

# Single Directional Coupler

The single directional coupler can be used to monitor and control the output power and output spectrum of the transmitter. It can also be used as a power meter in combination with the detector and level indicator.



## FEATURE

Broad Band  
High Power  
Low Insertion Loss

## APPLICATION

Amplifier  
Radio  
Communication  
Laboratory Tests

Operating Temperature: 0 – +50 °C Storage Temperature: -20 – +70 °C Characteristic Impedance: 50 Ω

### ELECTRICAL CHARACTERISTICS:

Model	Freq (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB,max.)	Directivity (dB,min.)	VSWR (max.)	Connector	Dimensions (mm)
SH-0.01-250-K6-50-NS	0.00001-0.25	600	50 ± 1	0.4	20	1.25	SMA,N	256.4*52*80
SH-80-1000-K6-60-NS	0.08-1	600	60 ± 1	0.4	20	1.2	SMA,N	152.4*30*80
SH-100-700-10-10-S	0.1-0.7	10	10 ± 2	0.9	12	1.3	SMA	250*66*154
SH-130-470-50-6-S	0.13-0.47	50	6 ± 1.2	0.7	20	1.25	SMA	12*15*11
SH-200-2000-50-30-S	0.2-2	50	30 ± 1.5	0.8	15	1.3	SMA	270*20*11
SH-300-800-50-30-S	0.3-0.8	50	30 ± 1	0.3	10	1.2	SMA	180*15*11
SH-300-2400-30-10-S	0.3-2.4	30	10	1.0	18	1.3	SMA	115*15.5*11
SH-300-2400-30120-S	0.3-2.4	30	20	1.0	18	1.3	SMA	115*15.5*11
SH-300-2400-30-30-S	0.3-2.4	30	30	1.0	18	1.3	SMA	115*15.5*11
SH-400-2700-K4-40-N	0.4-2.7	400	40 ± 1.2	0.4	20	1.2	N	158*53*26
SH-400-3000-10-20-S	0.4-3	10	20 ± 1	0.5	20	1.3	SMA	149*25*14
SH-400-3900-K1-20-N	0.4-3.9	100	20 ± 2	0.5	17	1.2	SMA,N	99*42*22.5
SH-400-18000-50-10-S	0.4-18	50	10 ± 1.5	1.5	10	1.8	SMA	113*15*11
SH-400-18000-50-20-S	0.4-18	50	20 ± 1.5	1.5	10	1.8	SMA	113*15*11
SH-400-20000-10-20-S	0.4-20	10	20 ± 1.5	1.5	8	1.5	SMA	137*15.5*11
SH-450-2500-50-6-S	0.45-2.5	50	6 ± 1	0.8	18	1.2	SMA	112*17*11
SH-450-6000-30-10-S	0.45-6	30	10	1.2	12	1.5	SMA	115*16*11
SH-450-6000-30-20-S	0.45-6	30	20	1.2	12	1.5	SMA	115*16*11
SH-450-6000-30-30-S	0.45-6	30	30	1.2	12	1.5	SMA	115*16*11
SH-500-1000-30-10-S	0.5-1	30	10	0.4	20	1.3	SMA	120*26*14
SH-500-1000-30-20-S	0.5-1	30	20	0.4	20	1.3	SMA	120*26*14
SH-500-1000-30-30-S	0.5-1	30	30	0.4	20	1.3	SMA	120*26*14
SH-500-2000-10-15-S	0.5-2	15	15 ± 1	1.0	18	1.3	SMA	137*15.5*11
SH-500-2000-30-10-S	0.5-2	30	10	0.8	20	1.25	SMA	106*15.5*11
SH-500-2000-30-20-S	0.5-2	30	20	0.4	20	1.25	SMA	106*15.5*11
SH-500-2000-30-30-S	0.5-2	30	30	0.3	20	1.25	SMA	106*15.5*11
SH-500-6000-50-20-S	0.5-6	50	20 ± 1	0.6	18	1.25	SMA	113*15*11
SH-500-8000-50-10-S	0.5-8	50	10 ± 1	1.2	15	1.4	SMA	113*15*11
SH-500-8000-50-20-S	0.5-8	50	20 ± 1	1.2	12	1.5	SMA	113*15*11

\*Dimensions do not include connectors.

## ELECTRICAL CHARACTERISTICS:

Model	Freq (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB,max.)	Directivity (dB,min.)	VSWR (max.)	Connector	Dimensions (mm)
SH-500-18000-20-20-S	0.5-18	20	20 ± 1.5	2.0	10	1.7	SMA	115*16*11
SH-500-18000-30-10-S	0.5-18	30	10	1.8	10	1.7	SMA	115*16*11
SH-500-18000-30-20-S	0.5-18	30	20	1.8	10	1.7	SMA	115*16*11
SH-500-18000-30-30-S	0.5-18	30	30	1.8	10	1.7	SMA	115*16*11
SH-500-18000-50-20-N	0.5-18	50	20 ± 0.6	1.0	15	1.4	N	116.5*23*17.5
SH-600-6000-50-10-S	0.6-6	50	10 ± 1	1.0	15	1.3	SMA	112*17*12.7
SH-600-6000-50-30-S	0.6-6	50	30 ± 1	0.5	15	1.3	SMA	100*15*11
SH-700-6000-50-20-N	0.7-6	50	20 ± 1	0.7	16	1.3	N	125*20*20
SH-800-2500-K2-20-N	0.8-2.5	200	20 ± 1	0.3	18	1.25	N	170.7*43*20
SH-800-2700-50-10-S	0.8-2.7	50	10 ± 1	1.0	18	1.2	SMA	112*17*12.7
SH-1000-4000-20-10-S	1-4	20	10 ± 1	0.6	20	1.3	SMA	73*15*11
SH-1000-4000-30-10-S	1-4	30	10	1.0	20	1.3	SMA	73*15*11
SH-1000-4000-30-20-S	1-4	30	20	1.0	20	1.3	SMA	73*15*11
SH-1000-4000-30-30-S	1-4	30	30	0.5	20	1.3	SMA	73*15*11
SH-1000-4000-50-10-S	1-4	50	10 ± 1	0.8	20	1.3	SMA	73*15*11
SH-1000-4000-50-20-S	1-4	50	20 ± 1	0.4	20	1.3	SMA	73*15*11
SH-1000-4000-50-10-N	1-4	50	10 ± 1	0.8	20	1.3	N	83*20*10
SH-1000-4000-50-20-N	1-4	50	20 ± 1	0.4	20	1.3	N	83*20*10
SH-1000-6000-K1-10-N	1-6	100	10 ± 0.8	0.7	10	1.4	SMA	100*24*22
SH-1000-18000-30-10-S	1-18	30	10	1.5	10	1.6	SMA	90*15.5*11
SH-1000-18000-30-20-S	1-18	30	20	1.5	10	1.6	SMA	90*15.5*11
SH-1000-18000-30-30-S	1-18	30	30	1.5	10	1.6	SMA	90*15.5*11
SH-1000-40000-30-20-K	1-40	30	20 ± 1.2	2.8	10	1.7	2.92mm	84*15*12.7
SH-1000-44000-1-10-2M2	1-44	1	10	2.5	10	2	2.4mm	90.17*18.542*13.46
SH-2000-2500-K5-40-NS	2-2.5	500	40 ± 2	0.4	15	1.4	SMA,N	44*26*22
SH-2000-4000-50-10-S	2-4	50	10 ± 1	1.0	18	1.3	SMA	43*15*11
SH-2000-4000-50-20-S	2-4	50	20 ± 1	0.4	18	1.3	SMA	53*20*20
SH-2000-4000-50-30-S	2-4	50	30 ± 1	0.4	18	1.3	SMA	43*15*11
SH-2000-4000-50-10-N	2-4	50	10 ± 1	1.0	18	1.3	N	43*15*11
SH-2000-4000-50-20-N	2-4	50	20 ± 1	0.4	18	1.3	N	53*20*20
SH-2000-4000-50-30-N	2-4	50	30 ± 1	0.4	18	1.3	N	43*15*11
SH-2000-4000-K4-40-N	2-4	400	40 ± 1.5	0.5	10	1.3	SMA	50*50*19.5
SH-2000-8000-50-6-S	2-8	50	6 ± 1	0.2	18	1.3	SMA	43*15*11
SH-2000-8000-50-10-S	2-8	50	10 ± 1	1.2	16	1.3	SMA	43*15*11
SH-2000-12000-30-10-S	2-12	30	10 ± 1	1.1	12	1.5	SMA	51*16*11
SH-2000-18000-30-10-S	2-18	30	10	1.2	12	1.6	SMA	43*15*11
SH-2000-18000-30-20-S	2-18	30	20	1.0	12	1.6	SMA	43*15*11
SH-2000-18000-30-30-S	2-18	30	30	1.0	10	1.6	SMA	43*15*11
SH-2000-18000-K2-50-NS	2-18	200	50 ± 2	0.5	15	1.4	SMA,N	58*31.6*18
SH-2000-40000-30-10-K	2-40	30	10 ± 1.5	2	10	1.7	2.92mm	48*15*11
SH-2000-40000-30-16-K	2-40	30	16 ± 1.2	1.5	10	1.6	2.92mm	48*15*11

\*Dimensions do not include connectors.

## ELECTRICAL CHARACTERISTICS:

Model	Freq (GHz)	Power (W)	Coupling (dB)	Insertion Loss (dB,max.)	Directivity (dB,min.)	VSWR (max.)	Connector	Dimensions (mm)
SH-2000-67000-10-16-V	2-67	10	16 ± 1.4	3.5	8	2	1.85mm	62.9*15*11
SH-2300-2600-K5-40-NS	2.3-2.6	500	40 ± 0.5	0.4	20	1.25	SMA,N	44*26*22
SH-2500-6000-50-6-S	2.5-6	50	6 ± 1	0.8	20	1.2	SMA	43*15*11
SH-3000-6000-10-20-S	3-6	10	20 ± 1	0.5	18	1.3	SMA	43*15*11
SH-3400-4200-50-30-S	3.4-4.2	50	30 ± 1	0.5	15	1.3	SMA	43*15*11
SH-3500-4500-10-20-S	3.5-4.5	10	20 ± 1	0.5	20	1.3	SMA	43*15*11
SH-3800-4300-50-20-N	3.8-4.3	50	20 ± 1	0.5	20	1.3	N	53*20*20
SH-4000-6000-K4-40-SN	4-6	400	40 ± 1.5	0.6	10	1.3	SMA,N	50*50*19.5
SH-4000-8000-50-10-S	4-8	50	10 ± 1	1.0	16	1.3	SMA	43*15*11
SH-4000-12000-50-6-S	4-12	50	6 ± 1	1.2	12	1.5	SMA	33*15*11
SH-4000-16000-30-10-S	4-16	30	10 ± 1.2	1.2	12	1.5	SMA	43*15*11
SH-4000-18000-20-10-S	4-18	20	10 ± 1	1.0	12	1.5	SMA	33*15*11
SH-4000-18000-20-20-S	4-18	20	20 ± 1	1.0	12	1.5	SMA	33*15*11
SH-4000-18000-20-30-S	4-18	20	30 ± 1	1.0	10	1.5	SMA	33*15*11
SH-4000-30000-30-20-K	4-30	30	20 ± 1	1.5	12	1.6	2.92mm	48*15*11
SH-6000-18000-20-30-S	6-18	20	30 ± 1	1.0	10	1.5	SMA	33*15*11
SH-6000-18000-30-20-S	6-18	30	20 ± 1	1.0	12	1.5	SMA	33*15*11
SH-6000-18000-50-10-S	6-18	50	10 ± 1	1.0	12	1.5	SMA	33*15*11
SH-6000-18000-50-20-S	6-18	50	20 ± 1	0.6	12	1.5	SMA	33*15*11
SH-6000-18000-50-30-S	6-18	50	30 ± 1	0.6	12	1.5	SMA	33*15*11
SH-6500-11500-20-20-S	6.5-11.5	20	20 ± 1	1.0	12	1.5	SMA	33*15*11
SH-7000-12400-30-10-S	7-12.4	30	10 ± 1	1.2	15	1.3	SMA	33*15*11
SH-7000-12400-30-20-S	7-12.4	30	20 ± 1	1.2	15	1.3	SMA	33*15*11
SH-8000-8400-20-10-N	8-8.4	20	10 ± 1	1.0	12	1.6	N	47*22*19
SH-8000-8400-20-20-N	8-8.4	20	20 ± 1	1.0	12	1.6	N	47*22*19
SH-8000-12000-40-15-S	8-12	40	15 ± 1	0.8	12	1.5	SMA	43*15*11
SH-10750-12750-50-30-S	10.75-12.75	50	30 ± 1	0.5	15	1.4	SMA	33*15*11
SH-12000-13000-10-6-S	12-13	10	6 ± 1	0.8	12	1.5	SMA	56*15*11
SH-12000-18000-50-30-S	12-18	50	30 ± 1	1.0	12	1.5	SMA	33*15*11
SH-12400-18000-50-10-S	12.4-18	50	10 ± 1	0.8	12	1.4	SMA	33*15*11
SH-12400-18000-50-20-S	12.4-18	50	20 ± 1	0.8	12	1.4	SMA	33*15*11
SH-14000-15000-50-10-S	14-15	50	10 ± 1	0.6	15	1.4	SMA	33*15*11
SH-14000-15000-50-20-S	14-15	50	20 ± 1	0.6	15	1.4	SMA	33*15*11
SH-18000-31000-30-20-K	18-31	30	20 ± 1	1.4	12	1.6	2.92mm	26*15*11
SH-18000-40000-20-10-K	18-40	20	10 ± 1	1.6	10	1.6	2.92mm	26*15*11
SH-18000-40000-20-20-K	18-40	20	20 ± 1	1.6	10	1.6	2.92mm	26*15*11
SH-18000-40000-20-30-K	18-40	20	30 ± 1	1.6	10	1.6	2.92mm	28*15*11
SH-20000-50000-10-10-2	20-50	10	10 ± 1.2	1.8	10	1.9	2.4mm	26*15*11
SH-20000-50000-10-20-2	20-50	10	20 ± 1.2	1.6	10	1.9	2.4mm	26*15*11
SH-20000-50000-10-30-2	20-50	10	30 ± 1.2	1.2	8	1.9	2.4mm	26*15*11
SH-26000-30000-20-20-K	26-30	20	20 ± 1	1.4	12	1.6	2.92mm	26*15*11

\*Dimensions do not include connectors.