

Power Splitter/Combiner

JEPS-ED6349/1

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 75Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		1		900	MHz
Isolation	1 - 10 MHz		42		dB
	10 - 450 MHz		39		dB
	450 - 900 MHz		32		dB
Insertion Loss Above 12.0 dB	1 - 10 MHz		2.20		dB
	10 - 450 MHz		1.70		dB
	450 - 900 MHz		2.55		dB
Phase Unbalance	1 - 10 MHz		0.883		deg.
	10 - 450 MHz		4.740		deg.
	450 - 900 MHz		16.149		deg.
Amplitude Unbalance	1 - 10 MHz		0.115		dB
	10 - 450 MHz		0.408		dB
	450 - 900 MHz		0.891		dB
VSWR	SUM Port		1.46		(:1)
	OUT Ports		1.35		(:1)

Note: Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.

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



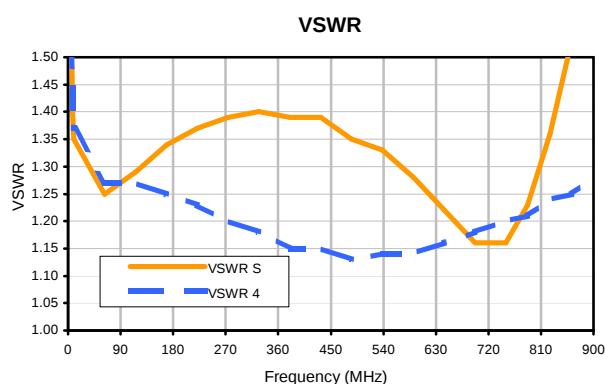
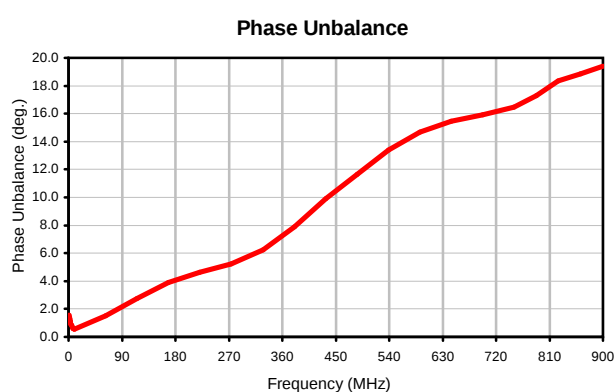
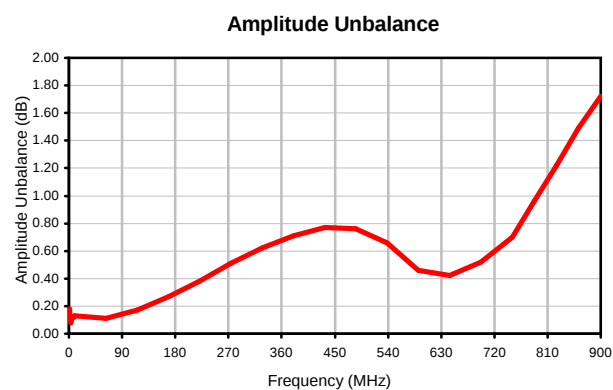
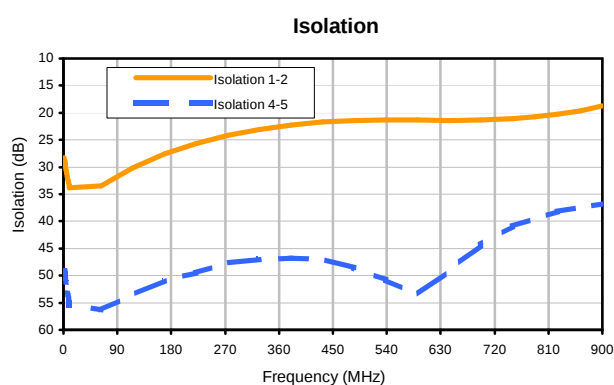
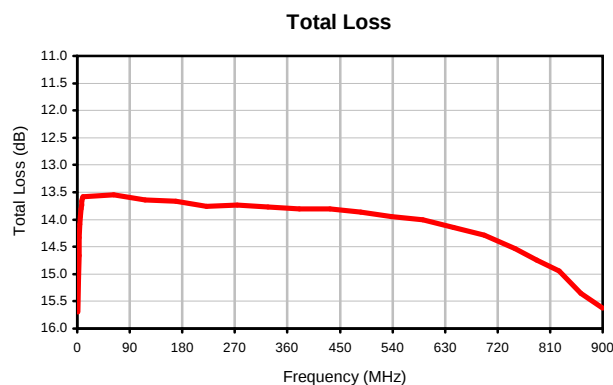
16 Way-0° Power Splitter/Combiner JEPS-ED6349/1

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	15.69	0.18	28.25	49.77	1.57	1.0	2.36	2.11
1.9	15.09	0.10	28.88	49.14	1.30	1.9	2.01	1.89
2.8	14.66	0.08	29.32	49.69	1.12	2.8	1.83	1.76
3.7	14.33	0.09	29.87	50.35	0.98	3.7	1.70	1.66
4.6	14.09	0.10	30.52	51.22	0.88	4.6	1.61	1.58
5.5	13.93	0.11	31.16	51.74	0.81	5.5	1.53	1.52
6.4	13.80	0.12	31.77	52.58	0.70	6.4	1.48	1.48
7.3	13.73	0.12	32.35	53.60	0.61	7.3	1.43	1.44
8.2	13.66	0.12	32.91	54.17	0.60	8.2	1.40	1.41
9.1	13.62	0.12	33.36	54.91	0.61	9.1	1.37	1.39
10.0	13.58	0.13	33.81	55.41	0.53	10.0	1.35	1.37
62.9	13.55	0.11	33.47	56.31	1.52	62.9	1.25	1.27
115.7	13.64	0.17	30.13	53.49	2.75	115.7	1.29	1.27
168.6	13.67	0.27	27.55	50.91	3.90	168.6	1.34	1.25
221.4	13.76	0.38	25.66	49.50	4.65	221.4	1.37	1.23
274.3	13.73	0.51	24.17	47.64	5.25	274.3	1.39	1.20
327.1	13.77	0.62	23.08	46.98	6.22	327.1	1.40	1.18
380.0	13.80	0.71	22.29	46.77	7.91	380.0	1.39	1.15
432.9	13.80	0.77	21.72	46.88	9.93	432.9	1.39	1.15
485.7	13.86	0.76	21.45	48.57	11.66	485.7	1.35	1.13
538.6	13.95	0.66	21.33	50.79	13.39	538.6	1.33	1.14
591.4	14.01	0.46	21.33	53.54	14.67	591.4	1.28	1.14
644.3	14.15	0.42	21.38	48.95	15.48	644.3	1.22	1.16
697.1	14.29	0.52	21.37	44.32	15.93	697.1	1.16	1.18
750.0	14.53	0.70	21.13	40.88	16.45	750.0	1.16	1.20
787.5	14.74	0.96	20.75	39.52	17.31	787.5	1.23	1.21
825.0	14.94	1.22	20.26	38.13	18.34	825.0	1.36	1.24
862.5	15.35	1.49	19.65	37.50	18.87	862.5	1.53	1.25
900.0	15.63	1.72	18.77	36.75	19.39	900.0	1.74	1.28

¹ Total Loss = Insertion Loss + 12dB Splitter Loss

Typical Performance Curves



REV. X2

JEPS-ED6349/1

100707

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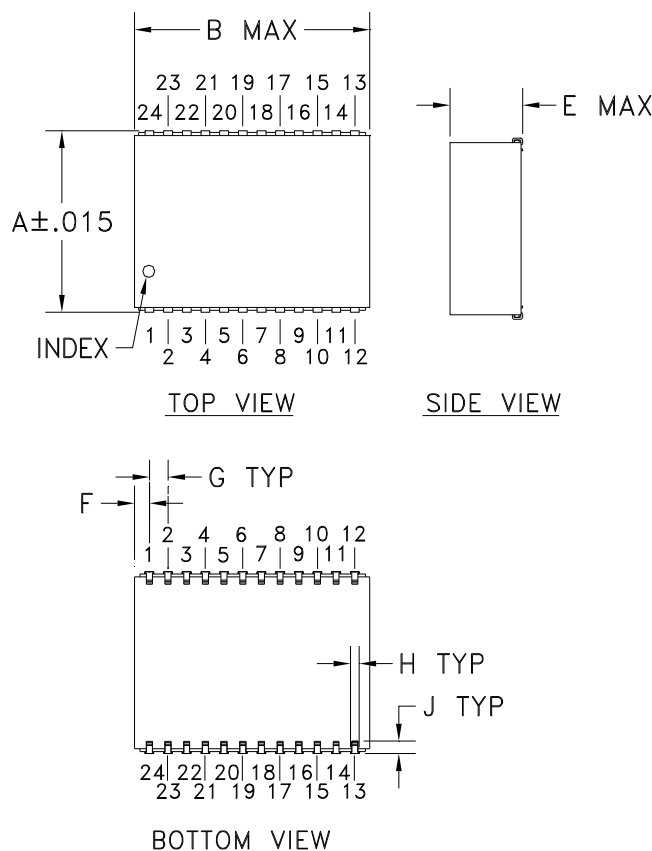


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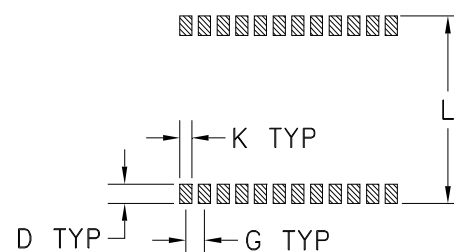


Outline Dimensions

BL372



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

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. $\pm .01$; 3Pl. $\pm .005$

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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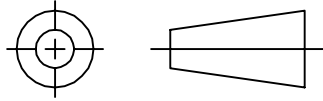
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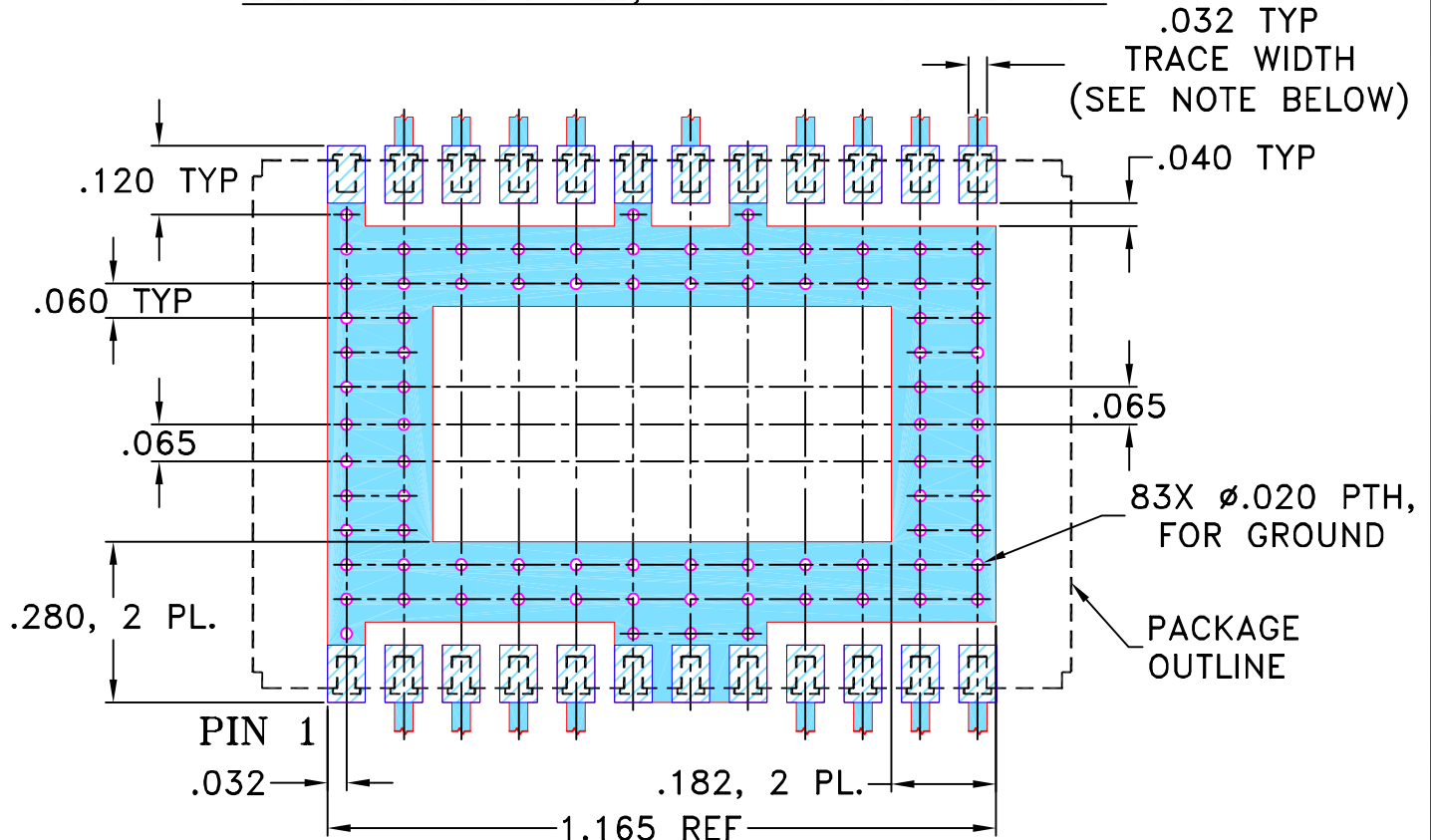
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M82593	NEW RELEASE	03/10/04	MMG	HY
A	M102713	ADDED "...WITH SMOBC"	01/14/06	GF	IL

SUGGESTED MOUNTING CONFIGURATION FOR BL372 CASE STYLE, "kf" PIN CONNECTION

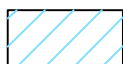


NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $0.030'' \pm 0.002''$; COPPER: $1/2$ OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.



DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)



DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED

INITIALS

DATE

DIMENSIONS ARE IN INCHES

DRAWN

MMG

03/05/04

TOLERANCES ON:
2 PL DECIMALS $\pm$
3 PL DECIMALS $\pm$.005
ANGLES $\pm$
FRACTIONS $\pm$

CHECKED

AV

03/10/04

APPROVED

HY

03/10/04

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PL, kf, 75, BL372, JEPS, TB-220

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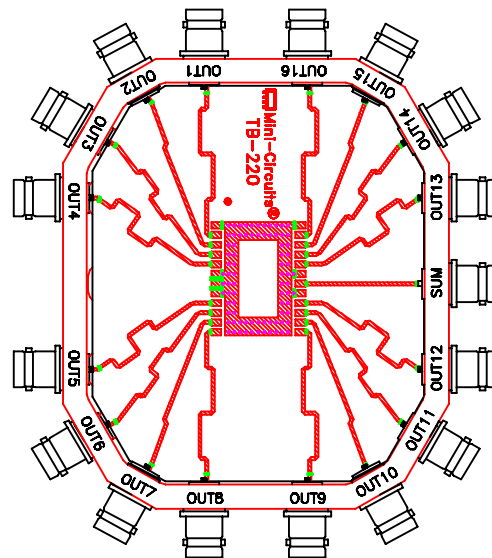
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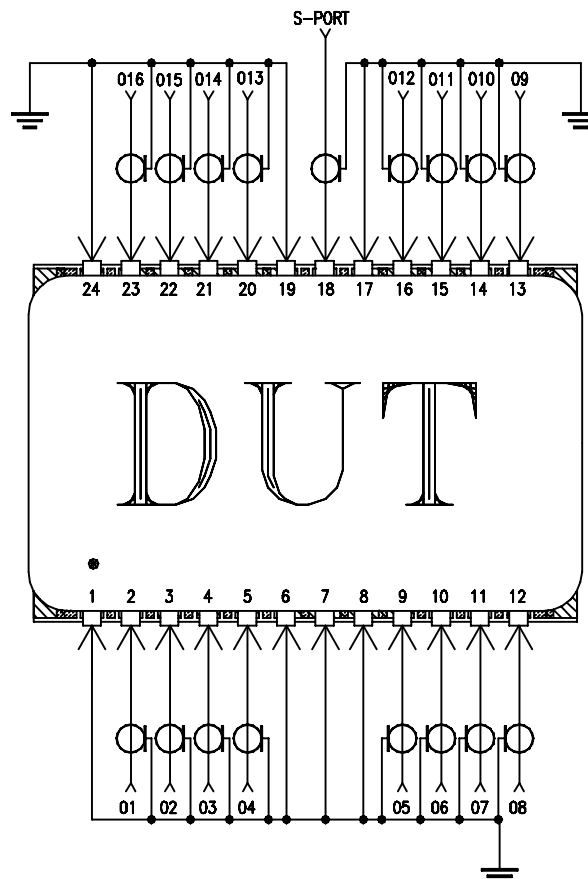
SCALE: 3:1

SHEET: 1 OF 1

Evaluation Board and Circuit



TB-220



Schematic Diagram

Notes:

1. 75 Ohm BNC Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 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