

Ultra-Small Ceramic Power Splitter/Combiner

**SCN-2-45+
SCN-2-45**

2 Way-0° 50Ω

3700 to 4200 MHz



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)**

See our web site for RoHS Compliance methodologies
and qualifications.

Maximum Ratings

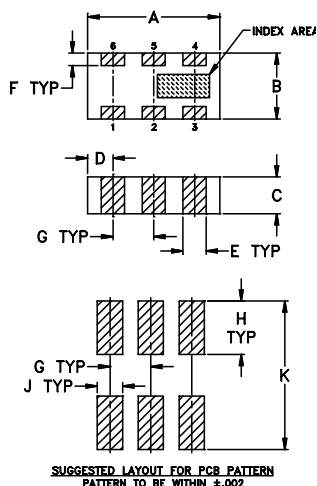
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	4W* max.

*derate linearly to 1.3W at 100°C ambient, power input as
combiner is limited by rating of external 100 OHMS
resistor.

Pin Connections

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

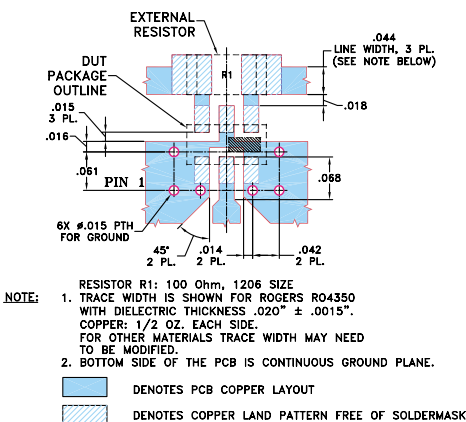
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	wt
.126	.063	.037	.024	.022	.012	.039	.042	.024	.123	grams
3.20	1.60	0.94	0.61	0.56	0.30	0.99	1.07	0.61	3.12	.020

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



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
- patent pending

Applications

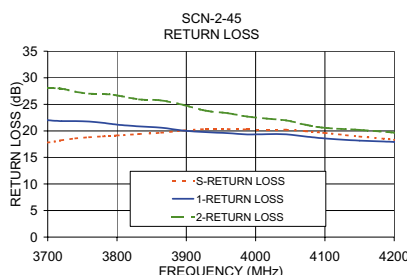
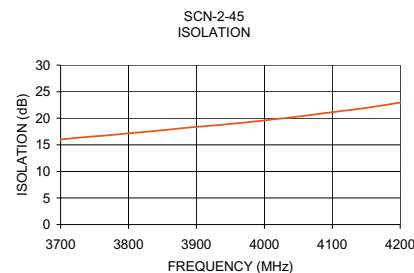
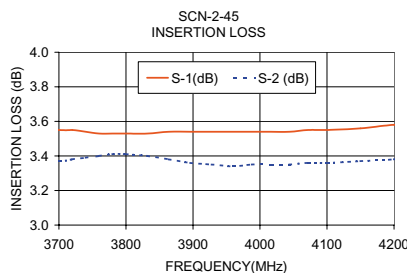
- maritime mobile

Splitter Electrical Specifications

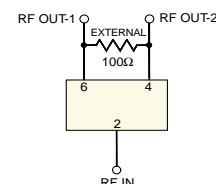
MODEL NO.	FREQUENCY (MHz)	INSERTION LOSS (dB) ABOVE 3.0 dB		ISOLATION (dB)	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	RETURN LOSS (dB)				
		Typ.	Max.	Typ.	Min.	Typ.	Max.	INPUT Typ.	OUTPUT Typ.		
SCN-2-45(+)	3700-4200	0.7	1.0	20	13	1.5	4	0.2	0.4	14	17
	3800-4100	0.7	1.0	22	15	1.5	4	0.2	0.4	16	17

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
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



electrical schematic



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