

Power Splitter/Combiner

2 Way-0° 50Ω 2225 to 2700 MHz

SCN-2-27+
SCN-2-27



CASE STYLE: FV1206-1

+RoHS Compliant

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 3000

Maximum Ratings

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

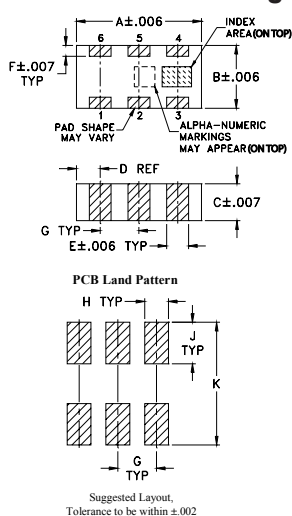
*Derate linearly to 6W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

Product Marking: SD

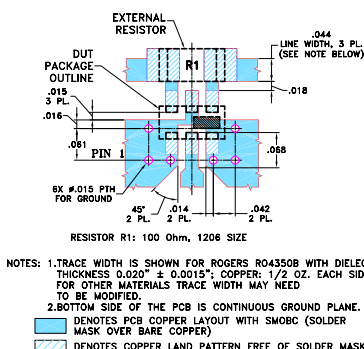
Outline Drawing



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

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.4 dB typ.
- good amplitude unbalance, 0.4 dB typ.
- good phase unbalance, 2.5 deg. typ.
- high isolation, 23 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
- protected by US patent 6,967,544

Applications

- ISM
- MMDS
- WLAN

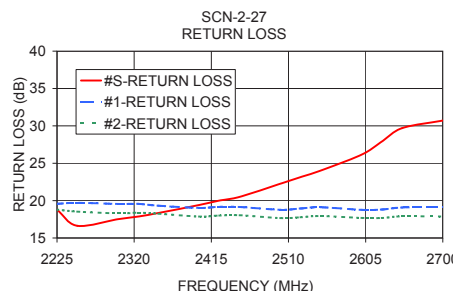
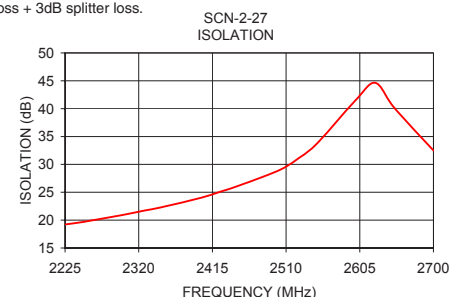
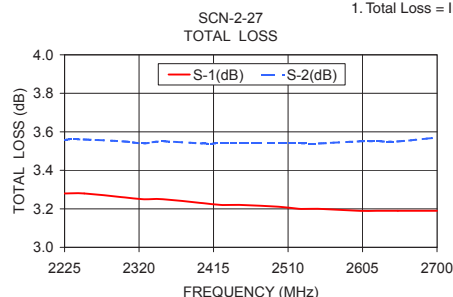
Electrical Specifications

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.
2225-2700	0.5	1.1	21	17	3.5	6.0	0.6	0.8	19	17
2325-2600	0.4	1.0	23	20	2.5	6.0	0.4	0.7	20	17

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
2225.00	3.28	3.56	0.28	19.22	1.19	18.80	19.57	18.80
2250.00	3.28	3.56	0.28	19.72	1.20	16.63	19.71	18.53
2300.00	3.26	3.55	0.29	20.95	1.23	17.52	19.55	18.29
2325.00	3.25	3.54	0.29	21.66	1.25	17.87	19.57	18.38
2350.00	3.25	3.55	0.30	22.34	1.26	18.35	19.32	18.25
2400.00	3.23	3.54	0.31	24.00	1.29	19.42	19.03	17.87
2425.00	3.22	3.54	0.32	25.09	1.31	20.01	19.18	18.00
2450.00	3.22	3.54	0.32	26.24	1.32	20.51	19.15	18.04
2500.00	3.21	3.54	0.33	28.89	1.35	22.26	18.78	17.67
2525.00	3.20	3.54	0.34	30.99	1.36	23.15	18.95	17.77
2550.00	3.20	3.54	0.34	33.77	1.38	24.04	19.11	17.94
2600.00	3.19	3.55	0.36	41.56	1.40	26.15	18.77	17.69
2625.00	3.19	3.55	0.36	44.63	1.41	27.91	18.81	17.68
2650.00	3.19	3.55	0.36	40.07	1.44	29.70	19.08	17.90
2700.00	3.19	3.57	0.38	32.50	1.46	30.72	19.11	17.87

1. Total Loss = Insertion Loss + 3dB splitter loss.



electrical schematic

