# **Power Splitter/Combiner**

# **ADP-2-1W+**

# 2 Way-0°

 $50\Omega$ 

## 1 to 650 MHz

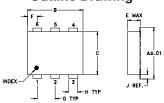
### **Maximum Ratings**

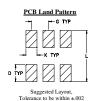
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	2W max.
Internal Dissipation	0.125W max.
Permanent damage may occur if any	of these limits are

### Pin Connections

SUM PORT	1
PORT 1	3
PORT 2	4
GROUND	6
NOT USED	2,5

### **Outline Drawing**

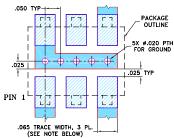




### Outline Dimensions (inch)

<b>G</b> . <b>100</b> 2.54	F .055 1.40	<b>E</b> . <b>162</b> 4.11	D .100 2.54	<b>C</b> . <b>220</b> 5.59	<b>B</b> . <b>310</b> 7.87	<b>A</b> . <b>272</b> 6.91
wt grams			.300	K .065	J .026	H .030
0.25			7.62	1.65	0.66	0.76

### Demo Board MCL P/N: TB-48+ Suggested PCB Layout (PL-035)



.065 TRACE WIDTH, 3 PL.
(SEE NOTE BELOW)

NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC
THICKNESS .030" ± .002"; COPPER: 1/2 02. 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 loss, 0.25 dB typ.
- excellent amplitude unbalance, 0.01 dB typ.
- very good phase unbalance, 0.2 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

### **Applications**

VHF/UHF receivers/transmitters

Generic photo used for illustration purposes only

CASE STYLE: CD636

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



### **Electrical Specifications**

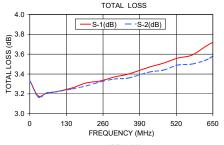
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 3.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L	М	U	L	M	U	L	М	U
$f_L$ - $f_U$	Typ. Min.	Typ. Min.	Typ. Min.	Тур. Мах.	Тур. Мах.	Тур. Мах.	Max.	Max.	Max.	Max.	Max.	Max.
1-650	30 20	30 20	24 20	0.2 0.8	0.25 0.8	0.5 1.0	2.0	2.0	3.0	0.15	0.2	0.3

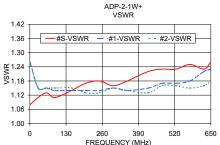
L = 1-10 MHz M = 10-325 MHz U = 325-650 MHz

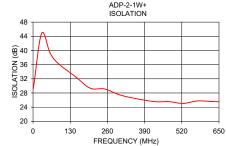
### **Typical Performance Data**

Frequency (MHz)			Amplitude Unbalance (dB)	Isolation (dB)			VSWR 1	VSWR 2
	S-1	S-2						
1.00	3.33	3.33	0.00	29.22	0.03	1.08	1.26	1.26
30.00	3.18	3.17	0.01	44.81	0.03	1.11	1.15	1.15
60.00	3.21	3.21	0.00	39.19	0.01	1.13	1.15	1.15
90.00	3.22	3.22	0.00	36.18	0.00	1.11	1.14	1.15
150.00	3.26	3.25	0.01	32.49	0.12	1.14	1.14	1.15
200.00	3.31	3.28	0.03	29.34	0.09	1.17	1.14	1.13
250.00	3.33	3.32	0.02	29.13	0.06	1.18	1.14	1.13
300.00	3.37	3.35	0.02	27.54	0.17	1.16	1.15	1.15
350.00	3.40	3.36	0.04	26.57	0.09	1.18	1.14	1.14
425.00	3.47	3.42	0.05	25.55	0.28	1.22	1.15	1.13
475.00	3.51	3.44	0.07	25.55	0.30	1.23	1.17	1.16
525.00	3.56	3.49	0.07	25.05	0.30	1.23	1.17	1.16
575.00	3.59	3.50	0.09	25.75	0.30	1.25	1.18	1.15
625.00	3.68	3.54	0.14	25.60	0.47	1.23	1.22	1.16
650.00	3.72	3.58	0.14	25.51	0.52	1.26	1.23	1.18

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







### electrical schematic



- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

  B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and programment.

  C. The parts covered by this specification document are subject to Mini-Circuit's storded limited and the part of this specification document. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. The parts covered by this specification document are subject to Mini-Circuit's 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