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SCP-2-1+

Mini-Circuits

RF Power Splitters/Dividers/Combiners

Any questions, please feel free to contact us.

info@kaimte.com

Surface Mount

Power Splitter/Combiner

SCP-2-1A+ SCP-2-1A

2 Way-0° 50Ω

1 to 550 MHz



CASE STYLE: YY101
PRICE: \$10.45 ea. QTY(10-49)

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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

Pin Connections

SUM PORT	1
PORT 1	5
PORT 2	6
GROUND EXT.	2,3,4,7,8

Features

- wideband, 1 to 550 MHz
- low insertion loss, 0.3 dB typ.
- good isolation, 25 dB typ.
- good amplitude unbalance, 0.05 dB typ.

Applications

- VHF/UHF
- communications receivers & transmitters
- instrumentation

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

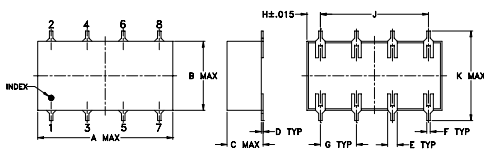
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

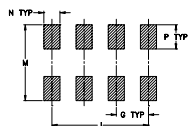
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS ABOVE 3.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f_L - f_U	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
1-550	25	20	25	20	25	20	0.3	0.6	0.3	0.6	0.7	1.3	2.0	2.0	3.0	0.15	0.2	0.4

L = low range [f_L to 10 f_L] M = mid range [10 f_L to $f_U/2$] U = upper range [$f_U/2$ to f_U]

Outline Drawing



PCB Land Pattern



Suggested Layout, Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

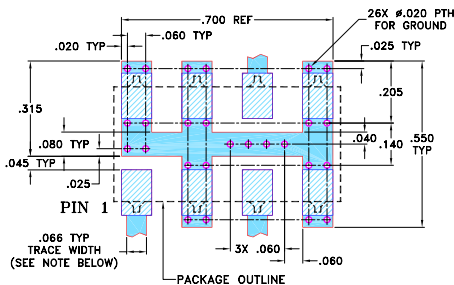
A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

Typical Performance Data

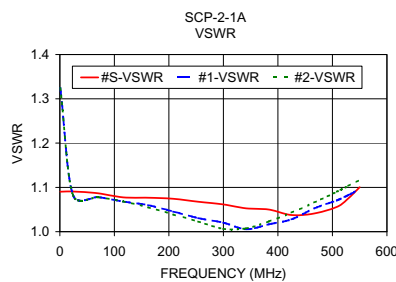
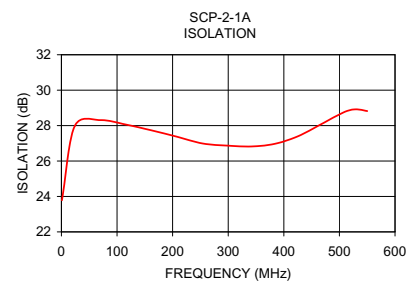
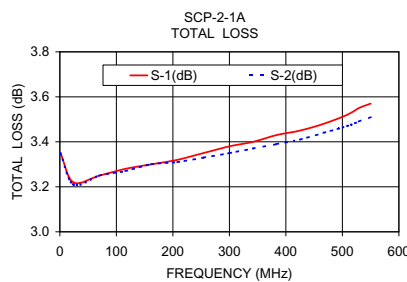
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1.00	3.35	3.35	0.00	23.78	0.02	1.09	1.32	1.32
24.00	3.22	3.21	0.00	27.98	0.00	1.09	1.08	1.08
70.00	3.25	3.25	0.00	28.31	0.05	1.09	1.08	1.08
116.00	3.28	3.27	0.01	28.06	0.07	1.08	1.07	1.07
162.00	3.30	3.30	0.01	27.73	0.11	1.08	1.06	1.05
208.00	3.32	3.31	0.01	27.37	0.14	1.07	1.05	1.04
254.00	3.35	3.33	0.02	26.99	0.16	1.07	1.03	1.02
300.00	3.38	3.35	0.02	26.87	0.17	1.06	1.02	1.01
341.67	3.40	3.37	0.03	26.82	0.19	1.05	1.01	1.01
383.33	3.43	3.39	0.03	26.97	0.19	1.05	1.02	1.02
425.00	3.45	3.41	0.04	27.39	0.20	1.04	1.03	1.04
466.67	3.48	3.44	0.05	28.07	0.21	1.04	1.05	1.07
508.33	3.52	3.47	0.05	28.76	0.18	1.06	1.07	1.09
529.17	3.55	3.49	0.06	28.92	0.17	1.08	1.08	1.10
550.00	3.57	3.51	0.06	28.82	0.18	1.10	1.10	1.12

1. Total Loss = Insertion Loss + 3dB splitter loss.

Demo Board MCL P/N: TB-50+ Suggested PCB Layout (PL-060)



- 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



electrical schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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