Surface Mount

Power Splitter/Combiner

SCPQ-150+
SCPQ-150

2 Way-90° 50Ω 95 to 150 MHz

CASE STYLE: YY101
PRICE: $14.95 ea. QTY (1-9)

+ 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.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

SUM PORT	1
PORT 1 (+90°)	2
PORT 2 (0°)	5
GROUND	3,4,7,8
50 OHM TERM EXTERNAL	6

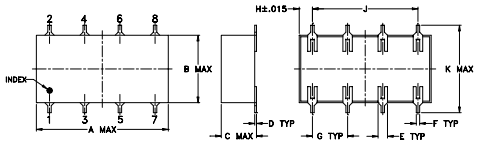
Features

- low insertion loss, 0.3 dB typ.
- good isolation, 22 dB typ.

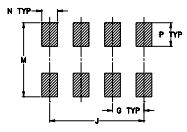
Applications

- VHF
- modulators
- signal processing
- image rejection mixer

Outline Drawing



PCB Land Pattern



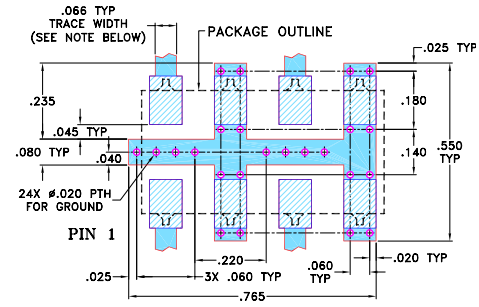
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08

H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

Demo Board MCL P/N: TB-51
Suggested PCB Layout (PL-062)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002". 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)

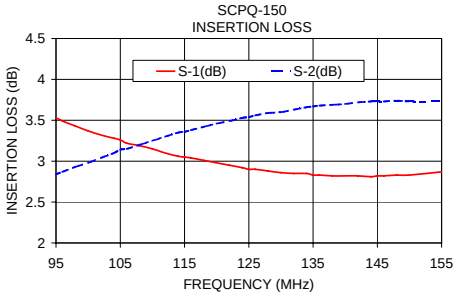
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

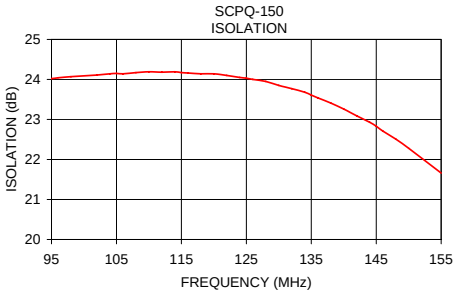
Electrical Specifications

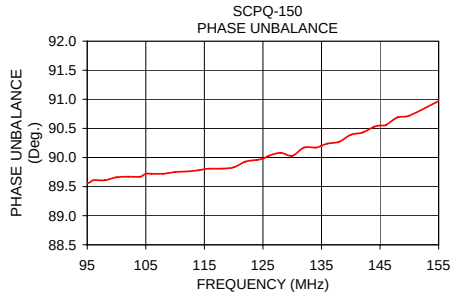
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
95-150	22	18	0.3	0.7	3	1.2

Typical Performance Data

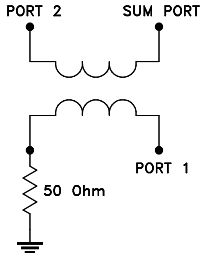
Frequency (MHz)	Insertion Loss (dB) S-1	Insertion Loss (dB) S-2	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
95	3.53	2.84	0.69	24.02	89.56	1.13	1.12	1.17
100	3.37	2.98	0.39	24.09	89.66	1.13	1.12	1.17
105	3.26	3.14	0.12	24.15	89.72	1.14	1.12	1.18
110	3.15	3.25	0.11	24.19	89.75	1.14	1.12	1.18
115	3.05	3.36	0.32	24.17	89.80	1.14	1.12	1.19
120	2.98	3.46	0.48	24.14	89.83	1.14	1.12	1.19
125	2.90	3.54	0.64	24.03	89.98	1.14	1.13	1.20
130	2.86	3.60	0.74	23.85	90.03	1.14	1.13	1.21
135	2.83	3.67	0.83	23.61	90.20	1.15	1.13	1.21
138	2.82	3.69	0.87	23.41	90.27	1.15	1.13	1.22
140	2.82	3.70	0.88	23.26	90.39	1.15	1.13	1.22
144	2.81	3.73	0.92	22.93	90.53	1.15	1.14	1.23
146	2.82	3.73	0.91	22.71	90.56	1.16	1.14	1.24
148	2.83	3.74	0.91	22.51	90.69	1.16	1.14	1.24
150	2.83	3.73	0.90	22.28	90.72	1.16	1.14	1.25







electrical schematic



For detailed performance specs & shopping online see web site

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