Coaxial

Power Splitter/Combiner

ZC16PD-252-S+

16 Way-0° 50Ω 10 to 2500 MHz

Maximum Ratings

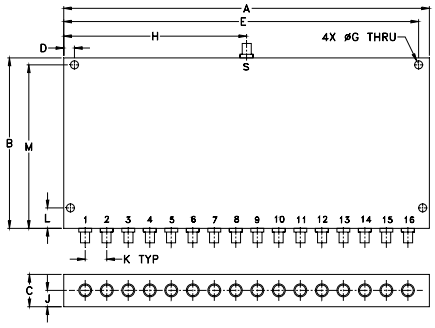
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.75W max.

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

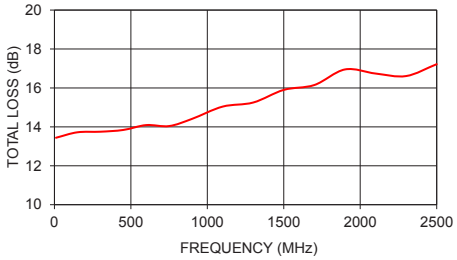
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

Typical Performance Data

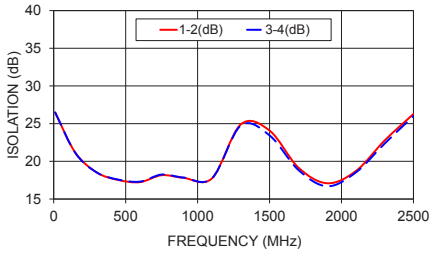
Freq. (MHz)	Total Loss[1] (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
			1-2	3-4			
10.00	13.44	0.04	26.46	26.50	0.15	1.23	1.62
150.00	13.72	0.04	21.16	21.11	0.58	1.34	1.45
300.00	13.75	0.06	18.51	18.51	1.03	1.15	1.36
450.00	13.84	0.09	17.52	17.57	1.36	1.25	1.30
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.

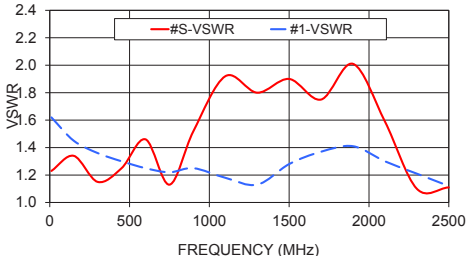
ZC16PD-252-S+
TOTAL LOSS



ZC16PD-252-S+
ISOLATION



ZC16PD-252-S+
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

16 Way-0° Power Splitter/Combiner ZC16PD-252-S+

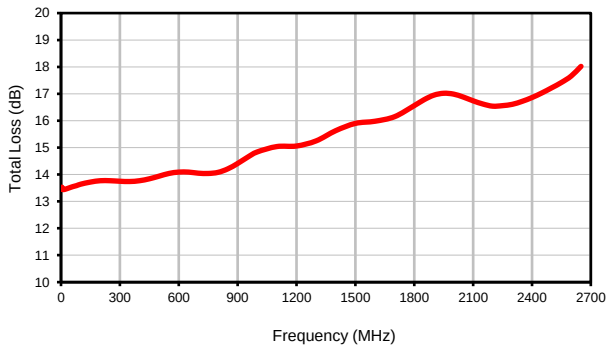
Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS[1] (dB) S-1	AMPLITUDE UNBALANCE (dB)	ISOLATION (dB) 1-2	ISOLATION (dB) 3-4	PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1) S	VSWR (:1) 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	13.44	0.04	26.46	26.50	0.15	10.0	1.23	1.62
20	13.45	0.03	26.17	26.06	0.09	20.0	1.23	1.54
40	13.50	0.03	25.53	25.42	0.15	40.0	1.25	1.52
60	13.55	0.03	24.72	24.62	0.24	60.0	1.27	1.51
80	13.59	0.03	23.83	23.76	0.32	80.0	1.30	1.50
100	13.64	0.03	22.97	22.90	0.39	100.0	1.32	1.48
150	13.72	0.04	21.16	21.11	0.58	150.0	1.34	1.45
200	13.77	0.05	19.88	19.85	0.83	200.0	1.33	1.42
250	13.77	0.06	19.04	19.03	0.91	250.0	1.26	1.38
300	13.75	0.06	18.51	18.51	1.03	300.0	1.15	1.36
350	13.74	0.08	18.13	18.15	1.14	350.0	1.04	1.33
400	13.77	0.09	17.81	17.85	1.25	400.0	1.11	1.32
450	13.84	0.09	17.52	17.57	1.36	450.0	1.25	1.30
500	13.94	0.09	17.29	17.35	1.51	500.0	1.38	1.29
550	14.04	0.10	17.19	17.25	1.68	550.0	1.46	1.27
600	14.09	0.10	17.24	17.31	1.83	600.0	1.46	1.25
650	14.09	0.10	17.46	17.53	1.99	650.0	1.40	1.24
700	14.05	0.10	17.80	17.89	2.13	700.0	1.27	1.22
750	14.04	0.10	18.16	18.25	2.29	750.0	1.13	1.22
800	14.08	0.11	18.33	18.41	2.44	800.0	1.12	1.23
850	14.21	0.12	18.20	18.25	2.67	850.0	1.31	1.24
900	14.41	0.12	17.82	17.85	2.89	900.0	1.52	1.25
950	14.64	0.11	17.44	17.45	3.04	950.0	1.72	1.25
1000	14.84	0.12	17.23	17.23	3.23	1000.0	1.86	1.23
1100	15.04	0.12	17.74	17.75	3.68	1100.0	1.92	1.18
1200	15.06	0.14	20.08	20.10	4.26	1200.0	1.80	1.11
1300	15.25	0.20	24.90	24.74	4.85	1300.0	1.80	1.13
1400	15.63	0.27	27.75	26.84	5.35	1400.0	1.91	1.21
1500	15.90	0.35	24.08	23.44	5.73	1500.0	1.90	1.28
1600	15.98	0.43	21.20	20.78	5.85	1600.0	1.76	1.33
1700	16.15	0.46	19.18	18.86	5.75	1700.0	1.75	1.37
1800	16.56	0.46	17.74	17.50	5.80	1800.0	1.91	1.41
1850	16.78	0.48	17.30	17.05	5.49	1850.0	1.97	1.41
1900	16.95	0.47	17.09	16.69	4.97	1900.0	2.01	1.41
1950	17.02	0.50	17.10	16.80	5.61	1950.0	1.97	1.40
2000	16.99	0.51	17.36	17.12	5.85	2000.0	1.87	1.37
2050	16.88	0.50	17.90	17.68	6.05	2050.0	1.74	1.34
2100	16.74	0.49	18.71	18.53	6.11	2100.0	1.59	1.30
2150	16.62	0.46	19.73	19.61	6.14	2150.0	1.43	1.27
2200	16.54	0.44	20.81	20.89	6.21	2200.0	1.30	1.24
2250	16.56	0.40	21.78	21.49	6.15	2250.0	1.19	1.22
2300	16.61	0.37	22.77	22.36	6.46	2300.0	1.10	1.21
2350	16.72	0.40	23.50	23.17	6.64	2350.0	1.03	1.19
2400	16.86	0.44	24.27	23.99	6.80	2400.0	1.02	1.17
2450	17.03	0.47	25.20	24.92	7.09	2450.0	1.07	1.15
2500	17.22	0.51	26.28	26.00	7.35	2500.0	1.11	1.12
2550	17.42	0.56	27.37	27.10	7.99	2550.0	1.14	1.10
2600	17.66	0.63	28.33	28.06	8.90	2600.0	1.17	1.11
2650	18.02	0.83	28.93	28.71	10.46	2650.0	1.21	1.13

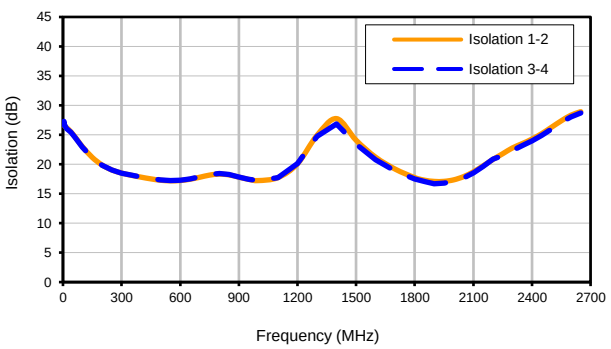
[1]Total Loss = Insertion Loss + 12dB Splitter Loss

Typical Performance Curves

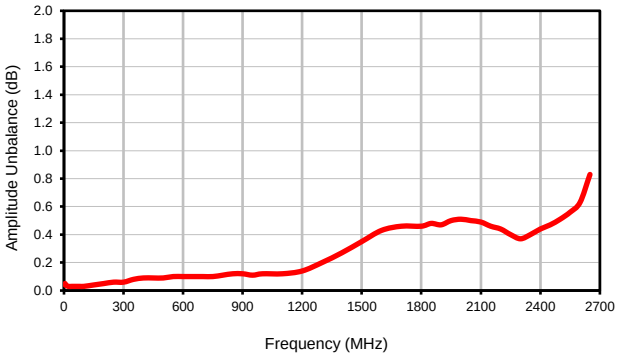
Total Loss



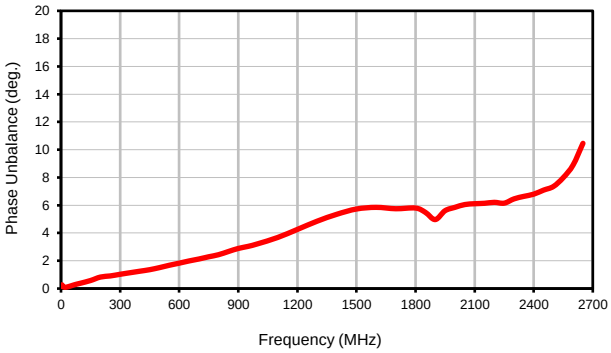
Isolation



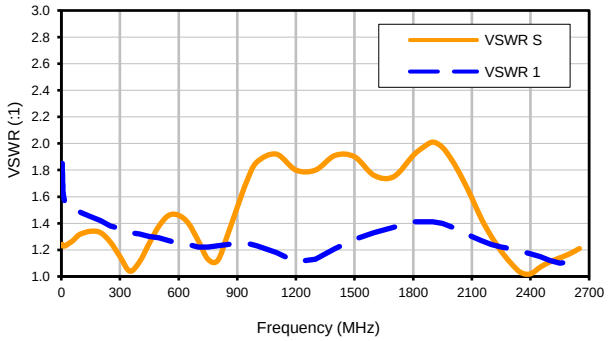
Amplitude Unbalance



Phase Unbalance

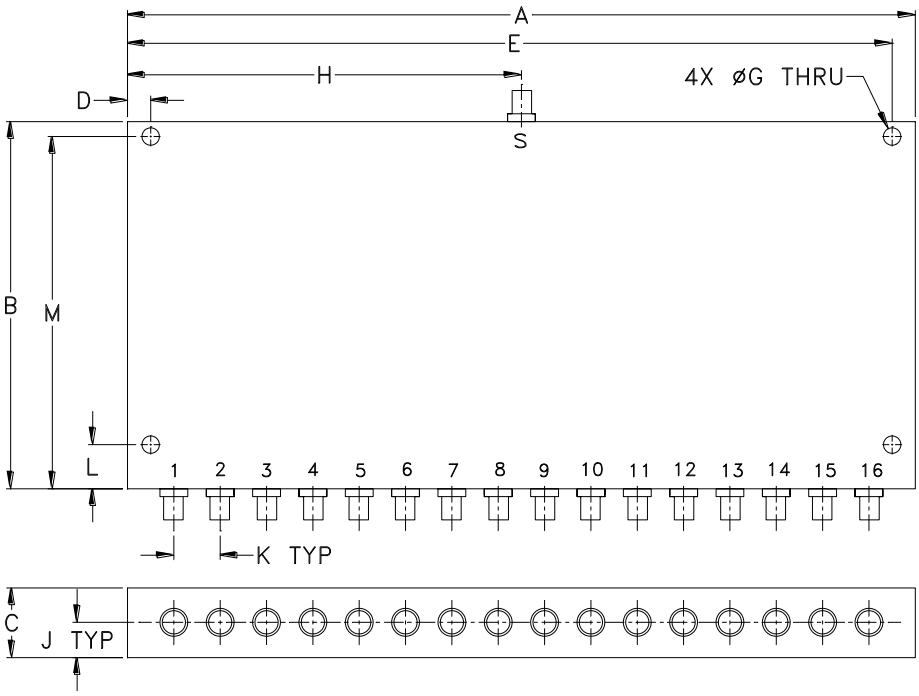


VSWR



Case Style UU

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. ± .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 based.
3. Refer to the individual model data sheet for the type of connectors available.

Mini-Circuits

Environmental Specifications **ENV28T5**

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