

Coaxial

# Power Splitter/Combiner

NON-CATALOG

ZAPDQ-4

2 Way-90° 50Ω 2000 to 4200 MHz

### 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	S
PORT 1 (0°)	1
PORT 2 (+90°)	3

### Features

- wideband, 2000 to 4200 MHz
- low insertion loss, 0.4 dB typ.
- good isolation, 22 dB typ.
- rugged shielded case

### Applications

- balanced amplifiers
- modulators
- test set-ups



SMA version shown

CASE STYLE: F14

Connectors	Model
N-TYPE	ZAPDQ-4-N
SMA	ZAPDQ-4-S

### Electrical Specifications

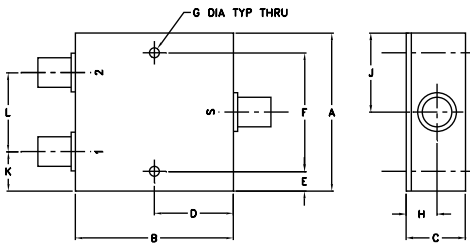
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_L$ - $f_U$						
2000-4200	22	16	0.4	0.9	8.0	1.0

### 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						
2000.00	3.31	3.40	0.08	24.36	85.56	1.30	1.10	1.19
2550.00	3.34	3.34	0.00	30.45	83.54	1.07	1.13	1.20
3045.00	3.30	3.32	0.02	33.42	83.38	1.10	1.23	1.17
3100.00	3.32	3.35	0.03	33.35	83.33	1.11	1.23	1.17
3540.00	3.35	3.35	0.00	30.67	84.52	1.22	1.29	1.13
3650.00	3.43	3.50	0.07	29.59	85.06	1.24	1.27	1.12
3760.00	3.34	3.35	0.01	28.73	85.25	1.25	1.26	1.11
3815.00	3.43	3.45	0.02	28.42	84.98	1.26	1.25	1.11
3870.00	3.43	3.52	0.08	28.20	85.45	1.26	1.25	1.11
3925.00	3.36	3.44	0.07	27.94	85.82	1.27	1.24	1.11
3980.00	3.36	3.40	0.04	27.55	86.03	1.27	1.24	1.11
4035.00	3.43	3.44	0.01	27.32	85.79	1.27	1.23	1.11
4090.00	3.42	3.55	0.13	27.20	85.95	1.27	1.23	1.11
4145.00	3.36	3.47	0.11	26.98	86.84	1.27	1.22	1.12
4200.00	3.42	3.45	0.03	26.77	87.16	1.27	1.21	1.13

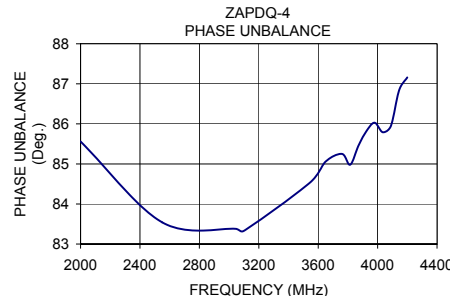
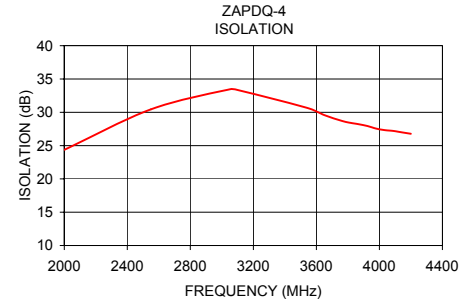
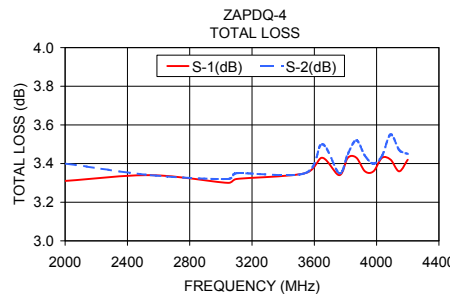
1. Total Loss = Insertion Loss + 3dB splitter loss.

### Outline Drawing

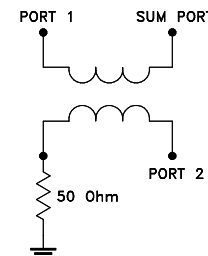


### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	wt
2.00	2.00	0.75	1.00	0.25	1.500	0.125	0.39	1.00	0.50	1.00	grams
50.80	50.80	19.05	25.40	6.35	38.10	3.18	9.91	25.40	12.70	25.40	170.0



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

REV. C  
 M160892  
 ZAPDQ-4  
 HY/TD/CP/AM  
 170808

