

# Waveguide Product Catalog

featuring over  
130 new models



**narda**

an  communications company

# Adapters (2.92 mm, SMA, N)

Introducing Narda Microwave's expanded waveguide product line...

## Waveguide to Coaxial (SMA and 2.92mm) Adapters

Frequency (GHz)	Model	Waveguide Size	Flange Type	Flange Equivalent To	VSWR (Max.)	Power (CW) Watts	Power (Peak) kW	Max. Weight (lbs.)	Max. Weight (kg)
1.70 - 2.60	4617A	WR430	CPRF	UG-1711/U	1.25	50	3	1.30	0.59
2.60 - 3.95	4618	WR284	Cover	UG-584/U	1.25	50	3	0.90	0.41
3.30 - 4.90	4619	WR229	CPRF	UG-1727/U	1.25	50	3	0.35	0.16
3.95 - 5.85	4620	WR187	Cover	UG-407/U	1.25	50	3	0.45	0.20
4.90 - 7.05	4621	WR159	CPRF	UG-1731/U	1.25	50	3	0.30	0.14
5.85 - 8.20	4622	WR137	CPRF	UG-1733/U	1.25	50	3	0.25	0.11
7.05 - 10.0	4623	WR112	Cover	UG-138/U	1.25	50	3	0.17	0.08
7.00 - 11.0	4624	WR102	Cover	MIL-F-3922/70-014	1.25	50	3	0.15	0.07
8.20 - 12.4	4625	WR90	Cover	UG-135/U	1.25	50	3	0.12	0.05
10.0 - 15.0	4626	WR75	Cover	MIL-F-3922/70-017	1.25	50	3	0.10	0.05
12.4 - 18.0	4627	WR62	Cover	UG-1665/U	1.25	50	3	0.08	0.04
15.0 - 22.0	4628	WR51	Cover	MIL-F-3922/70-023	1.25	50	3	0.05	0.02
18.0 - 26.5	4629*	WR42	Cover	UG-597/U	1.25	50	3	0.04	0.02
22.0 - 33.0	4630*	WR34	Cover	UG-1530/U	1.25	10	3	0.03	0.01
26.5 - 40.0	4631*	WR28	Cover	UG-599/U	1.25	10	3	0.03	0.01

\* Note: Connectors are 2.92mm (female)

## Waveguide to Coaxial (Type N) Adapters

Frequency (GHz)	Model	Waveguide Size	Flange Type	Flange Equivalent To	VSWR (Max.)	Power (CW) Watts	Power (Peak) kW	Max. Weight (lbs.)	Max. Weight (kg)
1.70 - 2.60	617	WR430	CPRF	UG-1711/U	1.25	200	3	1.40	0.64
2.60 - 3.95	618	WR284	Cover	UG-584/U	1.25	200	3	0.80	0.36
3.30 - 4.90	619	WR229	CPRF	UG-1727/U	1.25	200	3	0.45	0.20
3.95 - 5.85	620	WR187	Cover	UG-407/U	1.25	200	3	0.38	0.17
4.90 - 7.05	621	WR159	CPRF	UG-1731/U	1.25	200	3	0.30	0.14
5.85 - 8.20	622	WR137	CPRF	UG-1733/U	1.25	200	3	0.25	0.11
7.05 - 10.0	623	WR112	Cover	UG-138/U	1.25	200	3	0.21	0.10
7.00 - 11.0	624	WR102	Cover	MIL-F-3922/70-014	1.25	200	3	0.16	0.07
8.20 - 12.4	625	WR90	Cover	UG-135/U	1.25	150	2	0.15	0.07
10.0 - 15.0	626	WR75	Cover	MIL-F-3922/70-017	1.25	150	2	0.13	0.06
12.4 - 18.0	627	WR62	Cover	UG-1665/U	1.25	150	2	0.12	0.05

## Waveguide to Coaxial (SMA and 2.92mm) Adapters - End Launch

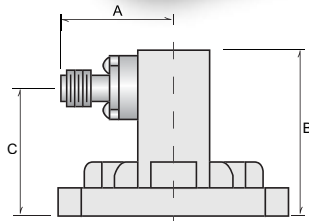
Frequency (GHz)	Model	Waveguide Size	Flange Type	Flange Equivalent To	VSWR (Max.)	Power (CW) Watts	Power (Peak) kW	Max. Weight (lbs.)	Max. Weight (kg)
2.60 - 3.95	4618E	WR284	Cover	UG-584/U	1.25	100	3	1.00	0.45
3.30 - 4.90	4619E	WR229	CPRF	UG-1727/U	1.25	100	3	0.42	0.19
3.95 - 5.85	4620E	WR187	Cover	UG-407/U	1.25	100	3	0.53	0.24
4.90 - 7.05	4621E	WR159	CPRF	UG-1731/U	1.25	100	3	0.40	0.18
5.85 - 8.20	4622E	WR137	CPRF	UG-1733/U	1.25	100	3	0.35	0.16
7.05 - 10.0	4623E	WR112	Cover	UG-138/U	1.25	100	3	0.24	0.11
7.00 - 11.0	4624E	WR102	Cover	MIL-F-3922/70-014	1.25	100	3	0.21	0.10
8.20 - 12.4	4625E	WR90	Cover	UG-135/U	1.25	100	3	0.17	0.08
10.0 - 15.0	4626E	WR75	Cover	MIL-F-3922/70-017	1.25	100	3	0.12	0.05
12.4 - 18.0	4627E	WR62	Cover	UG-1665/U	1.25	100	3	0.10	0.05
15.0 - 22.0	4628E	WR51	Cover	MIL-F-3922/70-023	1.25	100	3	0.07	0.03
18.0 - 26.5	4629E*	WR42	Cover	UG-597/U	1.25	50	3	0.06	0.03
22.0 - 33.0	4630E*	WR34	Cover	UG-1530/U	1.25	10	1	0.04	0.02
26.5 - 40.0	4631E*	WR28	Cover	UG-599/U	1.25	10	1	0.04	0.02

\* Note: Connectors are 2.92mm (female)

## Waveguide to Coaxial (Type N) Adapters - End Launch

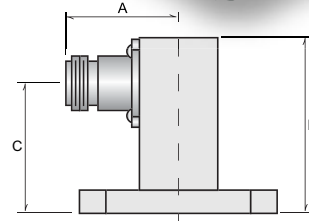
Frequency (GHz)	Model	Waveguide Size	Flange Type	Flange Equivalent To	VSWR (Max.)	Power (CW) Watts	Power (Peak) kW	Max. Weight (lbs.)	Max. Weight (kg)
1.70 - 2.60	617E	WR430	CPRF	UG-1711/U	1.25	1000	20	1.70	0.77
2.60 - 3.95	618E	WR284	Cover	UG-584/U	1.25	1000	20	1.15	0.52
3.30 - 4.90	619E	WR229	CPRF	UG-1727/U	1.25	1000	20	0.51	0.23
3.95 - 5.85	620E	WR187	Cover	UG-407/U	1.25	1000	20	0.53	0.24
4.90 - 7.05	621E	WR159	CPRF	UG-1731/U	1.25	1000	15	0.42	0.19
5.85 - 8.20	622E	WR137	CPRF	UG-1733/U	1.25	750	14	0.35	0.16
7.05 - 10.0	623E	WR112	Cover	UG-138/U	1.25	500	11	0.25	0.11
7.00 - 11.0	624E	WR102	Cover	MIL-F-3922/70-014	1.25	500	11	0.23	0.10
8.20 - 12.4	625E	WR90	Cover	UG-135/U	1.25	450	11	0.22	0.10
10.0 - 15.0	626E	WR75	Cover	MIL-F-3922/70-017	1.25	500	10	0.20	0.09
12.4 - 18.0	627E	WR62	Cover	UG-1665/U	1.25	500	8	0.17	0.08

Standard waveguide flange dimensions and mounting hole orientations are available on the website and in the catalog. *Specifications subject to change without notice.*



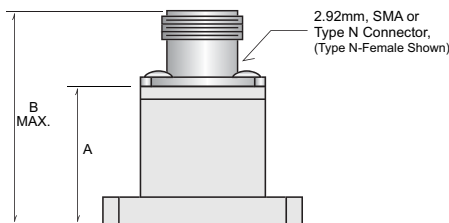
Model	Dimensions (Inches)			Connector Type
	A	B	C	
4617A	1.53	4.00	2.34	SMA-F
4618	1.13	2.95	1.90	SMA-F
4619	1.01	2.28	1.44	SMA-F
4620	0.88	2.60	1.96	SMA-F
4621	0.84	1.83	1.21	SMA-F
4622	0.75	1.70	1.23	SMA-F
4623	0.80	1.14	0.67	SMA-F
4624	0.77	1.50	1.12	SMA-F
4625	0.75	1.00	0.63	SMA-F
4626	0.74	1.00	0.63	SMA-F
4627	0.73	1.00	0.65	SMA-F
4628	0.73	1.00	0.65	SMA-F
4629	0.65	1.00	0.75	2.92mm-F
4630	0.66	0.56	0.36	2.92mm-F
4631	0.60	0.95	0.76	2.92mm-F

Waveguide-to-Coax Adapter, 2.92 & SMA



Model	Dimensions (Inches)			Connector Type
	A	B	C	
617	1.89	4.00	2.30	N-Female
618	1.49	2.50	1.51	N-Female
619	1.37	2.25	1.35	N-Female
620	1.24	2.60	1.90	N-Female
621	1.20	2.33	1.70	N-Female
622	1.11	2.00	1.47	N-Female
623	1.15	1.14	0.68	N-Female
624	1.18	1.64	1.14	N-Female
625	1.10	1.00	0.63	N-Female
626	1.09	1.00	0.63	N-Female
627	1.08	1.00	0.65	N-Female

Waveguide-to-Coax Adapter, Type N



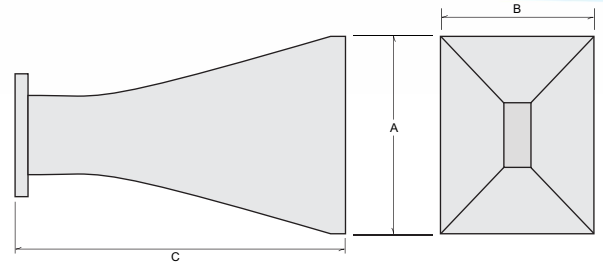
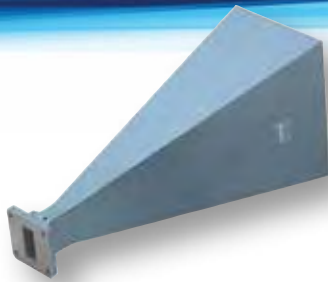
Model	Dimensions (Inches)		Connector Type
	A	B	
4618E	2.75	3.13	SMA-F
4619E	2.25	2.63	SMA-F
4620E	2.07	2.45	SMA-F
4621E	2.00	2.38	SMA-F
4622E	1.83	2.21	SMA-F
4623E	1.56	1.94	SMA-F
4624E	1.50	1.88	SMA-F
4625E	1.46	1.84	SMA-F
4626E	1.38	1.75	SMA-F
4627E	1.25	1.63	SMA-F
4628E	1.09	1.47	SMA-F
4629E	0.88	1.25	2.92mm-F
4630E	0.88	1.25	2.92mm-F
4631E	0.86	1.23	2.92mm-F

Waveguide-to-Coax Adapter, End Launch, SMA & 2.92 mm

Model	Dimensions (Inches)		Connector Type
	A	B	
617E	4.00	4.74	N-Female
618E	2.75	3.49	N-Female
619E	2.25	2.99	N-Female
620E	2.07	2.81	N-Female
621E	2.00	2.77	N-Female
622E	1.83	2.60	N-Female
623E	1.56	2.30	N-Female
624E	1.50	2.24	N-Female
625E	1.46	2.20	N-Female
626E	1.38	2.11	N-Female
627E	1.25	1.99	N-Female

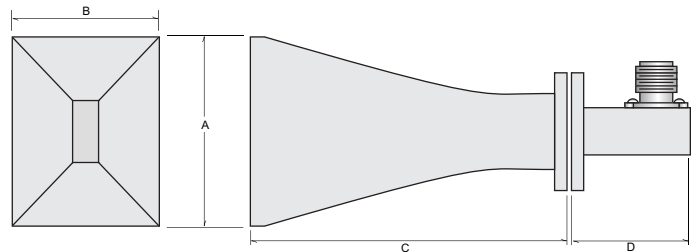
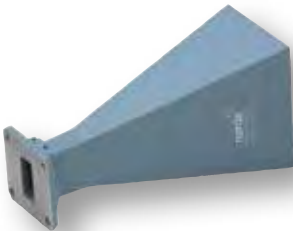
Waveguide-to-Coax Adapter, End Launch, Type N

# Horns



## Standard Models (Standard Gain)

Freq. (GHz)	New Model No.	Waveguide Size	Flange Type	Flange Equivalent	Gain (dB)	VSWR	Max. Weight (lbs.)	Max. Weight (kg)	Dimension A (inches)	Dimension B (inches)	Dimension C (inches)
1.70 - 2.60	651-10	WR430	CPRF	UG-1711/U	10	1.25	2.30	1.04	8.00	4.00	10.50
2.60 - 3.95	652-10	WR284	Cover	UG-584/U	10	1.25	1.00	0.45	4.33	3.46	7.50
	652-15				15	1.18	2.80	1.27	7.96	5.83	15.34
3.30 - 4.90	653-10	WR229	CPRF	UG-1727/U	10	1.25	0.75	0.34	3.62	2.36	6.45
	653-15				15	1.18	2.80	1.27	6.00	4.41	10.40
3.95 - 5.85	654-10	WR187	Cover	UG-407/U	10	1.25	0.45	0.20	2.89	2.12	5.50
	654-15				15	1.18	1.00	0.45	4.88	3.57	9.40
	654-20				20	1.15	2.50	1.13	8.92	6.53	14.93
4.90 - 7.05	655-10	WR159	CPRF	UG-1731/U	10	1.25	1.20	0.54	2.68	1.58	4.28
	655-15				15	1.18	1.50	0.68	4.33	3.15	8.00
	655-20				20	1.15	2.40	1.09	9.80	7.64	11.73
5.85 - 8.20	656-10	WR137	Cover	UG-441/U	10	1.25	0.25	0.11	2.02	1.48	3.15
	656-15				15	1.18	0.45	0.20	3.42	2.50	6.51
	656-20				20	1.15	1.50	0.68	6.26	4.57	12.19
7.05 - 10.0	657-10	WR112	Cover	UG-138/U	10	1.25	0.15	0.07	1.63	1.18	2.55
	657-15				15	1.18	0.35	0.16	2.93	2.15	6.65
	657-20				20	1.15	0.75	0.34	4.97	3.64	10.78
7.00 - 11.0	658-10	WR102	Cover	MIL-F-3922/70-014	10	1.25	0.14	0.06	1.58	1.14	3.00
	658-15				15	1.18	0.28	0.13	3.04	2.23	6.00
	658-20				20	1.15	0.70	0.32	5.57	3.94	11.13
8.20 - 12.4	659-10	WR90	Cover	UG-135/U	10	1.25	0.18	0.08	1.58	1.15	2.01
	659-15				15	1.18	0.25	0.11	2.66	1.95	5.46
	659-20				20	1.15	0.75	0.34	4.87	3.62	10.06
10.0 - 15.0	660-10	WR75	Cover	MIL-F-3922/70-017	10	1.25	0.10	0.05	1.26	0.92	1.94
	660-15				15	1.18	0.19	0.09	2.25	1.33	4.69
	660-20				20	1.15	0.60	0.27	3.88	2.98	8.00
12.4 - 18.0	661-10	WR62	Cover	UG-1665/U	10	1.25	0.15	0.07	1.00	0.68	1.00
	661-15				15	1.18	0.25	0.11	1.69	1.30	2.46
	661-20				20	1.15	0.50	0.23	2.88	2.11	5.75
15.0 - 22.0	662-10	WR51	Cover	MIL-F-3922/70-024	10	1.25	0.06	0.03	0.77	0.56	1.43
	662-15				15	1.18	0.12	0.05	1.36	1.00	2.84
	662-20				20	1.15	0.35	0.16	2.51	1.93	4.88
18.0 - 26.5	663-10	WR42	Cover	UG-597/U	10	1.25	0.02	0.01	0.60	0.44	1.25
	663-15				15	1.18	0.04	0.02	1.14	0.85	2.37
	663-20				20	1.15	0.13	0.06	2.13	1.56	4.00
22.0 - 33.0	664-10	WR34	Cover	UG-1530/U	10	1.25	0.02	0.01	0.53	0.39	1.13
	664-15				15	1.18	0.03	0.01	0.95	0.70	2.12
	664-20				20	1.15	0.07	0.13	1.76	1.29	3.56
26.5 - 40.0	665-10	WR28	Cover	UG-599/U	10	1.25	0.01	0.01	0.42	0.32	1.00
	665-15				15	1.18	0.02	0.01	0.76	0.55	1.87
	665-20				20	1.15	0.04	0.02	1.38	1.01	3.12

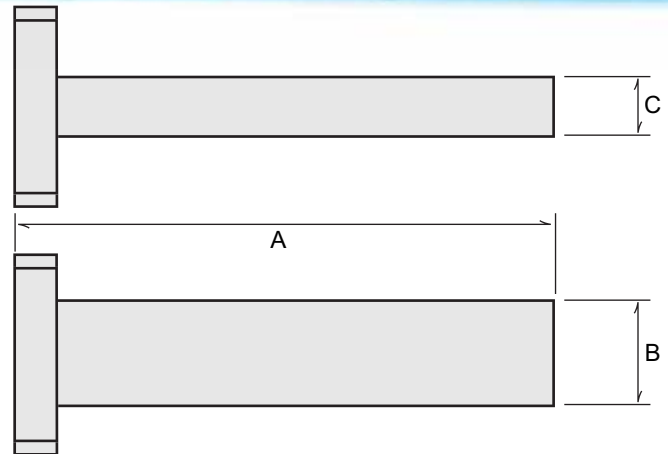
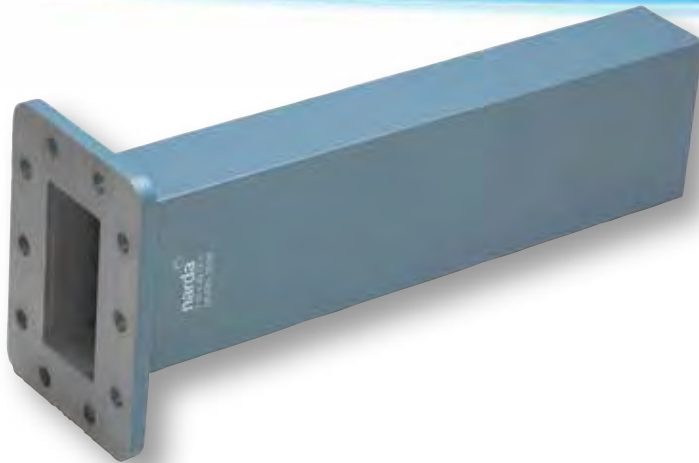


## Standard Models (Wideband)

Freq. (GHz)	New Model No.	Input WG Size or Coax Conn. Type	Flange Type	Input Cover Flange Equivalent	Gain (dB) Low to High FQ	Dimension A (inches)	Dimension B (inches)	Dimension C (inches)	Dimension D (inches)
<b>Horns Only</b>									
7.50 - 18.0	667	WRD750	Square Cover	n/a	20.5-24	7	5	12.13	-
18.0 - 40.0	668	WRD180	Square Cover	n/a	14-19	1.47	1.05	2.47	-
<b>Horns with Adapter</b>									
7.50 - 18.0	667A	N-Female	n/a	n/a	20.5-24	7	5	12.13	13.55
18.0 - 40.0	668A	2.92mm-F	n/a	n/a	14-19	1.47	1.05	2.47	3.23

Standard waveguide flange dimensions and mounting hole orientations are available on the website and in the catalog. **Specifications subject to change without notice.**

# Terminations



## Rectangular W/G Termination, Low Power

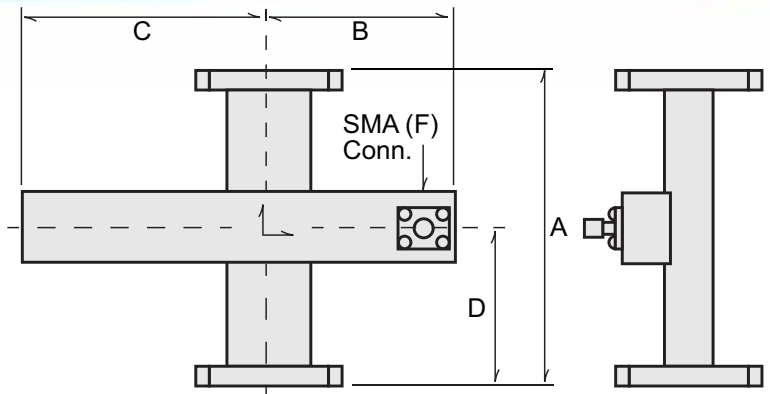
Frequency (GHz)	New Model No.	Waveguide Size	Flange Type	Flange Equivalent	VSWR (max.)	Average Power (W)	Peak Power (kW)	Dimension A (inches)	Dimension B (inches)	Dimension C (inches)
1.70 - 2.60	305L	WR430	CPRF	UG-1711/U	1.04	15.00	15.0	11.00	4.46	2.31
2.60 - 3.95	306L	WR284	Cover	UG-584/U	1.04	10.00	10.0	10.80	3.00	1.50
3.30 - 4.90	307L	WR229	CPRF	UG-1727/U	1.04	10.00	10.0	7.50	2.42	1.27
3.95 - 5.85	308L	WR187	Cover	UG-407/U	1.04	8.00	8.0	6.30	2.00	1.00
4.90 - 7.05	309L	WR159	CPRF	UG-1731/U	1.04	7.00	7.0	6.00	1.72	0.92
5.85 - 8.20	310L	WR137	Cover	UG-1733/U	1.04	6.00	6.0	5.50	1.50	0.75
7.05 - 10.0	311L	WR112	Cover	UG-138/U	1.04	4.00	4.0	5.00	1.25	0.63
7.00 - 11.0	312L	WR102	Cover	MIL-F-3922/70-014	1.04	3.00	3.0	4.00	1.12	0.61
8.20 - 12.4	313L	WR90	Cover	UG-135/U	1.04	4.00	7.0	4.00	1.00	0.50
10.0 - 15.0	314L	WR75	Cover	MIL-F-3922/70-017	1.04	2.00	2.0	4.00	0.85	0.48
12.4 - 18.0	315L	WR62	Cover	UG-1665/U	1.04	1.50	1.5	4.00	0.70	0.39
15.0 - 22.0	316L	WR51	Cover	MIL-F-3922/70-024	1.04	1.00	1.0	4.00	0.59	0.34
18.0 - 26.5	317L	WR42	Cover	UG-597/U	1.04	0.50	0.5	2.50	0.50	0.25
22.0 - 33.0	318L	WR34	Cover	UG-1530/U	1.04	0.50	0.5	2.50	0.42	0.25
26.5 - 40.0	319L	WR28	Cover	UG-599/U	1.04	0.50	0.5	2.00	0.36	0.22

## Rectangular W/G Termination, Medium Power

Frequency (GHz)	New Model No.	Waveguide Size	Flange Type	Flange Equivalent	VSWR (max.)	Average Power (W)	Peak Power (kW)	Dimension A (inches)	Dimension B (inches)	Dimension C (inches)
2.60 - 3.95	306M	WR284	Cover	UG-584/U	1.15	1200	800	11.00	3.00	1.50
3.30 - 4.90	307M	WR229	CPRF	UG-1727/U	1.15	1000	800	9.75	2.42	1.27
3.95 - 5.85	308M	WR187	Cover	UG-407/U	1.15	750	750	8.38	2.00	1.00
4.90 - 7.05	309M	WR159	CPRF	UG-1731/U	1.15	625	625	8.00	1.72	0.92
5.85 - 8.20	310M	WR137	Cover	UG-441/U	1.15	500	400	8.00	1.50	0.75
7.05 - 10.0	311M	WR112	Cover	UG-138/U	1.15	425	400	7.00	1.25	0.63
7.00 - 11.0	312M	WR102	Cover	MIL-F-3922/70-014	1.15	325	300	6.50	1.12	0.61
8.20 - 12.4	313M	WR90	Cover	UG-135/U	1.15	225	225	5.50	1.00	0.50
10.0 - 15.0	314M	WR75	Cover	MIL-F-3922/70-017	1.15	200	200	4.50	0.85	0.48
12.4 - 18.0	315M	WR62	Cover	UG-1665/U	1.15	100	200	3.25	0.70	0.39
15.0 - 22.0	316M	WR51	Cover	MIL-F-3922/70-024	1.15	100	120	3.25	0.59	0.34
18.0 - 26.5	317M	WR42	Cover	UG-597/U	1.15	100	120	3.50	0.50	0.25
22.0 - 33.0	318M	WR34	Cover	UG-1530/U	1.15	75	80	3.25	0.42	0.25
26.5 - 40.0	319M	WR28	Cover	UG-599/U	1.15	75	50	4.00	0.36	0.22

Standard waveguide flange dimensions and mounting hole orientations are available on the website and in the catalog. *Specifications subject to change without notice.*

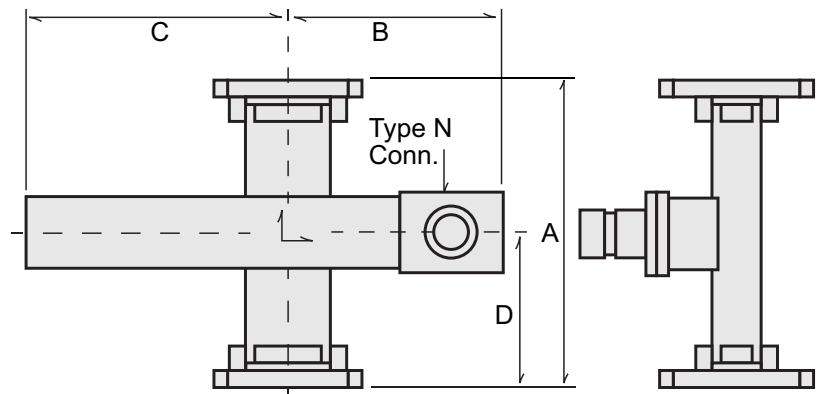
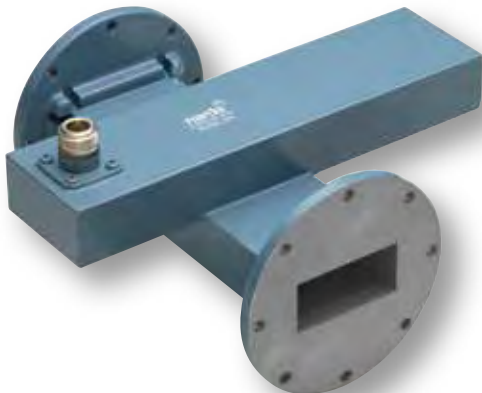
# Crossguide Directional Couplers



## Crossguide Directional Couplers, SMA Connectors

Freq. (GHz)	Model Number	Waveguide Size	Flange Type	Flange Equivalent	Coupling (dB)	Max. Deviation from Nominal (dB)	Frequency Sensitivity (dB max.)	Directivity (dB min.)	VSWR Primary (max.)	VSWR Secondary (max.)	Dim. A (inches)	Dim. B (inches)	Dim. C (inches)	Dim. D (inches)
7.05 - 10.0	4857	WR112	Cover	UG-138/U	30	+/-0.5	+/-1.00	20	1.05	1.25	4.20	2.10	3.00	1.50
8.20 - 12.4	4858	WR90	Cover	UG-135/U	30	+/-0.5	+/-1.00	20	1.05	1.25	4.00	2.00	2.75	1.38
10.0 - 15.0	4859	WR75	Cover	MIL-F-3922/70-017	30	+/-0.5	+/-1.00	20	1.05	1.25	3.75	1.87	2.50	1.25
18.0 - 26.5	4862	WR42	Cover	UG-597/U	30	+/-0.5	+/-1.00	20	1.05	1.25	2.20	1.10	1.50	0.75
26.5 - 40.0	4864*	WR28	Cover	UG-599/U	30	+/-0.5	+/-1.00	20	1.05	1.25	2.00	1.00	2.50	1.25

\* Note: Connectors are 2.92mm (female)



## Crossguide Directional Couplers, Type N Connectors

Freq. (GHz)	Model Number	Waveguide Size	Flange Type	Flange Equivalent	Coupling (dB)	Max. Deviation from Nominal (dB)	Frequency Sensitivity (dB max.)	Directivity (dB min.)	VSWR Primary (max.)	VSWR Secondary (max.)	Dim. A (inches)	Dim. B (inches)	Dim. C (inches)	Dim. D (inches)
2.60 - 3.95	852	WR284	Cover	UG-584/U	30	+/-0.5	+/-1.00	20	1.05	1.25	7.50	3.75	5.00	2.50
5.85 - 8.20	856	WR137	Cover	UG-441/U	30	+/-0.5	+/-1.00	20	1.05	1.25	6.00	3.00	4.00	2.00
7.05 - 10.0	857	WR112	Cover	UG-138/U	30	+/-0.5	+/-1.00	20	1.05	1.25	4.20	2.10	3.00	1.50
10.0 - 15.0	859	WR75	Cover	MIL-F-3922/70-017	30	+/-0.5	+/-1.00	20	1.05	1.25	3.75	1.87	2.50	1.25

Standard waveguide flange dimensions and mounting hole orientations are available on the website and in the catalog. *Specifications subject to change without notice.*

# narda

an  communications company

435 Moreland Road, Hauppauge, NY 11788 • Tel : 631.231.1700 • Fax: 631.231.1711 • e-mail : nardaeast@L-3com.com

[www.nardamicrowave.com](http://www.nardamicrowave.com)