

Coaxial High Power Combiner

3 Way-0° 50Ω 2 to 400 MHz

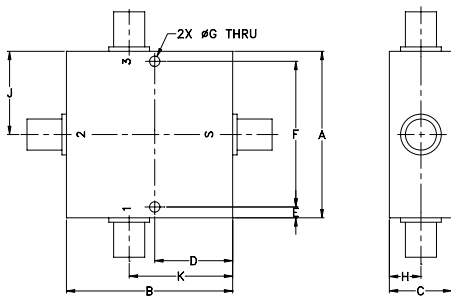
Maximum Ratings

Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
2.00	2.00	.75	.938	.13	1.750
50.80	50.80	19.05	23.83	3.30	44.45
G	H	J	K	wt	
.125	.38	1.00	1.25	grams	
3.18	9.65	25.40	31.75	200.0	

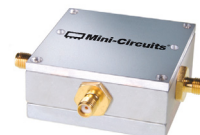
Features

- wideband, 2 to 400 MHz
- low insertion loss, 0.5 dB typ.
- good isolation, 25 dB typ.
- very low amplitude, 0.15 dB typ. and phase unbalance, 0.2 deg. typ.

Applications

- VHF/UHF
- communication receivers & transmitters

ZA3CS-400-3W+
ZA3CS-400-3W



SMA version shown
CASE STYLE: CC51

Connectors	Model
BNC	ZA3CS-400-3W(+)
N-TYPE	ZA3CS-400-3W-N(+)
SMA	ZA3CS-400-3W-S+

+RoHS Compliant

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

High Power Combiner Electrical Specifications

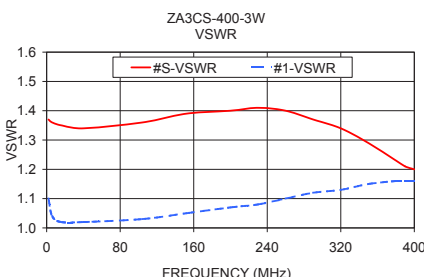
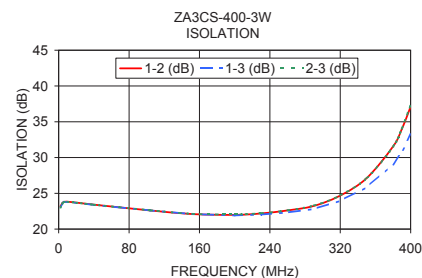
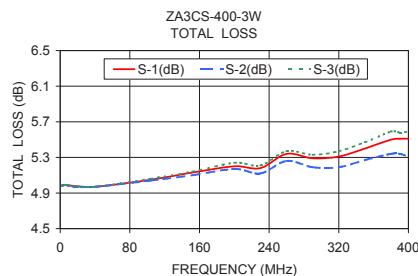
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		POWER INPUT ¹ (W)	
f_L - f_U	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner ² Max.	as splitter Max.
2-400	25	17	0.5	1.2	0.2	3.0	0.15	0.5	3	10

1. Over -55°C to +55°C. Derate linearly to 20% of rating at 90°C
2. As a combiner of non-coherent signals, max. power per port is power rating divided by number of ports.

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (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					
2.00	4.99	4.98	4.98	0.01	23.18	23.18	23.02	0.06	1.37	1.10	1.10	1.11
6.00	4.99	4.99	4.99	0.00	23.80	23.80	23.77	0.11	1.36	1.04	1.04	1.04
16.00	4.98	4.97	4.98	0.01	23.75	23.73	23.74	0.05	1.35	1.02	1.02	1.02
40.00	4.97	4.97	4.97	0.01	23.42	23.38	23.41	0.19	1.34	1.02	1.01	1.01
104.00	5.05	5.04	5.06	0.02	22.61	22.61	22.63	0.50	1.36	1.03	1.03	1.03
152.00	5.13	5.10	5.14	0.05	22.10	22.09	22.13	0.72	1.39	1.05	1.05	1.05
200.00	5.20	5.17	5.24	0.07	21.99	21.91	22.04	0.85	1.40	1.07	1.08	1.08
230.00	5.18	5.12	5.21	0.09	22.19	22.03	22.22	0.98	1.41	1.08	1.10	1.10
260.00	5.34	5.26	5.37	0.11	22.61	22.32	22.62	1.18	1.40	1.10	1.12	1.12
290.00	5.29	5.19	5.33	0.14	23.24	22.81	23.29	1.13	1.37	1.12	1.14	1.14
320.00	5.31	5.19	5.37	0.18	24.69	23.95	24.71	1.21	1.34	1.13	1.17	1.16
350.00	5.40	5.27	5.47	0.20	27.12	25.85	27.11	1.31	1.29	1.15	1.19	1.17
380.00	5.50	5.34	5.59	0.25	31.55	29.07	31.52	1.52	1.23	1.16	1.21	1.19
390.00	5.51	5.34	5.58	0.24	34.00	30.80	34.05	1.50	1.21	1.16	1.22	1.19
400.00	5.51	5.31	5.59	0.28	37.10	33.25	37.43	1.53	1.20	1.16	1.23	1.20

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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. C
M155580
ZA3SC-400-3W
HY/TD/CP
160324
Page 1 of 1