

Coaxial

# Power Splitter/Combiner

## ZC16PD-252+

16 Way-0° 50Ω 10 to 2500 MHz

### Maximum Ratings

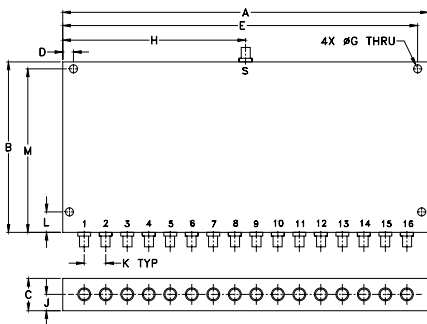
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.75W max.

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

SUM PORT	S
PORT 1,2,3,.....,16	1,2,3,.....,16

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
8.50	3.95	.75	.250	8.250	—	.187
215.90	100.33	19.05	6.35	209.55	—	4.75
H	J	K	L	M	wt	
4.250	.38	.500	.475	3.475	grams	
107.95	9.65	12.70	12.07	88.27	710	

### Features

- wide frequency band 10 to 2500 MHz
- good amplitude unbalance, 0.3 dB typ.
- good phase unbalance, 5 deg. typ.

### Applications

- UHF
- cellular, GPS, PCS
- communication systems



CASE STYLE: UU179

Connectors	Model
SMA	ZC16PD-252-S+

**+RoHS Compliant**

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

### Electrical Specifications

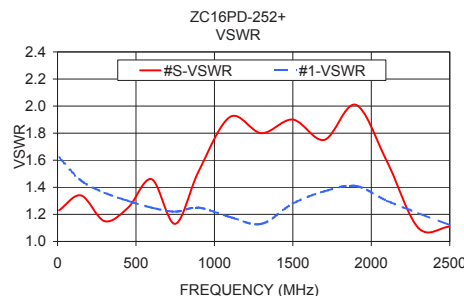
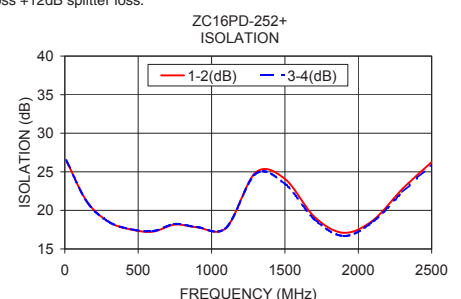
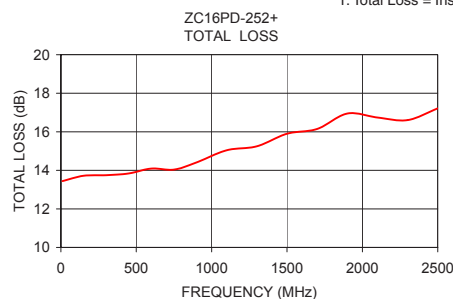
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 12 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
$f_L$ - $f_U$	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
10-2500	25	20	17	14	16	14	1.5	2.8	3.2	4.5	5.5	6.5	2	10	18	0.7	0.7	1.0

L = low range [ $f_L$  to 10  $f_L$ ] M = mid range [10  $f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

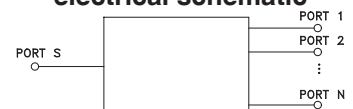
### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
			1-2	3-4			
10.00	13.44	0.04	26.46	26.50	0.15	1.23	1.62
150.00	13.72	0.04	21.16	21.11	0.58	1.34	1.45
300.00	13.75	0.06	18.51	18.51	1.03	1.15	1.36
450.00	13.84	0.09	17.52	17.57	1.36	1.25	1.30
600.00	14.09	0.10	17.24	17.31	1.83	1.46	1.25
750.00	14.04	0.10	18.16	18.25	2.29	1.13	1.22
900.00	14.41	0.12	17.82	17.85	2.89	1.52	1.25
1100.00	15.04	0.12	17.74	17.75	3.68	1.92	1.18
1300.00	15.25	0.20	24.90	24.74	4.85	1.80	1.13
1500.00	15.90	0.35	24.08	23.44	5.73	1.90	1.28
1700.00	16.15	0.46	19.18	18.86	5.75	1.75	1.37
1900.00	16.95	0.47	17.09	16.69	4.97	2.01	1.41
2100.00	16.74	0.49	18.71	18.53	6.11	1.59	1.30
2300.00	16.61	0.37	22.77	22.36	6.46	1.10	1.21
2500.00	17.22	0.51	26.28	26.00	7.35	1.11	1.12

1. Total Loss = Insertion Loss +12dB splitter loss.



### 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/WCLStore/terms.jsp](http://www.minicircuits.com/WCLStore/terms.jsp)



## Typical Performance Data

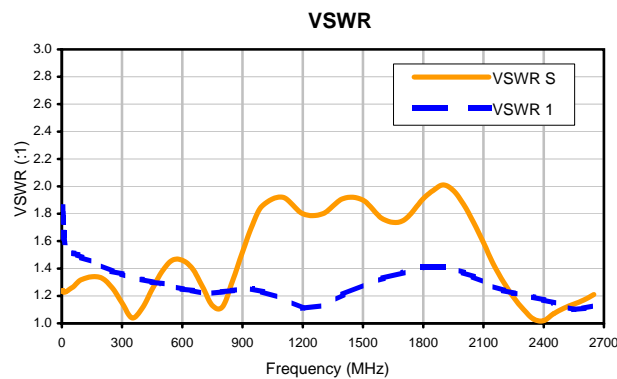
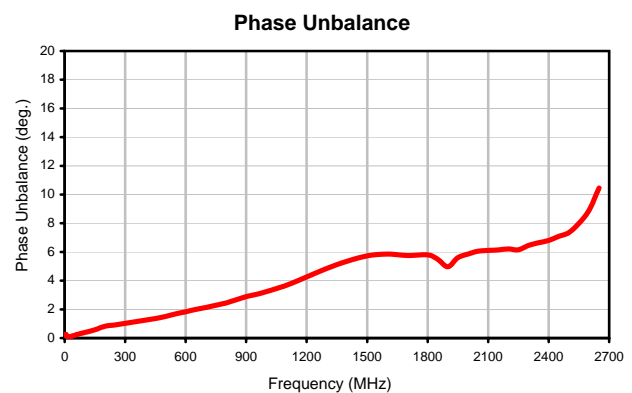
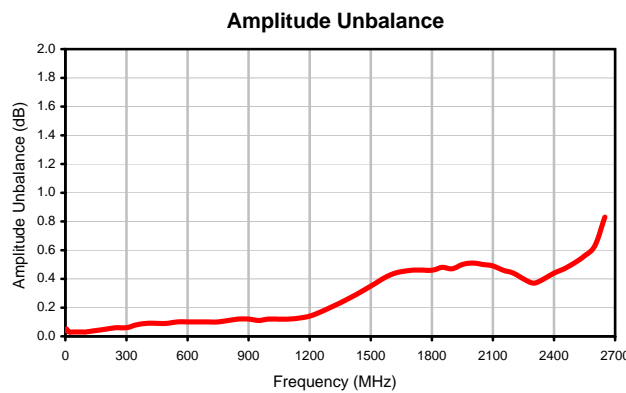
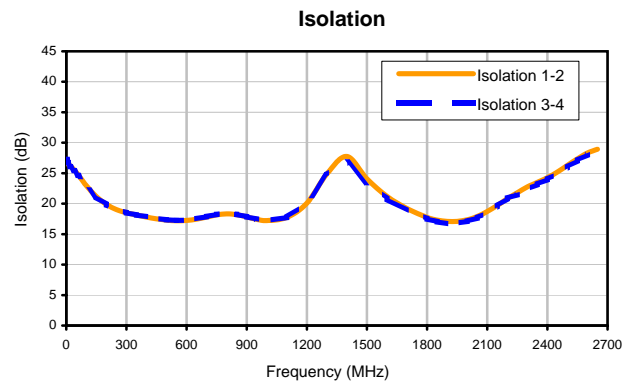
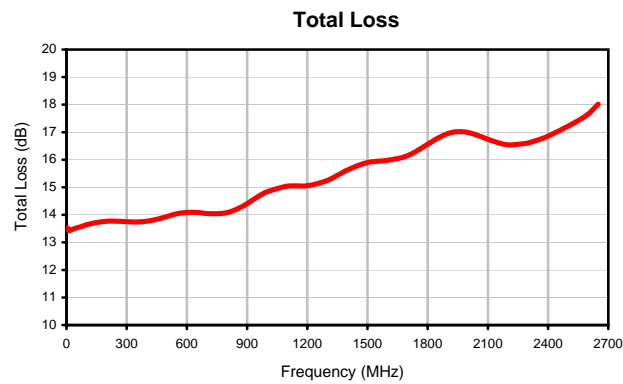
FREQUENCY (MHz)	TOTAL LOSS <sup>1</sup> (dB) S-1	AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)		PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)	
			1-2	3-4			S	1
5.0	13.53	0.05	27.07	27.28	0.27	5.0	1.24	1.85
5.5	13.51	0.05	26.97	27.13	0.25	5.5	1.24	1.80
6.0	13.49	0.04	26.87	27.00	0.23	6.0	1.24	1.77
6.5	13.48	0.04	26.78	26.90	0.20	6.5	1.24	1.74
7.0	13.47	0.04	26.71	26.82	0.20	7.0	1.23	1.71
7.5	13.47	0.04	26.65	26.74	0.19	7.5	1.23	1.69
8.0	13.46	0.04	26.59	26.68	0.18	8.0	1.23	1.67
8.5	13.45	0.04	26.55	26.63	0.17	8.5	1.23	1.66
9.0	13.45	0.04	26.52	26.60	0.16	9.0	1.23	1.64
9.5	13.45	0.04	26.49	26.54	0.15	9.5	1.23	1.63
10.0	13.44	0.04	26.46	26.50	0.15	10.0	1.23	1.62
20.0	13.45	0.03	26.17	26.06	0.09	20.0	1.23	1.54
40.0	13.50	0.03	25.53	25.42	0.15	40.0	1.25	1.52
60.0	13.55	0.03	24.72	24.62	0.24	60.0	1.27	1.51
80.0	13.59	0.03	23.83	23.76	0.32	80.0	1.30	1.50
100.0	13.64	0.03	22.97	22.90	0.39	100.0	1.32	1.48
150.0	13.72	0.04	21.16	21.11	0.58	150.0	1.34	1.45
200.0	13.77	0.05	19.88	19.85	0.83	200.0	1.33	1.42
250.0	13.77	0.06	19.04	19.03	0.91	250.0	1.26	1.38
300.0	13.75	0.06	18.51	18.51	1.03	300.0	1.15	1.36
350.0	13.74	0.08	18.13	18.15	1.14	350.0	1.04	1.33
400.0	13.77	0.09	17.81	17.85	1.25	400.0	1.11	1.32
450.0	13.84	0.09	17.52	17.57	1.36	450.0	1.25	1.30
500.0	13.94	0.09	17.29	17.35	1.51	500.0	1.38	1.29
550.0	14.04	0.10	17.19	17.25	1.68	550.0	1.46	1.27
600.0	14.09	0.10	17.24	17.31	1.83	600.0	1.46	1.25
650.0	14.09	0.10	17.46	17.53	1.99	650.0	1.40	1.24
700.0	14.05	0.10	17.80	17.89	2.13	700.0	1.27	1.22
750.0	14.04	0.10	18.16	18.25	2.29	750.0	1.13	1.22
800.0	14.08	0.11	18.33	18.41	2.44	800.0	1.12	1.23
850.0	14.21	0.12	18.20	18.25	2.67	850.0	1.31	1.24
900.0	14.41	0.12	17.82	17.85	2.89	900.0	1.52	1.25
950.0	14.64	0.11	17.44	17.45	3.04	950.0	1.72	1.25
1000.0	14.84	0.12	17.23	17.23	3.23	1000.0	1.86	1.23
1100.0	15.04	0.12	17.74	17.75	3.68	1100.0	1.92	1.18
1200.0	15.06	0.14	20.08	20.10	4.26	1200.0	1.80	1.11
1300.0	15.25	0.20	24.90	24.74	4.85	1300.0	1.80	1.13
1400.0	15.63	0.27	27.75	26.84	5.35	1400.0	1.91	1.21
1500.0	15.90	0.35	24.08	23.44	5.73	1500.0	1.90	1.28
1600.0	15.98	0.43	21.20	20.78	5.85	1600.0	1.76	1.33
1700.0	16.15	0.46	19.18	18.86	5.75	1700.0	1.75	1.37
1800.0	16.56	0.46	17.74	17.50	5.80	1800.0	1.91	1.41
1850.0	16.78	0.48	17.30	17.05	5.49	1850.0	1.97	1.41
1900.0	16.95	0.47	17.09	16.69	4.97	1900.0	2.01	1.41
1950.0	17.02	0.50	17.10	16.80	5.61	1950.0	1.97	1.40
2000.0	16.99	0.51	17.36	17.12	5.85	2000.0	1.87	1.37
2050.0	16.88	0.50	17.90	17.68	6.05	2050.0	1.74	1.34
2100.0	16.74	0.49	18.71	18.53	6.11	2100.0	1.59	1.30
2150.0	16.62	0.46	19.73	19.61	6.14	2150.0	1.43	1.27
2200.0	16.54	0.44	20.81	20.89	6.21	2200.0	1.30	1.24
2250.0	16.56	0.40	21.78	21.49	6.15	2250.0	1.19	1.22
2300.0	16.61	0.37	22.77	22.36	6.46	2300.0	1.10	1.21
2350.0	16.72	0.40	23.50	23.17	6.64	2350.0	1.03	1.19
2400.0	16.86	0.44	24.27	23.99	6.80	2400.0	1.02	1.17
2450.0	17.03	0.47	25.20	24.92	7.09	2450.0	1.07	1.15
2500.0	17.22	0.51	26.28	26.00	7.35	2500.0	1.11	1.12
2550.0	17.42	0.56	27.37	27.10	7.99	2550.0	1.14	1.10
2600.0	17.66	0.63	28.33	28.06	8.90	2600.0	1.17	1.11
2650.0	18.02	0.83	28.93	28.71	10.46	2650.0	1.21	1.13

<sup>1</sup>Total Loss = Insertion Loss + 12dB Splitter Loss

# 16 Way-0° Power Splitter/Combiner

# ZC16PD-252+

## Typical Performance Curves



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  
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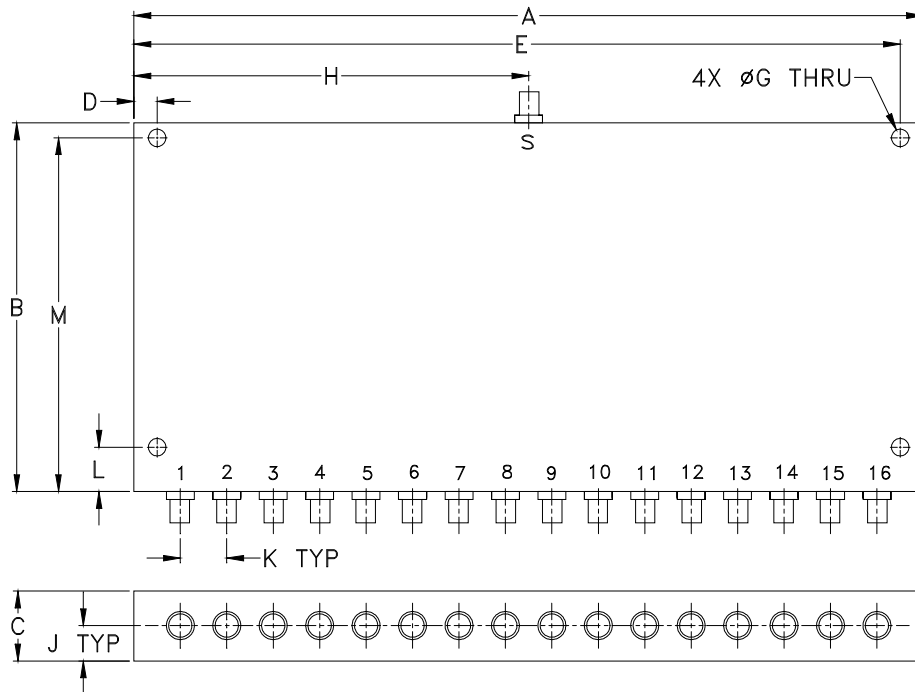


IF/RF MICROWAVE COMPONENTS

REV. X2  
ZC16PD-252+  
8/5/2010  
Page 1 of 1

## Outline Dimensions

UU179



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
UU179	8.50 (215.90)	3.95 (100.33)	.75 (19.05)	.250 (6.35)	8.250 (209.55)	--	.187 (4.75)	4.250 (107.95)	.38 (9.65)	.500 (12.70)	.475 (12.07)	3.475 (88.27)	710

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



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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	-40° to 85°C	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