Plug-In

Power Splitter/Combiner

PSC-2-1+

2 Way-0° 50Ω 0.1 to 400 MHz

Generic photo used for illustration purposes only

CASE STYLE: A01

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

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	0.125W max.

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

Pin Connections

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

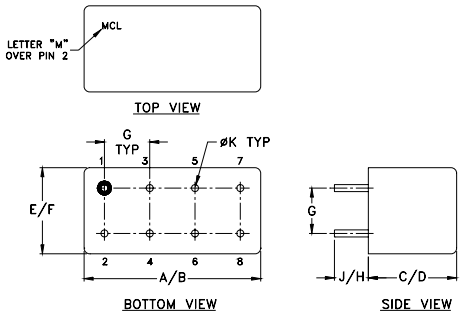
Features

- wideband, 0.1 to 400 MHz
- low insertion loss, 0.4 dB typ.
- rugged welded construction

Applications

- VHF/UHF
- federal & defense communications

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

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
0.1-400	20	15	25	20	25	20	0.2	0.6	0.4	0.75	0.6	1.0	2.0	3.0	4.0	0.15	0.2	0.3

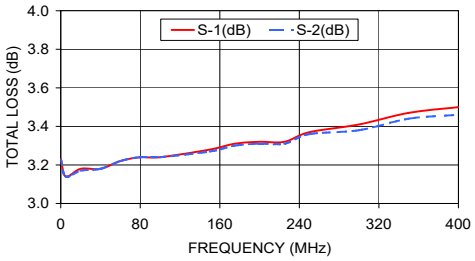
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

Typical Performance Data

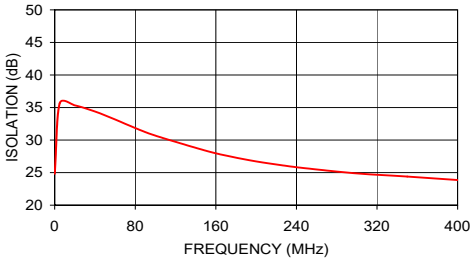
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
0.10	3.23	3.23	0.00	24.82	0.01	1.16	1.37	1.37
5.00	3.14	3.14	0.00	35.64	0.01	1.10	1.11	1.11
20.00	3.18	3.17	0.00	35.33	0.03	1.11	1.10	1.10
40.00	3.18	3.18	0.00	34.39	0.02	1.12	1.10	1.10
60.00	3.22	3.22	0.00	33.16	0.02	1.12	1.09	1.09
80.00	3.24	3.24	0.00	31.85	0.04	1.13	1.09	1.09
100.00	3.24	3.24	0.00	30.68	0.05	1.13	1.09	1.09
150.00	3.28	3.27	0.00	28.37	0.04	1.14	1.08	1.08
175.00	3.31	3.30	0.01	27.46	0.07	1.14	1.07	1.07
200.00	3.32	3.31	0.01	26.72	0.05	1.15	1.07	1.07
225.00	3.32	3.31	0.01	26.14	0.02	1.15	1.06	1.06
250.00	3.37	3.36	0.01	25.65	0.05	1.15	1.06	1.06
300.00	3.41	3.38	0.03	24.88	0.10	1.15	1.06	1.06
350.00	3.47	3.44	0.03	24.40	0.06	1.16	1.08	1.07
400.00	3.50	3.46	0.04	23.86	0.05	1.18	1.10	1.09

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

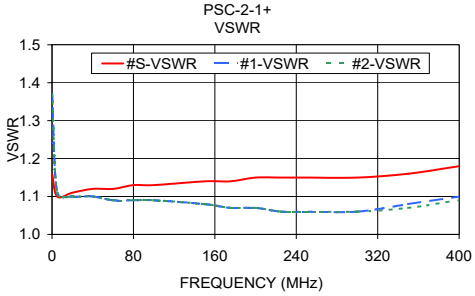
PSC-2-1+
TOTAL LOSS



PSC-2-1+
ISOLATION



PSC-2-1+
VSWR



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.
C. 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

2 Way-0° Power Splitter/Combiner PSC-2-1+

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS[1] (dB) S-1	TOTAL LOSS[1] (dB) S-2	AMP. UNBAL. (dB)	ISOLATION (dB) 1-2	PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1) S	VSWR (:1) 1	VSWR (:1) 2
0.10	3.23	3.23	0.00	24.82	0.01	0.10	1.16	1.37	1.37
0.19	3.21	3.21	0.00	29.37	0.02	0.19	1.11	1.24	1.24
0.28	3.20	3.20	0.00	31.98	0.05	0.28	1.10	1.20	1.20
0.37	3.20	3.20	0.00	33.56	0.02	0.37	1.09	1.18	1.18
0.46	3.20	3.20	0.00	34.52	0.02	0.46	1.09	1.17	1.17
0.55	3.19	3.19	0.00	35.11	0.01	0.55	1.09	1.16	1.16
0.64	3.18	3.18	0.00	35.48	0.02	0.64	1.09	1.16	1.16
0.73	3.18	3.18	0.00	35.68	0.01	0.73	1.09	1.15	1.15
0.82	3.17	3.17	0.00	35.80	0.00	0.82	1.09	1.15	1.15
0.91	3.17	3.17	0.00	35.87	0.01	0.91	1.09	1.14	1.14
1.00	3.17	3.16	0.00	35.91	0.00	1.00	1.09	1.14	1.14
5.00	3.14	3.14	0.00	35.64	0.01	5.00	1.10	1.11	1.11
10.00	3.15	3.15	0.00	35.55	0.00	10.00	1.11	1.10	1.10
15.00	3.16	3.16	0.00	35.45	0.03	15.00	1.11	1.10	1.10
20.00	3.18	3.17	0.00	35.33	0.03	20.00	1.11	1.10	1.10
25.00	3.18	3.18	0.00	35.17	0.01	25.00	1.11	1.10	1.10
30.00	3.18	3.18	0.00	34.93	0.00	30.00	1.11	1.10	1.10
35.00	3.18	3.18	0.00	34.68	0.01	35.00	1.12	1.10	1.10
40.00	3.18	3.18	0.00	34.39	0.02	40.00	1.12	1.10	1.10
45.00	3.18	3.18	0.00	34.09	0.02	45.00	1.12	1.10	1.09
50.00	3.19	3.19	0.00	33.78	0.02	50.00	1.12	1.09	1.09
55.00	3.20	3.20	0.00	33.46	0.03	55.00	1.12	1.09	1.09
60.00	3.22	3.22	0.00	33.16	0.02	60.00	1.12	1.09	1.09
65.00	3.22	3.22	0.00	32.83	0.00	65.00	1.12	1.09	1.09
70.00	3.23	3.23	0.00	32.50	0.05	70.00	1.12	1.09	1.09
75.00	3.24	3.24	0.00	32.18	0.03	75.00	1.12	1.09	1.09
80.00	3.24	3.24	0.00	31.85	0.04	80.00	1.13	1.09	1.09
85.00	3.24	3.24	0.00	31.55	0.01	85.00	1.13	1.09	1.09
90.00	3.24	3.24	0.00	31.25	0.04	90.00	1.13	1.09	1.09
95.00	3.24	3.24	0.00	30.95	0.02	95.00	1.13	1.09	1.09
100.00	3.24	3.24	0.00	30.68	0.05	100.00	1.13	1.09	1.09
125.00	3.26	3.26	0.00	29.43	0.04	125.00	1.13	1.08	1.08
150.00	3.28	3.27	0.00	28.37	0.04	150.00	1.14	1.08	1.08
175.00	3.31	3.30	0.01	27.46	0.07	175.00	1.14	1.07	1.07
200.00	3.32	3.31	0.01	26.72	0.05	200.00	1.15	1.07	1.07
225.00	3.32	3.31	0.01	26.14	0.02	225.00	1.15	1.06	1.06
250.00	3.37	3.36	0.01	25.65	0.05	250.00	1.15	1.06	1.06
275.00	3.38	3.36	0.02	25.20	0.11	275.00	1.15	1.06	1.06
300.00	3.41	3.38	0.03	24.88	0.10	300.00	1.15	1.06	1.06
350.00	3.47	3.44	0.03	24.40	0.06	350.00	1.16	1.08	1.07
400.00	3.50	3.46	0.04	23.86	0.05	400.00	1.18	1.10	1.09

[1]Total Loss = Insertion Loss + 3dB Splitter Loss

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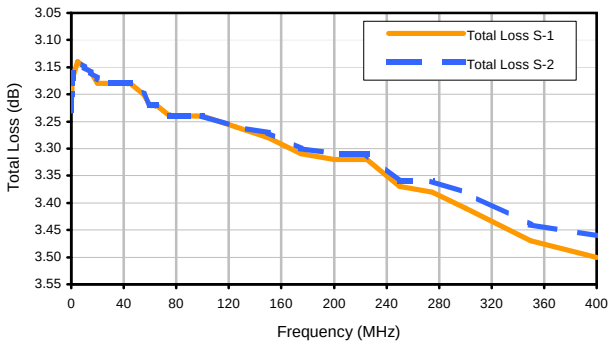
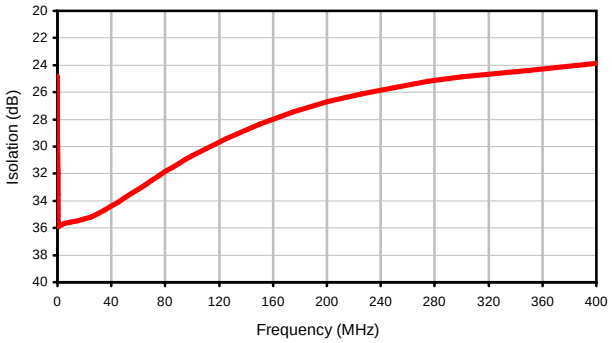
Typical Performance Curves

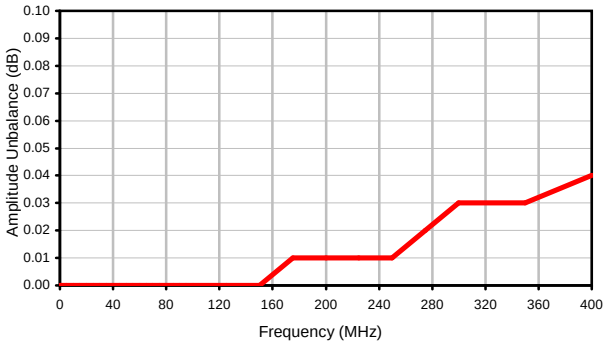
Total Loss



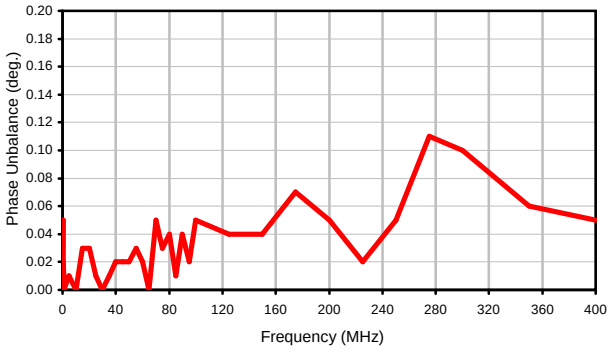
Isolation



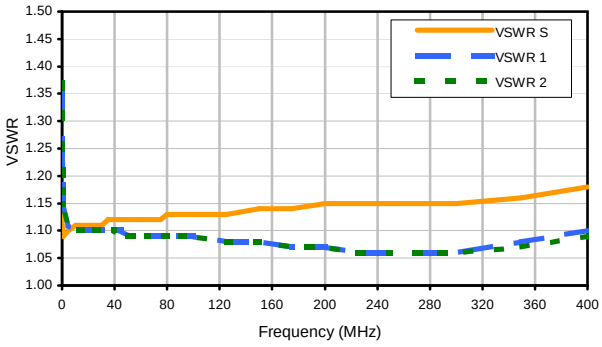
Amplitude Unbalance



Phase Unbalance



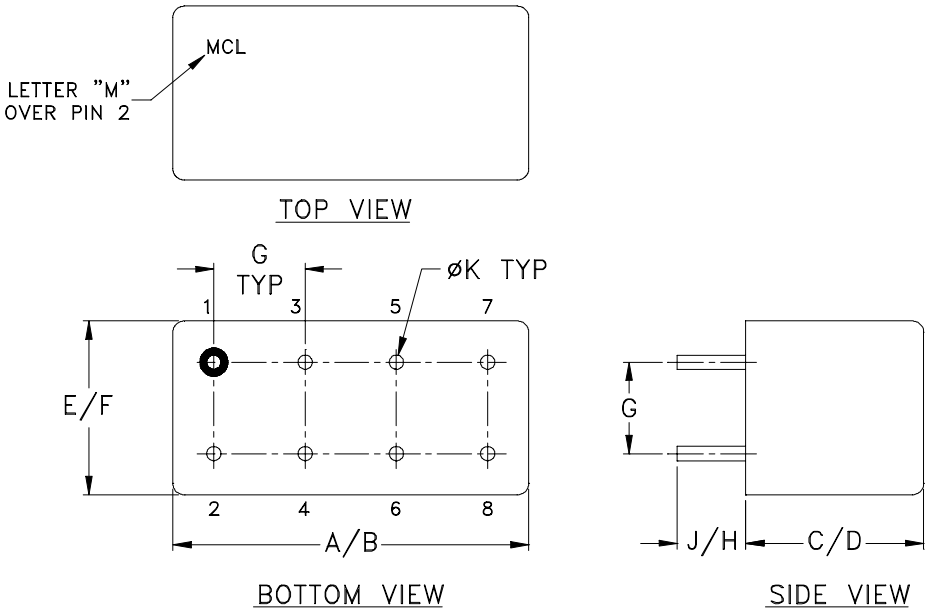
VSWR



Case Style A

A01
A04
A05
A06

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	WT, GRAM
A01	.770 (19.56)	.800 (20.32)	.385 (9.78)	.400 (10.16)	.370 (9.40)	.400 (10.16)	.200 (5.08)	.20 (5.08)	.14 (3.56)	.031 (.79)	5.2
A04			.200 (5.08)	.210 (5.33)							3.7
A05			.240 (6.10)	.250 (6.35)							3.7
A06			.285 (7.24)	.310 (7.87)							5.2

Dimensions are in inches (mm). Tolerances: 2 Pl. ± .03; 3 Pl. ± .015

Notes:

1. Header material: C.R.S.
   Pin material: #52 alloy.
   Cover material: Cupro-Nickel.
2. Pin finish: Electro Tin-Silver.
3. Insulated spacer available. Request P/N B14-045-01.
4. Tolerance on pin diameter +/-.005 inch.
5. Glass meniscus 0.015 inch max.
6. Blue bead indicates Pin 1. Pin numbers do not appear on unit, for reference only.

Mini-Circuits®
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Mini-Circuits

Environmental Specifications ENV01

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specific
any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Refe
Operating Temperature	-55° to 100° C Ambient Environment	Individual Model Data
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Metho +100°C
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Metho
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Metho
Moisture Resistance	10 cycles, 24 hours per cycle	MIL-STD-202, Metho and end point electric
Solderability	10X Magnification	J-STD-002, 95% Cov
Resistance to Solder Heat	260°C for 10 seconds	MIL-STD-202, Metho
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Metho
Terminal Strength	4 1/2 Pound Pull	MIL-STD-202, Metho

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specific
any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Refe
Gross Leak	125°C Bubble Test	MIL-STD-202, Metho
Barometric Pressure	100,000 Feet	MIL-STD-202, Metho

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