

# Power Splitter/Combiner

## ZAPD-21+

2 Way-0° 50Ω 500 to 2000 MHz



N-Type version shown

CASE STYLE: F53

Connectors	Model
BNC	ZAPD-21+
SMA	ZAPD-21-S+
N-TYPE	ZAPD-21-N+

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.125W max.
DC Current	800 mA (400mA for each port)

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

### Coaxial Connections

SUM PORT	S
PORT 1	1
PORT 2	2

### Features

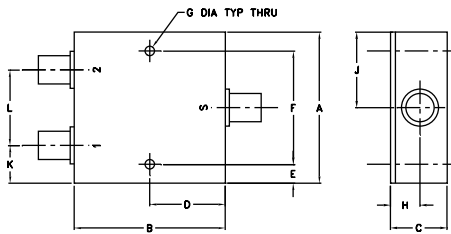
- wideband, 500 to 2000 MHz
- low insertion loss, 0.25 dB typ.
- good isolation, 25 dB typ.
- up to 10W power input as splitter
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 1 deg. typ.
- excellent VSWR, 1.20:1 typ.
- rugged shielded case

### Applications

- UHF
- GPS
- cellular
- PCS/DCS
- communications systems
- instrumentation

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

### 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		

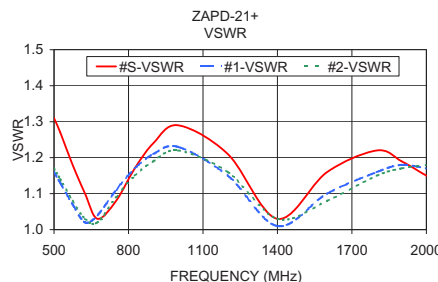
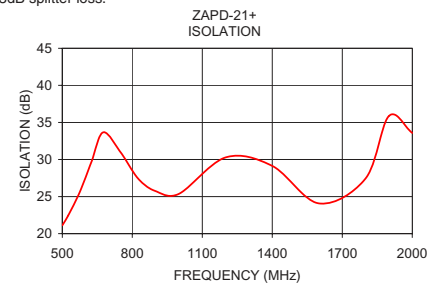
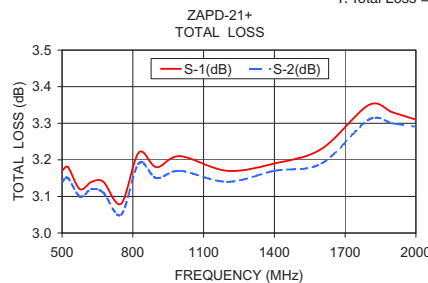
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min	Typ.	Max.	Max.	Max.
$f_c - f_u$						
500-2000	25	18	0.25	1.0	3	0.2

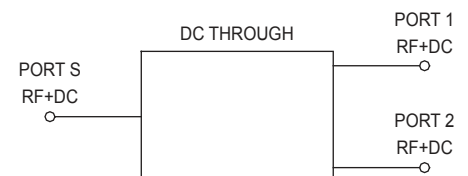
### Typical Performance Data

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						
500.00	3.17	3.14	0.03	21.12	0.45	1.31	1.16	1.17
525.00	3.18	3.15	0.03	22.44	0.48	1.27	1.13	1.14
575.00	3.12	3.10	0.02	25.62	0.50	1.18	1.07	1.08
625.00	3.14	3.12	0.02	29.70	0.53	1.10	1.02	1.03
675.00	3.14	3.11	0.03	33.67	0.60	1.03	1.04	1.02
750.00	3.08	3.05	0.03	30.96	0.61	1.08	1.11	1.09
825.00	3.22	3.19	0.03	27.43	0.73	1.17	1.17	1.15
900.00	3.18	3.15	0.03	25.73	0.77	1.24	1.21	1.19
1000.00	3.21	3.17	0.04	25.37	0.68	1.29	1.23	1.22
1200.00	3.17	3.14	0.03	30.28	0.92	1.21	1.15	1.16
1400.00	3.19	3.17	0.02	29.13	1.15	1.03	1.01	1.03
1600.00	3.23	3.19	0.04	24.08	1.27	1.16	1.10	1.08
1800.00	3.35	3.31	0.03	27.44	1.41	1.22	1.16	1.15
1900.00	3.33	3.30	0.03	35.87	1.42	1.19	1.18	1.17
2000.00	3.31	3.29	0.01	33.59	1.48	1.15	1.17	1.18

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



### 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.  
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