



DC PASS, HIGH POWER

Power Splitter/Combiner

ZN16PD-0563-S+

Mini-Circuits

16 Way-0° 50Ω 500 to 6000 MHz

THE BIG DEAL

- Wideband, 0.5 – 6 GHz
- High Isolation, 22 dB typ.
- 30W power handling
- Low amplitude unbalance, 0.3 dBtyp.

APPLICATIONS

- Broadcasting
- Fixed Satellite
- Mobile



Generic photo used for illustration purposes only

Model No.	ZN16PD-0563-S+
Case Style	UU3178
Connectors	SMA-Female

+RoHS Compliant

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

PRODUCT OVERVIEW

Mini-Circuits' ZN16PD-0563-S+ is a wideband 16-way 0° splitter/combiner providing coverage from 0.5 to 6 GHz, supporting a wide range of applications from S-Band, C-Band and many more. This model provides 30W power handling as a splitter and very low insertion loss across the entire operating frequency range, minimizing power dissipation and delivering excellent signal power transmission from input to output. The ZN16PD-0563-S+ is housed in a case measuring 9.5 x 9.0 x 0.55" with SMA connectors.

KEY FEATURES

Feature	Advantages
Ultra-wideband, 0.5 to 6 GHz	Wide frequency range supports many broadband applications in a single model.
High isolation, 22 dB typ.	Minimizes interference between ports.
High power handling: •30W as a splitter •2.5W as a combiner	The ZN16PD-0563-S+ is suitable for systems with a wide range of power requirements
Low amplitude unbalance, 0.3 dB	Produces nearly equal output signals, ideal for parallel path and multichannel systems.
DC Passing, 223mA	Supports applications where DC power is needed through the RF line.





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MAXIMUM RATINGS

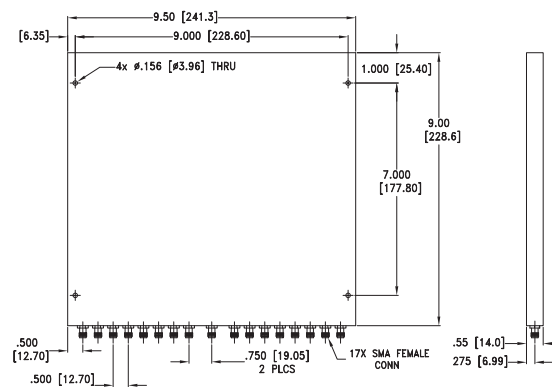
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	30W max.
Internal Dissipation	2.5W max.
DC Current	223 mA

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

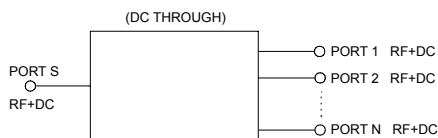
COAXIAL CONNECTIONS

Sum Port	S
Port 1-16	1-16

OUTLINE DRAWING



ELECTRICAL SCHEMATIC



ELECTRICAL SPECIFICATIONS AT 25°C

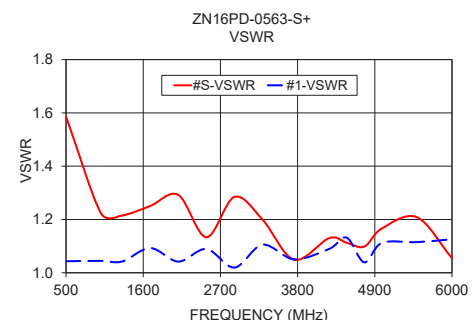
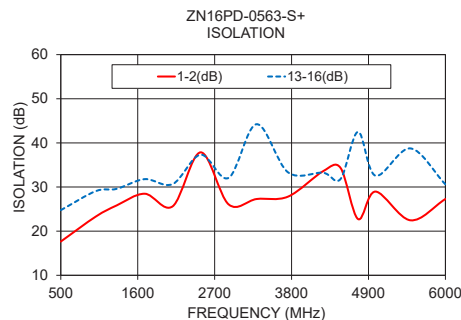
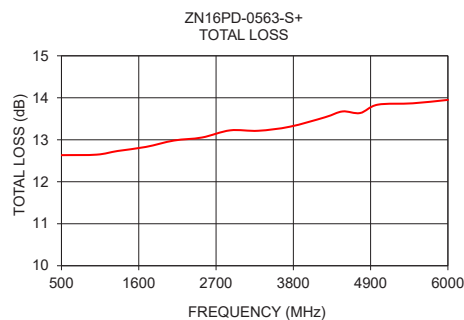
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range		500		6000	MHz
Insertion Loss Above 12.0 dB	500-6000		1.5	4.5	dB
Isolation	500-600	16	27	-	dB
	600-6000	18	28	-	dB
Phase Unbalance ($\pm$) ¹	500-6000	-	4	16	Degree
Amplitude Unbalance ($\pm$) ¹	500-6000	-	0.3	1.2	dB
VSWR (Port S)	500-6000	-	1.12	2.0	:1
VSWR (Port 1-16)	500-6000	-	1.06	1.4	:1

1. With reference to average.

TYPICAL PERFORMANCE DATA

Frequency (MHz)	Insertion Loss (dB)	Ampl. Unbal. (dB)	Isolation (dB)		Phase Unbal. (deg.)	VSWR S	VSWR 1
			S-1	1-2 13-16			
500	12.63	0.10	17.65	24.76	0.89	1.59	1.04
1000	12.65	0.09	23.30	29.07	1.69	1.22	1.04
1300	12.73	0.08	25.84	29.59	1.79	1.22	1.04
1700	12.83	0.11	28.48	31.79	2.37	1.25	1.09
2100	12.98	0.11	25.64	30.67	2.42	1.29	1.04
2500	13.05	0.23	37.86	37.32	2.85	1.13	1.09
2900	13.22	0.26	26.07	32.07	3.60	1.28	1.02
3300	13.21	0.19	27.28	44.23	3.39	1.20	1.11
3750	13.31	0.20	27.83	33.32	3.63	1.05	1.05
4250	13.54	0.27	33.58	33.24	3.87	1.13	1.09
4500	13.67	0.22	34.34	31.81	4.76	1.11	1.13
4750	13.64	0.32	22.75	42.50	3.96	1.10	1.04
5000	13.84	0.42	28.97	32.57	4.47	1.17	1.11
5500	13.87	0.41	22.46	38.75	4.47	1.21	1.11
6000	13.95	0.60	27.29	30.60	4.84	1.05	1.13

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



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.
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