

# Surface Mount Power Splitter/Combiner

2 Way-0° 50Ω 350 to 550 MHz

**JPS-2-1N+**  
**JPS-2-1N**



CASE STYLE: BH292  
PRICE: \$8.95 ea. QTY. (1-9)

**+RoHS Compliant**

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

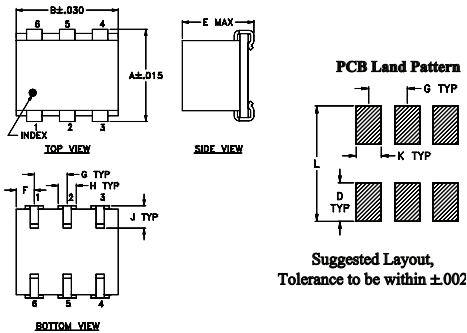
## Maximum Ratings

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	3
PORT 2	4
GROUND	6
NOT USED	2,5

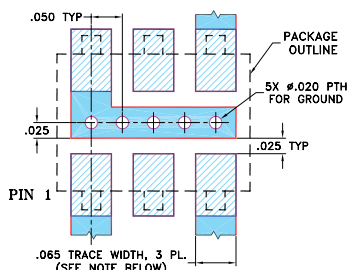
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.280	.310	--	.100	.225	.055	.100
7.11	7.87	--	2.54	5.72	1.40	2.54
H	J	K	L	wt		
.047	.065	.065	.300	grams		
1.19	1.65	1.65	7.62	0.45		

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



- 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.  
■ 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 isolation, 30 dB typ.
- excellent VSWR, 1.15:1 typ.
- J-leads for excellent solderability and strain relief

## Applications

- VHF/UHF
- signal processing
- instrumentation

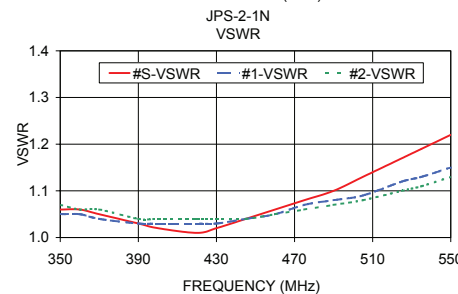
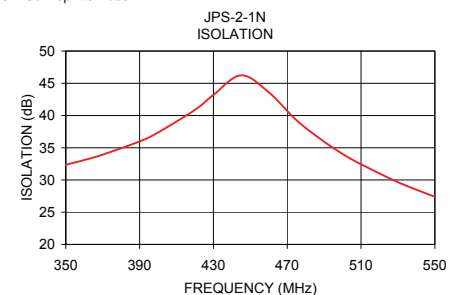
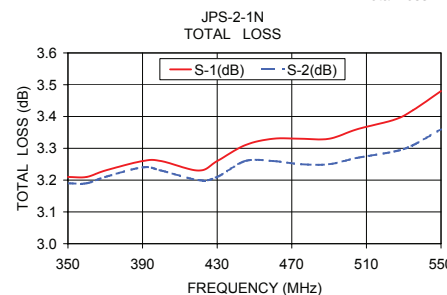
## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min	Typ.	Max.		
$f_c - f_u$					Max.	Max.
350-550	30	20	0.25	0.5	3.0	0.3

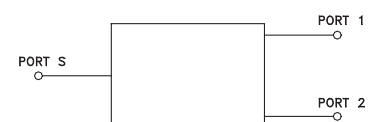
## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
350.00	3.21	3.19	0.02	32.34	0.55	1.06	1.05	1.07
360.00	3.21	3.19	0.03	33.09	0.55	1.06	1.05	1.06
370.00	3.23	3.21	0.02	33.93	0.56	1.05	1.04	1.06
390.00	3.26	3.24	0.03	35.99	0.58	1.03	1.03	1.04
400.00	3.26	3.23	0.03	37.37	0.60	1.02	1.03	1.04
420.00	3.23	3.20	0.03	40.88	0.54	1.01	1.03	1.04
430.00	3.26	3.21	0.05	43.19	0.56	1.02	1.03	1.04
445.00	3.31	3.26	0.05	46.23	0.54	1.04	1.04	1.04
460.00	3.33	3.26	0.07	43.60	0.64	1.06	1.05	1.05
475.00	3.33	3.25	0.08	39.28	0.57	1.08	1.07	1.06
490.00	3.33	3.25	0.07	35.94	0.51	1.10	1.08	1.07
505.00	3.36	3.27	0.09	33.20	0.60	1.13	1.09	1.08
525.00	3.39	3.29	0.10	30.32	0.51	1.17	1.12	1.10
535.00	3.42	3.31	0.10	29.06	0.49	1.19	1.13	1.11
550.00	3.48	3.36	0.12	27.39	0.50	1.22	1.15	1.13

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



## electrical schematic



## Notes

- 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 measurement instructions.  
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