DC Pass

Power Splitter/Combiner

ZC6PD-960

6 Way-0° 50Ω 890 to 960 MHz

Maximum Ratings

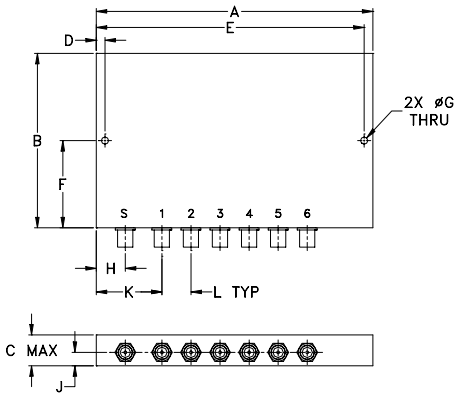
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	0.875W max.
DC Current	2.4A(400mA for each port)

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
4.76	3.00	.53	.150	4.610	1.500
120.90	76.20	13.46	3.81	117.09	38.10

G	H	J	K	L	wt
.125	.50	.25	1.13	.50	grams
3.18	12.70	6.35	28.70	12.70	155

Features

- low insertion loss, 0.4 dB typ.
- high isolation, 30 dB typ.
- excellent VSWR, output, 1.1:1 typ.
- up to 10W power input as splitter
- rugged shielded case

Applications

- cellular
- signal processing
- instrumentation

CASE STYLE: AB185

Connectors	Model
SMA	ZC4PD-960-S

Electrical Specifications

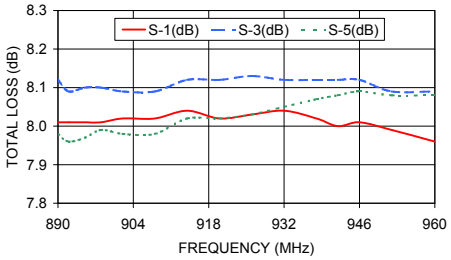
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 7.8 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)			
							S		OUT	
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.	Typ.	Max.	Typ.	Max.
890-960	30	20	0.4	0.8	—	0.4	1.2	1.5	1.1	1.5

Typical Performance Data

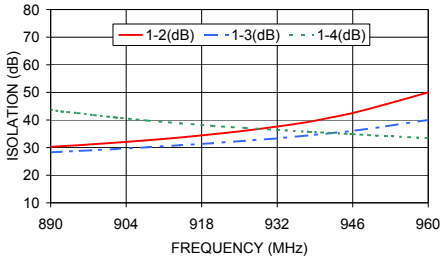
Frequency (MHz)	Total Loss[1] (dB)			Amplitude Unbalance (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 3
	S-1	S-2	S-3		1-2	1-3	1-4				
890.00	8.01	8.12	7.98	0.14	30.27	28.32	43.72	8.08	1.14	1.06	1.04
892.00	8.01	8.09	7.96	0.15	30.53	28.50	43.10	8.10	1.14	1.07	1.04
895.00	8.01	8.10	7.97	0.13	30.85	28.77	42.52	8.18	1.14	1.07	1.04
898.00	8.01	8.10	7.99	0.14	31.24	29.09	41.78	8.18	1.13	1.07	1.04
902.00	8.02	8.09	7.98	0.14	31.77	29.47	40.94	8.27	1.13	1.08	1.04
908.00	8.02	8.09	7.98	0.15	32.69	30.15	39.79	8.32	1.13	1.09	1.05
914.00	8.04	8.12	8.02	0.15	33.68	30.88	38.83	8.30	1.12	1.09	1.06
920.00	8.02	8.12	8.02	0.12	34.85	31.60	37.87	8.41	1.12	1.10	1.07
926.00	8.03	8.13	8.03	0.12	36.13	32.48	37.15	8.33	1.11	1.10	1.07
932.00	8.04	8.12	8.05	0.11	37.64	33.36	36.41	8.29	1.10	1.10	1.08
938.00	8.02	8.12	8.07	0.14	39.39	34.45	35.71	8.44	1.09	1.10	1.08
942.00	8.00	8.12	8.08	0.14	40.94	35.25	35.30	8.38	1.09	1.09	1.08
946.00	8.01	8.12	8.09	0.14	42.54	36.05	34.87	8.34	1.09	1.09	1.08
952.00	7.99	8.09	8.08	0.14	45.64	37.64	34.21	8.40	1.10	1.08	1.07
960.00	7.96	8.09	8.08	0.15	49.99	40.07	33.44	8.50	1.11	1.08	1.06

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

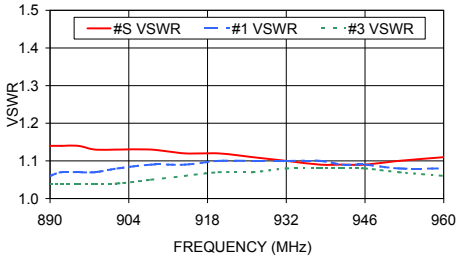
ZC6PD-960
TOTAL LOSS



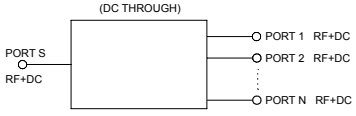
ZC6PD-960
ISOLATION



ZC6PD-960
VSWR



electrical schematic



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

6 Way-0° Power Splitter/Combiner ZC6PD-960

Typical Performance Data

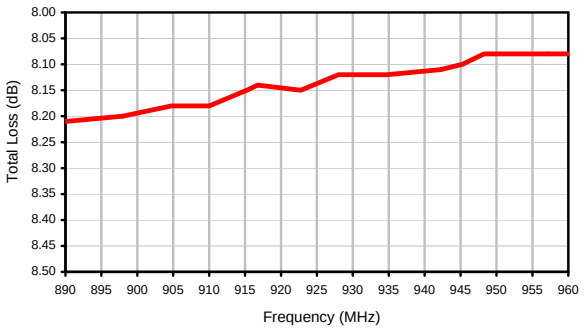
FREQ. (MHz)	TOTAL LOSS[1] (dB)	AMP. UNBAL. (dB)	ISOLATION (dB)		FREQ. (MHz)	VSWR (:1)	
			Adjacent	Opposite		S	OUTPUTS
890.0	8.21	0.10	32.09	43.72	890.0	1.35	1.07
898.0	8.20	0.11	32.76	41.78	898.0	1.33	1.06
904.8	8.18	0.10	33.45	40.94	904.8	1.32	1.06
910.0	8.18	0.10	33.98	39.79	910.0	1.31	1.06
915.3	8.15	0.10	34.56	38.83	915.3	1.29	1.05
916.8	8.14	0.09	34.85	38.10	916.8	1.29	1.05
922.8	8.15	0.07	35.60	37.80	922.8	1.27	1.05
928.0	8.12	0.10	36.55	37.15	928.0	1.26	1.05
934.8	8.12	0.09	37.70	36.10	934.8	1.24	1.04
942.3	8.11	0.07	39.43	35.30	942.3	1.21	1.04
945.3	8.10	0.06	40.32	34.87	945.3	1.21	1.04
948.3	8.08	0.07	41.14	34.51	948.3	1.20	1.04
953.5	8.08	0.06	42.52	34.21	953.5	1.18	1.04
957.3	8.08	0.08	43.89	34.50	957.3	1.17	1.04
960.0	8.08	0.07	44.82	33.44	960.0	1.16	1.03

[1] Total Loss = Insertion Loss+ 7.8dB Splitter Loss

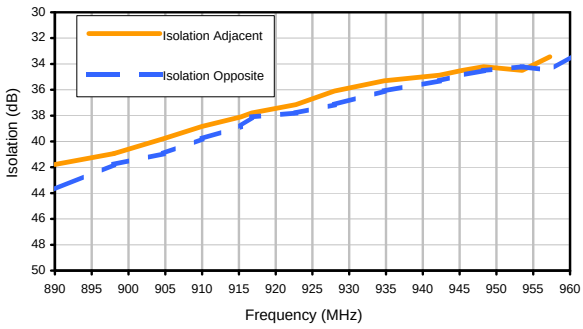
6 Way-0° Power Splitter/Combiner ZC6PD-960

Typical Performance Curves

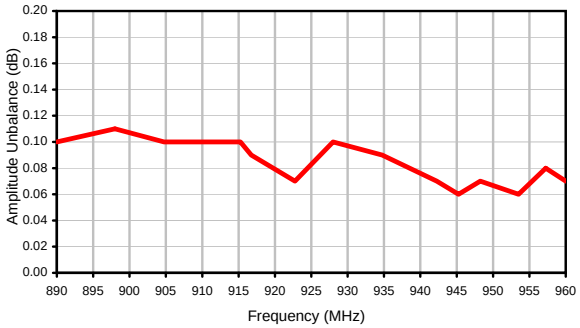
Total Loss



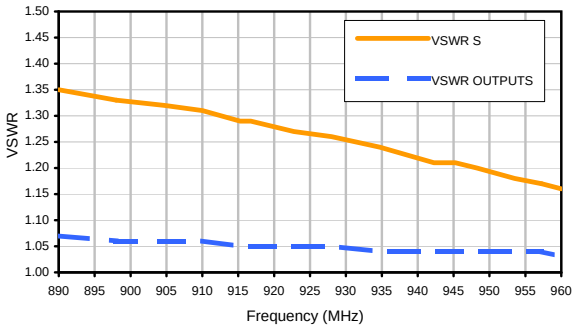
Isolation



Amplitude Unbalance



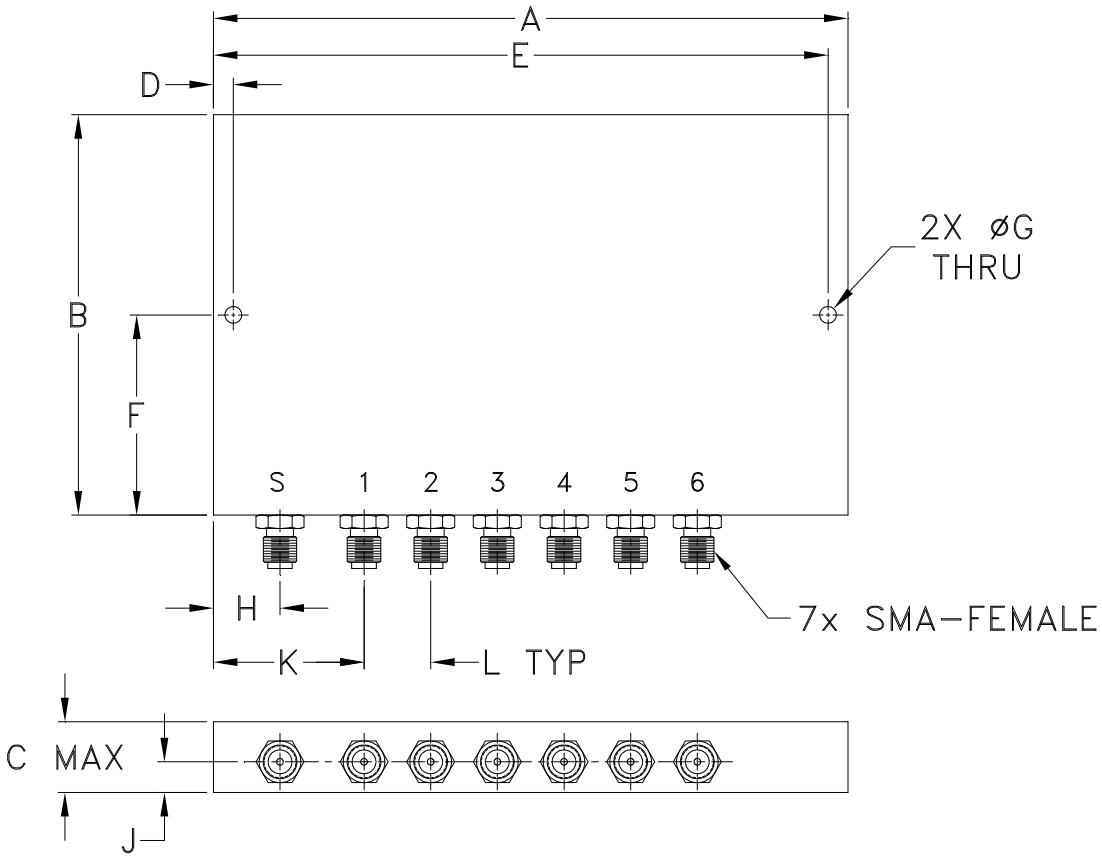
VSWR



Case Style AB

AB185

Outline Dimensions



CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
AB185	4.76 (120.90)	3.00 (76.20)	.53 (13.46)	.150 (3.81)	4.610 (117.09)	1.500 (38.10)	.125 (3.18)	.50 (12.70)	.25 (6.35)	1.13 (28.70)	.50 (12.70)	155

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

Notes:

1. Case material: Aluminum alloy.
2. Case finish:
   For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.

Mini-Circuits

Environmental Specifications ENV28

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