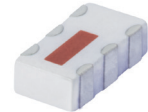


Power Splitter/Combiner

2 Way-0° 50Ω 3700 to 4200 MHz

SCN-2-45+
SCN-2-45



Generic photo used for illustration purposes only

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) 4W* max.

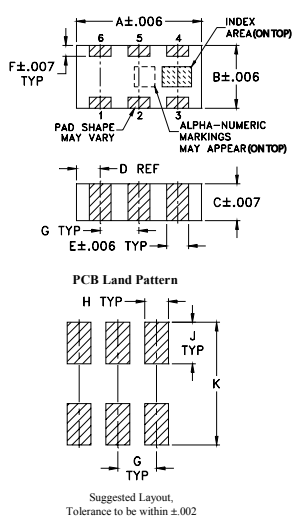
*Derate linearly to 1.3W at 100°C ambient, power input as combiner is limited by rating of external 100Ω Resistor.

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

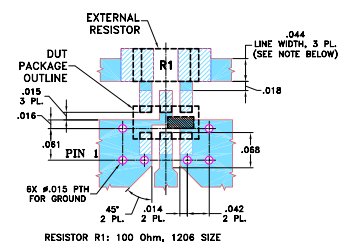
Outline Drawing



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

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits 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-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Features

- isolation resistor, external 100 ohms
- low insertion loss, 0.7 dB typ.
- excellent amplitude unbalance, 0.2 dB typ.
- excellent phase unbalance, 1.5 deg. typ.
- high isolation, 22 dB typ.
- excellent power handling, 4W 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

- maritime mobile

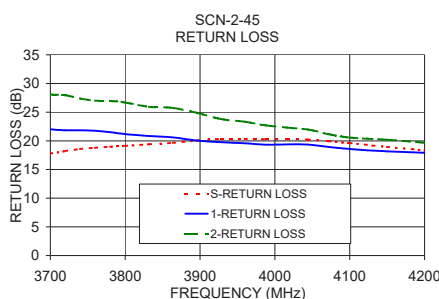
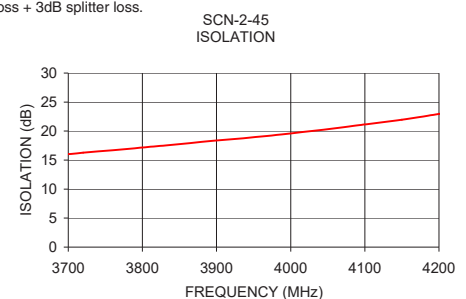
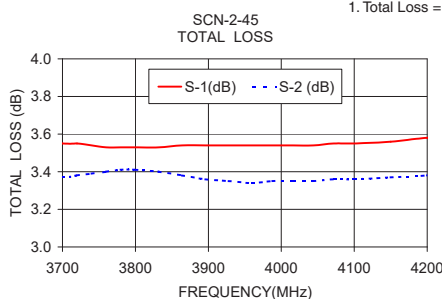
Electrical Specifications

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.
3700-4200	0.7	1.0	22	13	1.5	4.0	0.2	0.4	14	17
3800-4100	0.7	1.0	22	15	1.5	4.0	0.2	0.4	16	17

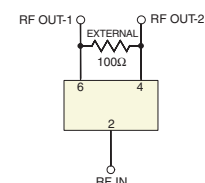
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	Return Loss (dB)		
	S-1	S-2				S	1	2
3700.00	3.55	3.37	0.18	16.04	1.57	17.81	22.02	28.10
3720.00	3.55	3.38	0.17	16.28	1.65	18.21	21.85	27.94
3740.00	3.54	3.39	0.15	16.49	1.66	18.58	21.83	27.36
3760.00	3.53	3.40	0.13	16.69	1.60	18.81	21.77	27.02
3780.00	3.53	3.41	0.12	16.91	1.46	18.96	21.52	26.95
3800.00	3.53	3.41	0.12	17.16	1.31	19.12	21.17	26.69
3864.00	3.54	3.38	0.16	17.92	1.09	19.67	20.59	25.75
3896.00	3.54	3.36	0.18	18.33	1.16	20.06	20.04	24.89
3960.00	3.54	3.34	0.19	19.05	1.26	20.35	19.56	23.33
4016.00	3.54	3.35	0.19	19.83	1.35	20.24	19.39	22.30
4044.00	3.54	3.35	0.19	20.24	1.35	20.20	19.35	21.98
4072.00	3.55	3.36	0.19	20.68	1.35	19.94	18.95	21.14
4100.00	3.55	3.36	0.19	21.14	1.38	19.60	18.59	20.57
4150.00	3.56	3.37	0.19	21.95	1.40	18.95	18.16	20.17
4200.00	3.58	3.38	0.19	22.97	1.44	18.34	17.92	19.66

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



electrical schematic



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