

Surface Mount Power Splitter/Combiner

2 Way-90° 50Ω 55 to 85 MHz

SCPQ-85C+
SCPQ-85C



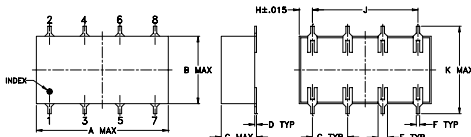
Maximum Ratings

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.	

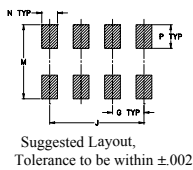
Pin Connections

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

Outline Drawing



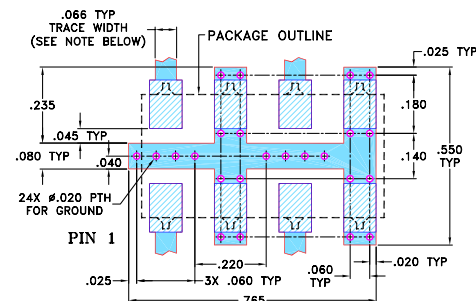
PCB Land Pattern



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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.3 dB typ.
- high isolation, 30 dB typ.

Applications

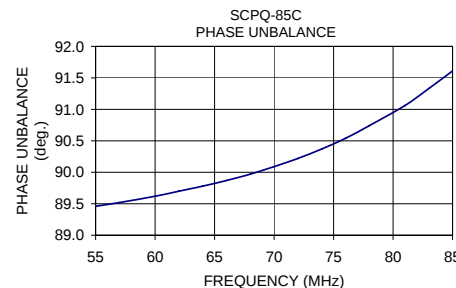
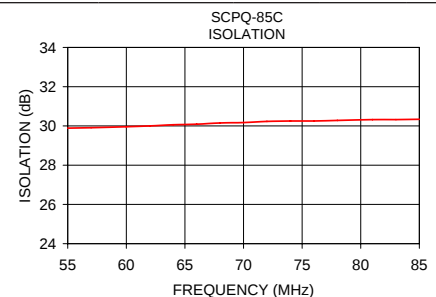
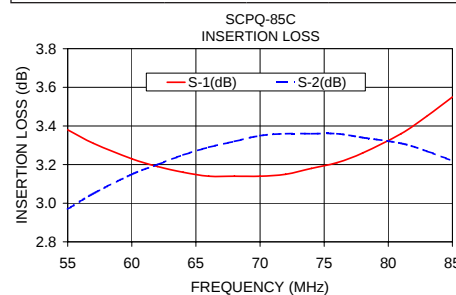
- VHF
- modulators
- balanced amplifiers
- signal processing

Electrical Specifications

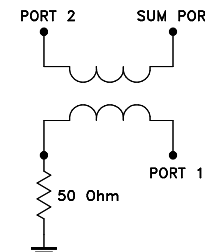
FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min.	Typ. Max.	Max.	Max.
55-85	30 20	0.3 0.6	3	0.6

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2					
55.00	3.38	2.97	0.41	29.89	89.46	1.04	1.03
57.00	3.31	3.05	0.26	29.91	89.52	1.04	1.03
60.00	3.23	3.15	0.08	29.96	89.62	1.04	1.03
62.00	3.19	3.20	0.01	30.00	89.70	1.04	1.04
64.00	3.16	3.25	0.09	30.06	89.78	1.05	1.04
66.00	3.14	3.29	0.15	30.09	89.87	1.05	1.04
68.00	3.14	3.32	0.18	30.15	89.97	1.05	1.04
70.00	3.14	3.35	0.21	30.17	90.09	1.06	1.05
72.00	3.15	3.36	0.21	30.23	90.22	1.06	1.05
74.00	3.18	3.36	0.18	30.25	90.37	1.07	1.05
76.00	3.21	3.36	0.14	30.25	90.54	1.07	1.06
78.00	3.26	3.34	0.08	30.28	90.74	1.08	1.06
81.00	3.36	3.31	0.05	30.32	91.06	1.09	1.07
83.00	3.45	3.27	0.18	30.32	91.33	1.10	1.07
85.00	3.55	3.22	0.32	30.34	91.61	1.10	1.08



electrical schematic



For detailed performance specs
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