

Power Splitter/Combiner

JEPS-ED8073/1

16 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 : BL372

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		1		400	MHz
Isolation	1 - 10 MHz		47		dB
	10 - 200 MHz		37		dB
	200 - 400 MHz		30		dB
	1 - 10 MHz		0.54		dB
	10 - 200 MHz		0.73		dB
	200 - 400 MHz		1.27		dB
Phase Unbalance	1 - 10 MHz		0.273		deg.
	10 - 200 MHz		1.747		deg.
	200 - 400 MHz		4.263		deg.
Amplitude Unbalance	1 - 10 MHz		0.038		dB
	10 - 200 MHz		0.039		dB
	200 - 400 MHz		0.160		dB
VSWR	SUM Port		1.24		(:1)
	OUT Ports		1.11		(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	18
PORT 1	2
PORT 2	3
PORT 3	4
PORT 4	5
PORT 5	9
PORT 6	10
PORT 7	11
PORT 8	12
PORT 9	13
PORT 10	14
PORT 11	15
PORT 12	16
PORT 13	20
PORT 14	21
PORT 15	22
PORT 16	23
GND EXT	1,6,7,8,17,19,24

Functional Diagram



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Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB) S-1	AMP. UNBAL. (dB)	ISOLATION (dB)		PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)	
			1-2	4-5			S	4
1.0	12.70	0.07	33.83	53.72	0.42	1.0	1.23	1.14
2.0	12.57	0.05	36.46	56.04	0.27	2.0	1.16	1.10
3.0	12.52	0.03	37.86	57.18	0.28	3.0	1.13	1.08
4.0	12.49	0.04	38.72	57.58	0.24	4.0	1.12	1.07
5.0	12.48	0.02	39.28	57.58	0.23	5.0	1.11	1.07
10.0	12.47	0.02	39.90	55.28	0.20	10.0	1.09	1.06
20.0	12.49	0.02	38.54	50.90	0.40	20.0	1.09	1.05
40.0	12.56	0.03	34.98	46.10	0.78	40.0	1.12	1.05
60.0	12.63	0.02	32.17	43.29	1.22	60.0	1.15	1.05
80.0	12.64	0.04	30.05	41.42	1.48	80.0	1.19	1.06
100.0	12.75	0.03	28.38	40.23	1.86	100.0	1.22	1.06
120.0	12.83	0.04	27.01	39.51	2.10	120.0	1.24	1.07
140.0	12.85	0.03	25.87	39.22	2.36	140.0	1.25	1.07
160.0	12.87	0.07	24.84	39.30	2.61	160.0	1.26	1.08
180.0	12.94	0.06	23.94	39.90	2.96	180.0	1.26	1.09
200.0	13.01	0.07	23.12	41.04	3.25	200.0	1.25	1.10
220.0	12.98	0.10	22.34	42.86	3.46	220.0	1.22	1.11
240.0	13.05	0.11	21.65	45.54	3.70	240.0	1.20	1.12
260.0	13.10	0.11	20.91	48.09	3.93	260.0	1.18	1.13
280.0	13.13	0.14	20.22	49.05	4.11	280.0	1.17	1.14
300.0	13.12	0.16	19.53	44.57	4.23	300.0	1.18	1.15
320.0	13.28	0.17	18.88	40.21	4.49	320.0	1.24	1.17
340.0	13.39	0.17	18.22	37.09	4.62	340.0	1.33	1.18
360.0	13.39	0.19	17.54	34.61	4.75	360.0	1.44	1.20
380.0	13.64	0.25	16.95	32.87	5.00	380.0	1.58	1.21
400.0	13.92	0.29	16.36	31.46	5.35	400.0	1.75	1.23

¹ Total Loss = Insertion Loss + 12dB Splitter Loss

REV. X2

JEPS-ED8073/1

100707

Page 1 of 1



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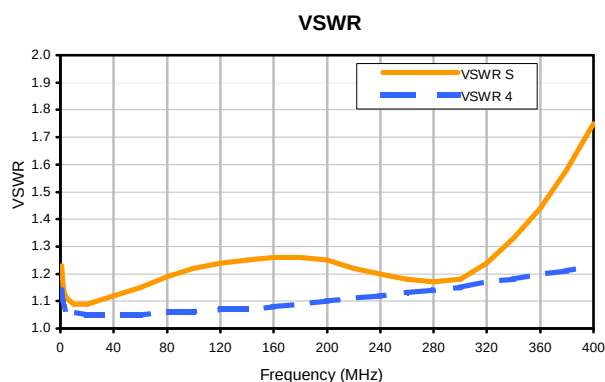
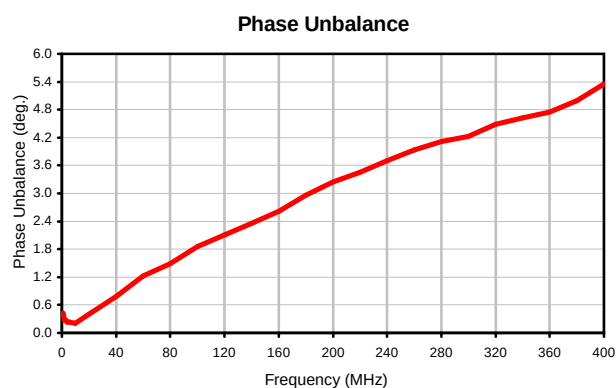
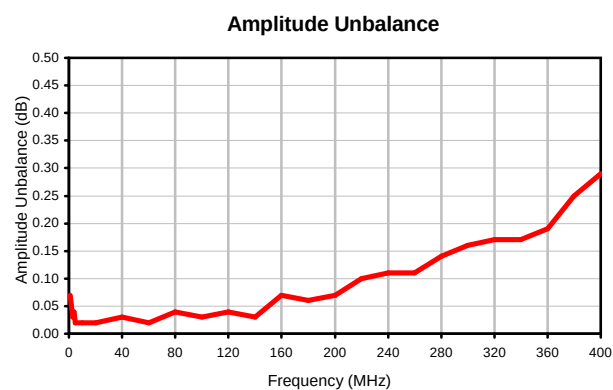
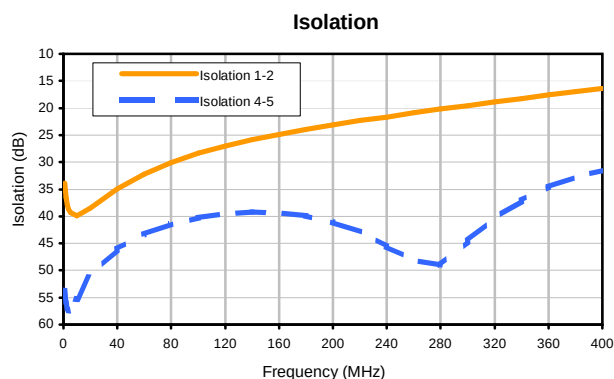
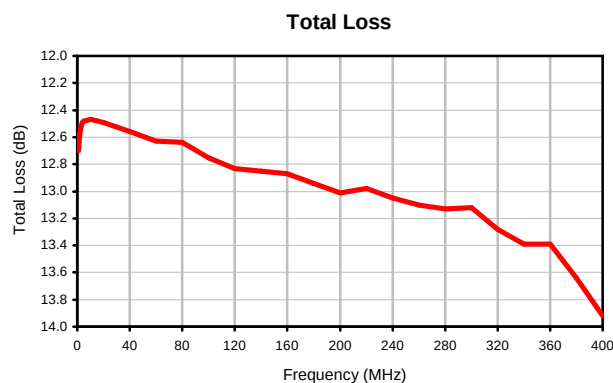
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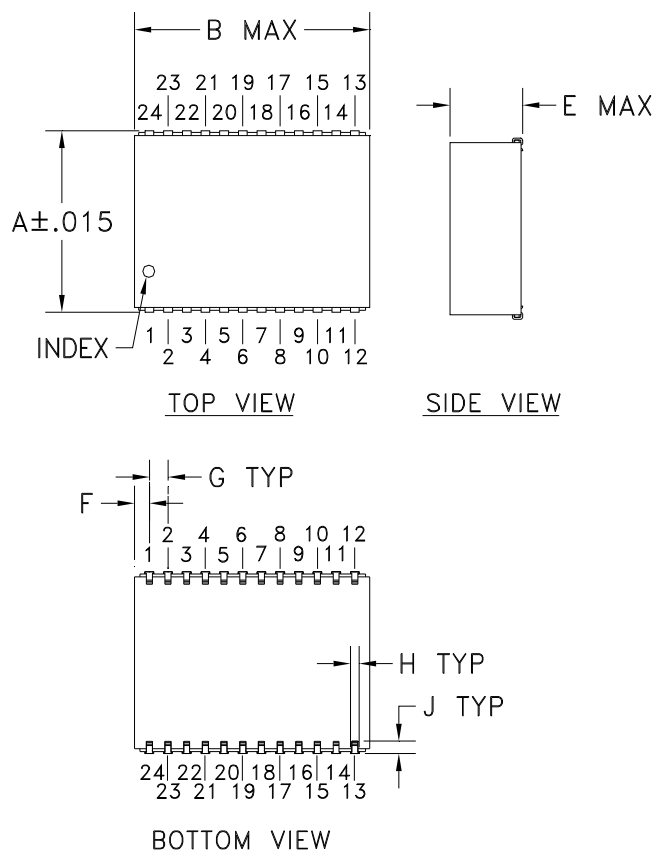


Typical Performance Curves

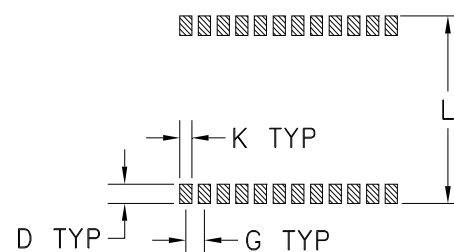


Outline Dimensions

BL372



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
BL372	.940 (23.88)	1.426 (36.22)	-- --	.100 (2.54)	.250 (6.35)	.163 (4.14)	.100 (2.54)	.047 (1.19)	.065 (1.65)	.065 (1.65)	.970 (24.64)	6.4

Dimensions are in inches (mm). Tolerances: 2Pl. ±.01; 3Pl. ±.005

Notes:

- Case material: Copper-Nickel alloy.
- Base material: Printed wiring laminate.
- Termination finish:
 - For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
 - For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

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RF/IF MICROWAVE COMPONENTS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M82272	NEW RELEASE	08/06/02	GF	DJ
A	M102713	UPDATED NOTES, ADDED "...WITH SMOBC"	01/16/06	GT	IL

.043 TYP
 TRACE WIDTH
 (SEE NOTE BELOW)

.120
 .060 TYP
 .065
 .280 TYP
 PIN 1
 .032
 .100 TYP
 .182 TYP
 1.165 REF

.040 TYP
 83 X ϕ .020 PTH,
 FOR GROUND
 .065
 PACKAGE
 OUTLINE

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED		INITIALS		DATE	
DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± .005 ANGLES ± FRACTIONS ±		DRAWN	GF	07/23/02	
		CHECKED	HY	08/06/02	
		APPROVED	DJ	08/06/02	

11

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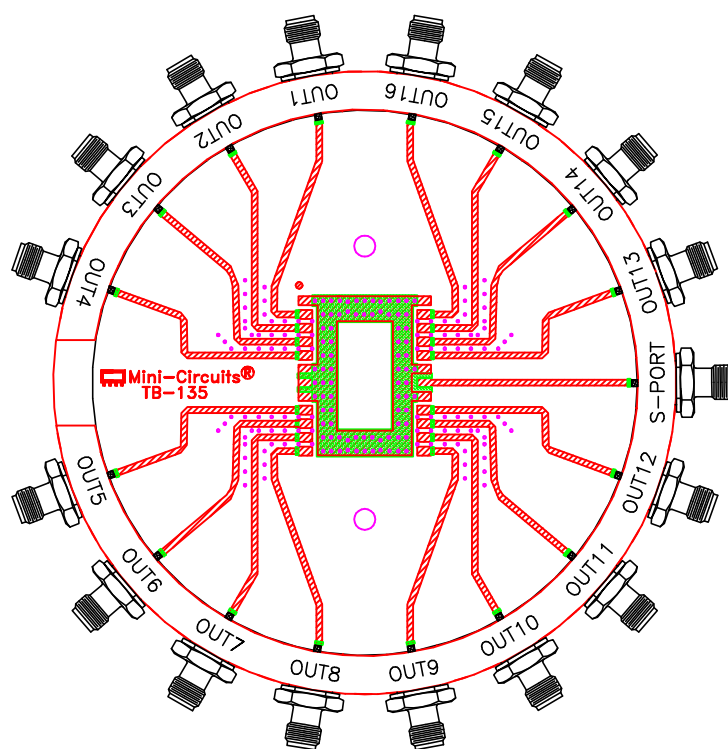
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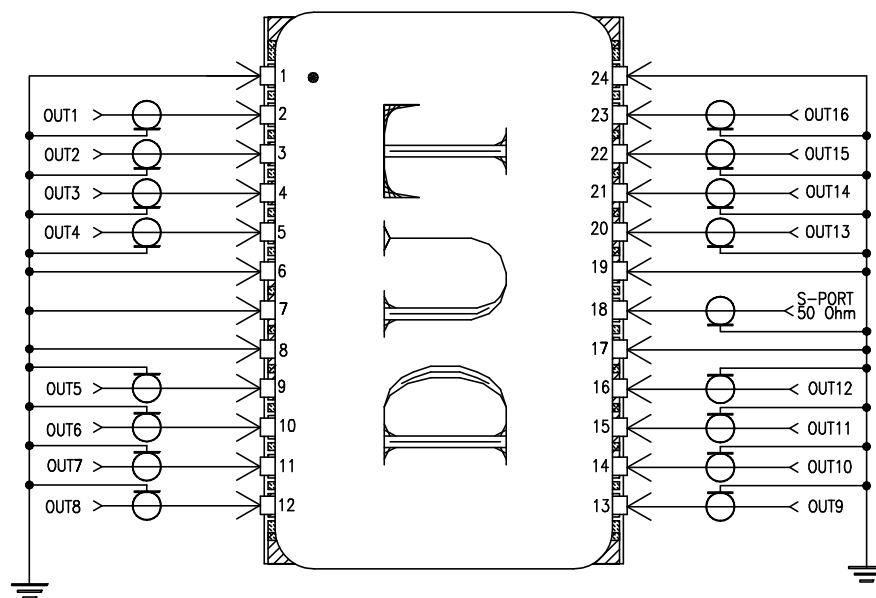
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ASHEETA1.DWG REV:A DATE:01/12/95

Evaluation Board and Circuit



TB-135



Schematic Diagram

Notes:

1. 50 Ohm SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.020 inch.

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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 Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
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	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215