

Coaxial

Power Splitter/Combiner

ZC16PD-222-S+

16 Way-0° 50Ω 10 to 2200 MHz

The Big Deal

- Wideband, 10 to 2200 MHz
- Good isolation, 17 dB
- Low unbalance, 0.3 dB, 5°



CASE STYLE: UU179

Product Overview

Mini-Circuits' ZC16PD-222-S+ is a 16-way 0° splitter/combiner providing 1W RF power handling as a splitter across the 10 to 2200 MHz range, covering many wireless communications bands as well as Sat-Com IF and more. It provides a high port-count with excellent isolation and low unbalance, making this model ideal for systems requiring distribution of signal into many channels. The splitter/combiner comes housed in a rugged aluminum alloy case (8.5 x 3.95 x 0.75") with SMA connectors.

Key Features

Feature	Advantages
Wideband, 10 to 2200 MHz	ZC16PD-222-S+ covers many popular wireless communications bands, making it suitable for a wide variety of applications.
1W power handling	Suitable for a variety of system power requirements.
Good isolation: <ul style="list-style-type: none">• 25 dB @ 100 MHz• 16 dB @ 2200 MHz	Minimizes signal leakage and interference between ports.
Low unbalance: <ul style="list-style-type: none">• 0.3 dB amplitude unbalance• 5° phase unbalance	ZC16PD-222-S+ produces nearly equal output signals, ideal for parallel path / multi-channel systems.

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



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ZC16PD-222-S+

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Maximum Ratings

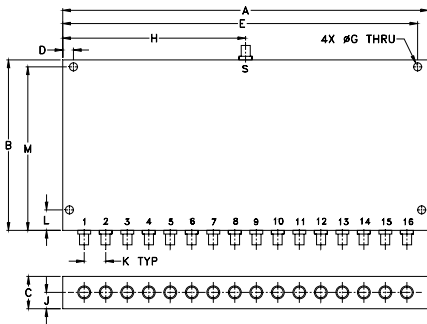
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.75W max.

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

Coaxial Connections

SUM PORT	S
PORT 1,2,3,.....,16	1,2,3,.....,16

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
8.50	3.95	.75	.250	8.250	—	.187
215.90	100.33	19.05	6.35	209.55	—	4.75
H	J	K	L	M	wt	
4.250	.38	.500	.475	3.475	grams	
107.95	9.65	12.70	12.07	88.27	710	

Electrical Schematic



Features

- wide frequency band 10 to 2200 MHz
- good amplitude unbalance, 0.3 dB typ.
- good phase unbalance, 5 deg. typ.

Applications

- UHF
- cellular, GPS, PCS
- communication systems



CASE STYLE: UU179

Connectors Model
SMA ZC16PD-222-S+

+RoHS Compliant

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

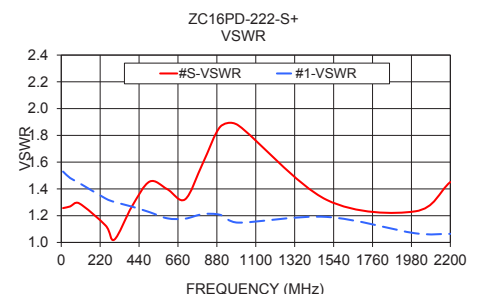
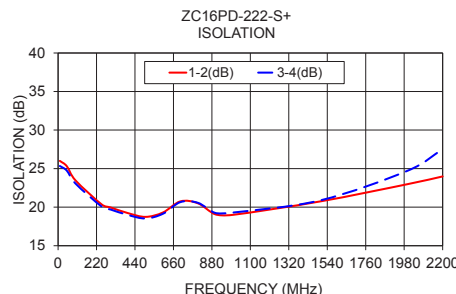
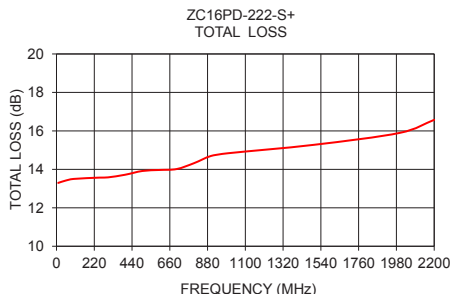
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		10		2200	MHz
Insertion Loss Above 12 dB	10-100	—	1.5	2.8	dB
	100-1100	—	3.2	4.5	
	1100-2200	—	4.5	5.6	
Isolation	10-100	20	25	—	dB
	100-1100	14	17	—	
	1100-2200	14	16	—	
Phase Unbalance	10-100	—	—	2.0	Degree
	100-1100	—	—	10	
	1100-2200	—	—	18	
Amplitude Unbalance	10-100	—	—	0.7	dB
	100-1100	—	—	0.7	
	1100-2200	—	—	1.0	
VSWR (S)	10-100		1.65	2.30	(:1)
	100-1100 1100-2200				
VSWR (OUT)	10-100		1.50	2.10	(:1)
	100-1100		1.30	1.80	
	1100-2200		1.45	2.0	

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
			1-2	3-4			
10.00	13.29	0.05	26.00	25.34	0.18	1.26	1.53
50.00	13.41	0.04	25.31	24.74	0.16	1.27	1.48
100.00	13.50	0.04	23.46	23.05	0.28	1.29	1.45
250.00	13.57	0.06	20.34	20.06	0.75	1.13	1.33
300.00	13.58	0.06	19.96	19.70	0.88	1.02	1.30
400.00	13.72	0.07	19.22	18.98	1.10	1.27	1.27
500.00	13.92	0.08	18.74	18.54	1.31	1.45	1.23
600.00	13.97	0.11	19.31	19.14	1.48	1.40	1.18
700.00	14.02	0.14	20.75	20.66	1.74	1.32	1.18
800.00	14.32	0.15	20.50	20.56	2.08	1.59	1.21
900.00	14.70	0.15	19.06	19.24	2.49	1.87	1.21
1000.00	14.84	0.15	19.00	19.30	2.87	1.88	1.15
1500.00	15.28	0.19	20.75	20.88	4.24	1.32	1.19
2000.00	15.90	0.37	22.99	24.73	5.90	1.23	1.07
2200.00	16.57	0.52	23.99	27.52	8.27	1.45	1.06

1. Total Loss = Insertion Loss + 12dB splitter loss.



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