

Power Splitter/Combiner

2 Way-0° 50Ω 800 to 1175 MHz

SCN-2-11+
SCN-2-11



Maximum Ratings

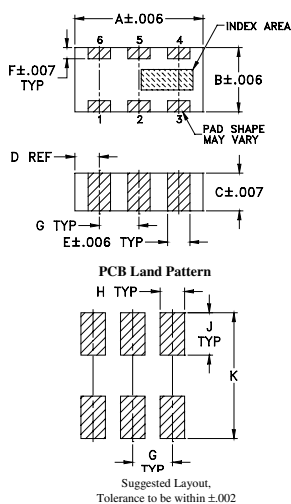
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.

*derate linearly to 6W at 100°C ambient.

Pin Connections

SUM PORT	2
PORT 1	6
PORT 2	4
GROUND	1,3,5
PORT 1-2	resistor external 100 OHMS

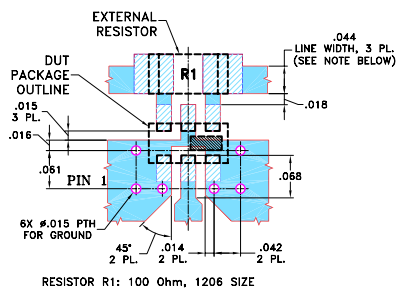
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.126	.063	.035	.024	.022	.011	
3.20	1.60	0.89	0.61	0.56	0.28	
G	H	J	K			wt
.039	.024	.042	.123			grams
0.99	0.61	1.07	3.12			.020

Demo Board MCL P/N: TB-252
Suggested PCB Layout (PL-129)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- Denotes PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- Denotes COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1.0 deg. typ.
- high isolation, 22 dB typ.
- excellent power handling, 20W as splitter
- small size, 0.12"X0.06"X0.035"
- ESD non-sensitive
- temperature stable LTCC technology
- wrap around terminations for excellent solderability
- low cost
- patent pending

Applications

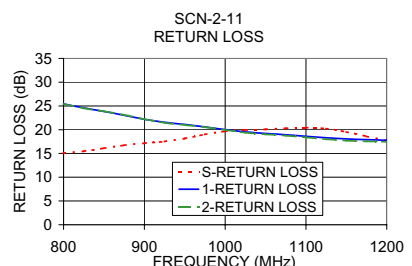
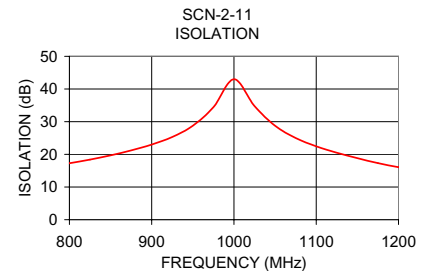
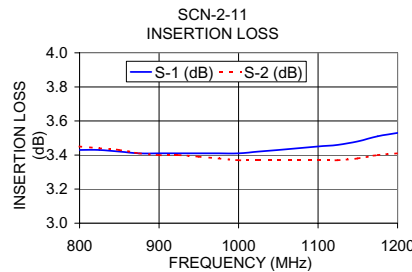
- GSM
- ISM
- cellular

Electrical Specifications

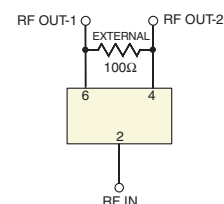
FREQUENCY (MHz)	INSERTION LOSS (dB) ABOVE 3.0 dB		ISOLATION (dB)		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		RETURN LOSS (dB)	
	Typ.	Max.	Typ.	Min.	Typ.	Max.	Typ.	Max.	INPUT Typ.	OUTPUT Typ.
800-1175	0.5	0.8	20	15	1.0	3.0	0.1	0.3	16	18
875-1125	0.5	0.8	22	18	1.0	3.0	0.1	0.3	16	20

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
800.00	3.43	3.45	0.02	17.28	0.11	15.07	25.43	25.41
825.00	3.43	3.44	0.01	18.38	0.13	15.48	24.60	24.52
850.00	3.42	3.43	0.01	19.70	0.14	16.10	23.86	23.88
875.00	3.41	3.41	0.00	21.21	0.14	16.72	23.02	23.11
900.00	3.41	3.40	0.01	22.98	0.15	17.14	22.19	22.21
925.00	3.41	3.40	0.01	25.31	0.14	17.53	21.56	21.46
950.00	3.41	3.39	0.02	28.76	0.12	18.16	21.09	20.97
975.00	3.41	3.38	0.03	34.40	0.14	19.00	20.59	20.53
1000.00	3.41	3.37	0.04	42.99	0.16	19.65	20.02	19.96
1025.00	3.42	3.37	0.05	34.77	0.20	19.92	19.53	19.39
1050.00	3.43	3.37	0.06	28.77	0.23	20.08	19.20	19.01
1075.00	3.44	3.37	0.07	25.02	0.24	20.29	18.93	18.74
1100.00	3.45	3.37	0.08	22.45	0.27	20.43	18.61	18.40
1125.00	3.46	3.37	0.09	20.49	0.31	20.22	18.29	18.00
1150.00	3.48	3.38	0.10	18.83	0.34	19.53	18.05	17.69
1175.00	3.51	3.40	0.11	17.34	0.36	18.61	17.90	17.54



electrical schematic



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