

Power Splitter/Combiner

ZN3PD-900W-S

3 Way-0° 50Ω 650 to 1050 MHz

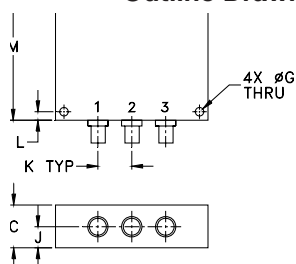
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.375W max.
DC Current	1.2A (400 mA 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
PORT 3	3

Outline Drawing



Outline Dimensions (inch/mm)

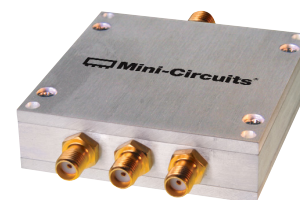
A	B	C	D	E	F	G
2.25	2.30	.63	.125	2.125	—	.125
57.15	58.42	16.00	3.18	53.98	—	3.18
H	J	K	L	M	wt	
1.13	.31	.500	.125	2.175	grams	94
28.70	7.87	12.70	3.18	55.25		

Features

- low insertion loss, 0.3 dB typ.
- good isolation, 22 dB typ.
- excellent VSWR
- up to 10W power input as splitter
- rugged shielded case

Applications

- instrumentation
- cellular
- communications systems



CASE STYLE: UU181

Connectors	Model
SMA	ZN3PD-900W-S

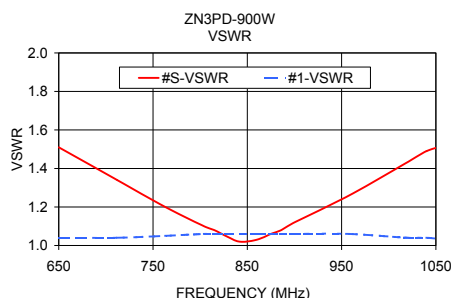
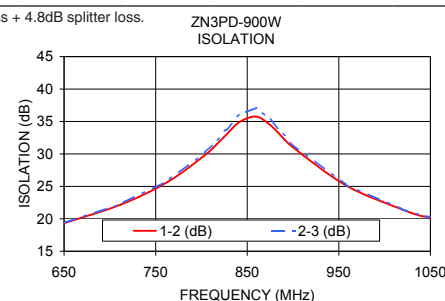
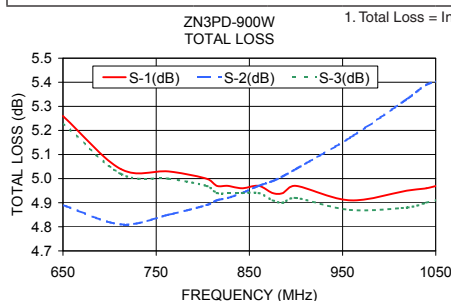
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		AMPLITUDE UNBALANCE (dB)	VSWR (:1)			
						S		OUT	
	Typ.	Min.	Typ.	Max.	Max.	Typ.	Max.	Typ.	Max.
f _L -f _U									
650-1050	22	15	0.3	0.8	0.8	1.09	1.8	1.09	1.3

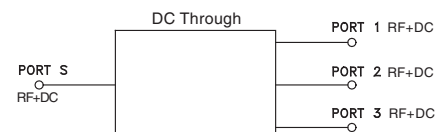
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)			Amp. Unbal. (dB)	Isolation (dB)		VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	2-3				
650.00	5.26	4.89	5.23	0.37	19.32	19.35	1.51	1.04	1.03	1.04
712.00	5.04	4.81	5.02	0.23	22.19	22.30	1.34	1.04	1.04	1.04
763.00	5.03	4.85	5.00	0.18	25.67	25.85	1.20	1.05	1.05	1.05
804.00	5.00	4.89	4.97	0.10	29.83	30.23	1.10	1.06	1.05	1.06
815.00	4.97	4.91	4.94	0.07	31.25	31.77	1.08	1.06	1.05	1.06
827.00	4.97	4.92	4.94	0.05	32.95	33.71	1.05	1.06	1.05	1.06
842.00	4.96	4.94	4.94	0.02	34.95	36.11	1.02	1.06	1.04	1.07
860.00	4.97	4.97	4.94	3.00	35.75	37.11	1.03	1.06	1.04	1.07
875.00	4.94	4.99	4.91	0.08	34.47	35.32	1.06	1.06	1.04	1.07
886.00	4.94	5.01	4.90	0.11	32.95	33.56	1.08	1.06	1.04	1.07
900.00	4.97	5.04	4.92	0.12	31.01	31.40	1.12	1.06	1.05	1.07
958.00	4.91	5.17	4.87	0.30	25.13	25.23	1.26	1.06	1.06	1.06
1019.00	4.95	5.33	4.88	0.44	21.46	21.49	1.43	1.04	1.10	1.05
1040.00	4.96	5.39	4.90	0.49	20.45	20.50	1.49	1.04	1.11	1.04
1060.00	4.98	5.41	4.92	0.50	20.06	20.07	1.52	1.03	1.12	1.04

1. Total Loss = Insertion Loss + 4.8dB splitter loss.



electrical schematic



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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3 Way-0° Power Splitter/Combiner

ZN3PD-900W

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)			AMP. UNBAL. (dB)	ISOLATION (dB)		FREQ. (MHz)	VSWR (:1)			
	S-1	S-2	S-3		1-2	2-3		S	1	2	3
650	5.26	4.89	5.23	0.37	19.32	19.35	650	1.51	1.04	1.03	1.04
712	5.04	4.81	5.02	0.23	22.19	22.30	712	1.34	1.04	1.04	1.04
763	5.03	4.85	5.00	0.18	25.67	25.85	763	1.20	1.05	1.05	1.05
804	5.00	4.89	4.97	0.10	29.83	30.23	804	1.10	1.06	1.05	1.06
815	4.97	4.91	4.94	0.07	31.25	31.77	815	1.08	1.06	1.05	1.06
827	4.97	4.92	4.94	0.05	32.95	33.71	827	1.05	1.06	1.05	1.06
842	4.96	4.94	4.94	0.02	34.95	36.11	842	1.02	1.06	1.04	1.07
860	4.97	4.97	4.94	0.00	35.75	37.11	860	1.03	1.06	1.04	1.07
875	4.94	4.99	4.91	0.08	34.47	35.32	875	1.06	1.06	1.04	1.07
886	4.94	5.01	4.90	0.11	32.95	33.56	886	1.08	1.06	1.04	1.07
900	4.97	5.04	4.92	0.12	31.01	31.40	900	1.12	1.06	1.05	1.07
958	4.91	5.17	4.87	0.30	25.13	25.23	958	1.26	1.06	1.06	1.06
1019	4.95	5.33	4.88	0.44	21.46	21.49	1019	1.43	1.04	1.10	1.05
1040	4.96	5.39	4.90	0.49	20.45	20.50	1040	1.49	1.04	1.11	1.04
1060	4.98	5.41	4.92	0.50	20.06	20.07	1060	1.52	1.03	1.12	1.04

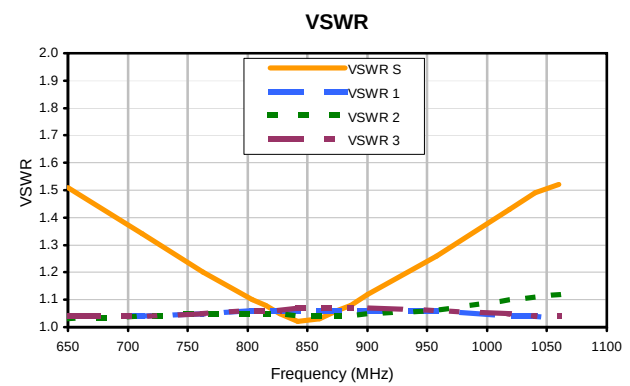
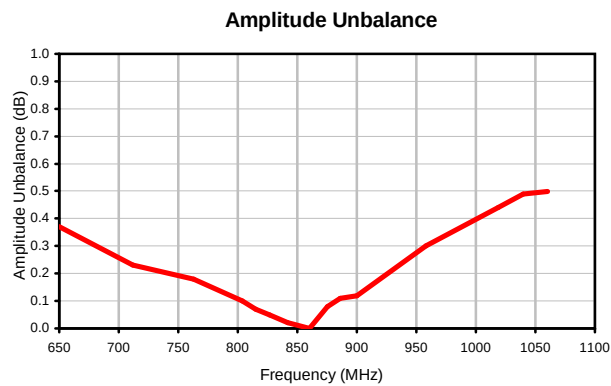
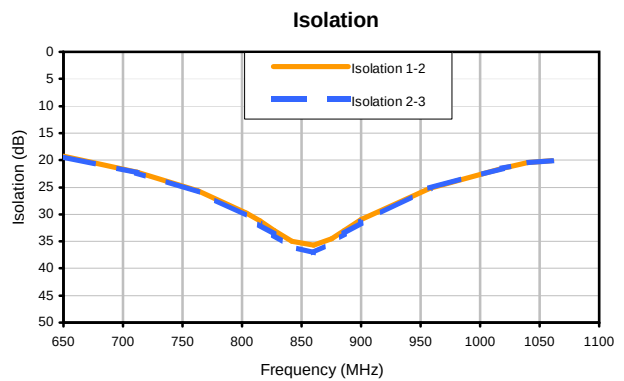
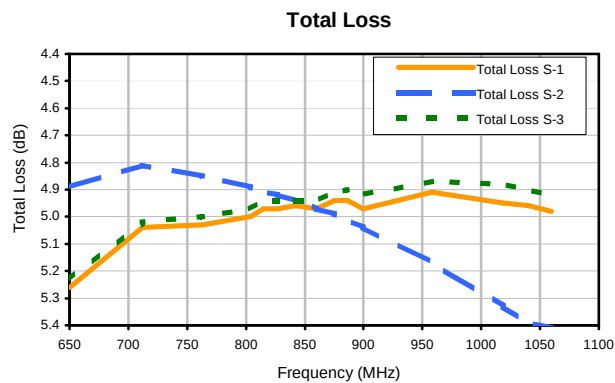
¹ Total Loss = Insertion Loss+ 4.8dB Splitter Loss

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3 Way-0° Power Splitter/Combiner

ZN3PD-900W

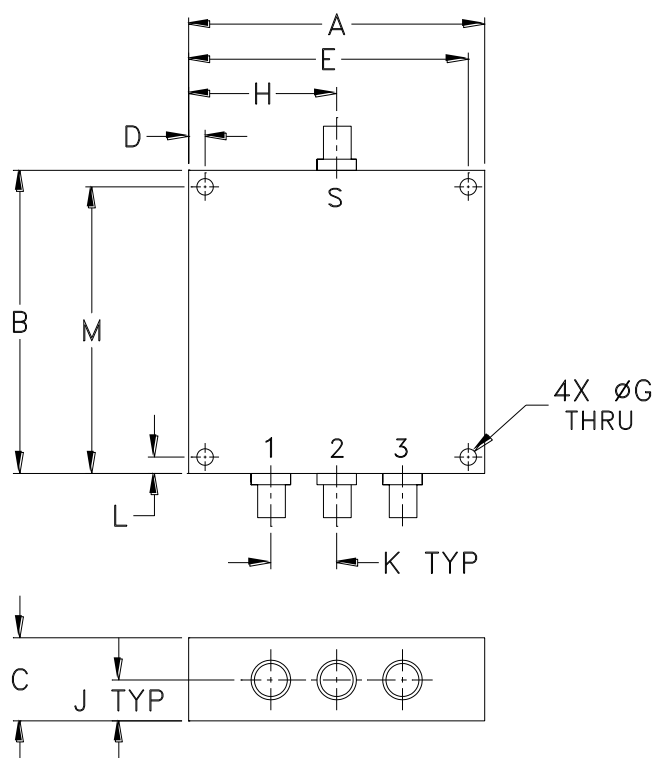
Typical Performance Curves



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Outline Dimensions

UU181



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
UU181	2.25 (57.15)	2.30 (58.42)	.63 (16.00)	.125 (3.18)	2.125 (53.98)	-- --	.125 (3.18)	1.13 (28.70)	.31 (7.87)	.500 (12.70)	.125 (3.18)	2.175 (55.24)	94

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
3. Refer to the individual model data sheet for the type of connectors available.



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RF/IF MICROWAVE COMPONENTS

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I