

Surface Mount Power Splitter/Combiner

SCPQ-400+ SCPQ-400

2 Way-90° 50Ω 250 to 400 MHz



Maximum Ratings

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

Pin Connections

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

Features

- wideband, 250 to 400 MHz
- low insertion loss, 0.3 dB typ.

Applications

- UHF
- modulators
- balanced amplifiers

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

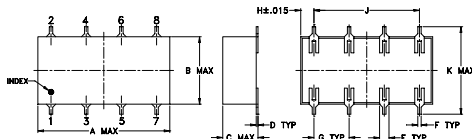
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

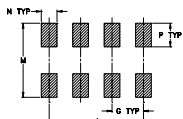
Splitter Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs less 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.		
f_L - f_U					Max.	Max.
250-400	20	16	0.3	0.7	3	1.2

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

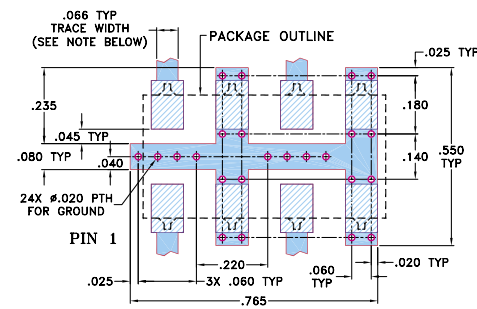
Outline Dimensions (inch/mm)

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

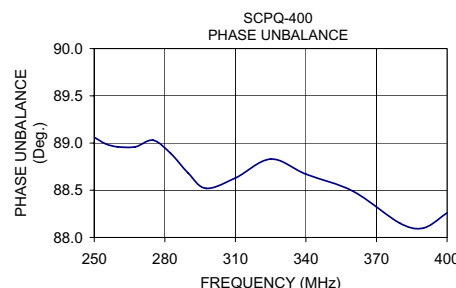
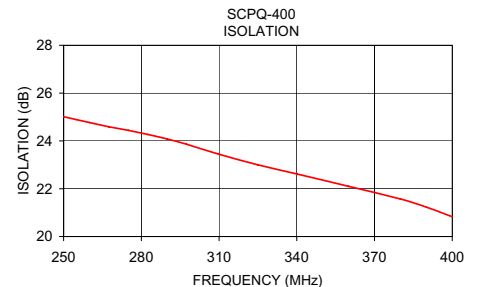
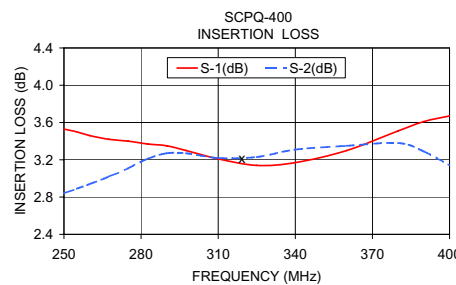
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
250.00	3.53	2.84	0.69	25.01	89.06	1.15	1.11	1.18
255.00	3.50	2.89	0.61	24.89	88.99	1.15	1.11	1.18
260.00	3.46	2.94	0.52	24.77	88.96	1.15	1.12	1.19
267.50	3.42	3.02	0.41	24.59	88.96	1.15	1.12	1.19
275.00	3.40	3.11	0.28	24.44	89.03	1.16	1.12	1.20
282.50	3.37	3.21	0.17	24.27	88.89	1.16	1.12	1.20
290.00	3.35	3.27	0.08	24.08	88.68	1.16	1.13	1.20
297.50	3.30	3.27	0.03	23.86	88.52	1.17	1.13	1.21
310.00	3.21	3.22	0.02	23.44	88.63	1.17	1.14	1.21
325.00	3.14	3.23	0.09	23.00	88.83	1.19	1.15	1.22
340.00	3.17	3.31	0.14	22.62	88.67	1.20	1.16	1.24
360.00	3.30	3.35	0.05	22.10	88.49	1.22	1.18	1.25
380.00	3.51	3.38	0.13	21.57	88.15	1.25	1.21	1.28
390.00	3.61	3.29	0.32	21.23	88.10	1.27	1.23	1.29
400.00	3.67	3.14	0.53	20.83	88.26	1.29	1.25	1.31

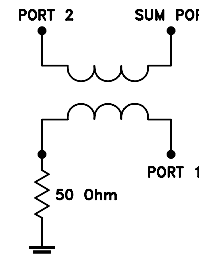
Demo Board MCL P/N: TB-51 Suggested PCB Layout (PL-062)



- 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 schematic



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