

Power Splitter/Combiner

6 Way-0° 50Ω 1800 to 6000 MHz

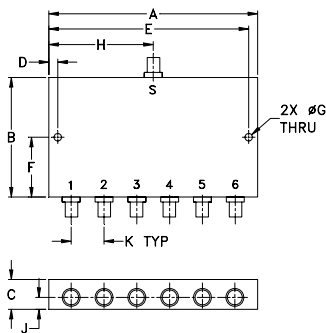
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	1.5W max.
DC Current	0.6A (100mA for each port)
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

SUM PORT	S
PORT 1,2,3,4,5,6	1,2,3,4,5,6

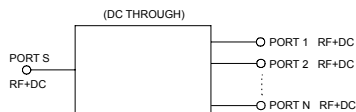
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
3.50	3.00	.63	.125	3.375	1.50
88.90	76.20	16.00	3.18	85.73	38.10
G	H	J	K	wt	
.125	1.75	.32	.500	grams	
3.18	44.45	8.13	12.70	180	

Electrical Schematic



Features

- wideband, 1800 to 6000 MHz
- Low insertion loss, 1.0 dB typ.
- Good isolation, 20 dB typ.
- rugged, shielded case
- up to 10W power input as splitter

Applications

- high band PCS
- UNII
- WiMAX
- WiFi
- bluetooth

ZN6PD-63W-S+



CASE STYLE: UU586

Connectors Model
SMA ZN6PD-63W-S+

+RoHS Compliant

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

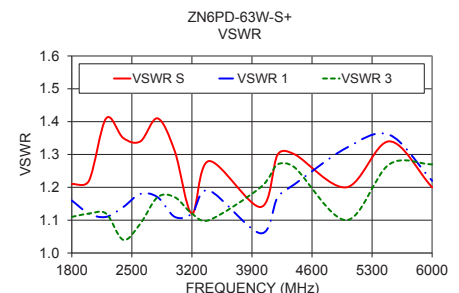
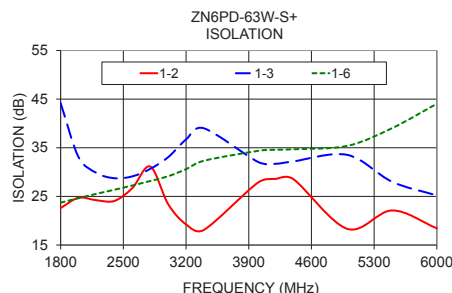
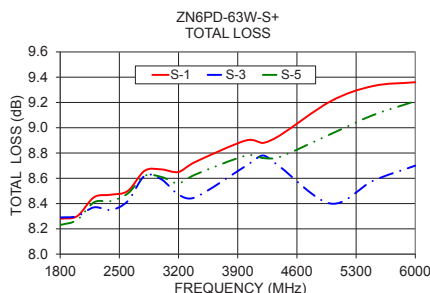
Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		1800		6000	MHz
Insertion Loss (above theoretical 7.8 dB)	1800 - 3000 3000 - 6000	—	0.80 1.5	1.3 2.1	dB
Isolation	1800 - 6000	15	20	—	dB
Phase Unbalance	1800 - 3000 3000 - 6000	—	5 9	9 15	Degree
Amplitude Unbalance	1800 - 3000 3000 - 6000	—	0.15 0.8	0.5 1.5	dB
VSWR (Port S)	1800 - 6000	—	1.3	—	:1
VSWR (Port 1-6)	1800 - 6000	—	1.3	—	:1

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)			Amplitude Unbalance (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 3
	S-1	S-3	S-5		1-2	1-3	1-6				
1800.00	8.28	8.29	8.23	0.09	22.61	44.15	23.72	2.63	1.21	1.16	1.11
2000.00	8.30	8.30	8.27	0.06	24.72	33.07	24.64	3.54	1.22	1.12	1.12
2200.00	8.45	8.37	8.41	0.09	24.21	29.83	25.53	4.08	1.41	1.11	1.12
2400.00	8.47	8.35	8.42	0.13	24.07	28.74	26.37	4.12	1.35	1.14	1.04
2600.00	8.50	8.42	8.48	0.11	26.71	29.12	27.24	4.26	1.34	1.18	1.09
2800.00	8.66	8.62	8.62	0.14	31.14	30.66	28.17	4.71	1.41	1.17	1.17
3000.00	8.67	8.59	8.61	0.14	23.42	33.06	29.14	5.27	1.31	1.11	1.17
3200.00	8.65	8.47	8.56	0.20	19.25	36.71	30.60	5.57	1.12	1.12	1.12
3400.00	8.73	8.45	8.63	0.31	18.12	39.00	32.33	5.40	1.28	1.19	1.10
4000.00	8.90	8.70	8.78	0.24	27.80	32.12	34.35	4.26	1.14	1.06	1.20
4200.00	8.88	8.78	8.76	0.17	28.59	31.71	34.59	5.46	1.30	1.17	1.27
4400.00	8.94	8.69	8.77	0.28	28.53	32.20	34.69	6.92	1.30	1.21	1.26
5000.00	9.21	8.40	8.95	0.84	18.33	33.54	35.39	6.74	1.20	1.32	1.10
5500.00	9.33	8.58	9.10	0.79	22.11	28.02	39.03	5.81	1.34	1.36	1.27
6000.00	9.36	8.70	9.21	0.73	18.45	25.19	44.05	7.06	1.20	1.22	1.27

1. Total Loss = Insertion Loss + 7.8dB theoretical 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.
- 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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M171494
ZN6PD-63W-S+
ED-14597/2
JC/TD/CP/AM
190111

6 Way-0° Power Splitter/Combiner

ZN6PD-63W-S+

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹			AMP. UNBAL. (dB)	ISOLATION			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR		
	S-1	(dB) S-3	S-5		1-2	(dB) 1-3	1-6			(:1) S	1	3
1800	8.28	8.29	8.23	0.09	22.61	44.15	23.72	2.63	1800	1.21	1.16	1.11
1900	8.24	8.25	8.21	0.08	24.07	36.58	24.18	3.10	1900	1.04	1.13	1.10
2000	8.30	8.30	8.27	0.06	24.72	33.07	24.64	3.54	2000	1.22	1.12	1.12
2050	8.35	8.33	8.31	0.05	24.75	31.93	24.87	3.73	2050	1.29	1.11	1.13
2100	8.39	8.35	8.35	0.05	24.63	31.06	25.09	3.88	2100	1.35	1.11	1.13
2150	8.43	8.37	8.39	0.07	24.42	30.38	25.31	4.00	2150	1.39	1.11	1.13
2200	8.45	8.37	8.41	0.09	24.21	29.83	25.53	4.08	2200	1.41	1.11	1.12
2250	8.47	8.37	8.42	0.10	24.03	29.40	25.74	4.12	2250	1.41	1.11	1.11
2300	8.47	8.37	8.43	0.12	23.91	29.10	25.95	4.13	2300	1.40	1.12	1.09
2350	8.47	8.36	8.43	0.13	23.92	28.89	26.16	4.13	2350	1.37	1.13	1.07
2400	8.47	8.35	8.42	0.13	24.07	28.74	26.37	4.12	2400	1.35	1.14	1.04
2450	8.47	8.35	8.43	0.13	24.37	28.71	26.58	4.11	2450	1.33	1.15	1.02
2500	8.47	8.37	8.44	0.13	24.89	28.76	26.80	4.14	2500	1.32	1.16	1.03
2550	8.48	8.39	8.45	0.12	25.64	28.88	27.02	4.17	2550	1.32	1.17	1.06
2600	8.50	8.42	8.48	0.11	26.71	29.12	27.24	4.26	2600	1.34	1.18	1.09
2700	8.58	8.52	8.54	0.10	29.80	29.76	27.72	4.52	2700	1.38	1.18	1.13
2800	8.66	8.62	8.62	0.14	31.14	30.66	28.17	4.71	2800	1.41	1.17	1.17
2900	8.70	8.64	8.66	0.14	27.15	31.70	28.64	4.98	2900	1.40	1.14	1.18
3000	8.67	8.59	8.61	0.14	23.42	33.06	29.14	5.27	3000	1.31	1.11	1.17
3100	8.64	8.52	8.57	0.15	20.87	34.77	29.80	5.46	3100	1.19	1.10	1.15
3200	8.65	8.47	8.56	0.20	19.25	36.71	30.60	5.57	3200	1.12	1.12	1.12
3300	8.68	8.45	8.59	0.26	18.36	38.47	31.48	5.55	3300	1.19	1.16	1.10
3400	8.73	8.45	8.63	0.31	18.12	39.00	32.33	5.40	3400	1.28	1.19	1.10
3500	8.78	8.45	8.67	0.35	18.45	38.05	33.08	5.14	3500	1.33	1.19	1.10
3600	8.81	8.46	8.70	0.37	19.36	36.45	33.69	4.84	3600	1.32	1.18	1.11
3700	8.83	8.47	8.70	0.37	20.91	34.84	34.12	4.55	3700	1.25	1.14	1.11
3800	8.84	8.51	8.71	0.35	23.06	33.53	34.37	4.31	3800	1.15	1.08	1.13
3900	8.87	8.59	8.74	0.30	25.63	32.63	34.41	4.18	3900	1.09	1.02	1.16
4000	8.90	8.70	8.78	0.24	27.80	32.12	34.35	4.26	4000	1.14	1.06	1.20
4100	8.89	8.77	8.78	0.18	28.61	31.85	34.41	4.70	4100	1.22	1.12	1.24
4200	8.88	8.78	8.76	0.17	28.59	31.71	34.59	5.46	4200	1.30	1.17	1.27
4300	8.91	8.75	8.76	0.19	28.66	31.81	34.73	6.24	4300	1.33	1.20	1.28
4400	8.94	8.69	8.77	0.28	28.53	32.20	34.69	6.92	4400	1.30	1.21	1.26
4500	8.98	8.61	8.78	0.41	27.22	32.67	34.64	7.34	4500	1.22	1.21	1.23
4600	9.02	8.52	8.79	0.53	24.82	33.18	34.66	7.52	4600	1.13	1.20	1.18
4700	9.06	8.46	8.81	0.64	22.38	33.61	34.76	7.46	4700	1.06	1.21	1.12
4800	9.10	8.42	8.85	0.73	20.43	33.98	34.91	7.28	4800	1.09	1.24	1.06
4900	9.16	8.40	8.90	0.80	19.09	33.99	35.12	7.02	4900	1.16	1.28	1.05
5000	9.21	8.40	8.95	0.84	18.33	33.54	35.39	6.74	5000	1.20	1.32	1.10
5100	9.25	8.42	8.99	0.86	18.10	32.59	35.72	6.48	5100	1.23	1.35	1.16
5200	9.28	8.45	9.02	0.87	18.35	31.40	36.18	6.25	5200	1.23	1.37	1.20
5300	9.30	8.48	9.04	0.86	19.06	30.17	36.86	6.03	5300	1.25	1.38	1.23
5400	9.32	8.53	9.07	0.84	20.28	29.02	37.76	5.84	5400	1.29	1.37	1.26
5500	9.33	8.58	9.10	0.79	22.11	28.02	39.03	5.81	5500	1.34	1.36	1.27
5550	9.34	8.61	9.12	0.77	23.32	27.71	39.88	5.84	5550	1.36	1.35	1.27
5600	9.34	8.64	9.14	0.75	24.57	27.24	40.92	5.96	5600	1.38	1.34	1.28
5650	9.35	8.66	9.16	0.73	25.83	26.94	42.16	6.05	5650	1.39	1.33	1.27
5700	9.35	8.68	9.17	0.72	26.47	26.60	43.76	6.26	5700	1.39	1.31	1.28
5750	9.35	8.69	9.19	0.71	26.03	26.30	45.62	6.39	5750	1.38	1.30	1.27
5800	9.36	8.69	9.20	0.71	24.78	26.10	47.72	6.61	5800	1.36	1.29	1.27
5850	9.36	8.70	9.20	0.72	23.01	25.75	49.41	6.78	5850	1.33	1.26	1.27
5900	9.36	8.70	9.21	0.72	21.32	25.64	48.95	6.83	5900	1.29	1.25	1.27
5950	9.36	8.70	9.21	0.72	19.81	25.35	46.63	6.98	5950	1.25	1.25	1.27
6000	9.36	8.70	9.21	0.73	18.45	25.19	44.05	7.06	6000	1.20	1.22	1.27

¹Total Loss = Insertion Loss + 7.8dB Splitter Loss

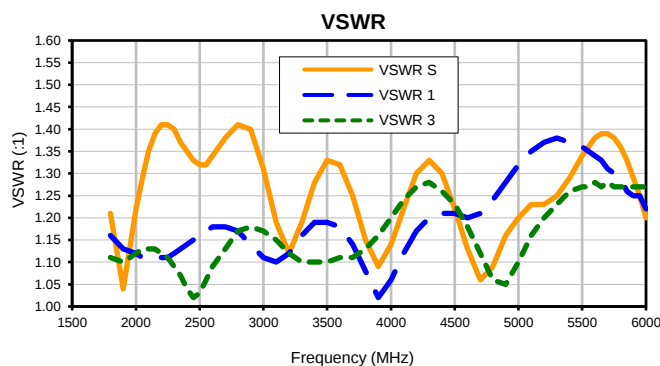
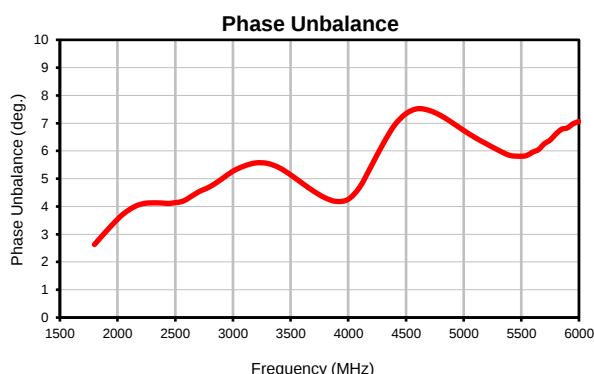
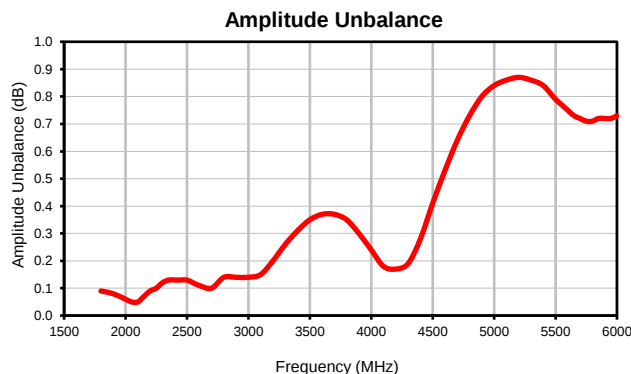
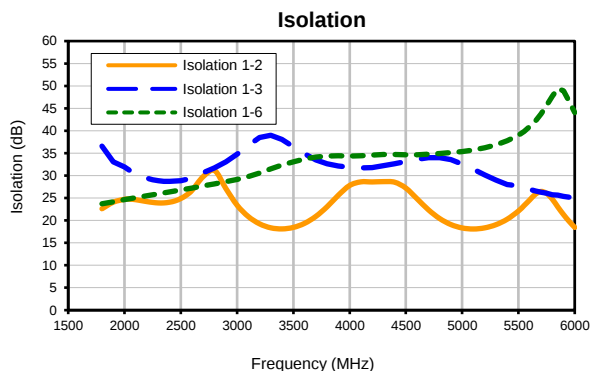
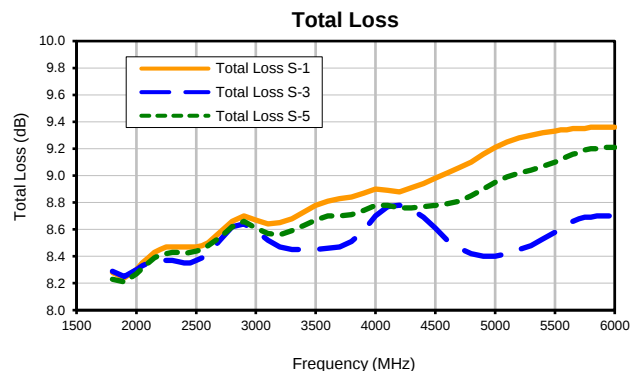


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IF/RF MICROWAVE COMPONENTS

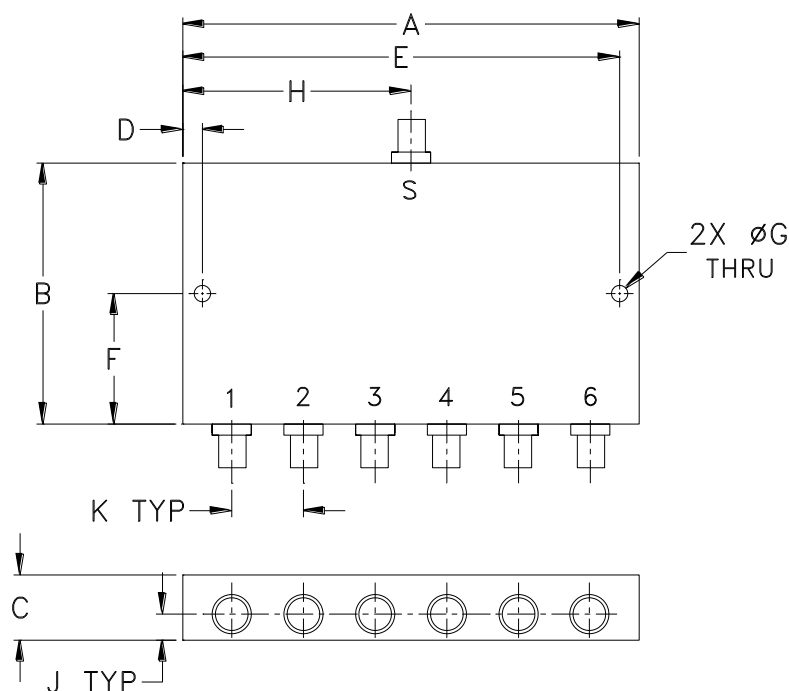
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 ZN6PD-63W-S+
 1/18/2019
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Typical Performance Curves



Outline Dimensions

UU586



CASE#	A	B	C	D	E	F	G	H	J	K	WT. GRAMS
UU586	3.50 (88.90)	3.00 (76.20)	.63 (16.00)	.125 (3.18)	3.375 (85.73)	1.50 (38.10)	.125 (3.17)	1.75 (44.45)	.32 (8.13)	.500 (12.70)	180

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

Notes:

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



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RF/IF MICROWAVE COMPONENTS



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