

# Power Splitter/Combiner

ZB16PD-272-75F+

16 Way-0° 75Ω 695 to 2700 MHz

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	5.0W max.
DC Current	1A (125mA each)

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

## Coaxial Connections

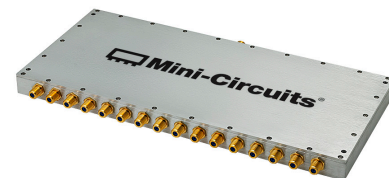
SUM PORT	S
PORT 1,2,3...16	1,2,3...16

## Features

- low insertion loss, 1.0 dB typ.
- excellent input and output VSWR, 1.4:1 typ.
- very high isolation, 24 dB typ.

## Applications

- CATV
- WiMAX
- PCS/DCS
- L-Band



CASE STYLE: UU537

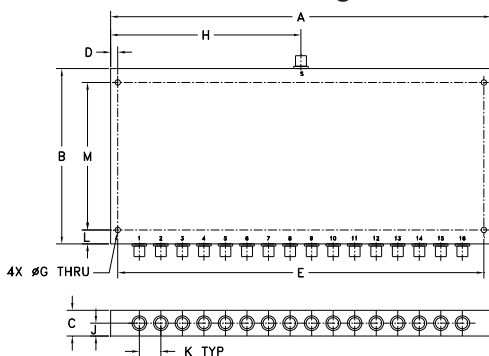
Connectors	Model
75Ω F-Type	ZB16PD-272-75F+

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

## Electrical Specifications at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Frequency</b>		695		2700	MHz
<b>Insertion Loss (above theoretical 12 dB)</b>	900 - 2450	—	1.0	1.9	dB
	695 - 2700	—	1.2	2.2	
<b>Isolation</b>	695 - 2450	18	24	—	dB
	2450 - 2700	14	20	—	
<b>Phase Unbalance</b>	695 - 2700	—	5	11	Degree
<b>Amplitude Unbalance</b>	900 - 2450	—	0.3	0.7	dB
	695 - 2700	—	0.5	0.9	
<b>VSWR (Port S)</b>	900 - 2450	—	1.5	1.85	:1
<b>VSWR (Port 1, 16)</b>	900 - 2450	—	1.4	1.65	:1

## Outline Drawing



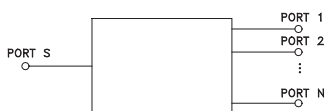
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
13.25	6.00	.88	.250	12.75	--	.187
336.55	152.40	22.35	6.35	323.85	--	4.75

H	J	K	L	M	N	wt
6.63	.44	.75	.48	5.05	--	grams
168.40	11.18	19.05	12.19	128.27	--	2080

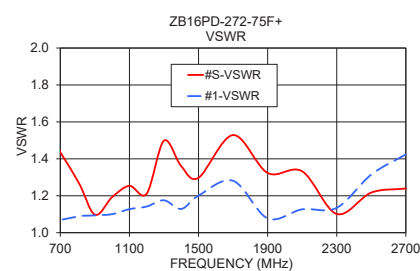
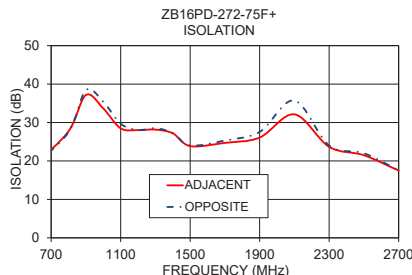
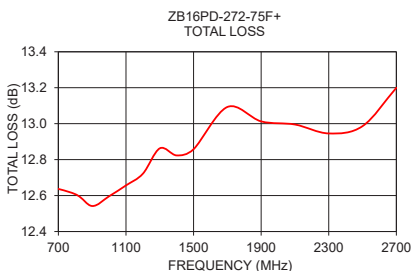
## Electrical Schematic



## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)	Amplitude Unbalance (dB)	Isolation (dB)		Phase Unbalance (deg.)	VSWR S	VSWR 1
			ADJ	OPP			
600	12.66	0.07	18.72	18.62	1.82	1.59	1.05
800	12.61	0.06	27.71	27.48	2.54	1.28	1.09
900	12.54	0.06	37.15	38.42	2.76	1.10	1.09
1000	12.60	0.08	33.67	35.40	3.03	1.19	1.10
1100	12.66	0.09	28.49	29.68	3.34	1.25	1.13
1200	12.72	0.23	28.03	28.07	3.49	1.21	1.14
1300	12.86	0.14	28.16	28.52	3.45	1.50	1.18
1400	12.82	0.10	27.20	27.26	3.62	1.36	1.13
1500	12.86	0.12	23.87	24.05	3.66	1.30	1.20
1700	13.09	0.17	24.71	25.32	4.34	1.53	1.28
1900	13.01	0.08	26.09	27.55	5.79	1.32	1.08
2100	13.00	0.09	32.13	35.72	6.14	1.33	1.13
2300	12.95	0.18	23.67	24.02	6.77	1.10	1.13
2500	12.99	0.31	21.49	22.00	7.46	1.22	1.31
2700	13.20	0.47	17.50	17.58	7.10	1.24	1.42

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



### 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-Circuits' 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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# ZB16PD-272-75F+

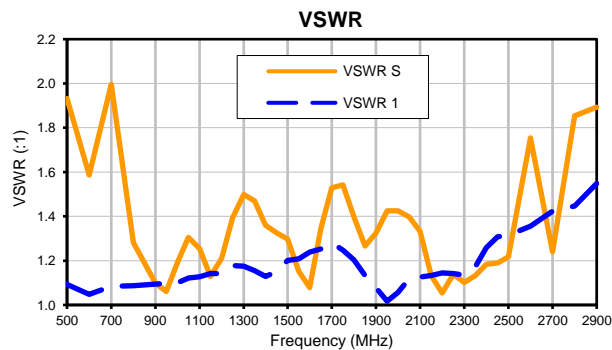
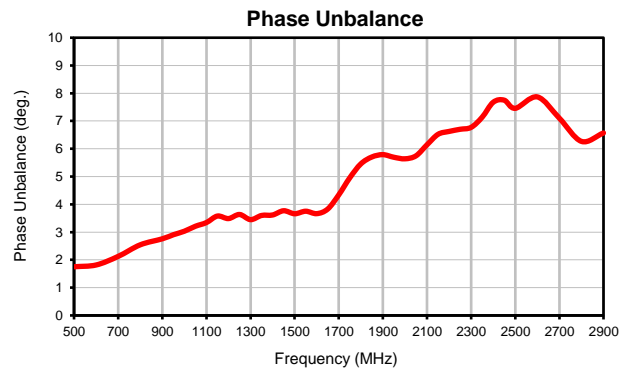
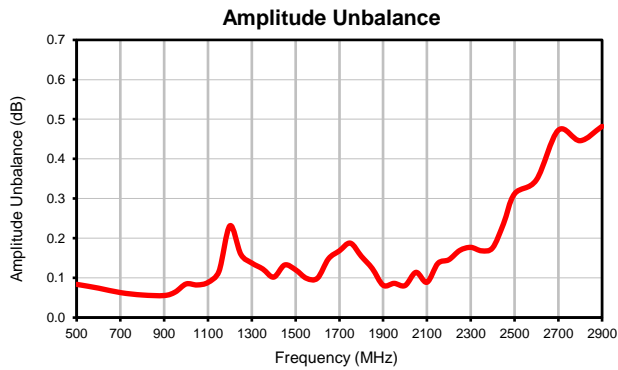
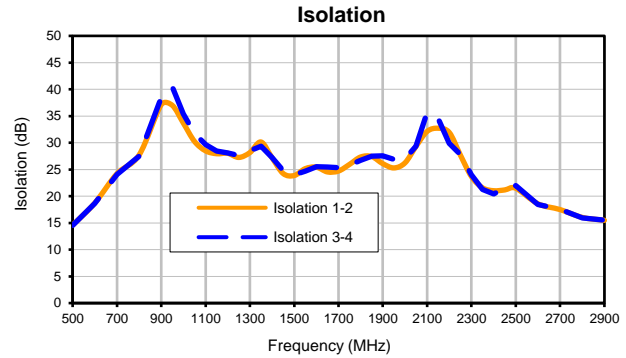
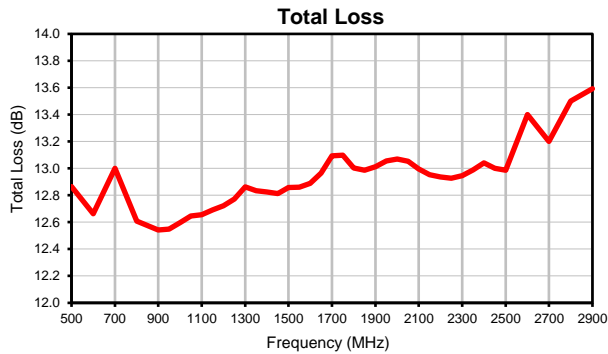
## Typical Performance Data

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
500	12.86	0.08	14.58	14.54	1.75	500	1.93	1.09
600	12.66	0.07	18.72	18.62	1.82	600	1.59	1.05
700	13.00	0.06	24.20	24.10	2.13	700	2.00	1.08
800	12.61	0.06	27.71	27.48	2.54	800	1.28	1.09
900	12.54	0.06	37.15	38.42	2.76	900	1.10	1.09
950	12.55	0.06	37.00	40.40	2.91	950	1.06	1.10
1000	12.60	0.08	33.67	35.40	3.03	1000	1.19	1.10
1050	12.65	0.08	30.26	31.74	3.21	1050	1.31	1.12
1100	12.66	0.09	28.49	29.68	3.34	1100	1.25	1.13
1150	12.69	0.12	27.95	28.44	3.58	1150	1.13	1.14
1200	12.72	0.23	28.03	28.07	3.49	1200	1.21	1.14
1250	12.77	0.16	27.25	27.61	3.64	1250	1.39	1.18
1300	12.86	0.14	28.16	28.52	3.45	1300	1.50	1.18
1350	12.83	0.12	30.14	29.38	3.60	1350	1.47	1.15
1400	12.82	0.10	27.20	27.26	3.62	1400	1.36	1.13
1450	12.81	0.13	24.25	24.82	3.77	1450	1.33	1.15
1500	12.86	0.12	23.87	24.05	3.66	1500	1.30	1.20
1550	12.86	0.10	25.16	24.66	3.75	1550	1.15	1.21
1600	12.89	0.10	25.44	25.53	3.66	1600	1.08	1.24
1650	12.97	0.15	24.54	25.49	3.83	1650	1.35	1.25
1700	13.09	0.17	24.71	25.32	4.34	1700	1.53	1.28
1750	13.10	0.19	25.96	25.80	4.96	1750	1.54	1.25
1800	13.00	0.15	27.34	26.72	5.46	1800	1.40	1.20
1850	12.99	0.12	27.42	27.47	5.70	1850	1.27	1.13
1900	13.01	0.08	26.09	27.55	5.79	1900	1.32	1.08
1950	13.05	0.09	25.30	26.92	5.69	1950	1.42	1.02
2000	13.07	0.08	26.24	27.01	5.64	2000	1.43	1.06
2050	13.05	0.11	29.34	29.36	5.75	2050	1.40	1.12
2100	13.00	0.09	32.13	35.72	6.14	2100	1.33	1.13
2150	12.95	0.14	32.72	34.45	6.52	2150	1.13	1.13
2200	12.94	0.15	31.91	29.88	6.62	2200	1.05	1.14
2250	12.93	0.17	27.69	27.77	6.70	2250	1.14	1.14
2300	12.95	0.18	23.67	24.02	6.77	2300	1.10	1.13
2350	12.99	0.17	21.57	21.24	7.14	2350	1.13	1.17
2400	13.04	0.18	21.03	20.45	7.68	2400	1.18	1.26
2450	13.00	0.24	21.17	21.50	7.75	2450	1.19	1.31
2500	12.99	0.31	21.49	22.00	7.46	2500	1.22	1.31
2600	13.40	0.35	18.58	18.43	7.87	2600	1.75	1.36
2700	13.20	0.47	17.50	17.58	7.10	2700	1.24	1.42
2800	13.50	0.45	16.04	15.93	6.27	2800	1.85	1.45
2900	13.59	0.48	15.49	15.51	6.57	2900	1.89	1.55

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

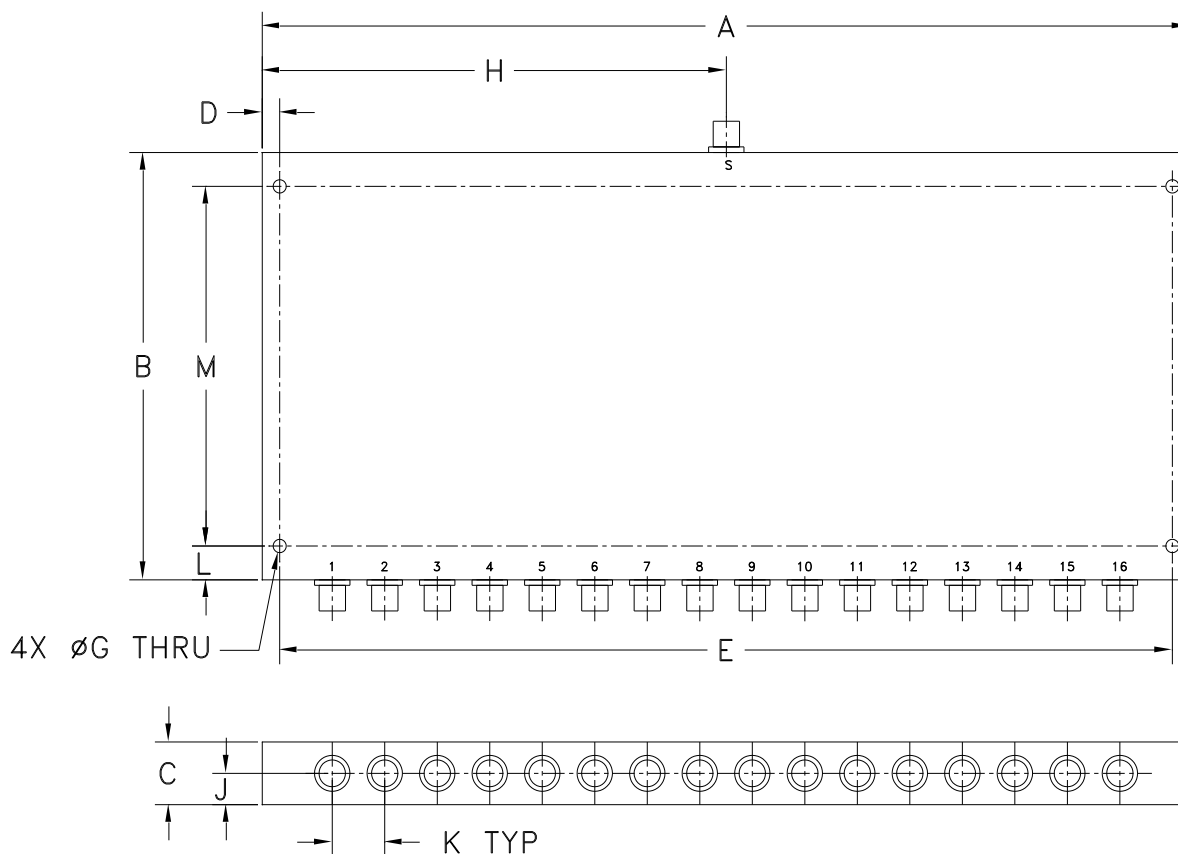


## Typical Performance Curves



## Outline Dimensions

UU537



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
UU537	13.25 (336.55)	6.00 (152.40)	.88 (22.35)	.250 (6.35)	12.75 (323.85)	-- --	.187 (4.75)	6.63 (168.40)	.44 (11.18)	.75 (19.05)	.48 (12.19)	5.05 (128.27)	2080

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

### 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.



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



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

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.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
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