

Surface Mount Power Splitter/Combiner

2 Way-0° 50Ω 5 to 2700 MHz

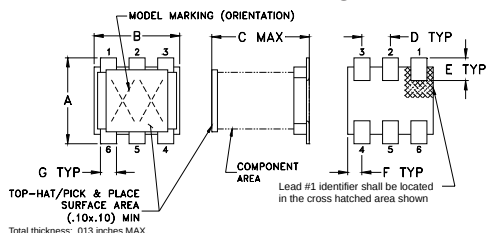
Maximum Ratings

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.	

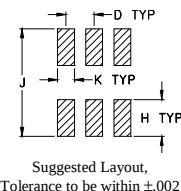
Pin Connections

SUM PORT	2,5,6
PORT 1	3
PORT 2	4
GROUND	1
EXT. RESISTOR 475Ω	3,4

Outline Drawing



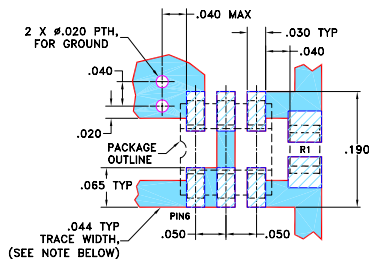
PCB Land Pattern



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-86 Suggested PCB Layout (PL-008)



Features

- wideband, 5 to 2700 MHz
- low insertion, 0.9 dB typ.
- excellent amplitude unbalance, 0.3 dB typ.
- very good phase unbalance, 1.5 deg. typ.
- external resistor required
- aqueous washable
- leads for excellent solderability
- low cost

Applications

- cellular
- PCN
- GPS
- CATV
- communication systems

TCP-2-272+



CASE STYLE: DB1627
PRICE: \$2.49 ea. QTY. (20)

+RoHS Compliant

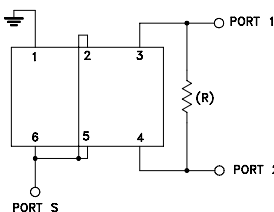
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		5		2700	MHz
Insertion Loss Above 3.0 dB	5-50	—	0.6	0.8	dB
	50-1350	—	0.9	1.1	
	1350-2700	—	1.4	2.0	
Isolation	5-50	15	20	—	dB
	50-1350	20	24	—	
	1350-2700	10	12	—	
Phase Unbalance	5-50	—	0.5	2.0	Degree
	50-1350	—	2	4.0	
	1350-2700	—	6	10.0	
Amplitude Unbalance	5-50	—	0.1	0.4	dB
	50-1350	—	0.3	0.6	
	1350-2700	—	0.9	1.3	
VSWR (Port S)	5-50	—	2.0	2.2	:1
	50-1350	—	2.0	2.2	
	1350-2700	—	1.8	2.2	
VSWR (Port 1-2)	5-50	—	2.0	2.2	:1
	50-1350	—	2.0	2.2	
	1350-2700	—	2.3	2.5	

Electrical Schematic



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

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IFIRF MICROWAVE COMPONENTS

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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-Circuits' 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.

REV. OR
M132225
TCP-2-272+
ED-14384
JC/CP/AM
130109
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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						
5.00	3.53	3.53	0.00	20.75	0.02	2.00	1.89	1.90
10.00	3.54	3.53	0.00	26.70	0.03	1.99	1.95	1.95
50.00	3.55	3.55	0.00	34.42	0.00	1.98	1.92	1.93
100.00	3.58	3.57	0.00	32.37	0.00	1.97	1.90	1.91
300.00	3.62	3.64	0.02	32.74	0.15	1.94	1.91	1.91
500.00	3.63	3.67	0.04	36.71	0.20	1.91	1.93	1.92
800.00	3.63	3.71	0.08	41.65	0.21	1.88	1.95	1.94
1000.00	3.62	3.74	0.12	32.30	0.22	1.85	1.97	1.97
1300.00	3.60	3.78	0.18	25.10	0.46	1.78	1.99	2.04
1500.00	3.57	3.80	0.23	21.96	0.45	1.70	2.01	2.09
1600.00	3.55	3.81	0.26	20.61	0.54	1.65	2.01	2.10
1800.00	3.53	3.81	0.28	18.38	0.52	1.54	2.01	2.13
2000.00	3.53	3.82	0.30	16.50	0.66	1.41	2.02	2.16
2500.00	3.64	3.87	0.23	12.68	1.47	1.09	2.00	2.13
2700.00	3.75	3.90	0.15	11.51	2.40	1.13	2.00	2.10

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

