

# Coaxial High Power Combiner

## ZAPD-2-21-3W+ ZAPD-2-21-3W

2 Way-0° 50Ω 700 to 2100 MHz

### Maximum Ratings

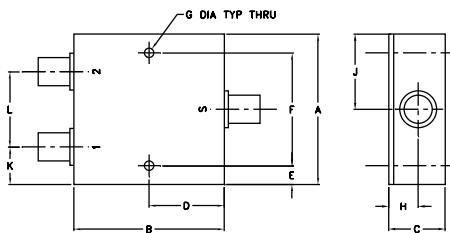
Operating Temperature	-55°C to 90°C
Storage Temperature	-55°C to 100°C

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

### Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G		
2.00	2.00	.75	1.00	.13	1.750	.125		
50.80	50.80	19.05	25.40	3.30	44.45	3.18		
H	J	K	L				wt	
.39	1.00	.50	1.00				grams	
9.91	25.40	12.70	25.40				170.0	

### Features

- wideband, 700-2100 MHz
- low insertion loss, 0.4 dB typ.
- good isolation, 25 dB typ.
- good amplitude unbalance, 0.05 dB typ. and phase unbalance, 0.7 deg. typ.

### Applications

- LMDS • UHF
- VSAT • PCS
- GPS • cellular



SMA version shown  
CASE STYLE: F53

Connectors	Model	Price	Qty.
N-TYPE	ZAPD-2-21-3W-N(+)	\$54.95	(1-9)
SMA	ZAPD-2-21-3W-S(+)	\$54.95	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

### High Power Combiner Electrical Specifications

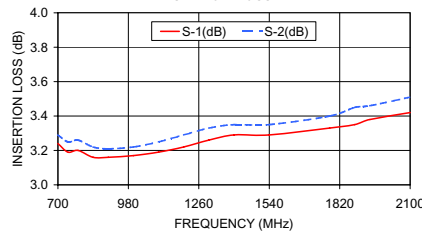
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		POWER INPUT <sup>1</sup> (W)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	as combiner <sup>2</sup> Max.	as splitter Max.
f <sub>L</sub> -f <sub>U</sub> 700-2100	25	20	0.4	1.2	0.7	3.0	0.05	0.3	2.5	10

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

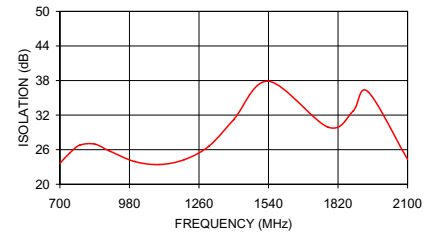
### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amp. Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
700.00	3.24	3.29	0.05	23.63	0.45	1.36	1.18	1.19
740.00	3.19	3.25	0.06	25.44	0.45	1.29	1.18	1.19
780.00	3.20	3.26	0.05	26.79	0.48	1.26	1.17	1.18
840.00	3.16	3.22	0.05	26.97	0.51	1.16	1.15	1.16
900.00	3.16	3.21	0.05	25.78	0.56	1.10	1.13	1.13
1000.00	3.17	3.22	0.05	23.95	0.64	1.02	1.11	1.11
1100.00	3.19	3.25	0.06	23.43	0.61	1.10	1.12	1.11
1200.00	3.22	3.29	0.06	24.26	0.75	1.18	1.15	1.15
1300.00	3.26	3.33	0.06	26.61	0.81	1.22	1.18	1.18
1400.00	3.29	3.35	0.06	31.24	0.86	1.23	1.18	1.18
1540.00	3.29	3.35	0.06	37.88	0.94	1.19	1.13	1.13
1780.00	3.33	3.40	0.08	29.91	1.10	1.16	1.12	1.08
1880.00	3.35	3.45	0.09	32.67	1.15	1.19	1.16	1.12
1940.00	3.38	3.46	0.09	36.09	1.16	1.19	1.17	1.13
2100.00	3.42	3.51	0.09	24.32	1.31	1.11	1.12	1.09

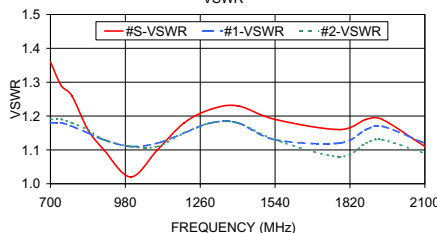
ZAPD-2-21-3W  
INSERTION LOSS



ZAPD-2-21-3W  
ISOLATION



ZAPD-2-21-3W  
VSWR



### electrical schematic



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4861 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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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