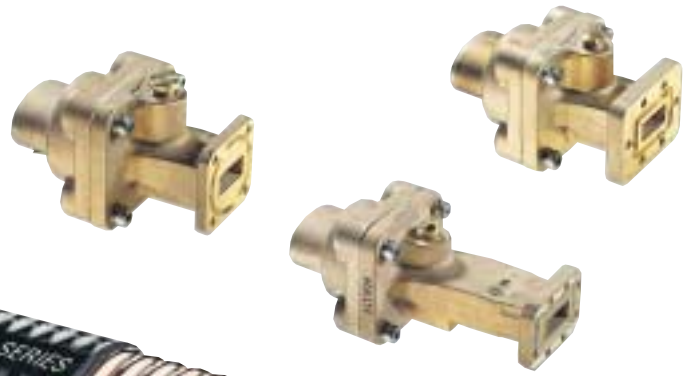




Elliptical Waveguide

Types EWP127A and EW127A



Characteristics

Type Numbers	
Premium Waveguide, Standard Jacket	EWP127A
Standard Waveguide, Standard Jacket	EW127A
Premium Waveguide Type CATVP	222040-4
Standard Waveguide, Fire Retardant, Non-Halogenated Jacket	35409-15*
Electrical	
Max. Frequency Range, GHz	10.0-13.25
eTE ₁₁ Mode Cutoff Frequency, GHz	7.67
Group Delay at 12.7 GHz, ns/100 ft (ns/100 m)	126 (414)
Peak Power Rating at 12.7 GHz, kW	34
Mechanical	
Minimum Bending Radii, without rebending, inches (mm)	
E Plane	5 (130)
H Plane	11 (280)
Minimum Bending Radii, with rebending, inches (mm)	
E Plane	6 (150)
H Plane	15 (380)
Maximum Twist, degrees/foot (m)	2 (6)
Dimensions over Jacket, in (mm)	1.11 x 0.67 (28.2 x 17.1)
Weight, pounds per foot (kg/m)	0.29 (0.43)




* UL® listed Type CATVR.

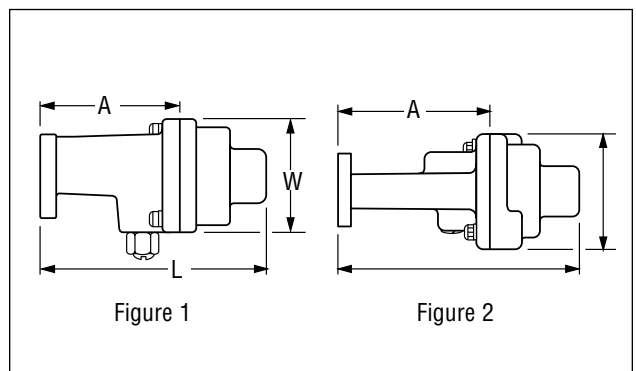
Attenuation, Average Power, Group Velocity

Frequency GHz	Attenuation dB/100 ft (dB/100 m)	Average Power Rating, kW	Group Velocity of Propagation, %
10.0	4.46 (14.60)	1.00	64.2
10.5	4.16 (13.60)	1.07	68.3
11.0	4.95 (13.00)	1.13	71.7
11.5	3.79 (12.40)	1.18	64.5
11.7	3.74 (12.28)	1.20	75.5
11.9	3.69 (12.12)	1.21	76.5
12.1	3.65 (11.98)	1.23	77.3
12.3	3.61 (11.86)	1.24	78.2
12.5	3.58 (11.74)	1.25	79.0
12.7	3.55 (11.64)	1.26	79.7
12.9	3.52 (11.54)	1.27	80.4
13.1	3.49 (11.45)	1.28	81.1
13.25	3.47 (11.38)	1.29	81.5

Attenuation values based on VSWR 1.0, ambient temperature 24°C (75°F) and are guaranteed within ±5%. Average power ratings based on VSWR 1.0 and 42°C (76°F) temperature rise over 40°C (104°F) ambient.

Connectors – Flange dimensions on pages 216-217

Type No.	L in (mm)	W in (mm)	A in (mm)	Weight lb (kg)
1127DC, 1127DCT, 1127DCP, 1127DCM, 1127DCMT, 1127SC, 1127SCM				
Figure 1 	3.8 (97)	2.3 (58)	1.9 (48)	1.8 (0.8)
1127DEM, 1127DEMT, 1127SEM				
Figure 1 	3.8 (97)	2.3 (58)	1.9 (48)	1.8 (0.8)
1127DK, 1127DKT				
Figure 2 	5.0 (127)	2.3 (58)	3.1 (79)	1.8 (0.8)



Connector Material: Brass



Ordering Information for Waveguide Assemblies

Frequency* GHz	Waveguide Type	Flange Type††	Connector†			Flex-Twist 2 ft (0.6 m)
			Tunable	Fixed-Tuned	Pressure Window	
Super Premium Waveguide Assemblies						VSWR 1.08 (28.3)**
11.7-12.2	EWP127A-117	WR75†††	1127DCT	1127SC	55000A-75	F075PA0240BS
		PBR120	1127DCMT	1127SCM	110088	F075MK0600KS
		PDR120	1127DEMT	1127SEM	223306-120	F075MH0600HS
		Pressurizable Contact Flange	1127DKT	–	***	***
12.2-12.7	EWP127A-122	WR75†††	1127DCT	1127SC	55000A-75	F075PA0240BS
		PBR120	1127DCMT	1127SCM	110088	F075MK0600KS
		PDR120	1127DEMT	–	223306-120	F075MH0600HS
12.7-13.25	EWP127A-127	WR75†††	1127DCT	1127SC	55000A-75	F075PA0240BS
		PBR120	1127DCMT	1127SCM	110088	F075MK0600KS
		PDR120	1127DEMT	1127SEM	223306-120	F075MH0600HS
Standard Waveguide Assemblies			Non-Tunable			VSWR 1.15 (23.1)**
11.7-13.25	EW127A	WR75†††	1127DC	1127SC	55000A-75	F075PA0240BS
		PBR120	1127DCM	1127SCM	110088	F075MK0600KS
		PDR120	1127DEM	1127SEM	223306-120	F075MH0600HS
		Pressurizable Contact Flange	1127DK	–	***	***

* Contact Andrew for information on other frequency bands. ** VSWR max., (R.L., dB). Up to 300 ft (90 m). The indicated maximum VSWR characteristics are guaranteed for factory assemblies and are typical for field assemblies. *** Not Available

† “Tunable” connectors ordered with factory assemblies are factory tuned.

†† For detailed information on mating flanges, refer to pages 214-218. ††† Pressurizable cover flange.

Accessories – Photos and detailed descriptions on pages 194-200

Description	Type No.	Description	Type No.
Hangers and Adapters		Other Accessories	
Hanger Kit of 10. Recommended maximum spacing for outdoor installation is 3 ft (0.91 m)*	42396A-9	Flaring Tool Kit for connector attachment	204960
NEW! Snap-In Hanger Kit of 10. Recommended spacing for outdoor installation is 3 ft (0.91 m)	EWSH-127	Splice	1127DZ
Hardware Kit of 10, 3/8" bolts, lock washers, nuts		Grounding Kit with factory attached, one-hole lug	204989-2
3/4" (19 mm) long	31769-5	Grounding Kit with factory attached, two-hole lug	241088-2
1" (25 mm) long	31769-1	Grounding Kit with field attachable crimp-on, one-hole lug	204989-22
Angle Adapter Kit of 10. Stainless steel	31768A	Grounding Kit with field attachable crimp-on, two-hole lug	241088-7
Angle Adapter Kit of 10. Galvanized		Grounding Kit with field attachable screw-on lug	204989-32
3/8" Hardware	242774	Crimping Tool to field attach lug to Grounding Kit	207220
Metric Hardware	242774-M	Hoisting Grip	29958
Round Member Adapter Kit of 10. Stainless steel		Bending Tool Kit . One each E and H Plane tool	EWBTK-1
Member Diameter, in (mm)		Connector Reattachment Kit	33544-41
1-2 (25-50)	31670-1	Wall-Roof Feed Thru	245314-127A
2-3 (50-75)	31670-2	Waveguide Boot for Plates (below),	
3-4 (75-100)	31670-3	4 in (102 mm) dia.	WGB4-127
4-5 (100-125)	31670-4	5 in (127 mm) dia	WGB5-127
5-6 (125-150)	31670-5		
45° Adapter Kit of 10. Galvanized steel	42334	Feed-Thru Plate for Boots (above)	
Threaded Rod Support , 3/8" rod, nuts, washers, ceiling bracket		Openings	For 4 in Boots
12 in (305 mm) long, kit of 1	31771		For 5 in Boots
12 in (305 mm) long, kit of 5	31771-4	1	204673-1
24 in (610 mm) long, kit of 1	31771-9	1	204673-2
24 in (610 mm) long, kit of 5	31771-6	2	–
Tower Standoff Kit of 10. 1 in (25 mm) standoff		3	48940-2
Member Diameter, in (mm)		4	48940-3
0.75-1.5 (20-40)	30848-5	6	48940-4
1.5-3.0 (40-75)	30848-4	8	48940-6
3-4 (75-100)	30848-1		
4-5 (100-125)	30848-2		
5-6 (125-150)	30848-3		
Tower Standoff Kit of 10. 2.5 in (60 mm) standoff			
Member Diameter, in (mm)			
3-4 (75-100)	41108A-1		
4-5 (100-125)	41108A-2		
5-6 (125-150)	41108A-3		

* Standard conditions: 125 mph (200 km/h) survival wind velocity, 0.5 in (13 mm) radial ice. For other conditions see page 196.