

Power Splitter/Combiner

ZB6PD1-900

6 Way-0° 50Ω 800 to 900 MHz

Maximum Ratings

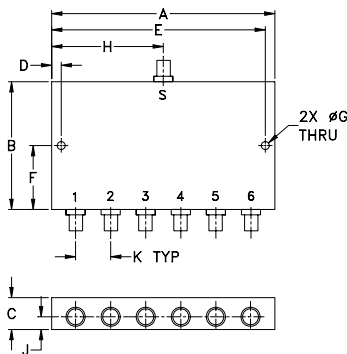
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.5W max.
DC Current	1.2A(200mA for each port)

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
6.00	1.62	.88	.250	5.750	.810
152.40	41.15	22.35	6.35	146.05	20.57

G	H	J	K	wt
.144	3.00	.44	1.00	grams
3.66	76.20	11.18	25.40	340

Features

- low insertion loss, 0.3 dB typ.
- high isolation, 32 dB typ.
- excellent VSWR, 1.15:1 typ.
- rugged shielded case

Applications

- cellular
- instrumentation
- communication systems



Generic photo used for illustration purposes only

CASE STYLE: UU187

Connectors	Model
SMA	ZB6PD1-900-S
N-TYPE	ZB6PD1-900-N

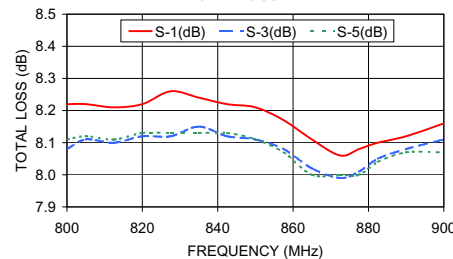
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 7.8 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)	
	Typ.	Min.	Typ.	Max.			S	OUT
f_L - f_U					Max.	Max.	Typ.	Max.
800-900	32	20	0.3	0.7	—	0.5	1.1 1.5	1.13 1.35

Typical Performance Data

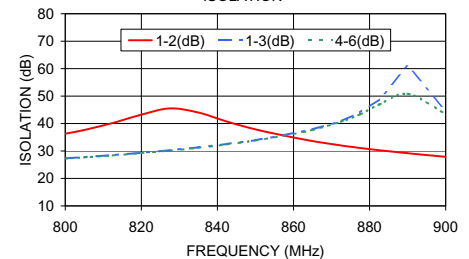
Frequency (MHz)	Total Loss ¹ (dB)			Amplitude Unbalance (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 3
	S-1	S-2	S-3		1-2	1-3	4-6				
800.00	8.22	8.08	8.11	0.26	36.28	27.33	27.24	1.57	1.32	1.10	1.08
805.00	8.22	8.11	8.12	0.25	37.67	27.79	27.65	1.56	1.31	1.11	1.09
812.50	8.21	8.10	8.11	0.23	40.22	28.50	28.40	1.55	1.29	1.12	1.10
820.00	8.22	8.12	8.13	0.22	43.25	29.34	29.25	1.52	1.27	1.12	1.11
827.50	8.26	8.12	8.13	0.24	45.51	30.28	30.13	1.68	1.26	1.13	1.12
835.00	8.24	8.15	8.13	0.21	44.01	31.33	31.17	1.54	1.24	1.14	1.13
842.50	8.22	8.12	8.13	0.23	40.72	32.56	32.39	1.54	1.22	1.14	1.13
850.00	8.21	8.11	8.11	0.22	37.88	33.94	33.83	1.56	1.20	1.14	1.13
857.50	8.17	8.08	8.07	0.22	35.62	35.76	35.58	1.60	1.17	1.13	1.13
865.00	8.11	8.02	8.00	0.22	33.60	37.90	37.67	1.73	1.15	1.13	1.12
872.50	8.06	7.99	8.00	0.21	32.02	40.88	40.69	1.66	1.14	1.13	1.12
877.50	8.08	8.01	8.00	0.20	31.09	44.08	43.37	1.60	1.14	1.13	1.12
882.50	8.10	8.05	8.04	0.18	30.28	48.77	46.90	1.46	1.15	1.14	1.13
890.00	8.12	8.08	8.07	0.18	29.21	60.96	50.85	1.42	1.16	1.15	1.14
900.00	8.16	8.11	8.07	0.19	27.85	44.74	43.51	1.50	1.19	1.17	1.16

ZB6PD1-900
TOTAL LOSS

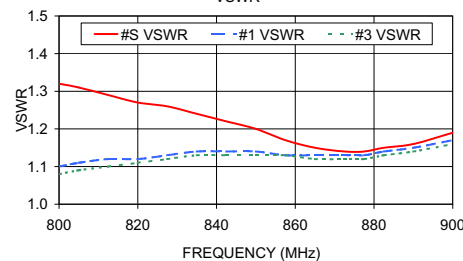


1. Total Loss = Insertion Loss + 7.8dB splitter loss.

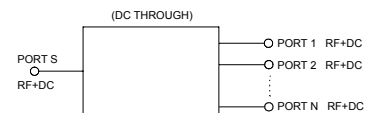
ZB6PD1-900
ISOLATION



ZB6PD1-900
VSWR



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.
- 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



6 Way-0° Power Splitter/Combiner

ZB6PD1-900

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹			AMP. UNBAL. (dB)	ISOLATION			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR		
	S-1	S-3	S-5		1-2	1-3	4-6			S	1	3
800.0	8.22	8.08	8.11	0.26	36.28	27.33	27.24	1.57	800.0	1.32	1.10	1.08
802.5	8.22	8.10	8.12	0.25	37.00	27.56	27.45	1.66	802.5	1.31	1.10	1.09
805.0	8.22	8.11	8.12	0.25	37.67	27.79	27.65	1.56	805.0	1.31	1.11	1.09
807.5	8.21	8.11	8.12	0.24	38.40	28.01	27.91	1.58	807.5	1.30	1.11	1.09
810.0	8.21	8.09	8.11	0.24	39.33	28.25	28.14	1.49	810.0	1.29	1.11	1.10
812.5	8.21	8.10	8.11	0.23	40.22	28.50	28.40	1.55	812.5	1.29	1.12	1.10
815.0	8.23	8.13	8.12	0.24	41.16	28.78	28.67	1.61	815.0	1.28	1.12	1.10
817.5	8.23	8.12	8.12	0.25	42.31	29.05	28.94	1.51	817.5	1.28	1.12	1.11
820.0	8.22	8.12	8.13	0.22	43.25	29.34	29.25	1.52	820.0	1.27	1.12	1.11
822.5	8.25	8.14	8.13	0.24	44.32	29.62	29.51	1.44	822.5	1.27	1.13	1.11
825.0	8.23	8.12	8.12	0.22	45.05	29.95	29.83	1.76	825.0	1.26	1.13	1.12
827.5	8.26	8.12	8.13	0.24	45.51	30.28	30.13	1.68	827.5	1.26	1.13	1.12
830.0	8.24	8.15	8.14	0.22	45.50	30.61	30.47	1.68	830.0	1.25	1.13	1.12
832.5	8.23	8.12	8.11	0.24	44.80	30.97	30.85	1.66	832.5	1.25	1.14	1.13
835.0	8.24	8.15	8.13	0.21	44.01	31.33	31.17	1.54	835.0	1.24	1.14	1.13
837.5	8.24	8.14	8.14	0.24	42.99	31.72	31.59	1.63	837.5	1.24	1.14	1.13
840.0	8.23	8.13	8.13	0.22	41.92	32.13	31.98	1.54	840.0	1.23	1.14	1.13
842.5	8.22	8.12	8.13	0.23	40.72	32.56	32.39	1.54	842.5	1.22	1.14	1.13
845.0	8.23	8.13	8.12	0.21	39.74	33.02	32.85	1.57	845.0	1.21	1.14	1.13
847.5	8.21	8.12	8.11	0.22	38.89	33.44	33.32	1.59	847.5	1.21	1.14	1.13
850.0	8.21	8.11	8.11	0.22	37.88	33.94	33.83	1.56	850.0	1.20	1.14	1.13
852.5	8.19	8.11	8.10	0.21	37.09	34.50	34.39	1.66	852.5	1.19	1.14	1.13
855.0	8.17	8.08	8.08	0.20	36.26	35.13	34.87	1.59	855.0	1.18	1.13	1.13
857.5	8.17	8.08	8.07	0.22	35.62	35.76	35.58	1.60	857.5	1.17	1.13	1.13
860.0	8.13	8.06	8.05	0.20	34.85	36.40	36.19	1.70	860.0	1.16	1.13	1.13
862.5	8.12	8.04	8.03	0.21	34.22	37.10	36.93	1.63	862.5	1.16	1.13	1.12
865.0	8.11	8.02	8.00	0.22	33.60	37.90	37.67	1.73	865.0	1.15	1.13	1.12
867.5	8.08	8.01	8.03	0.20	33.08	38.85	38.63	1.69	867.5	1.15	1.13	1.12
870.0	8.09	8.01	7.99	0.21	32.52	39.87	39.51	1.64	870.0	1.14	1.13	1.12
872.5	8.06	7.99	8.00	0.21	32.02	40.88	40.69	1.66	872.5	1.14	1.13	1.12
875.0	8.06	8.00	8.00	0.20	31.50	42.39	41.77	1.56	875.0	1.14	1.13	1.12
877.5	8.08	8.01	8.00	0.20	31.09	44.08	43.37	1.60	877.5	1.14	1.13	1.12
880.0	8.10	8.04	8.03	0.21	30.67	46.16	45.19	1.42	880.0	1.15	1.13	1.13
882.5	8.10	8.05	8.04	0.18	30.28	48.77	46.90	1.46	882.5	1.15	1.14	1.13
885.0	8.12	8.06	8.04	0.18	29.90	52.33	49.23	1.42	885.0	1.15	1.14	1.13
887.5	8.11	8.06	8.06	0.17	29.54	58.22	50.58	1.40	887.5	1.16	1.14	1.14
890.0	8.12	8.08	8.07	0.18	29.21	60.96	50.85	1.42	890.0	1.16	1.15	1.14
892.5	8.14	8.10	8.05	0.17	28.83	54.41	49.18	1.48	892.5	1.17	1.15	1.14
895.0	8.16	8.11	8.08	0.18	28.50	50.10	47.30	1.45	895.0	1.18	1.16	1.15
897.5	8.15	8.09	8.06	0.19	28.18	46.95	45.20	1.44	897.5	1.18	1.16	1.15
900.0	8.16	8.11	8.07	0.19	27.85	44.74	43.51	1.50	900.0	1.19	1.17	1.16

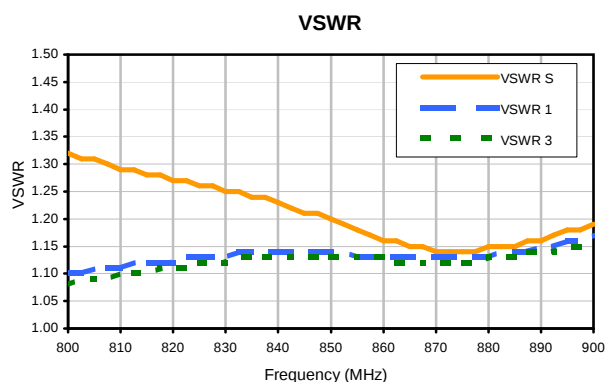
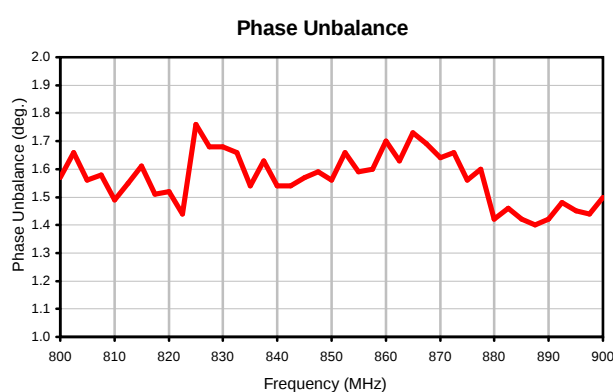
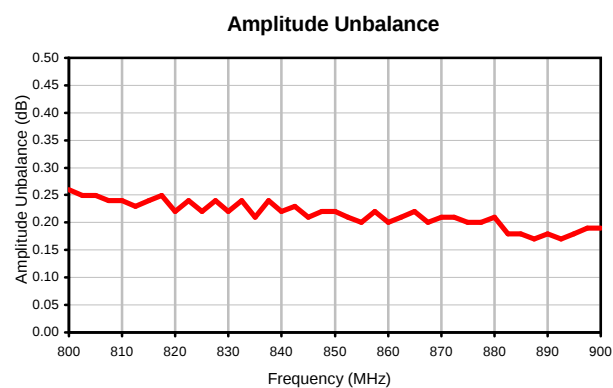
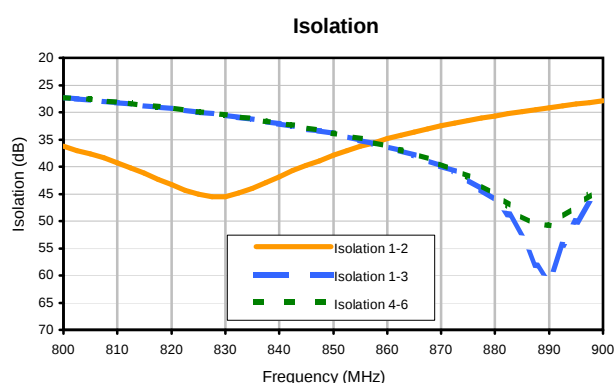
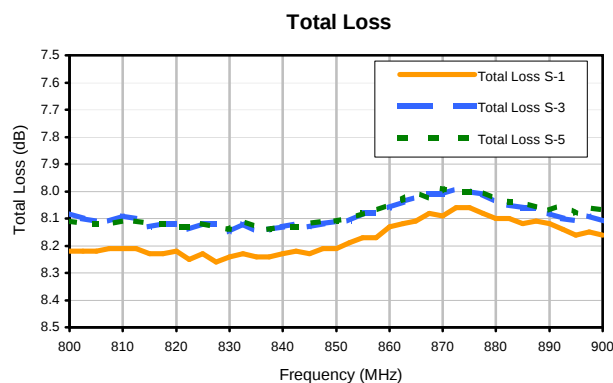
¹ Total Loss = Insertion Loss+ 7.8dB Splitter Loss

REV. X2
ZB6PD1-900
100627
Page 1 of 1

6 Way-0° Power Splitter/Combiner

ZB6PD1-900

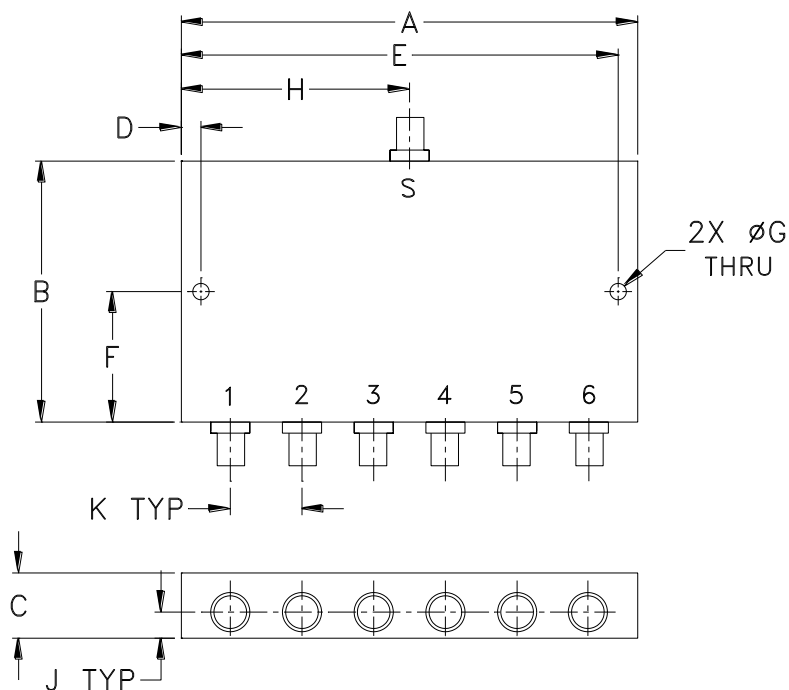
Typical Performance Curves



REV. X2
ZB6PD1-900
100627
Page 1 of 1

Outline Dimensions

UU187



CASE#	A	B	C	D	E	F	G	H	J	K	WT. GRAMS
UU187	6.00 (152.40)	1.62 (41.15)	.88 (22.35)	.250 (6.35)	5.750 (146.05)	.810 (20.57)	.144 (3.66)	3.00 (76.20)	.44 (11.18)	1.00 (25.40)	340

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.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

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