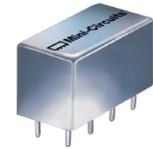


# Power Splitter/Combiner

PSC-3-13-39+

3 Way-0° 50Ω 0.5 to 50 MHz



CASE STYLE: A01

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.375W max.
Permanent damage may occur if any of these limits are exceeded.	

## Pin Connections

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

## Features

- low insertion loss, 0.15 dB typ.
- high isolation, 46 dB typ.
- rugged welded construction

## Applications

- HF
- amateur radio
- defense & federal communications

**+RoHS Compliant**

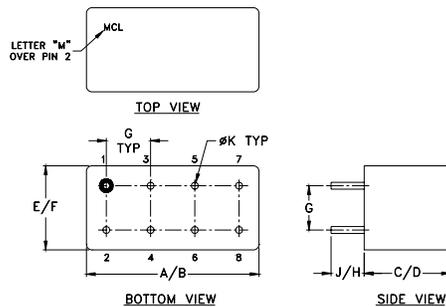
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 4.8 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
f <sub>L</sub> -f <sub>U</sub>																		
0.5-50	47	33	46	35	40	33	0.15	0.4	0.15	0.4	0.15	0.4	1.0	1.0	2.0	0.1	0.1	0.1

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

## Outline Drawing



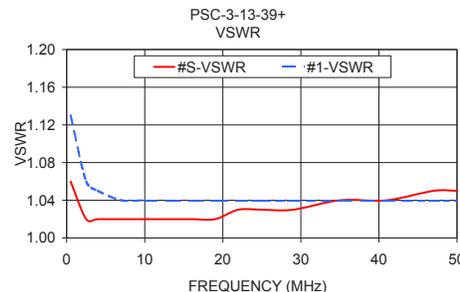
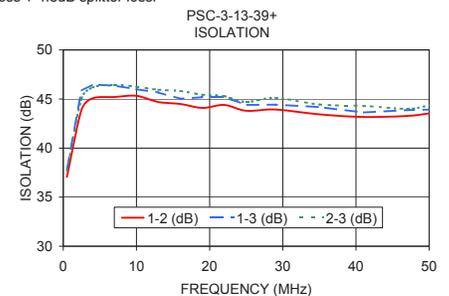
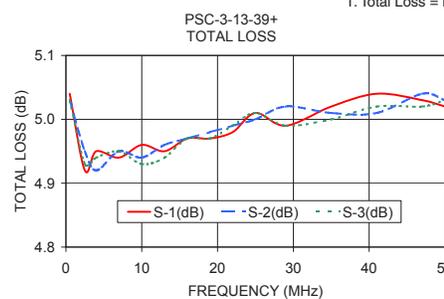
## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	5.2	

## Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
	0.50	5.04	5.03		5.03	0.01	37.06					
2.50	4.92	4.95	4.93	0.02	43.90	45.85	45.04	0.12	1.02	1.06	1.06	1.06
4.00	4.95	4.92	4.94	0.02	45.07	46.47	46.17	0.09	1.02	1.05	1.05	1.05
7.00	4.94	4.95	4.95	0.01	45.20	46.36	46.45	0.13	1.02	1.04	1.04	1.04
10.00	4.96	4.94	4.93	0.03	45.32	46.00	46.24	0.15	1.02	1.04	1.04	1.04
13.00	4.95	4.96	4.94	0.02	44.69	45.67	45.94	0.15	1.02	1.04	1.04	1.04
16.00	4.97	4.97	4.97	0.01	44.49	45.02	45.82	0.27	1.02	1.04	1.04	1.04
19.00	4.97	4.98	4.97	0.01	44.09	45.19	45.43	0.12	1.02	1.04	1.04	1.04
22.00	4.98	4.99	4.99	0.00	44.39	45.19	45.28	0.18	1.03	1.04	1.04	1.04
25.00	5.01	5.00	5.01	0.01	43.80	44.40	44.70	0.34	1.03	1.04	1.04	1.04
29.00	4.99	5.02	4.99	0.02	43.93	44.42	45.12	0.37	1.03	1.04	1.04	1.04
35.00	5.02	5.01	5.00	0.01	43.44	44.18	44.44	0.29	1.04	1.04	1.04	1.04
41.00	5.04	5.01	5.02	0.03	43.17	43.63	44.30	0.38	1.04	1.04	1.04	1.04
47.00	5.03	5.04	5.02	0.01	43.27	43.87	44.00	0.55	1.05	1.04	1.04	1.04
50.00	5.02	5.03	5.03	0.01	43.53	43.92	44.35	0.47	1.05	1.04	1.04	1.04

1. Total Loss = Insertion Loss + 4.8dB splitter loss.



## electrical schematic



### Notes

- 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.
- 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-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](http://www.minicircuits.com/MCLStore/terms.jsp)

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HY/TD/CP/AM  
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