

Transducers

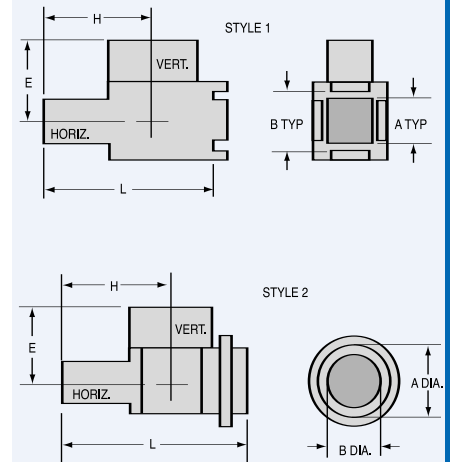
Dual mode transducers, capable of separating horizontal and vertical polarized waves, are readily available in most waveguide sizes. MDL's investment castings provide rigid, compact construction to insure precise mechanical configuration and excellent electrical performance. These designs feature low VSWR and insertion loss, high isolation and power handling capabilities.

Square output openings are standard except where noted. Circular outputs, other than those shown in the data below, and special flanges can be supplied upon request.

W/G Size	Frequency GHz	Style	Model Number	*VSWR Maximum		Mechanical Dimensions†			Output Dimensions			
				H Arm	E Arm	H	E	L	A	B		
Dual Mode Transducers												
WR22	35.5-37.5	1	22TR12	1.25	1.25	0.35	0.35	0.55	0.220	0.252	+0.003 -0.000	
WR28	34.0-36.0	1	28TR12	1.20	1.20	0.50	0.43	0.81	0.204	0.286	+0.002 -0.000	
WR42	19.5-23.0	1	42TR12	1.30	1.20	0.75	0.60	1.50	0.340	0.425	+0.003 -0.000	
WR51	16.0-17.0	1	51TR12	1.15	1.15	1.00	0.79	1.50	0.454	0.536	+0.003 -0.000	
	15.65-17.1	2	51TR22	1.15	1.20	0.75	1.20	1.32	0.600	0.500	±0.005	
WR62	13.0-14.0	1	62TR22	1.15	1.15	1.10	0.95	1.80	0.562	0.645	+0.003 -0.000	
	14.0-15.0	1	62TR32	1.12	1.12	1.10	0.85	1.80	0.519	0.599	+0.003 -0.000	
	15.0-17.0	1	62TR12	1.15	1.15	1.10	0.95	1.80	0.454	0.536	+0.003 -0.000	
WR75	10.8-11.5	1	75TR12	1.15	1.10	1.28	1.15	1.98	0.678	0.780	+0.003 -0.000	
WR90	8.5-9.6	1	90TR12	1.10	1.10	1.75	1.35	2.50	0.800	0.905	+0.003 -0.000	
	9.2-10.2	1	90TR22	1.25	1.25	1.75	1.35	2.50	0.800	0.905	+0.003 -0.000	
WR112	7.0-8.0	1	112TR12	1.15	1.15	2.04	1.34	3.04	0.995	1.128	+0.004 -0.000	
	7.0-8.0	2	112TR22	1.15	1.15	2.04	1.34	3.04	1.288	1.160	±0.005	
	7.3-8.3	1	112TR32	1.55	1.45	2.04	1.34	3.04	0.995	1.128	+0.004 -0.000	
WR137	5.4-5.9	1	137TR12	1.10	1.10	2.18	1.13	3.68	1.372	1.503	+0.005 -0.000	
	5.4-5.9	1	137TR22	1.10	1.10	2.18	1.58	3.68	1.372	1.503	+0.005 -0.000	
WR284	2.6-3.2	1	284TR32	1.50	1.15	4.16	3.30	6.63	2.525	2.690	+0.008 -0.000	
	2.65-3.1	1	284TR12	1.20	1.15	4.16	3.30	6.63	2.525	2.690	+0.008 -0.000	
	2.7-3.1	1	284TR22	1.15	1.12	4.16	3.30	6.63	2.525	2.690	+0.008 -0.000	

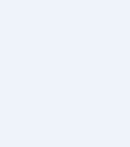
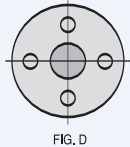
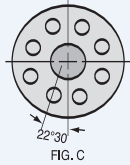
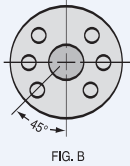
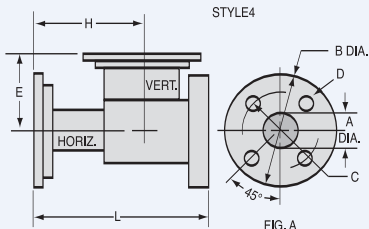
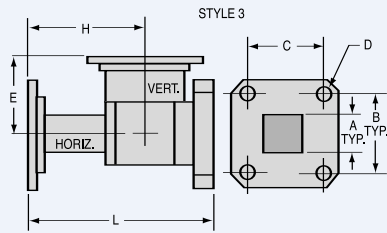
Notes: Minimum isolation 40 db
 † Dimensional tolerances
 WR22 through WR137±.015
 WR284±.020

MITRE H PLANE TEES



Transducers

TRANSDUCERS



W/G Size	Frequency GHz	Style	Model Number	*VSWR Maximum		Mechanical Dimensions†						Flange pattern	
				H Arm	E Arm	H	E	L	A	B	C		D
WR28	34.0-36.0	3	28TR16	1.20	1.20	0.50	0.54	0.81	.204	.500	.530	.116	-
WR42	19.5-23.0	4	42TR36	1.30	1.20	0.91	0.76	1.520	.400	1.135	.670	.116	FIG. A
WR51	16.0-17.0	3	51TR16	1.15	1.15	1.00	1.10	1.50	.454	.956	.994	.144	-
	15.65-17.1	4	51TR26	1.15	1.20	1.00	1.10	1.57	.500	1.350	.925	.144	FIG. A
WR62	15.0-17.0	3	62TR16	1.15	1.15	1.10	1.18	1.80	.454	.956	.944	.144	-
	13.0-14.0	3	62TR26	1.15	1.15	1.17	1.00	1.87	.562	.956	.994	.144	-
	14.0-15.0	3	62TR36	1.12	1.12	1.10	0.95	1.68	.519	.956	.994	.144	-
	13.75-15.25	4	62TR46	1.30	1.20	1.15	1.18	1.855	.590	1.300	1.000	.144	FIG. D THD
	15.0-17.0	4	62TR56	1.20	1.20	1.10	1.18	1.80	.590	1.500	1.070	.144	FIG. A.
WR75	10.8-11.5	3	75TR16	1.15	1.10	1.28	1.15	1.98	.678	1.10	1.10	.144	-
WR90	8.5-9.6	3	90TR36	1.10	1.10	1.75	1.35	2.50	.800	1.280	1.220	.169	-
	9.2-10.2	3	90TR46	1.25	1.25	1.75	1.35	2.50	.800	1.280	1.220	.169	-
	8.5-9.6	4	90TR56	1.25	1.25	1.75	1.35	2.500	.930	1.600	1.360	.169	FIG. D THD
WR112	7.0-8.0	3	112TR16	1.15	1.15	2.04	1.34	3.04	.995	1.474	1.352	.169	-
	7.2-7.8	4	112TR26	1.15	1.15	2.27	1.50	2.98	1.160	2.34	1.75	.169	FIG. B
	7.3-8.3	3	112TR36	1.55	1.45	2.04	1.34	3.04	.995	1.474	1.352	.169	-
	7.3-8.3	4	112TR46	1.55	1.45	2.27	1.50	2.98	1.160	2.34	1.76	.169	FIG. B
WR137	5.4-5.9	3	137TR16	1.10	1.10	2.33	1.58	3.83	1.372	2.250	2.125	10.32	- THD
WR284	2.65-3.1	3	284TR16	1.20	1.15	4.16	3.30	6.63	2.525	8 HOLE FLANGE	-	.257	-
	2.7-3.1	3	284TR26	1.15	1.12	4.16	3.30	6.63	2.525	284FT22	-	.257	-
	2.6-3.2	3	284TR36	1.50	1.15	4.16	3.30	6.63	2.525		-	.257	-
	2.7-3.1	4	284TR46	1.20	1.17	4.16	3.30	7.75	2.940	6.50	-	.257	FIG. C
	2.7-2.9	4	284TR56	1.20	1.20	4.16	3.30	7.75	2.940	6.50	-	.257	FIG. C

Notes: Minimum isolation 40dB
 *Dimensional tolerances WR22 through WR137±.015
 WR284±.020