

Surface Mount

Power Splitter/Combiner

SCA-4-10+

4 Way-0° 50Ω 5 to 1000 MHz



Maximum Ratings

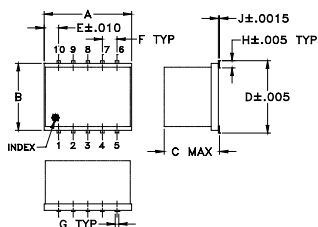
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.375W max.

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

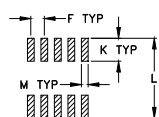
Pin Connections

SUM PORT	3
PORT 1	6
PORT 2	7
PORT 3	9
PORT 4	10
GROUND	1,2,4,5,8

Outline Drawing



PCB Land Pattern

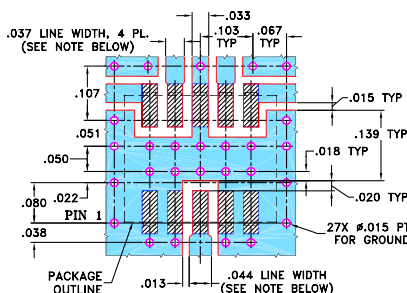


Suggested Layout, Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.30	.250	.190	.266	.050	.050	.012
7.62	6.35	4.83	6.76	1.27	1.27	0.30
H	J	K	L	M	wt	
.029	.004	.085	.296	.030	grams	
0.74	0.10	2.16	7.52	0.76	0.5	

Demo Board MCL P/N: TB-238 Suggested PCB Layout (PL-124)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", 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
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Features

- wideband, 5-1000 MHz
- high isolation, 25 dB typ.
- good matching VSWR, 1.20 typ.
- excellent amplitude unbalance, 0.3 dB typ.
- patent pending

Applications

- cellular
- UHF/VHF receivers/transmitters

CASE STYLE: DZ943
PRICE: \$6.95 ea. QTY. (10-49)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

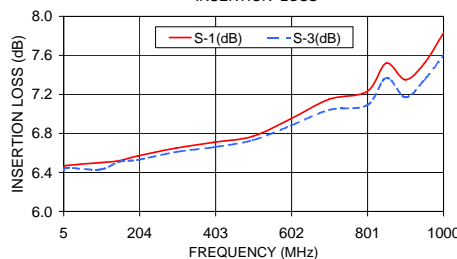
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 6.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.		
5-1000					Max.	Max.
5-400	30	18	0.7	1.3	5	0.8
400-500	25	17	0.8	1.5	6	0.7
500-1000	20	15	1.2	2.5	11	0.9

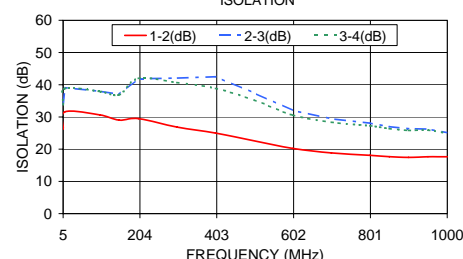
Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	1-3	2-3						
5.00	6.45	6.24	6.42	6.64	0.40	26.19	34.01	33.81	1.29	1.07	1.37	1.31	1.32	1.38
10.00	6.47	6.29	6.45	6.63	0.34	31.60	39.09	38.86	0.13	1.04	1.27	1.22	1.25	1.30
100.00	6.50	6.29	6.43	6.66	0.37	30.63	37.97	37.92	0.15	1.06	1.25	1.21	1.24	1.28
150.00	6.52	6.35	6.51	6.66	0.31	29.01	37.05	36.89	0.44	1.08	1.24	1.20	1.22	1.26
200.00	6.57	6.39	6.53	6.71	0.32	29.49	41.86	41.97	0.24	1.09	1.25	1.21	1.23	1.26
300.00	6.65	6.48	6.61	6.79	0.31	26.87	42.07	40.69	0.32	1.13	1.23	1.21	1.21	1.23
400.00	6.71	6.53	6.66	6.84	0.31	25.00	42.50	38.88	0.55	1.20	1.21	1.20	1.20	1.20
500.00	6.77	6.61	6.73	6.89	0.29	22.58	37.45	35.25	0.71	1.22	1.19	1.20	1.19	1.18
600.00	6.95	6.76	6.88	7.06	0.30	20.22	32.04	30.58	0.90	1.27	1.14	1.16	1.15	1.12
700.00	7.15	6.93	7.04	7.24	0.32	18.85	29.45	28.38	1.14	1.36	1.08	1.13	1.12	1.06
800.00	7.23	6.99	7.09	7.30	0.31	18.09	28.08	27.25	1.36	1.41	1.06	1.15	1.12	1.03
850.00	7.52	7.28	7.37	7.57	0.29	17.68	27.02	26.38	1.88	1.54	1.07	1.17	1.14	1.06
900.00	7.35	7.11	7.17	7.39	0.29	17.46	26.36	25.85	1.56	1.57	1.11	1.19	1.16	1.09
950.00	7.52	7.27	7.35	7.52	0.26	17.66	26.27	25.91	1.88	1.60	1.13	1.24	1.20	1.13
1000.00	7.83	7.57	7.60	7.85	0.29	17.65	25.13	24.92	2.65	1.74	1.20	1.29	1.25	1.19

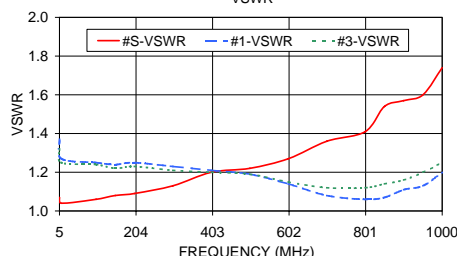
SCA-4-10+ INSERTION LOSS



SCA-4-10+ ISOLATION



SCA-4-10+ VSWR



electrical schematic



For detailed performance specs & shipping online see web site



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