

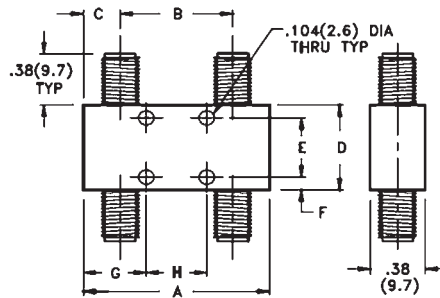
Couplers

3 dB 90° Hybrids - Crossover Type

250 MHz - 18.0 GHz High Performance

- Low VSWR - High Isolation
- 90° Quadrature Phase
- Small Size, Light Weight
- Meets MIL-E-5400 and MIL-E-16400

Midwest Microwave's series of high performance 90° Crossover Hybrid Couplers provide temperature stable, low VSWR, high isolation, broadband performance in a compact light weight package size. All models use rugged stripline construction with a variety of stainless steel connectors. The crossover feature, putting both outputs on the same side of the unit is convenient for most systems where space and weight is a premium.



ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE (GHZ)	CASE STYLE	MODEL NUMBER	AMPLITUDE BALANCE (dB)	INSERTION LOSS (dB) max	ISOLATION (dB) min	VSWR max	POWER (In)	
							Avg (w)	Peak (w)
OCTAVE BANDWIDTH TYPES								
.25-0.5	3	HYB-5309-X3-SMA-79	±0.5	0.20	25	1.20	50	3
.50-1.0	3	HYB-5310-X3-SMA-79	±0.5	0.20	25	1.20	50	3
1.0-2.0	2	HYB-5311-X3-SMA-79	±0.5	0.20	22	1.20	50	3
2.0-4.0	1	HYB-5312-X3-SMA-79	±0.5	0.25	22	1.25	50	3
2.6-5.2	1	HYB-5313-X3-SMA-79	±0.5	0.25	20	1.25	50	3
4.0-8.0	1	HYB-5314-X3-SMA-79	±0.5	0.30	20	1.25	50	3
7.0-12.4	1	HYB-5315-X3-SMA-79	±0.5	0.50	18	1.45	50	3
12.4-18.0	1	HYB-5317-X3-SMA-79	±0.5	0.50	15	1.45	50	3
MULTI-OCTAVE BANDWIDTH TYPES								
.50-2.0	7	HYB-5320-X3-SMA-79	±0.5	0.60	24	1.30	30	3
.50-4.0	6	HYB-5321-X3-SMA-79	±0.75	1.20	20	1.50	30	3
2.0-8.0	5	HYB-5322-X3-SMA-79	±0.5	0.75	17	1.30	30	3
2.0-12.4	4	HYB-5325-X3-SMA-79	±0.75	1.20	17	1.45	50	3
6.0-18.0	1	HYB-5326-X3-SMA-79	±0.5	0.60	15	1.45	50	3
2.0-18.0	4	HYB-5332-X3-SMA-79	±0.75	1.50	17	1.50	30	3

MECHANICAL SPECIFICATIONS - INCHES (mm)

CASE STYLE	A	B	C	D	E	F	G	H	WEIGHT	
									Oz	Gr
1	1.00 (25.4)	0.50 (12.7)	0.25 (6.3)	0.50 (12.7)	0.312 (7.9)	0.093 (2.4)	0.50 (12.7)	N/A	0.60	17
2	2.00 (50.8)	1.50 (38.1)	0.25 (6.3)	0.50 (12.7)	0.312 (7.9)	0.093 (2.4)	1.00 (25.4)	N/A	0.64	18
3	2.00 (50.8)	1.50 (38.1)	0.25 (6.3)	1.00 (25.4)	0.812 (22.1)	0.093 (2.4)	1.00 (25.4)	N/A	0.82	23
4	2.70 (68.6)	2.20 (55.9)	0.25 (6.3)	1.06 (26.9)	0.86 (21.8)	0.10 (2.54)	0.84 (21.3)	1.030 (26.2)	2.30	65
5	2.70 (68.6)	2.20 (55.9)	0.25 (6.3)	0.86 (21.8)	N/A	0.43 (10.9)	0.58 (14.7)	1.560 (39.6)	2.70	75
6	7.00 (177.8)	6.10 (155.0)	0.45 (11.4)	1.50 (38.1)	1.180 (30.0)	0.16 (4.1)	2.25 (57.2)	2.500 (63.5)	8.00	227
7	5.58 (141.7)	5.00 (127.0)	0.29 (7.4)	0.70 (17.8)	N/A	0.35 (8.9)	0.08 (2.0)	5.420(137.7)	2.35	67

Note: TNC or Type N output connectors are available by substituting "TNC" or "NNN" for "SMA" in the Model Number.