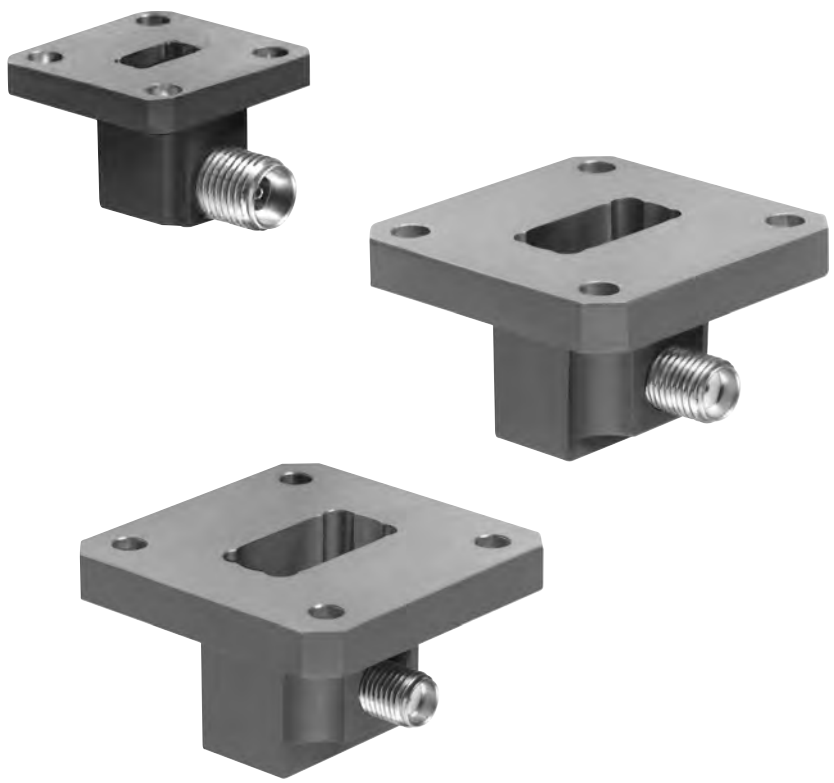
Section 11

Waveguide to Coax Adapters



Introduction

Microwave Development Laboratories waveguide to coaxial adapters cover the frequency spectrum from WR650 to WR22. Female and male type “N”, SMA and 2.9mm connectors are available. All connectors are constructed of stainless steel for long wear and improved electrical performance. Standard adapters typically have a 1.25 max. VSWR. Low VSWR adapters are typically 1.065 max. and 1.10 max. for pressurized units.

Ordering Information*

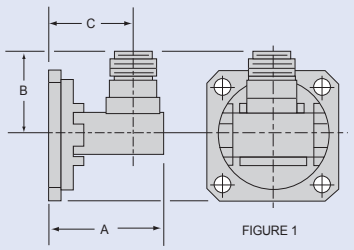


FIGURE 1

Example: 90AC126-1-E

MODEL NUMBER | FLANGE | MATERIAL

90AC126 - 1 - E

Flange Termination - 2 Flanges

Flange	Port 1
1	Cover
2	Choke

Material and Finish

Code	Material	Finish
C	Aluminum	Chromated
D	Brass	Silver Plated
E	Aluminum Alloy	Chromated and Painted Blue
F	Brass	Silver Plated per QQ-S-365 type II and painted blue

** MDL reserves the right to discontinue or change specifications without notice.*

Waveguide to Coax Adapters

Type N Standard Adapters

VSWR is 1.25 maximum.

FREQ. RANGE GC/SEC.	MDL MODEL NUMBER	FIG.	DIMENSIONS "A" MAX.	"B" MAX.	"C" +.020
10.00-15.00	75AC46*	1	1.20	1.00	0.87
	75AC56*	2	1.20	1.09	0.87
8.20-12.40	90AC46*	1	1.15	1.02	0.88
	90AC56*	2	1.15	1.11	0.88
7.00-11.00	102AC46*	1	1.40	1.08	1.06
	102AC56*	2	1.40	1.17	1.06
7.05-10.00	112AC46*	1	1.40	1.07	1.06
	112AC56*	2	1.40	1.16	1.06
5.85-8.20	137AC46*+	1	1.72	1.40	1.31
	137AC56*+	2	1.72	1.49	1.31
4.90-7.05	159AC46*	1	1.90	1.92	1.40
	159AC56*	2	1.90	2.01	1.40
3.95-5.85	187AC46*+	1	1.97	1.96	1.45
	187AC56*+	2	1.97	2.05	1.45
3.30-4.90	229AC46*	1	2.70	2.08	1.97
	229AC56*	2	2.70	2.17	1.97
2.60-3.95	284AC46*+	1	2.72	2.19	1.87
	284AC56*+	2	2.72	2.28	1.87
1.70-2.30	430AC46*	1	4.00	2.59	3.08
	430AC56*	2	4.00	2.65	3.08
1.12-1.70	650AC46*	1	5.30	5.60	2.68

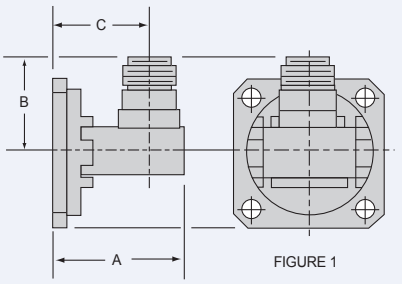


FIGURE 1

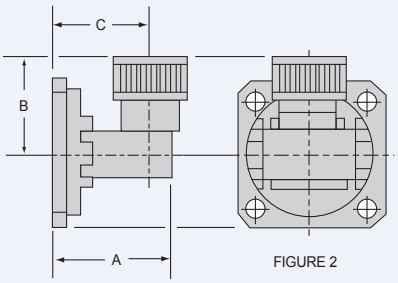


FIGURE 2

Notes: + *Flanges are round, not square as shown.*

* *See ordering information page 61*

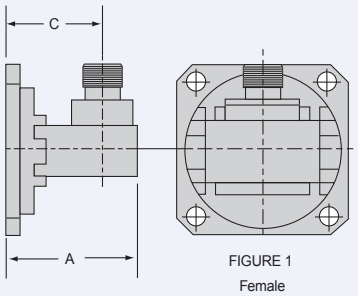


FIGURE 1
Female

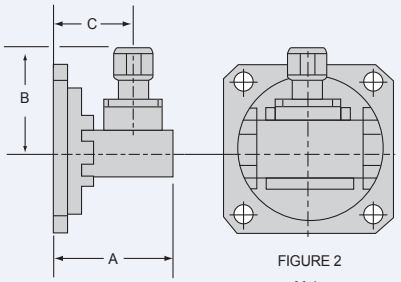


FIGURE 2
Male

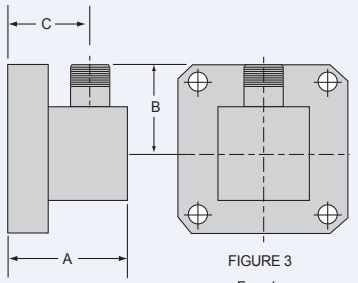


FIGURE 3
Female

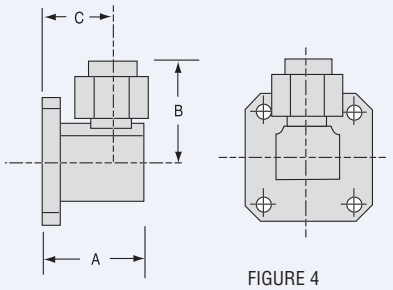


FIGURE 4
Male

Waveguide to Coax Adapters

SMA Standard Adapters

Microwave Development Laboratories' miniature waveguide to coaxial adapters cover frequency ranges 2.6-40.0 GHz. VSWR 1.25 MAX with some typically 1.14 VSWR.

Double Ridge Adapter

VSWR 1.3 MAX

FREQ. RANGE GC/SEC.	MDL MODEL NUMBER	FIG.	VSWR MAX.	DIMENSIONS "A" MAX.	"B" MAX.	"C" + .020
33.0-50.0	22AC206	3	1.35	0.82	0.50	0.663
26.50-40.00	28AC206	3	1.30	0.52	0.52	0.351
	28AC216	4	1.35	0.52	0.63	0.351
	28AC226	3	1.35	0.52	0.63	0.353
22.00-33.00	34AC206	3	1.25	0.62	0.54	0.401
	34AC216	4	1.25	0.62	0.63	0.401
	34AC226	3	1.25	0.62	0.54	0.403
18.00-26.50	42AC206	3	1.25	0.62	0.54	0.40
	42AC216	3	1.15	0.62	0.54	0.401
	42AC226	3	1.15	0.62	0.57	0.40
	42AC236	4	1.25	0.62	0.65	0.401
15.00-22.00	51AC206	3		0.67	0.59	0.43
12.40-18.00	62AC86	1		1.08	0.73	0.81
	62AC96	2		1.08	0.85	0.81
	62AC206	3		0.79	0.62	0.50
	75AC86	1		1.20	0.77	0.82
	75AC96	2		1.20	0.89	0.55
10.00-15.00	75AC206	3		0.90	0.68	0.55
	75AC216	3	1.15	0.90	0.68	0.55
8.20-12.40	90AC86	1		1.15	0.68	0.82
	90AC96	2		1.15	0.91	0.82
	90AC206	3		1.02	0.69	0.62
7.00-11.00	102AC86	1		1.40	0.85	0.95
	102AC96	2		1.40	0.97	0.95
7.05-10.00	112AC86	1		1.40	0.85	0.93
	112AC96	2		1.40	0.97	0.93
5.85-8.20	137AC86+	1		1.52	0.91	0.93
	137AC96+	2		1.52	1.03	0.93
4.90-7.05	159AC86	1		1.65	0.99	0.99
	159AC96	2		1.65	1.12	0.99
3.95-5.85	187AC86+	1		1.77	1.03	0.99
	187AC96+	2		1.77	1.16	0.99
3.30-4.90	229AC86	1		2.70	1.17	1.41
	229AC96+	2		2.70	1.29	1.41
2.60-3.95	284AC86	4		2.65	1.49	1.62
	284AC96+	2		2.65	1.36	1.62

Double Ridged Adapter

7.50-18.0	750AC86	1		1.08	0.73	0.81

Notes:

1 *2.9 mm connector*
2 *3.5 mm connector*
3 *2.4 mm connector*
\+ *Flanges are round, not square as shown.*

Waveguide to Coax Adapters

Type N Low VSWR Adapters

VSWR of 1.065:1, with pressure VSWR 1.1 maximum. MDL uses the swept frequency sliding load technique to test all models. All low VSWR adapters are measures feeding the waveguide port and terminating the coaxial port with a precision sliding load with beadless connector.

FREQ. RANGE GC/SEC.	MDL MODEL NUMBER	FIG.	DIMENSIONS "A" MAX.	"B" MAX.	"C" ± .020
10.00-15.00	75AC106*	1	1.20	1.00	0.87
	75AC116*	2	1.20	1.09	0.87
8.20-12.40	90AC106*	1	1.15	1.02	0.88
	90AC116*	2	1.15	1.11	0.88
7.00-11.00	102AC106*	1	1.40	1.08	1.06
	102AC116*	2	1.40	1.17	1.06
7.05-10.00	112AC106*	1	1.40	1.07	1.06
	112AC116*	2	1.40	1.16	1.06
5.85-8.20	137AC106*+	1	1.72	1.40	1.31
	137AC116*+	2	1.72	1.49	1.31
4.90-7.05	159AC106*	1	1.90	1.60	1.40
	159AC116*	2	1.90	2.01	1.40
3.95-5.85	187AC106*+	1	1.97	1.96	1.45
	187AC116*+	2	1.97	2.05	1.45
3.30-4.90	229AC106*	1	2.70	2.15	1.88
	229AC116*	2	2.70	2.30	1.88
2.60-3.95	284AC106*+	1	2.72	2.19	1.87
	284AC116*+	2	2.72	2.28	1.87

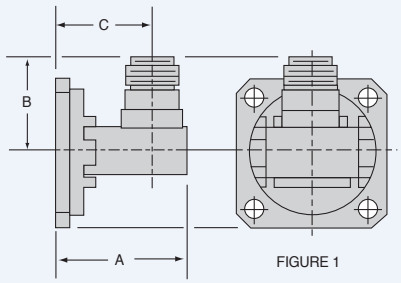


FIGURE 1

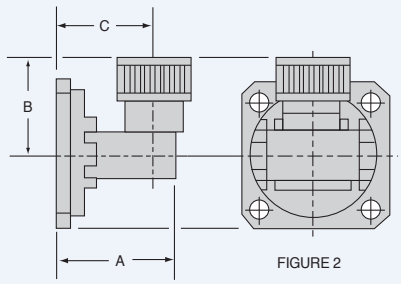


FIGURE 2

Notes:

+ *Flanges are round, not square as shown.*

* *See ordering information page*

FREQ. RANGE GC/SEC.	MDL MODEL NUMBER	VSWR MAX.	"A" MAX.	CONNECTORS MALE	FEMALE	DWG
End Launch Adapters						
26.5-40.0	28AEL66	1.35	1.00	-	2.4mm	
26.5-40.0	28AEL86	1.35	1.00	-	2.9mm	
22.0-33.0	34AEL66	1.35	1.00	-	2.4mm	
22.0-33.0	34AEL86	1.35	1.00	-	2.9mm	
15.0-22.0	51AEL86	1.25	1.50	-	SMA	
12.4-18.0	62AEL86	1.25	1.50	-	SMA	
12.4-18.0	62AEL106	1.35	1.75	-	TNC	
10.0-15.0	75AEL46	1.25	1.75	-	N	
10.0-15.0	75AEL86	1.25	1.50	-	SMA	
5.85-8.20	137AEL46	1.25	2.50	-	N	
	159AEL46					
3.30-4.90	229AEL46	1.25	3.80	-	N	

Waveguide to Coax Adapters

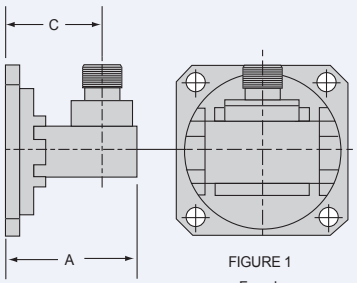


FIGURE 1
Female

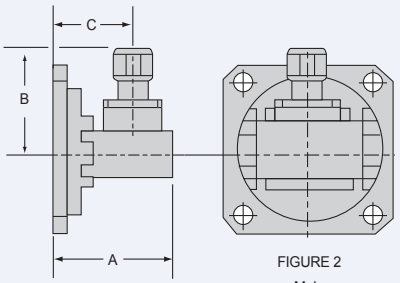


FIGURE 2
Male

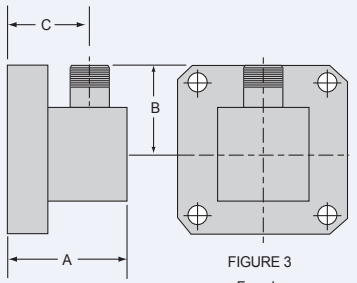


FIGURE 3
Female

SMA Low VSWR Adapters

Maximum VSWR of 1.065:1 with pressure VSWR 1.1 maximum. MDL uses the swept frequency sliding load techniques to test all models. All low VSWR adapters are measured feeding the waveguide port and terminating the coaxial port with a precision sliding load with a beadless connector.

FREQ. RANGE GC/SEC.	MDL MODEL NUMBER	FIG.	DIMENSIONS		
			"A" MAX.	"B" MAX.	"C" ± .020
12.40-18.00	62AC126*	1	1.08	0.73	0.81
	62AC136*	2	1.08	0.85	0.81
10.00-15.00	75AC126*	1	1.20	0.77	0.82
	75AC136*	2	1.20	0.89	0.82
8.20-12.40	90AC126*	1	1.15	0.78	0.82
	90AC136*	2	1.15	0.91	0.82
7.00-11.00	102AC126*	1	1.40	0.85	0.95
	102AC136*	2	1.40	0.97	0.95
7.05-10.00	112AC126*	1	1.40	0.85	0.93
	112AC136*	2	1.40	0.97	0.93
5.85-8.20	137AC126*+	1	1.52	0.91	0.99
	137AC136*+	2	1.52	1.03	0.99
4.90-7.05	159AC126*	1	1.65	0.99	0.99
	159AC136*	2	1.65	1.12	0.99
3.95-5.85	187AC126*+	1	1.77	1.03	0.99
	187AC136*+	2	1.77	1.16	0.99
3.30-4.90	229AC126*	1	2.70	1.17	1.41
	229AC136*	2	2.70	1.29	1.41
2.60-3.95	284AC126*+	1	2.65	1.36	1.62
	284AC136*+	2	2.65	1.49	1.62

Notes: + *Flanges are round, not square as shown.*
* *See ordering information page*