

# Ultra-Small Ceramic Power Splitter/Combiner

## SCN-3-13+ SCN-3-13

3 Way-0° 50Ω

750 to 1325 MHz

### Maximum Ratings

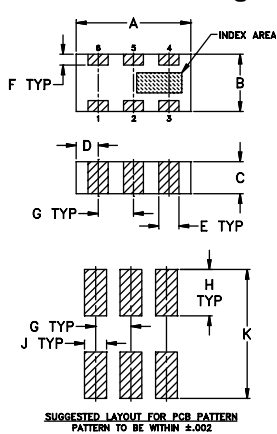
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	15W* max.

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

### Pin Connections

SUM PORT	2
PORT 1	6
PORT 2	5
PORT 3	4
GROUND	1,3
PORT 1-2, 2-3	resistor external 124 OHMS
PORT 1-3	resistor external 127 OHMS

### Outline Drawing



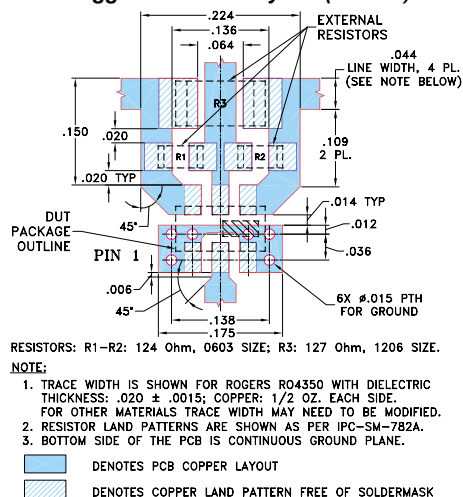
### Outline Dimensions (inch)

A	B	C	D	E	F
.126	.063	.037	.024	.022	.012
3.20	1.60	0.94	0.61	0.56	0.30

G	H	J	K	wt
.039	.042	.024	.123	grams
0.99	1.07	0.61	3.12	.020

### Demo Board MCL P/N: TB-303 Suggested PCB Layout (PL-171)



### Features

- isolation resistors, external
- low insertion loss, 1.0 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- very good phase unbalance, 1 deg. typ.
- high isolation, 12 dB typ.
- excellent power handling, 15W 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

- DSS
- WLAN
- satellite communication
- GSM, GPS
- ISM applications
- defense applications



CASE STYLE: FV1206-1  
PRICE: \$3.95 ea. QTY (10-49)  
\$3.25 ea. QTY (100)

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

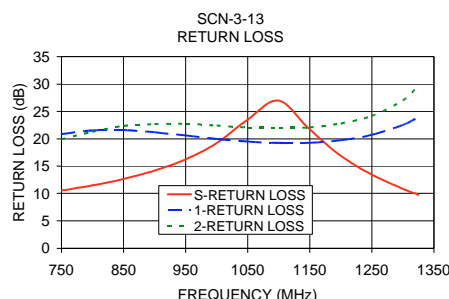
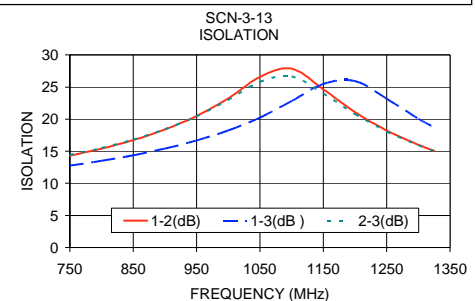
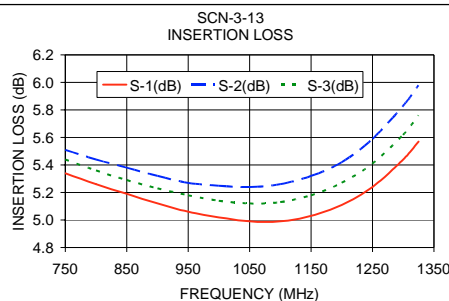
See our web site for RoHS Compliance methodologies and qualifications.

### Splitter Electrical Specifications

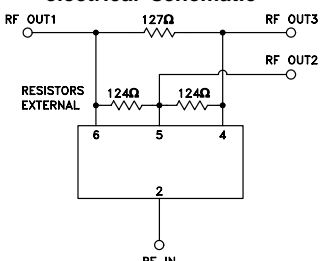
MODEL NO.	FREQUENCY (MHz)	INSERTION LOSS (dB) ABOVE 4.8 dB		ISOLATION (dB)	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)		RETURNLOSS (dB)	
		Typ.	Max.			Typ.	Max.	INPUT Typ.	OUTPUT Typ.
SCN-3-13(+)	750-1325 850-1000	1.0	1.5	12	10	1.0	3	12	20
		0.4	0.8	16	12	0.5	3	15	20

### Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	Return Loss (dB)		
	S-1	S-2	S-3		1-2	1-3	2-3		S	1	2
750.00	5.34	5.51	5.44	0.17	14.30	12.76	14.40	0.91	10.53	20.85	19.89
800.00	5.26	5.44	5.36	0.17	15.41	13.51	15.51	1.02	11.47	21.53	21.25
850.00	5.19	5.38	5.29	0.19	16.74	14.37	16.81	1.07	12.65	21.58	22.33
900.00	5.12	5.32	5.23	0.20	18.39	15.41	18.41	1.20	14.17	21.18	22.67
950.00	5.06	5.27	5.18	0.22	20.49	16.67	20.45	1.30	16.24	20.59	22.75
1000.00	5.02	5.25	5.14	0.23	23.24	18.24	23.00	1.39	19.19	19.97	22.41
1050.00	4.99	5.24	5.12	0.25	26.57	20.24	25.81	1.45	23.51	19.48	22.03
1100.00	4.99	5.26	5.13	0.27	27.86	22.80	26.64	1.54	26.97	19.24	22.00
1150.00	5.03	5.32	5.18	0.29	24.65	25.48	23.98	1.61	21.70	19.28	22.07
1200.00	5.11	5.42	5.27	0.32	21.07	25.93	20.77	1.64	16.90	19.74	22.80
1250.00	5.24	5.59	5.41	0.35	18.22	23.16	18.08	1.73	13.45	20.72	24.18
1300.00	5.44	5.83	5.62	0.39	16.00	20.05	15.93	1.79	10.86	22.51	27.00
1325.00	5.57	5.98	5.76	0.41	15.07	18.71	15.03	1.81	9.77	23.94	29.65



### electrical schematic



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