

Non-Catalog Model

Power Splitter/Combiner

ZSC-3-2-75

3 Way-0°

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : P25

ELECTRICAL SPECIFICATIONS 75Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		0.02		20	MHz
Isolation	0.02 - 0.2 MHz	30	35		dB
	0.2 - 10 MHz	25	35		dB
	10 - 20 MHz	20	30		dB
Insertion Loss Above 4.8 dB	0.02 - 0.2 MHz		0.20	0.50	dB
	0.2 - 10 MHz		0.25	0.60	dB
	10 - 20 MHz		0.45	0.75	dB
Phase Unbalance	0.02 - 0.2 MHz		0.087	2.000	deg.
	0.2 - 10 MHz		0.065	3.000	deg.
	10 - 20 MHz		0.193	4.000	deg.
Amplitude Unbalance	0.02 - 0.2 MHz		0.004	0.200	dB
	0.2 - 10 MHz		0.000	0.300	dB
	10 - 20 MHz		0.000	0.400	dB
VSWR	SUM Port		1.09		(:1)
	OUT Ports		1.06		(:1)

Notes: Matched power rating: 1 Watt.

At low range frequency band (fL to 10fL), linearly derate maximum input power by 13 dB.

Internal load dissipation: 0.375 Watt.

Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.

MAXIMUM RATINGS	
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2
PORT 3	3

Functional Diagram



3 Way-0° Power Splitter/Combiner

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Typical Performance Data

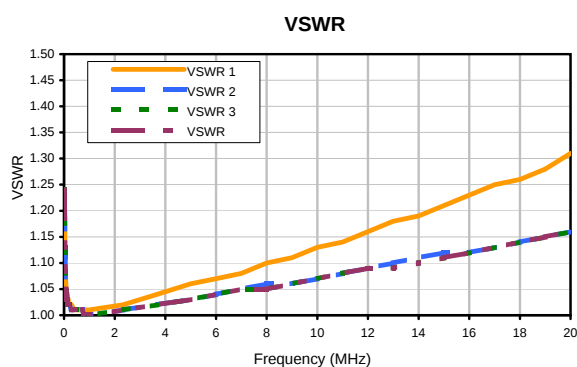
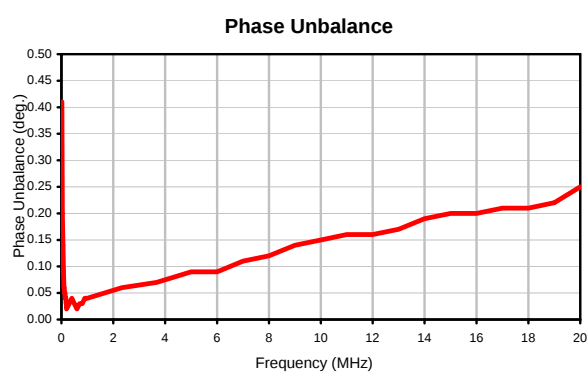
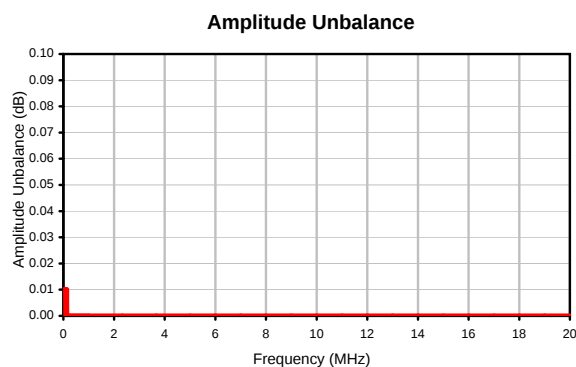
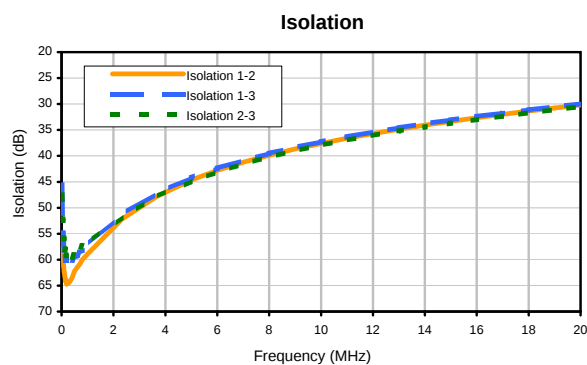
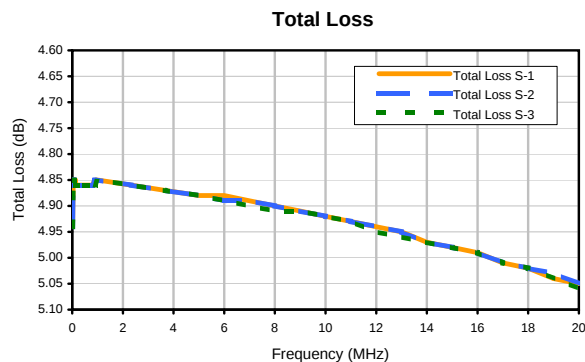
FREQ. (MHz)	TOTAL LOSS ¹ (dB)			AMP. UNBAL. (dB)	ISOLATION (dB)			PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)			
	S-1	S-2	S-3		1-2	1-3	2-3			S	1	2	3
0.02	4.93	4.94	4.94	0.01	55.35	45.58	47.47	0.41	0.02	1.24	1.22	1.24	1.24
0.04	4.86	4.87	4.87	0.01	57.20	51.69	50.19	0.20	0.04	1.12	1.11	1.12	1.11
0.06	4.85	4.85	4.85	0.01	59.33	54.91	52.49	0.14	0.06	1.08	1.07	1.08	1.07
0.08	4.85	4.85	4.85	0.01	61.20	56.99	54.34	0.09	0.08	1.05	1.05	1.06	1.05
0.10	4.85	4.86	4.86	0.00	62.37	58.23	56.02	0.06	0.10	1.04	1.04	1.04	1.04
0.11	4.85	4.86	4.86	0.01	62.65	58.65	56.68	0.06	0.11	1.04	1.04	1.04	1.04
0.12	4.85	4.86	4.86	0.00	62.95	59.08	57.27	0.05	0.12	1.04	1.03	1.04	1.03
0.13	4.85	4.86	4.86	0.01	63.37	59.30	57.88	0.05	0.13	1.03	1.03	1.03	1.03
0.14	4.86	4.86	4.86	0.00	63.67	59.73	58.20	0.05	0.14	1.03	1.03	1.03	1.03
0.15	4.86	4.86	4.86	0.00	64.13	59.64	58.61	0.04	0.15	1.03	1.03	1.03	1.03
0.16	4.86	4.86	4.86	0.00	63.92	59.92	58.70	0.04	0.16	1.03	1.02	1.03	1.02
0.17	4.86	4.86	4.86	0.00	64.09	60.07	58.96	0.04	0.17	1.03	1.02	1.02	1.02
0.18	4.86	4.86	4.86	0.00	64.52	60.14	59.09	0.03	0.18	1.02	1.02	1.02	1.02
0.19	4.86	4.86	4.86	0.00	64.64	60.14	59.29	0.03	0.19	1.02	1.02	1.02	1.02
0.20	4.86	4.86	4.86	0.00	64.75	60.05	59.59	0.02	0.20	1.02	1.02	1.02	1.02
0.30	4.86	4.86	4.86	0.00	64.34	60.23	59.94	0.03	0.30	1.02	1.01	1.01	1.01
0.40	4.86	4.86	4.86	0.00	63.55	60.12	59.50	0.04	0.40	1.01	1.01	1.01	1.01
0.50	4.86	4.86	4.86	0.00	62.20	59.63	58.72	0.03	0.50	1.01	1.01	1.01	1.01
0.60	4.86	4.86	4.86	0.00	61.52	59.19	58.35	0.02	0.60	1.01	1.01	1.01	1.01
0.70	4.86	4.86	4.86	0.00	60.86	58.60	57.87	0.03	0.70	1.01	1.01	1.01	1.01
0.80	4.86	4.86	4.86	0.00	59.96	58.19	57.31	0.03	0.80	1.01	1.00	1.00	1.00
0.90	4.85	4.85	4.86	0.00	59.47	57.78	57.07	0.04	0.90	1.01	1.00	1.00	1.00
1.00	4.85	4.85	4.85	0.00	58.94	57.17	56.79	0.04	1.00	1.01	1.00	1.00	1.00
2.33	4.86	4.86	4.86	0.00	52.17	51.29	51.75	0.06	2.33	1.02	1.01	1.01	1.01
3.67	4.87	4.87	4.87	0.00	47.81	47.17	47.84	0.07	3.67	1.04	1.02	1.02	1.02
5.00	4.88	4.88	4.88	0.00	44.66	44.21	44.86	0.09	5.00	1.06	1.03	1.03	1.03
6.00	4.88	4.89	4.89	0.00	42.80	42.40	43.09	0.09	6.00	1.07	1.04	1.04	1.04
7.00	4.89	4.89	4.90	0.00	41.22	40.87	41.54	0.11	7.00	1.08	1.05	1.05	1.05
8.00	4.90	4.90	4.91	0.00	39.89	39.52	40.20	0.12	8.00	1.10	1.06	1.05	1.05
9.00	4.91	4.91	4.91	0.00	38.67	38.36	39.02	0.14	9.00	1.11	1.06	1.06	1.06
10.00	4.92	4.92	4.92	0.00	37.60	37.27	37.94	0.15	10.00	1.13	1.07	1.07	1.07
11.00	4.93	4.93	4.93	0.00	36.61	36.31	36.95	0.16	11.00	1.14	1.08	1.08	1.08
12.00	4.94	4.94	4.95	0.00	35.70	35.40	36.06	0.16	12.00	1.16	1.09	1.09	1.09
13.00	4.95	4.95	4.96	0.00	34.87	34.58	35.21	0.17	13.00	1.18	1.10	1.09	1.09
14.00	4.97	4.97	4.97	0.00	34.07	33.80	34.44	0.19	14.00	1.19	1.11	1.10	1.10
15.00	4.98	4.98	4.98	0.00	33.35	33.08	33.69	0.20	15.00	1.21	1.12	1.11	1.11
16.00	4.99	4.99	4.99	0.00	32.66	32.39	32.99	0.20	16.00	1.23	1.12	1.12	1.12
17.00	5.01	5.01	5.01	0.00	31.99	31.74	32.34	0.21	17.00	1.25	1.13	1.13	1.13
18.00	5.02	5.02	5.02	0.00	31.36	31.12	31.70	0.21	18.00	1.26	1.14	1.14	1.14
19.00	5.04	5.03	5.04	0.00	30.76	30.51	31.09	0.22	19.00	1.28	1.15	1.15	1.15
20.00	5.05	5.05	5.06	0.00	30.18	29.95	30.51	0.25	20.00	1.31	1.16	1.16	1.16

¹ Total Loss = Insertion Loss+ 4.8dB Splitter Loss

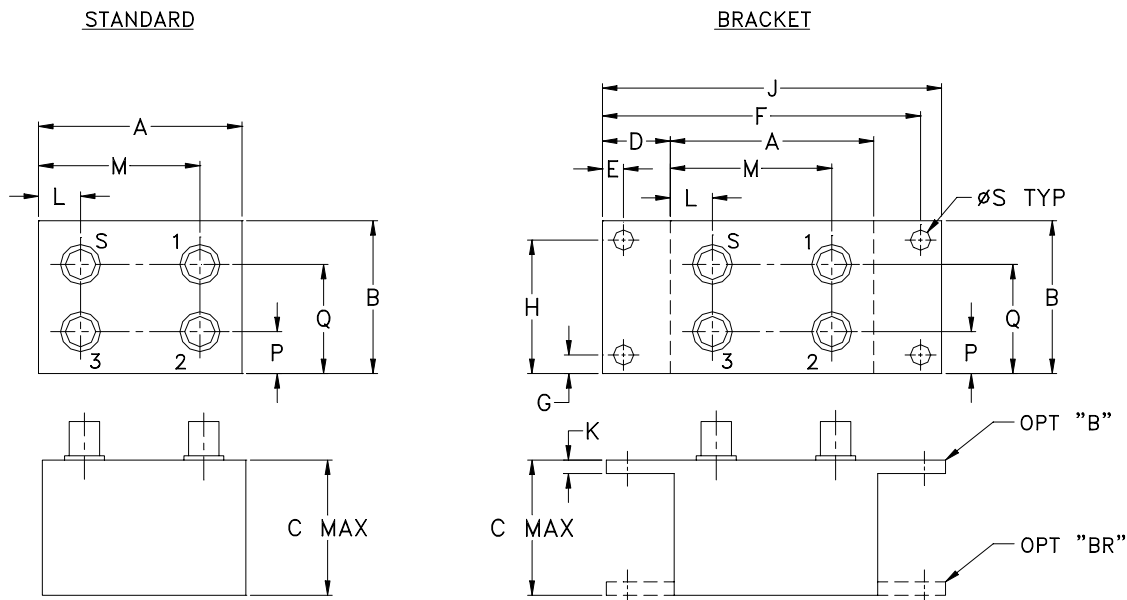
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Typical Performance Curves



Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
P25	2.25 (57.15)	1.38 (35.05)	1.24 (31.50)	.50 (12.70)	.150 (3.81)	3.100 (78.74)	.138 (3.51)	1.238 (31.45)	3.25 (82.55)	.10 (2.54)	.78 (19.81)	1.47 (37.34)	--
P26	1.50 (38.10)	1.13 (28.70)	1.00 (25.40)		.155 (3.94)	2.345 (59.56)		.987 (25.07)	2.50 (63.50)		.50 (12.70)	1.00 (25.40)	--

CASE#	P	Q	R	S	WT. GRAMS
P25	.38 (9.65)	1.00 (25.40)	--	.150 (3.81)	110.0
P26	.31 (7.87)	.81 (20.57)	--		60.0

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.
 - For Non-RoHS Case Styles: Yellow hexavalent chrome based conversion coating.
- Mounting bracket available on request. For bracket mounted on connector end add suffix B to part number and add \$5.00 to unit cost. For bracket mounted on the rear, add suffix BR to part number and add \$1.50 to unit cost.



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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