

Coaxial

Power Splitter/Combiner

ZC16PD-23-S

16 Way-0° 50Ω 1500 to 2300 MHz

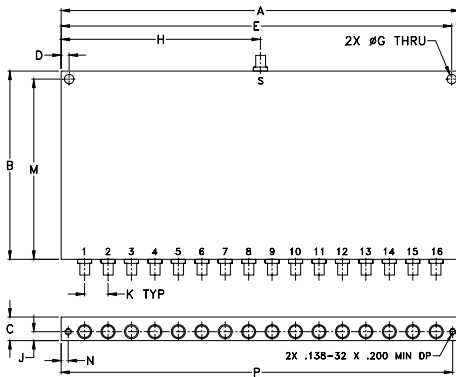
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	10W max.
Internal Dissipation	2W 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	G	H
8.50	4.00	.50	.170	8.330	.201	4.25
215.90	101.60	12.70	4.32	211.58	5.11	107.95
J	K	M	N	P	wt	
.19	.500	3.830	.150	8.350	grams	
4.83	12.70	97.28	3.81	212.09	450	

Features

- wideband, 1500 to 2300 MHz
- high isolation, 32 dB typ.
- low insertion loss, 0.8 dB typ.
- excellent VSWR, 1.1:1 typ.
- rugged case shielded

Applications

- PCS/DCS
- UMTS
- L-band satellite
- signal processing



CASE STYLE: UU640

Connectors Model
SMA ZC16PD-23-S

+RoHS Compliant

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

Electrical Specifications

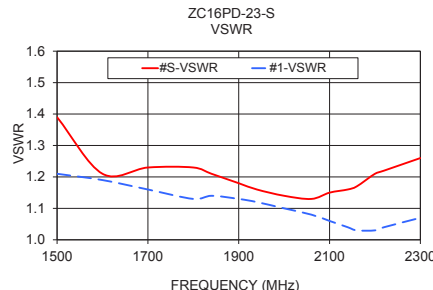
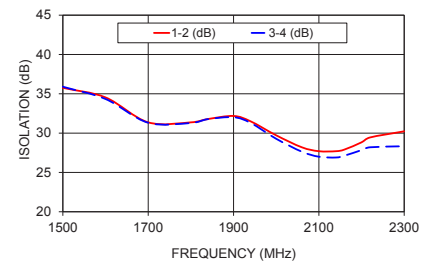
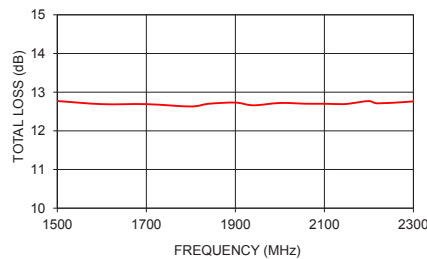
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 12 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)	VSWR (:1)			
f_L - f_U	Typ.	Min.	Typ.	Max.	Max.	Max.	S		OUT	
1500-2300							Typ.	Max.	Typ.	Max.
	32	20	0.8	1.4	11	0.6	1.15	1.6	1.10	1.4

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
	S-1		1-2	3-4			
1500.00	12.77	0.13	35.76	35.90	0.99	1.39	1.21
1600.00	12.69	0.08	34.54	34.34	1.17	1.21	1.19
1700.00	12.69	0.06	31.37	31.32	1.09	1.23	1.16
1800.00	12.63	0.08	31.37	31.29	1.38	1.23	1.13
1840.00	12.70	0.09	31.79	31.78	1.28	1.21	1.14
1900.00	12.73	0.09	32.18	32.02	1.34	1.18	1.13
1940.00	12.66	0.09	31.50	31.30	1.33	1.16	1.12
2000.00	12.72	0.11	29.72	29.28	1.41	1.14	1.10
2060.00	12.70	0.12	28.20	27.64	1.40	1.13	1.08
2100.00	12.70	0.14	27.70	27.00	1.37	1.15	1.06
2140.00	12.69	0.16	27.70	26.90	1.38	1.16	1.04
2160.00	12.71	0.16	27.91	27.13	1.38	1.17	1.03
2200.00	12.77	0.15	28.83	27.84	1.61	1.21	1.03
2220.00	12.71	0.15	29.45	28.20	1.59	1.22	1.04
2300.00	12.76	0.14	30.23	28.33	1.58	1.26	1.07

ZC16PD-23-S
TOTAL LOSS

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

ZC16PD-23-S
ISOLATION

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



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16 Way-0° Power Splitter/Combiner

ZC16PD-23

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)	AMP. UNBAL. (dB)	ISOLATION (dB)		PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)	
			Adjacent	Opposite			S	OUTPUTS
1500.0	12.77	0.13	35.76	35.90	0.99	1500.0	1.39	1.21
1520.0	12.69	0.08	36.38	36.54	0.96	1520.0	1.33	1.21
1540.0	12.63	0.06	36.57	36.52	1.12	1540.0	1.28	1.20
1560.0	12.68	0.07	36.22	36.14	0.90	1560.0	1.24	1.20
1580.0	12.73	0.06	35.44	35.32	1.06	1580.0	1.22	1.19
1600.0	12.69	0.08	34.54	34.34	1.17	1600.0	1.21	1.19
1620.0	12.64	0.07	33.64	33.47	1.08	1620.0	1.20	1.18
1640.0	12.63	0.06	32.88	32.71	0.95	1640.0	1.20	1.17
1660.0	12.69	0.06	32.28	32.13	1.01	1660.0	1.20	1.16
1680.0	12.75	0.08	31.75	31.68	1.22	1680.0	1.22	1.16
1700.0	12.69	0.06	31.37	31.32	1.09	1700.0	1.23	1.16
1720.0	12.62	0.08	31.08	31.06	1.15	1720.0	1.23	1.15
1740.0	12.66	0.09	31.06	30.94	0.98	1740.0	1.23	1.14
1760.0	12.70	0.09	31.05	30.94	1.20	1760.0	1.24	1.14
1780.0	12.68	0.09	31.19	31.08	1.27	1780.0	1.24	1.14
1800.0	12.63	0.08	31.37	31.29	1.38	1800.0	1.23	1.13
1820.0	12.69	0.07	31.54	31.55	1.31	1820.0	1.22	1.13
1840.0	12.70	0.09	31.79	31.78	1.28	1840.0	1.21	1.14
1860.0	12.68	0.09	32.08	32.07	1.40	1860.0	1.21	1.13
1880.0	12.69	0.09	32.22	32.20	1.15	1880.0	1.20	1.12
1900.0	12.73	0.09	32.18	32.02	1.34	1900.0	1.18	1.13
1920.0	12.71	0.08	31.86	31.81	1.24	1920.0	1.17	1.13
1940.0	12.66	0.09	31.50	31.30	1.33	1940.0	1.16	1.12
1960.0	12.68	0.11	30.98	30.70	1.32	1960.0	1.16	1.11
1980.0	12.72	0.10	30.38	30.06	1.41	1980.0	1.15	1.11
2000.0	12.72	0.11	29.72	29.28	1.41	2000.0	1.14	1.10
2020.0	12.69	0.11	29.13	28.66	1.39	2020.0	1.14	1.10
2040.0	12.70	0.12	28.65	28.11	1.36	2040.0	1.14	1.09
2060.0	12.70	0.12	28.20	27.64	1.40	2060.0	1.13	1.08
2080.0	12.71	0.14	27.92	27.29	1.45	2080.0	1.14	1.07
2100.0	12.70	0.14	27.70	27.00	1.37	2100.0	1.15	1.06
2120.0	12.72	0.16	27.64	26.90	1.41	2120.0	1.16	1.05
2140.0	12.69	0.16	27.70	26.90	1.38	2140.0	1.16	1.04
2160.0	12.71	0.16	27.91	27.13	1.38	2160.0	1.17	1.03
2180.0	12.76	0.16	28.32	27.43	1.59	2180.0	1.19	1.04
2200.0	12.77	0.15	28.83	27.84	1.61	2200.0	1.21	1.03
2220.0	12.71	0.15	29.45	28.20	1.59	2220.0	1.22	1.04
2240.0	12.79	0.13	30.17	28.60	1.57	2240.0	1.22	1.05
2260.0	12.79	0.13	30.56	28.77	1.60	2260.0	1.23	1.06
2280.0	12.79	0.14	30.70	28.72	1.50	2280.0	1.25	1.06
2300.0	12.76	0.14	30.23	28.33	1.58	2300.0	1.26	1.07

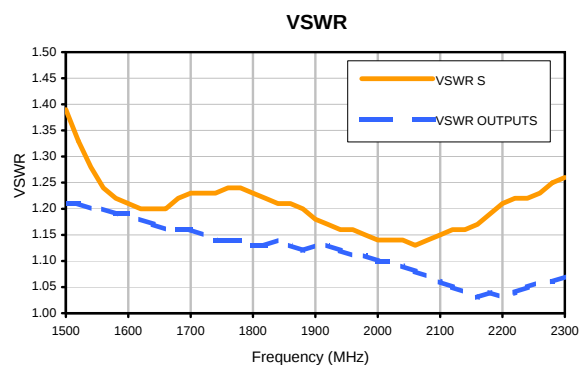
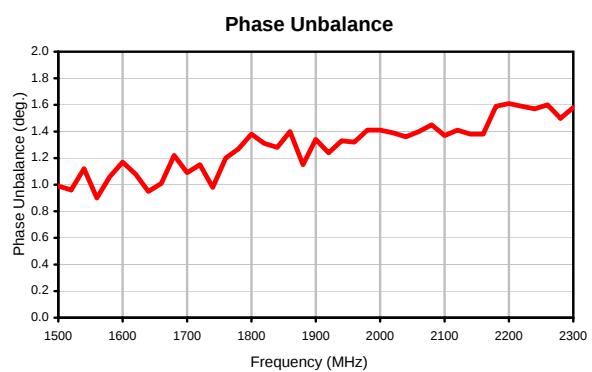
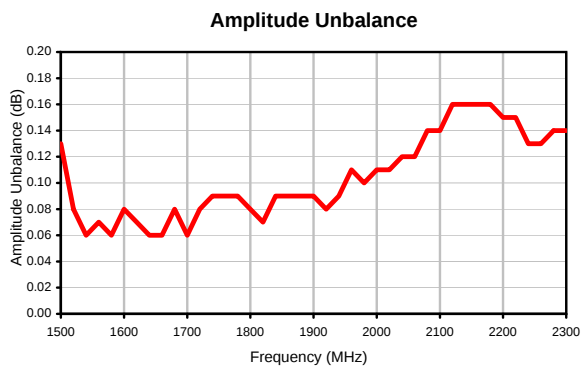
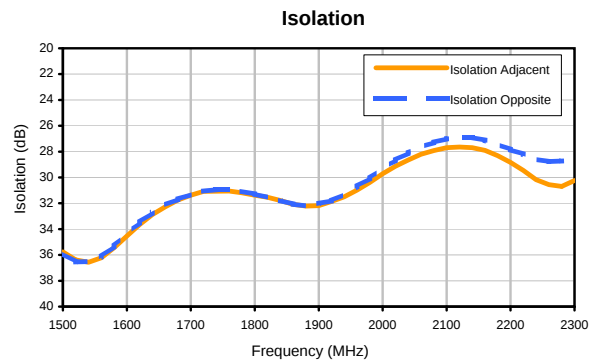
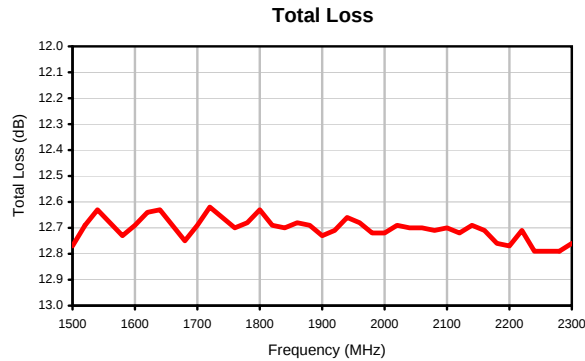
¹ Total Loss = Insertion Loss+ 12dB Splitter Loss

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16 Way-0° Power Splitter/Combiner

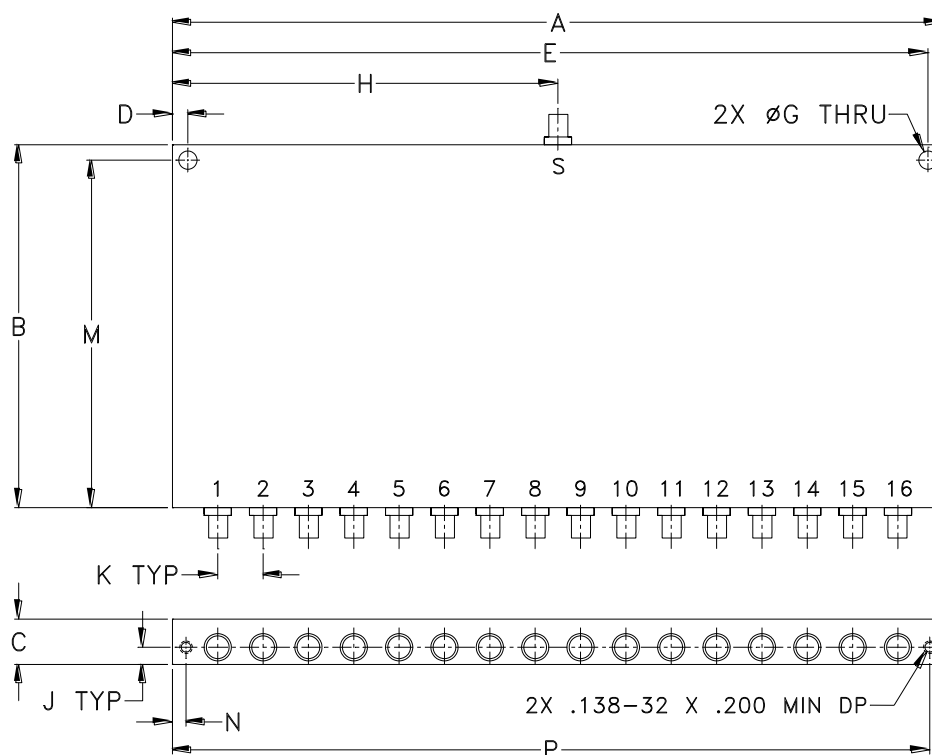
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Typical Performance Curves



Outline Dimensions

UU640



CASE#	A	B	C	D	E	F	G	H	J	K	L	M
UU640	8.50 (215.90)	4.00 (101.60)	.50 (12.70)	.170 (4.32)	8.330 (211.58)	--	.201 (5.11)	4.25 (107.95)	.19 (4.83)	.500 (12.70)	--	3.830 (97.28)

CASE#	N	P	WT. GRAMS
UU640	.150 (3.81)	8.350 (212.09)	450

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.



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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	-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