

Power Splitter/Combiner

TCP-2-33+

2 Way-0° 50Ω 1000 to 3000 MHz



Maximum Ratings

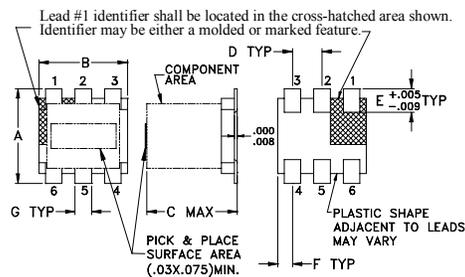
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.

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

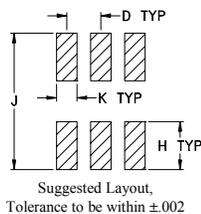
Pin Connections

SUM PORT	2,5,6
PORT 1	3
PORT 2	4
GROUND	1
EXT. RESISTOR 200Ω	3,4

Outline Drawing



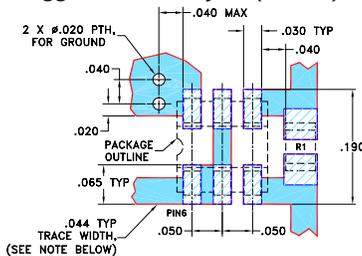
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.160	.150	.160	.050	.040	.025
4.06	3.81	4.06	1.27	1.02	0.64
G	H	J	K	wt	
.028	.065	.190	.030	grams	
0.71	1.65	4.83	0.76	0.15	

Demo Board MCL P/N: TB-464+ Suggested PCB Layout (PL-357)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B 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 WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion, 0.8 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- very good phase unbalance, 1.0 deg. typ.
- external resistor required
- aqueous washable
- leads for excellent solderability
- low cost

Applications

- cellular
- PCN
- GPS

CASE STYLE: DB714

PRICE: \$1.99 ea. QTY. (20)

+ 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.

Available Tape and Reel at no extra cost	
Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	1000, 2000

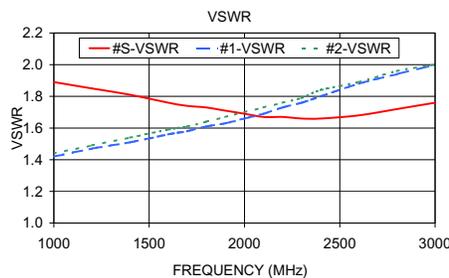
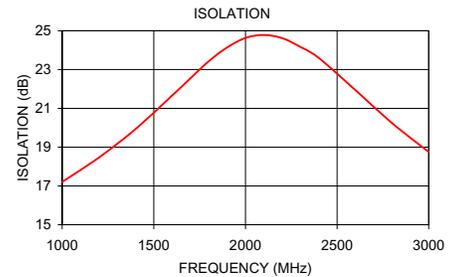
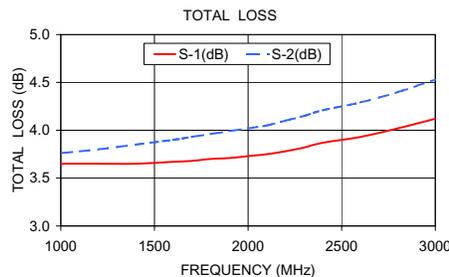
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 3.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min	Typ. Max.	Max.	Max.
1000-3000	18 15	0.8 1.9	5.0	0.9

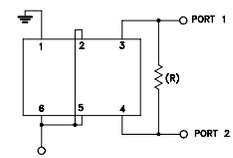
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1000.00	3.65	3.76	0.11	17.21	0.35	1.89	1.42	1.44
1200.00	3.65	3.80	0.15	18.46	0.37	1.85	1.47	1.49
1400.00	3.65	3.85	0.20	19.93	0.41	1.81	1.51	1.54
1600.00	3.67	3.90	0.23	21.66	0.50	1.76	1.56	1.59
1700.00	3.68	3.93	0.25	22.55	0.53	1.74	1.58	1.61
1800.00	3.70	3.96	0.26	23.43	0.59	1.73	1.61	1.64
1900.00	3.71	3.99	0.28	24.14	0.65	1.71	1.63	1.67
2000.00	3.73	4.02	0.29	24.63	0.74	1.69	1.66	1.70
2100.00	3.75	4.05	0.30	24.78	0.82	1.67	1.69	1.73
2200.00	3.78	4.10	0.31	24.62	0.91	1.67	1.73	1.76
2300.00	3.82	4.15	0.32	24.17	0.97	1.66	1.76	1.79
2400.00	3.87	4.21	0.34	23.60	1.16	1.66	1.80	1.84
2600.00	3.93	4.29	0.35	21.94	1.27	1.68	1.88	1.89
2800.00	4.02	4.40	0.38	20.24	1.45	1.72	1.94	1.96
3000.00	4.12	4.53	0.41	18.75	1.73	1.76	2.00	2.00

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



electrical schematic



MODEL	R (Ohm)
TCP-2-25	475
TCP-2-33	200
TCP-2-33W+	475
TCP-2-272+	475

For detailed performance specs & shopping online see web site



Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.