-60	RSB-clip , TRB-8
Round Member Adapter, 60-80 mm	RMA-80	RSB-clip , TRB-8
Round Member Adapter, 80-100 mm	RMA-100	RSB-clip , TRB-8
Round Member Adapter, 100-120 mm	RMA-120	RSB-clip , TRB-8
Round Member Adapter, 120-140 mm	RMA-140	RSB-clip , TRB-8
Round Member Adapter, 140-160 mm	RMA-160	RSB-clip , TRB-8
Round Member Adapter, 1-2"	RMA-AI	
Round Member Adapter, 2-3"	RMA-BI	
Round Member Adapter, 3-4"	RMA-CI	
Round Member Adapter, 4-5"	RMA-DI	
Round Member Adapter, 5-6"	RMA-EI	
Round Member Adapter, 6-7"	RMA-FI	
Stainless stell strapping kit	STRAP-1	
Stainless stell strapping kit, tube mounting with fasteners	STRAP-2	

Rectangular Waveguide Components

Ordering information

Different Rectangular waveguide components are available to simplify the installation especially in a shelter or to connect a radio placed near to the antenna.

The following components are offered:

- Straight sections
- 90 deg E-Bends
- 90 deg H-Bends

- 90 deg Twist sections
- Twistflex
- Pressure windows
- Shims
- Transitions
- Flange Adaptors

Straight Sections



For flange installation hardware and blanking plates with absorbing material contact RFS.



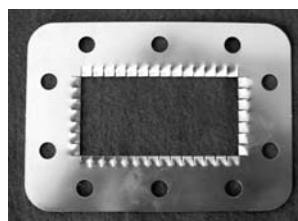
Waveguide Bends and Twist Sections

WAVEGUIDE BENDS AND TWIST SECTIONS

Freq. Range, GHz	E Bend 90°	H Bend 90°	Twist 90°	Straight 100mm (3.9 in)	Flange Type
3.3 - 4.2	EB040-DV	HB040-DV	TS040-DV	SW040-DV	PDR40, UDR40
	EB229-CC	HB229-CC	TS229-CC		CPR229G, CPR229G
4.4 - 5.0	EB048-DV	HB048-DV	TS048-DV	SW048-DV	PDR48, UDR48
	EB187-CC	HB187-CC	TS187-CC		CPR187G, CPR187G
5.725 - 7.75	EB070-DV	HB070-DV	TS070-DV	SW070-DV	PDR70, UDR70
	EB137-ZU	HB137-ZU	TS137-ZU		UG-343/U, UG-343/U
7.125 - 8.5	EB084-DV	HB084-DV	TS084-DV	SW084-DV	PDR84, UDR84
	EB084-BW	HB084-BW	TS084-BW	SW084-BW	PBR84, UBR84
	EB112-ZU	HB112-ZU	TS112-ZU		UG-51/U, UG-52/U
	EB112-CC	HB112-CC	TS112-CC		CPR112G, CPR112G
10.2 - 11.7	EB100-DV	HB100-DV	TS100-DV	SW100-DV	PDR100, UDR100
	EB100-BW	HB100-BW	TS100-BW	SW100-BW	PBR100, UBR100
	EB090-ZU	HB090-ZU	TS090-ZU		UG-39/U, UG-40/U
	EB090-CC	HB090-CC	TS090-CC		CPR090G, CPR090G
12.2 - 13.25	EB120-DV	HB120-DV	TS120-DV	SW120-DV	PDR120, UDR120
	EB120-BW	HB120-BW	TS120-BW	SW120-BW	PBR120, UBR120
	EB075-ZU	HB075-ZU	TS075-ZU		WR75 choke, WR75 cover
14.2 - 15.35	EB140-DV	HB140-DV	TS140-DV	SW140-DV	PDR140, UDR140
	EB140-BW	HB140-BW	TS140-BW	SW140-BW	PBR140, UBR140
17.3 - 26.5	EB220-BW	HB220-BW	TS220-BW	SW220-BW	PBR220, UBR220
	EB320-BW	HB320-BW	TS320-BW	SW320-BW	PBR320, UBR320

SHIMS

Model Number	Flange	Product information
SHIM-B084	UBR84	Silver plated
SHIM-B100	UBR100	Silver plated
SHIM-B120	UBR120	Silver plated
SHIM-B140	UBR140	Silver plated
SHIM-B220	UBR220	Silver plated
SHIM-B260	UBR260	Silver plated
SHIM-B320	UBR320	Silver plated
SHIM-D040	UDR40	Silver plated
SHIM-D048	UDR48	Silver plated
SHIM-D070	UDR70	Silver plated
SHIM-D084	UDR84	Silver plated
SHIM-D100	UDR100	Silver plated
SHIM-D120	UDR120	Silver plated
SHIM-D140	UDR140	Silver plated



Shim

Rectangular Waveguide Components

Ordering information

PRESSURE WINDOWS: IEC FLANGES

Model Number	Flange
PW-W084	UBR84
PW-W100	UBR100
PW-W120	UBR120
PW-W140	UBR140
PW-W180	UBR180
PW-W220	UBR220
PW-W260	UBR260
PW-W320	UBR320
PW-V040	UDR40
PW-V048	UDR48
PW-V058	UDR58
PW-V070	UDR70
PW-V084	UDR84
PW-V100	UDR100
PW-V120	UDR120
PW-V140	UDR140
PW-V180	UDR180
PW-BW120	UBR120, PBR120
PW-BW140	UBR140, PBR140
PW-BW220	UBR220, PBR220
PW-BW260	UBR260, PBR260
PW-BW320	UBR320, PBR320
PW-DV070	UDR70, PDR70



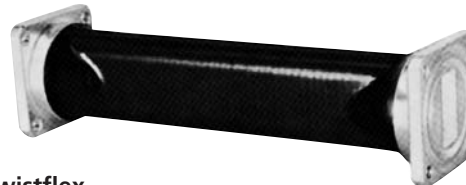
Pressure Windows

PRESSURE WINDOWS: EIA FLANGES

Model Number	Flange
PW-C229	CPR229G
PW-C187	CPR187G
PW-G187	UG-148/149/U
PW-C159	CPR159G
PW-C137	CPR137G
PW-G137	UG-343/344/U
PW-C112	CPR112G
PW-G112	UG-51/52/U
PW-C090	CPR90G
PW-G090	UG-39/40/U
PW-G075	WR75 choke/cover
PW-G062	UG-419/541/U
PW-G042-L	UG-595/596/U
PW-G042-H	UG-595/596/U

Twistflex

Twistflex are fabricated from spiral wound silver plated bronze strip covered by a pressure tight protective neoprene jacket. Twistflex sections are available in standard lengths with EIA- or IEC-flanges.



Twistflex

TWISTFLEX

Frequency Range, GHz	Nominal length, mm (inch)				Flange Type
	300 (12)	600 (24)	900 (36)	1200 (24)	
3.3 - 4.2	TF040-DV2-030M	TF040-DV2-060M	TF040-DV2-090M	TF040-DV2-120M	PDR40, UDR40
	TF229-CC1-012I	TF229-CC1-024I	TF229-CC1-036I		CPR229G, CPR229G
4.4 - 5.0	TF048-DV2-030M	TF048-DV2-060M	TF048-DV2-090M	TF048-DV2-120M	PDR48, UDR48
	TF187-CC1-012I	TF187-CC1-024I	TF187-CC1-036I		CPR187G, CPR187G
5.725 - 7.75	TF070-DV2-030M	TF070-DV2-060M	TF070-DV2-090M	TF070-DV2-120M	PDR70, UDR70
	TF137-CC1-012I	TF137-CC1-024I	TF137-CC1-036I		CPR137G, CPR137G
7.125 - 8.5	TF084-DV2-030M	TF084-DV2-060M	TF084-DV2-090M	TF084-DV2-120M	PDR84, UDR84
	TF084-BW2-030M	TF084-BW2-060M	TF084-BW2-090M	TF084-BW2-120M	PBR84, UBR84
10.2 - 11.7	TF112-CC1-012I	TF112-CC1-024I	TF112-CC1-036I		CPR112G, CPR112G
	TF100-DV2-030M	TF100-DV2-060M	TF100-DV2-090M	TF100-DV2-120M	PDR100, UDR100
12.2 - 13.25	TF100-BW2-030M	TF100-BW2-060M	TF100-BW2-090M	TF100-BW2-120M	PBR100, UBR100
	TF090-CC1-012I	TF090-CC1-024I	TF090-CC1-036I		CPR090G, CPR090G
12.2 - 13.25	TF120-DV2-030M	TF120-DV2-060M	TF120-DV2-090M	TF120-DV2-120M	PDR120, UDR120
	TF120-BW2-030M	TF120-BW2-060M	TF120-BW2-090M	TF120-BW2-120M	PBR120, UBR120
14.2 - 15.35	TF075-UZ1-012I	TF075-UZ1-024I	TF075-UZ1-036I		WR75 choke, WR75 cover
	TF140-DV2-030M	TF140-DV2-060M	TF140-DV2-090M	TF140-DV2-120M	PDR140, UDR140
17.3 - 26.5	TF140-BW2-030M	TF140-BW2-060M	TF140-BW2-090M	TF140-BW2-120M	PBR140, UBR140
	TF062-UZ1-012I	TF062-UZ1-024I	TF062-UZ1-036I		WR62 choke, WR62 cover
17.3 - 26.5	TF220-BW2-030M	TF220-BW2-060M	TF220-BW2-090M	TF220-BW2-120M	PBR220, UBR220
	TF042-UZ1-012I	TF042-UZ1-024I	TF042-UZ1-036I		UG-595/U, UG-596/U
27.3 - 40.0	TF320-BW2-030M	TF320-BW2-060M	TF320-BW2-090M	TF320-BW2-120M	PBR320, UBR320

Rectangular Waveguide Components

Waveguide Transition

Taper transition between waveguide sizes. Maximum VSWR,1.05 across specified band. 1/pkg



Waveguide Transition

ORDERING INFORMATION FOR TRANSITIONS: IEC FLANGES

Frequency GHz	Model Number	Length mm (in)	Flange
7.1 - 8.6	TRAN-D070-D084	50 (1.9)	PDR70, PDR84
14.0 - 15.5	TRAN-B120-B140	40 (1.6)	PBR120, PBR140
17.7 - 20.3	TRAN-B180-B220	20 (0.8)	PBR180, PBR220
24.0 - 26.5	TRAN-B220-B260	20 (0.8)	PBR220, PBR260

ORDERING INFORMATION FOR TRANSITIONS: EIA FLANGES

Frequency GHz	Model Number	Length mm (inch)	Flanges
5.85-7.05	TRAN-C137-C159	152 (6)	CPR137G, CPR-159G
5.85 - 7.05	TRAN-U137-C159	152 (6)	UG-344/U, CPR-159G
7.05-8.40	TRAN-C137-C112	305 (12)	CPR137G, CPR-112G
7.05-8.40	TRAN-U112-U137	305 (12)	UG-51/U, UG-344/U
7.125-7.750	TRAN-C137-C112-W	152 (6)	CPR137G, CPR-112G
7.05-8.4	TRAN-U12-U137	305 (12)	UG-51/U, UG-344/U
8.20-10.0	TRAN-U090-U112	203 (8)	UG-39/U, UG-51/U
10.0-12.4	TRAN-U075-U090	152 (6)	WR75 cover, UG-39/U

Flange Adapter

Straight waveguide sections with different flanges on each end. Pressure gaskets included. 1/pkg

ORDERING INFORMATION FOR FLANGE ADAPTERS: IEC FLANGES

Frequency GHz	Model Number	Length mm (in)	Flange
4.4 - 5.0	FADP048-DP1	100 (3.8)	PDR48/PAR48
5.72 - 7.75	FADP070-DB1	100 (3.8)	PDR70/PBR70
6.57 - 9.99	FADP084-DB1	50 (1.9)	PDR84/PBR84
8.2 - 12.5	FADP100-DB1	50 (1.9)	PDR100/PBR100
9.84 - 15.0	FADP120-DB1	50 (1.9)	PDR120/PBR120
11.9 - 18.0	FADP140-DB1	50 (1.9)	PDR140/PBR140
17.3 - 26.5	FADP220-DB1	50 (1.9)	PDR220/PBR220

ORDERING INFORMATION FOR FLANGE ADAPTERS: EIA FLANGES

Waveguide size	Model Number	Length mm (inch)	Flanges
WR90	FADP-C090-M090	105 (4)	CPR90G, CMR90
WR90	FADP-C090-U090	105 (4)	CPR90G, UG39/U
WR112	FADP-C112-Z112	105 (4)	CPR112G, UG-52/U
WR112	FADP-C112-M112	105 (4)	CPR112G, CMR-112
WR112	FADP-C112-U112	105 (4)	CPR112G, UG-51/U
WR137	FADP-C137-Z137	105 (4)	UG-343A/U, CPR-137G
WR137	FADP-C137-U137	105 (4)	UG-344/U, CPR-137G
WR137	FADP-C137-M137	105 (4)	CMR137, CPR-137G

Rectangular Waveguide Components

Waveguide to Type N Female Adapter

Waveguide installation –

- The rectangular waveguide component provides simple installation in particular difficult cases
- The flange Adapter provides proper matching of rectangular waveguide flanges to N-female connector
- It provides outstanding electrical performance



N Female Adapter

ORDERING INFORMATION FOR WAVEGUIDE TO COAX ADAPTER: IEC FLANGES

Frequency GHz	Model Number	Length mm (in)	Flange
3.22 - 4.9	NADP-D040	46.5 (1.8)	PDR40
3.94 - 5.99	NADP-D048	37.5 (1.5)	PDR48
5.38 - 8.17	NADP-D070	38.5 (1.5)	PDR70
6.57 - 9.99	NADP-D084	35 (1.4)	PDR84
9.84 - 15.0	NADP-D120	37.5 (1.5)	PDR120
9.84 - 15.0	NADP-W120	20 (0.8)	UBR120
11.9 - 18.0	NADP-B140	37.5 (1.5)	PBR140

ORDERING INFORMATION FOR WAVEGUIDE TO COAX ADAPTER: EIA FLANGES

Waveguide Size	Model Number	Flange
WR90	NADP-U090	UG-39/U
WR90	NADP-C090	CPR90G
WR112	NADP-U112	UG-51/U
WR112	NADP-C112	CPR112G
WR137	NADP-U137	UG-344/U
WR137	NADP-C137	CPR137G
WR159	NADP-C159	CPR159G