

Transformers Waveguide

Waveguide transformers provide the means of propagating RF energy from one waveguide size to another. This transmission may be achieved by smooth tapers or stepped configurations. Reflections encountered within these transformers are kept to a minimum over the frequency range common to both waveguide sizes.

Methods of manufacture include casting, fabrication, and electroforming, depending on the material required and the waveguide sizes.

Electrical Data				Mechanical Data		
W/G Size	Frequency (GHz)	Model Number	VSWR	Length ³	Terminations* Flange Face = JAN or Equivalent W/G = EIA or Equivalent	
					Small End	Large End

Waveguide

WR22-WR28	33.0-40.0	22EU14-1*	1.06	1.75	UG-383/U	UG-599/U
WR28-WR42 ¹	25.0-28.0	28EU16-1*	1.08	2.00	UG-599/U	UG-595/U
WR34-.340sq.	19.0-31.0	SQ34EU16-1*	1.10	1.50	UG-1530/U	UG-1530/U
WR42-WR62	16.5-19.0	42EU14-1*	1.05	1.50	UG-595/U	UG-419/U
WR42-WR51	17.0-23.0	42EU16-1*	1.06	1.50	UG-595/U FOUR .144 DIA. HOLES	1.32x1.32
WR51-WR62	13.5-19.0	51EU16-1*	1.07	0.87	COVER FLANGE 1.32x1.32 FOUR .144 DIA. HOLES	UG-419/U
	14.0-19.0	51EU26-1*	1.05	2.15	COVER FLANGE 1.32x1.32 FOUR .144 DIA. HOLES	UG-419/U
WR62-WR75	11.0-15.0	62EU14-1*	1.07	2.00	UG-419/U	FLG. FACE EQUIV. MIL-F-3922/70-016/017
WR62-WR90 ¹	11.5-13.1	62EU16-1*	1.05	3.11	UG-419/U	UG-39/U
WR62-622 dia.	12.8-18.0	Ci62EU16	1.10	2.75	.622x311 I.D. OPENING CIRCULAR OUTPUT	.622 DIA. I.D.
WRD750-WR62	12.4-18.0	D750EU16-1*	1.10	7.00	UG-419/U COVER FLANGE	WRD750-D24
WRD750-WR90	8.2-12.4	D750EU26-1*	1.10	7.00	WRD750-D24 COVER FLANGE	UG-39/U
WR75-WR90	9.9-12.5	75EU26-1*	1.06	1.21	1.50x1.50 FOUR .144 DIA. HOLES	UG-39/U
WR90-WR102	7.6-11.0	90EU14-1*	1.05	1.25	UG-39/U	UG-1493/U
WR90-WR112	7.5-10.5	90EU15	1.12	1.00	WR90 CORRAL	UG-51/U
	7.5-10.5	90EU36-1*	1.10	1.42	UG-39/U	UG-51/U
WR90-(.900x.200)	8.2-12.4	A90EU16-1*	1.05	2.00	UG-39/U	UG-39/U
WR90-(.900x.200)	8.2-12.4	A90EU36	1.05	0.75	WR90 (.900x.200) CORRAL	WR90 CORRAL
WR90-(.900x.200)	8.5-9.6	A90EU46	1.05	0.50	WR90 (.900x.200) CORRAL	WR90 CORRAL
WR90-(.900x.150)	8.4-9.6	C90EU16-1*	1.05	2.00	UG-39/U	UG-39/U
WR90-.800 sq.	8.2-12.4	SQ90EU16-1*	1.10	1.86	UG-39/U	1.60 DIA. O.D.
					CIRCULAR FRAME	
WR102-WR112	7.0-10.0	102EU14-1*	1.05	1.50	UG-1493/U	UG-51/U
WR112-WR137 ¹	7.0-8.2	112EU16-1*	1.05	6.19	UG-51/U	UG-344/U
WR137-WR159 ¹	5.5-7.0	137EU16-1*	1.05	7.00	UG-344/U	CPR-159/F
WR137-WR187	5.0-6.3	137EU36-1*	1.07	1.91	UG-344/U	UG-149/U
WR137-WR187	5.0-6.3	137EU46	1.07	1.36	WR137 CORRAL	UG-149/U
WR187-WR229	3.7-4.6	187EU16-1*	1.08	1.51	UG-149A/U	CPR-229F
WR284-WR340 ²	2.6-3.3	284EU14-1*	1.05	3.03	UG-584/U	UG-554/U LESS GROOVES

Notes: M = Mandrel. F = Fabricated. SC = Sand Casting. S = Smooth Taper. X () = Step Transformer (No. of Steps)

* Cover Flanges

¹ Supplied in copper alloy only

² Supplied in aluminum alloy only

³ Dimensions shown are for cover flanges, both ends.

When using choke flanges extra length may be added.

Check with the factory for proper dimensions.

Aluminum flanges when required will be equivalent to the brass flanges shown.

All flanges tabulated are brass except where noted.