

Ultra-Small Ceramic Power Splitter/Combiner

SCN-2-15+ SCN-2-15

2 Way-0° 50Ω

1100 to 1450 MHz



Maximum Ratings

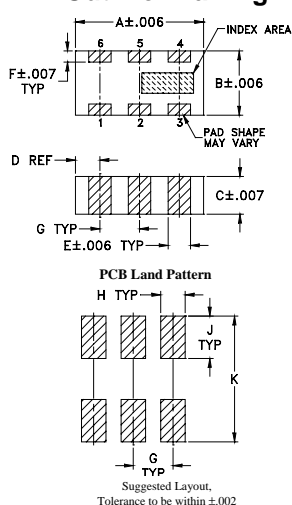
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	20W* max.

*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

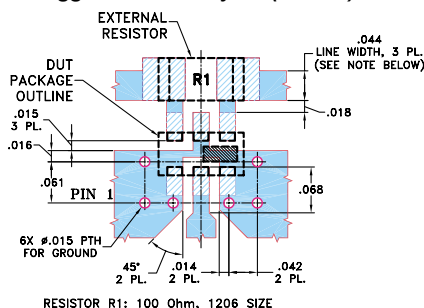


Outline Dimensions (inch/mm)

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)

Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.4 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- excellent phase unbalance, 1.5 deg. typ.
- high isolation, 25 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

- satellite distribution
- GPS

Electrical Specifications

MODEL NO.	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.
SCN-2-15(+)	1100-1450 1200-1375	0.5	0.8	23	17	1.5	3.0	0.25	0.4	15	17.5
		0.4	0.7	25	20	1.5	3.0	0.2	0.3	16	18

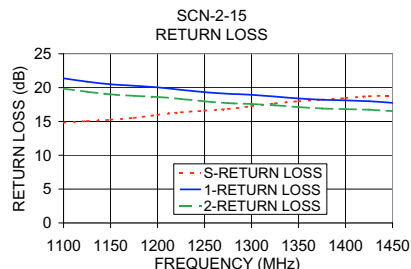
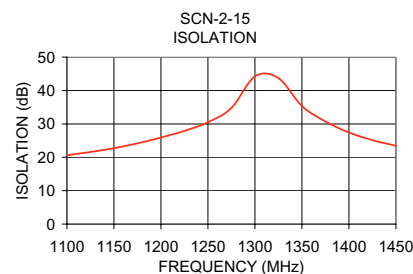
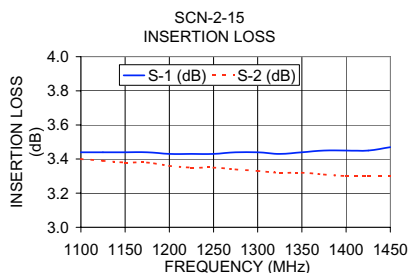
CASE STYLE: FV1206-1
PRICE: \$ 2.50 ea. QTY (10-49)
\$ 0.99 ea. QTY (100)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

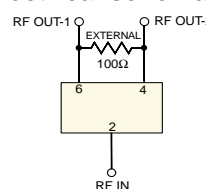
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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
1100	3.44	3.40	0.04	20.64	0.93	14.81	21.38	19.84
1125	3.44	3.39	0.05	21.59	0.94	15.05	20.89	19.39
1150	3.44	3.38	0.06	22.71	0.95	15.24	20.50	19.00
1175	3.44	3.38	0.06	24.17	0.97	15.54	20.27	18.79
1200	3.43	3.36	0.07	25.92	1.01	15.97	20.03	18.62
1225	3.43	3.35	0.08	27.91	1.02	16.34	19.67	18.31
1250	3.43	3.35	0.08	30.52	1.05	16.58	19.32	17.96
1275	3.44	3.34	0.10	34.80	1.07	16.85	19.09	17.72
1300	3.44	3.33	0.11	44.22	1.10	17.25	18.93	17.59
1325	3.43	3.32	0.11	43.71	1.11	17.66	18.69	17.39
1350	3.44	3.32	0.12	35.34	1.15	17.98	18.41	17.12
1375	3.45	3.31	0.14	30.72	1.17	18.20	18.21	16.91
1400	3.45	3.30	0.15	27.43	1.18	18.46	18.11	16.83
1425	3.45	3.30	0.15	25.13	1.20	18.73	17.98	16.74
1450	3.47	3.30	0.17	23.47	1.25	18.83	17.75	16.53



electrical schematic



Mini-Circuits
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. D
M102713
SCN-2-15
ED-10710/3
AD/TD/CP/AM
070724