Engineering Development Model

Power Splitter/Combiner ZACS-ED17216/2

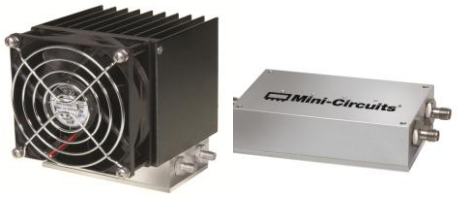
DC Pass

2 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability.
At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

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



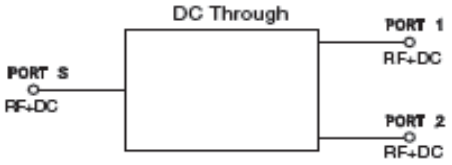
CASE STYLE : CP1829

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		600		3600	MHz
Isolation	**600-3600 MHz**		22		dB
Insertion Loss Above 3.0 dB	**600-3600 MHz**		0.50		dB
Phase Unbalance	**600-3600 MHz**		1.00		Deg.
Amplitude Unbalance	**600-3600 MHz**		0.15		dB
VSWR	**SUM Port**		1.30		(:1)
	OUT Ports		1.15		(:1)
Input Power	**as splitter**			100	W
	as combiner			5	W
DC Pass				1.60	A
FAN DC Supply Voltage			24		V
FAN DC Supply Current			150		mA

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

COAXIAL CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2

Functional Diagram



2 Way-0° Power Splitter/Combiner ZACS-ED17216/2

Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS[1] (dB)		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)	PHASE UNBALANCE (deg.)
	S-1	S-2		1-2	
100.0	3.52	3.54	0.02	4.83	0.18
150.0	3.53	3.53	0.01	5.99	0.09
200.0	3.50	3.53	0.03	7.19	0.07
250.0	3.48	3.52	0.04	8.38	0.02
300.0	3.45	3.49	0.04	9.52	0.09
350.0	3.42	3.45	0.03	10.66	0.07
400.0	3.39	3.42	0.03	11.82	0.01
450.0	3.35	3.39	0.04	13.03	0.01
500.0	3.32	3.36	0.04	14.37	0.03
550.0	3.29	3.32	0.04	15.86	0.04
600.0	3.26	3.29	0.04	17.60	0.03
650.0	3.23	3.27	0.04	19.65	0.03
690.0	3.22	3.26	0.04	21.66	0.03
750.0	3.20	3.23	0.03	25.69	0.04
800.0	3.20	3.23	0.03	30.80	0.03
850.0	3.19	3.22	0.03	38.60	0.04
900.0	3.19	3.22	0.03	34.20	0.04
950.0	3.20	3.23	0.03	28.77	0.03
1000.0	3.21	3.23	0.02	25.72	0.03
1050.0	3.22	3.24	0.02	23.76	0.01
1100.0	3.24	3.26	0.02	22.38	0.01
1150.0	3.26	3.27	0.02	21.55	0.01
1200.0	3.28	3.30	0.02	20.96	0.01
1250.0	3.29	3.31	0.02	20.73	0.03
1300.0	3.31	3.33	0.02	20.70	0.03
1350.0	3.32	3.34	0.02	20.96	0.03
1400.0	3.33	3.35	0.02	21.42	0.04
1450.0	3.33	3.35	0.02	22.12	0.04
1500.0	3.34	3.36	0.02	23.20	0.05
1550.0	3.33	3.36	0.03	24.57	0.05
1600.0	3.33	3.36	0.03	26.34	0.05
1650.0	3.33	3.36	0.03	28.77	0.04
1700.0	3.32	3.36	0.03	31.63	0.06
1750.0	3.31	3.35	0.04	34.05	0.06
1800.0	3.31	3.35	0.04	32.90	0.06
1850.0	3.32	3.35	0.04	29.83	0.05
1900.0	3.32	3.36	0.04	27.33	0.07
1950.0	3.33	3.37	0.04	25.36	0.06
2000.0	3.34	3.38	0.04	23.84	0.06
2050.0	3.36	3.40	0.04	22.85	0.06
2100.0	3.38	3.41	0.03	22.02	0.08
2150.0	3.40	3.43	0.03	21.55	0.06
2200.0	3.42	3.44	0.03	21.29	0.06
2250.0	3.44	3.46	0.02	21.23	0.05
2300.0	3.44	3.46	0.02	21.44	0.05
2350.0	3.46	3.48	0.02	21.81	0.05
2400.0	3.46	3.47	0.02	22.62	0.03
2450.0	3.46	3.47	0.01	23.51	0.05
2500.0	3.45	3.46	0.01	24.97	0.03
2550.0	3.45	3.46	0.01	26.90	0.04
2600.0	3.44	3.45	0.01	29.73	0.02
2650.0	3.44	3.45	0.00	34.09	0.05
2700.0	3.44	3.44	0.00	40.85	0.05
2750.0	3.45	3.45	0.00	38.01	0.07
2800.0	3.45	3.45	0.00	32.28	0.06
2850.0	3.47	3.47	0.00	28.67	0.09
2900.0	3.48	3.48	0.00	26.30	0.10
2950.0	3.51	3.51	0.01	24.69	0.10
3000.0	3.52	3.52	0.01	23.52	0.13
3050.0	3.54	3.55	0.01	22.79	0.15
3100.0	3.55	3.57	0.02	22.40	0.14
3150.0	3.57	3.58	0.02	22.28	0.16
3200.0	3.56	3.59	0.02	22.41	0.16
3250.0	3.56	3.59	0.02	22.69	0.18
3300.0	3.56	3.59	0.03	23.09	0.18
3350.0	3.55	3.59	0.03	23.23	0.18
3400.0	3.55	3.58	0.04	22.90	0.17
3450.0	3.55	3.59	0.04	21.86	0.18
3500.0	3.57	3.61	0.04	20.33	0.17
3550.0	3.60	3.65	0.05	18.51	0.16
3600.0	3.66	3.71	0.04	16.77	0.11
3650.0	3.75	3.79	0.05	15.12	0.10
3700.0	3.87	3.92	0.04	13.68	0.04
3750.0	4.02	4.07	0.05	12.43	0.03
3800.0	4.21	4.26	0.04	11.37	0.05
3850.0	4.42	4.46	0.05	10.46	0.10
3900.0	4.67	4.71	0.04	9.72	0.14
3950.0	4.91	4.96	0.05	9.10	0.18
4000.0	5.19	5.24	0.04	8.62	0.24

FREQUENCY (MHz)	VSWR (:1)		
	S	1	2
100.0	1.96	1.75	1.75
150.0	1.93	1.58	1.59
200.0	1.88	1.44	1.45
250.0	1.83	1.34	1.34
300.0	1.77	1.25	1.26
350.0	1.71	1.18	1.19
400.0	1.65	1.13	1.14
450.0	1.58	1.09	1.10
500.0	1.52	1.07	1.07
550.0	1.45	1.05	1.06
600.0	1.39	1.05	1.06
650.0	1.33	1.06	1.06
690.0	1.28	1.07	1.07
750.0	1.21	1.08	1.07
800.0	1.16	1.08	1.07
850.0	1.11	1.08	1.07
900.0	1.07	1.07	1.06
950.0	1.04	1.06	1.05
1000.0	1.05	1.05	1.04
1050.0	1.08	1.04	1.04
1100.0	1.12	1.03	1.03
1150.0	1.15	1.04	1.04
1200.0	1.18	1.05	1.05
1250.0	1.21	1.07	1.07
1300.0	1.23	1.09	1.09
1350.0	1.25	1.11	1.11
1400.0	1.26	1.13	1.13
1450.0	1.26	1.14	1.14
1500.0	1.26	1.15	1.15
1550.0	1.25	1.16	1.15
1600.0	1.23	1.16	1.16
1650.0	1.21	1.16	1.16
1700.0	1.19	1.16	1.15
1750.0	1.16	1.14	1.14
1800.0	1.14	1.13	1.12
1850.0	1.13	1.11	1.11
1900.0	1.14	1.09	1.09
1950.0	1.15	1.07	1.07
2000.0	1.17	1.05	1.05
2050.0	1.20	1.04	1.05
2100.0	1.24	1.05	1.06
2150.0	1.26	1.07	1.07
2200.0	1.29	1.09	1.09
2250.0	1.31	1.11	1.11
2300.0	1.31	1.13	1.12
2350.0	1.32	1.14	1.14
2400.0	1.30	1.15	1.14
2450.0	1.28	1.15	1.15
2500.0	1.25	1.15	1.15
2550.0	1.21	1.14	1.14
2600.0	1.17	1.13	1.13
2650.0	1.12	1.11	1.12
2700.0	1.08	1.09	1.11
2750.0	1.04	1.06	1.10
2800.0	1.05	1.05	1.08
2850.0	1.09	1.03	1.08
2900.0	1.14	1.04	1.07
2950.0	1.19	1.06	1.08
3000.0	1.23	1.08	1.09
3050.0	1.26	1.11	1.10
3100.0	1.29	1.13	1.12
3150.0	1.30	1.15	1.12
3200.0	1.29	1.16	1.13
3250.0	1.27	1.17	1.13
3300.0	1.23	1.17	1.13
3350.0	1.18	1.17	1.13
3400.0	1.13	1.15	1.12
3450.0	1.07	1.13	1.10
3500.0	1.06	1.11	1.09
3550.0	1.14	1.08	1.07
3600.0	1.25	1.06	1.04
3650.0	1.39	1.02	1.01
3700.0	1.55	1.02	1.02
3750.0	1.73	1.06	1.05
3800.0	1.95	1.11	1.09
3850.0	2.19	1.16	1.14
3900.0	2.46	1.22	1.19
3950.0	2.75	1.28	1.25
4000.0	3.06	1.35	1.32

[1]Total Loss = Insertion Loss + 3dB Splitter Loss

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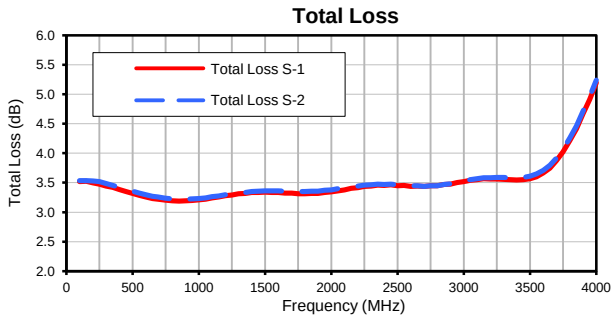
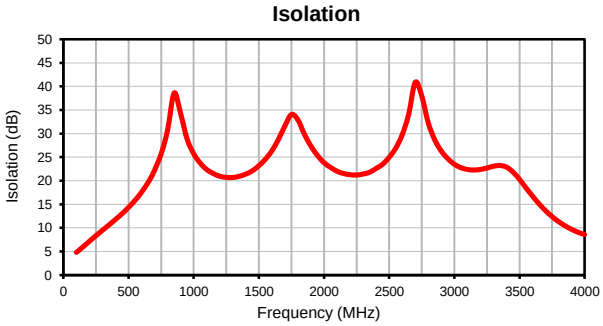
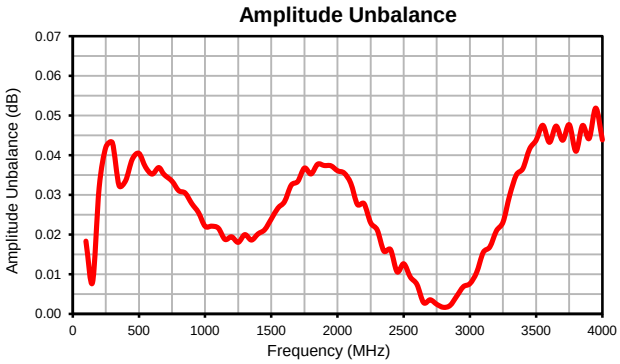
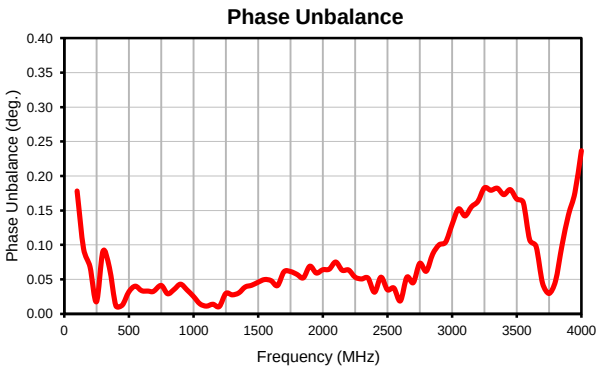
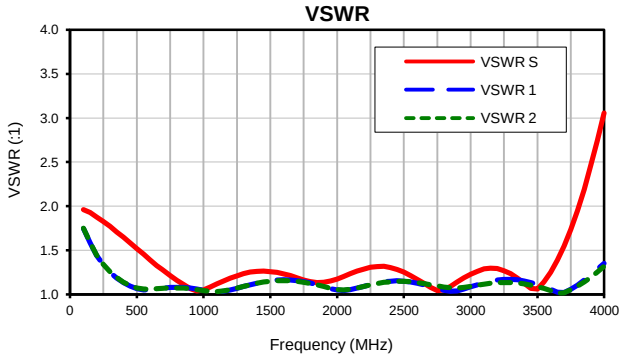
Typical Performance Curves







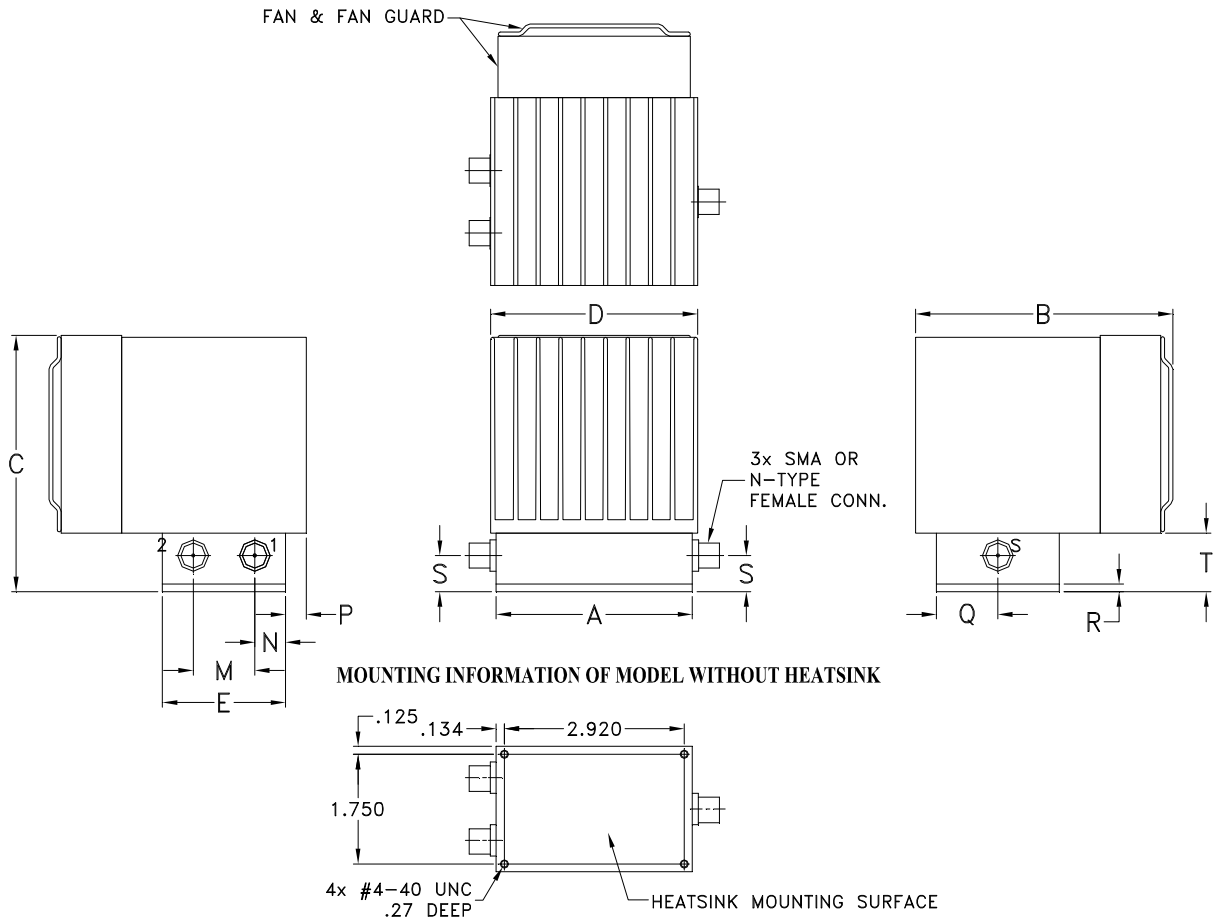




Case Style CP

Outline Dimensions

CP1829



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
CP1829	3.19 (80.98)	4.18 (106.17)	4.09 (103.89)	3.36 (85.34)	2.00 (50.80)	-- --	-- --	-- --	-- --	-- --	-- --	1.00 (25.40)	.50 (12.70)

CASE#	P	Q	R	S	T	WT. GRAMS	WT. WITHOUT HEATSINK GRAMS
CP1829	.34 (8.64)	1.00 (25.40)	.13 (3.30)	.58 (14.73)	.94 (23.88)	710	190

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

Notes:

1. Case material: Aluminum alloy.
2. Case finish: For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome base.
3. Heat sink finish: Black anodize if supplied with heat sink.

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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

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