

Power Splitter/Combiner

JS4PS-1

4 Way-0° 50Ω 80 to 520 MHz



Generic photo used for illustration purposes only

CASE STYLE: BJ360

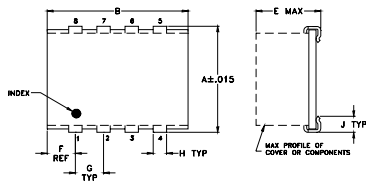
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.75W max.
Internal Dissipation	0.5W max.
Permanent damage may occur if any of these limits are exceeded.	

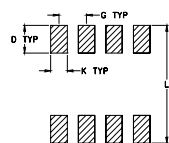
Pin Connections

SUM PORT	2
PORT 1	8
PORT 2	7
PORT 3	6
PORT 4	5
GROUND	1,3,4

Outline Drawing



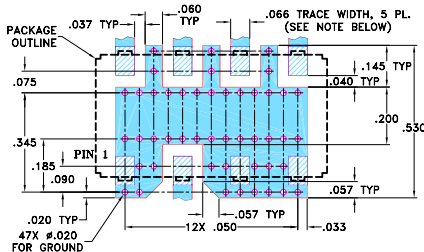
PCB Land Pattern

Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch mm)

A	B	C	D	E	F	G
.450	.800	--	.100	.250	.100	.200
11.43	20.32	--	2.54	6.35	2.54	5.08

H	J	K	L	wt
.047	.065	.065	.480	grams
1.19	1.65	1.65	12.19	1.7

Demo Board MCL P/N: TB-215
Suggested PCB Layout (PL-101)

NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- high isolation, 35 dB typ.
- good input matching, VSWR 1.2 typ.
- good output matching VSWR, 1.1 typ.
- aqueous washable
- shielded case

Applications

- VHF/UHF
- receivers/transmitters
- instrumentation

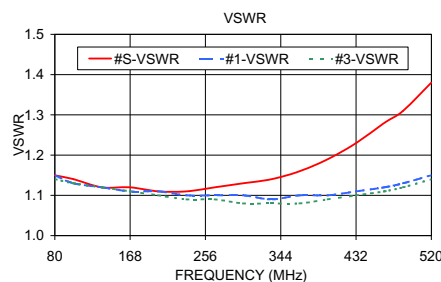
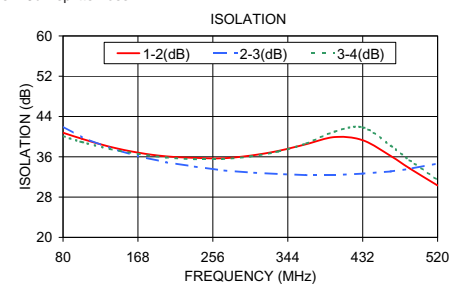
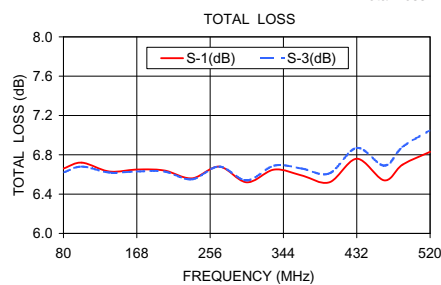
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) ABOVE 6.0 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min.	Typ. Max.	Max.	Max.
80-520	35 20	0.8 1.5	5	0.5

Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)				Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3	VSWR 4
	S-1	S-2	S-3	S-4		1-2	2-3	3-4						
80.00	6.66	6.66	6.62	6.69	0.07	40.78	42.03	40.10	0.14	1.15	1.15	1.14	1.14	1.14
102.00	6.72	6.71	6.68	6.67	0.04	39.58	39.87	38.93	0.30	1.14	1.13	1.13	1.13	1.13
135.00	6.63	6.63	6.62	6.71	0.09	37.99	37.74	37.56	0.30	1.12	1.12	1.12	1.12	1.12
168.00	6.65	6.65	6.63	6.69	0.06	36.83	36.11	36.58	0.34	1.12	1.11	1.11	1.11	1.11
201.00	6.64	6.65	6.63	6.67	0.04	36.10	34.92	35.88	0.36	1.11	1.11	1.10	1.10	1.10
234.00	6.56	6.55	6.55	6.71	0.16	35.80	34.07	35.54	0.34	1.11	1.10	1.10	1.09	1.09
267.00	6.68	6.68	6.68	6.66	0.02	35.71	33.31	35.56	0.55	1.12	1.10	1.09	1.09	1.09
300.00	6.52	6.52	6.54	6.68	0.17	36.23	32.88	36.07	0.61	1.13	1.10	1.09	1.08	1.08
333.00	6.65	6.65	6.69	6.73	0.08	37.17	32.59	37.05	0.59	1.14	1.09	1.09	1.08	1.08
366.00	6.59	6.60	6.66	6.64	0.07	38.51	32.35	38.66	0.54	1.16	1.10	1.09	1.08	1.08
399.00	6.52	6.53	6.61	6.66	0.14	39.93	32.37	40.99	0.65	1.19	1.10	1.09	1.09	1.08
432.00	6.76	6.78	6.87	6.74	0.13	39.29	32.67	41.86	0.55	1.23	1.11	1.10	1.10	1.09
465.00	6.54	6.56	6.69	6.66	0.15	36.15	33.10	38.20	0.67	1.28	1.12	1.12	1.11	1.11
487.00	6.70	6.72	6.88	6.69	0.20	33.71	33.61	35.32	0.66	1.31	1.13	1.13	1.12	1.12
520.00	6.83	6.84	7.05	6.75	0.30	30.30	34.67	31.43	0.77	1.38	1.15	1.15	1.14	1.14

1. Total Loss = Insertion Loss + 6dB splitter loss.



electrical schematic



4 Way-0° Power Splitter/Combiner

JS4PS-1+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)				AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)				
	S-1	S-2	S-3	S-4			1-2	2-3	3-4	S	1	2	3	4
3	7.29	7.31	7.31	7.15	0.16	2.31	20.44	24.72	21.08	2.57	3.76	3.87	3.78	3.79
4	7.04	7.04	7.04	6.95	0.10	1.94	20.96	26.37	21.46	2.06	2.81	2.85	2.80	2.81
5	6.79	6.77	6.76	6.74	0.05	1.56	21.48	28.02	21.83	1.74	2.27	2.29	2.26	2.26
6	6.72	6.69	6.69	6.69	0.03	1.27	22.02	29.40	22.27	1.59	2.02	2.03	2.01	2.01
7	6.72	6.69	6.69	6.70	0.03	1.01	22.57	30.68	22.72	1.50	1.86	1.86	1.85	1.85
8	6.72	6.69	6.69	6.70	0.03	0.79	23.08	31.84	23.15	1.43	1.74	1.74	1.73	1.73
9	6.72	6.70	6.70	6.71	0.03	0.69	23.47	32.57	23.47	1.39	1.67	1.67	1.67	1.67
10	6.73	6.70	6.71	6.71	0.02	0.59	23.87	33.30	23.80	1.35	1.62	1.62	1.61	1.61
25	6.66	6.66	6.67	6.65	0.01	0.31	25.60	37.37	25.32	1.22	1.38	1.38	1.38	1.38
50	6.64	6.65	6.65	6.64	0.01	0.19	26.86	37.34	26.62	1.18	1.30	1.30	1.30	1.31
75	6.65	6.66	6.66	6.65	0.01	0.16	27.45	35.59	27.25	1.18	1.28	1.28	1.28	1.28
80	6.65	6.66	6.66	6.65	0.01	0.12	27.50	35.21	27.32	1.18	1.28	1.27	1.28	1.28
100	6.67	6.68	6.68	6.67	0.02	0.20	27.60	33.84	27.42	1.19	1.27	1.27	1.27	1.27
125	6.70	6.70	6.71	6.69	0.02	0.12	27.50	32.36	27.34	1.20	1.27	1.27	1.27	1.27
150	6.73	6.73	6.73	6.71	0.02	0.16	27.28	31.17	27.10	1.21	1.27	1.27	1.27	1.27
175	6.74	6.75	6.75	6.73	0.02	0.10	27.01	30.20	26.82	1.22	1.28	1.28	1.28	1.28
200	6.77	6.78	6.78	6.75	0.03	0.09	26.76	29.38	26.55	1.23	1.28	1.29	1.29	1.28
225	6.80	6.81	6.80	6.77	0.03	0.09	26.56	28.75	26.31	1.22	1.29	1.29	1.30	1.29
250	6.81	6.82	6.81	6.78	0.04	0.07	26.40	28.22	26.13	1.22	1.30	1.30	1.30	1.30
275	6.83	6.85	6.83	6.79	0.05	0.07	26.36	27.83	26.04	1.20	1.30	1.31	1.31	1.30
300	6.84	6.85	6.84	6.79	0.07	0.06	26.38	27.52	26.01	1.18	1.31	1.32	1.32	1.31
325	6.85	6.87	6.85	6.80	0.07	0.06	26.53	27.34	26.07	1.16	1.32	1.33	1.33	1.31
350	6.86	6.88	6.86	6.79	0.09	0.12	26.77	27.27	26.21	1.14	1.32	1.33	1.34	1.32
375	6.87	6.89	6.87	6.79	0.10	0.21	27.14	27.31	26.44	1.12	1.33	1.35	1.35	1.33
400	6.88	6.90	6.88	6.78	0.12	0.24	27.64	27.48	26.76	1.13	1.34	1.36	1.36	1.34
425	6.90	6.93	6.89	6.79	0.14	0.26	28.27	27.80	27.13	1.17	1.35	1.38	1.38	1.35
450	6.92	6.95	6.91	6.80	0.15	0.33	28.92	28.27	27.52	1.23	1.37	1.40	1.40	1.36
475	6.96	7.00	6.95	6.82	0.18	0.49	29.49	28.96	27.82	1.32	1.40	1.43	1.43	1.39
500	7.01	7.07	7.01	6.86	0.21	0.49	29.71	29.89	27.89	1.44	1.43	1.47	1.47	1.42
520	7.08	7.14	7.06	6.90	0.23	0.57	29.45	30.85	27.69	1.55	1.46	1.51	1.50	1.45
525	7.10	7.16	7.08	6.92	0.24	0.59	29.31	31.12	27.60	1.58	1.47	1.52	1.51	1.46
550	7.21	7.28	7.19	7.00	0.27	0.70	28.22	32.72	26.87	1.75	1.52	1.58	1.57	1.51
575	7.35	7.43	7.33	7.13	0.30	0.80	26.70	34.58	25.78	1.95	1.58	1.64	1.64	1.57
600	7.52	7.62	7.51	7.30	0.32	0.93	25.06	36.17	24.51	2.20	1.64	1.72	1.71	1.64
625	7.75	7.85	7.72	7.49	0.36	1.02	23.45	36.10	23.19	2.49	1.72	1.81	1.80	1.71
650	8.01	8.13	7.99	7.73	0.39	1.24	21.97	34.13	21.89	2.82	1.81	1.90	1.89	1.80
675	8.31	8.45	8.29	8.01	0.44	1.35	20.64	31.67	20.69	3.21	1.90	2.00	1.99	1.90
700	8.65	8.81	8.64	8.34	0.47	1.55	19.45	29.47	19.60	3.65	1.99	2.10	2.09	1.99
725	9.02	9.21	9.01	8.69	0.52	1.66	18.40	27.65	18.61	4.14	2.08	2.21	2.20	2.09
750	9.43	9.63	9.41	9.07	0.57	1.77	17.46	26.13	17.69	4.67	2.18	2.32	2.31	2.20

¹Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2

JS4PS-1+

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Page 1 of 3



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

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4 Way-0° Power Splitter/Combiner

JS4PS-1+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -40°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)				AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)				
	S-1	S-2	S-3	S-4			1-2	2-3	3-4	S	1	2	3	4
3	9.36	9.36	9.36	8.95	0.41	2.77	32.59	23.55	29.67	5.90	8.37	8.47	8.82	8.87
4	8.49	8.49	8.49	8.18	0.31	2.62	34.58	23.53	31.35	4.09	5.46	5.50	5.71	5.74
5	7.62	7.61	7.62	7.40	0.22	2.48	36.57	23.51	33.02	3.16	4.08	4.10	4.25	4.27
6	7.18	7.18	7.18	7.02	0.16	2.31	35.15	23.94	32.81	2.65	3.29	3.31	3.41	3.42
7	6.93	6.92	6.93	6.81	0.13	2.13	32.29	24.55	31.78	2.31	2.78	2.79	2.86	2.87
8	6.71	6.70	6.71	6.62	0.09	1.97	29.75	25.20	30.67	2.07	2.44	2.44	2.49	2.50
9	6.62	6.61	6.62	6.55	0.07	1.84	28.48	25.96	29.21	1.91	2.21	2.21	2.25	2.26
10	6.53	6.52	6.53	6.49	0.04	1.72	27.20	26.72	27.75	1.78	2.03	2.03	2.06	2.06
25	6.52	6.52	6.52	6.53	0.01	0.51	26.20	36.11	25.99	1.28	1.40	1.39	1.40	1.40
50	6.51	6.52	6.52	6.51	0.01	0.35	26.89	38.85	26.66	1.21	1.29	1.28	1.29	1.29
75	6.53	6.53	6.54	6.53	0.01	0.36	27.61	36.69	27.43	1.20	1.26	1.26	1.26	1.26
80	6.54	6.54	6.55	6.54	0.01	0.33	27.71	36.24	27.54	1.20	1.25	1.26	1.26	1.26
100	6.55	6.56	6.56	6.55	0.01	0.34	27.89	34.68	27.74	1.21	1.24	1.25	1.25	1.25
125	6.58	6.57	6.58	6.57	0.01	0.31	27.85	33.06	27.72	1.22	1.24	1.25	1.25	1.25
150	6.59	6.59	6.59	6.58	0.01	0.34	27.69	31.74	27.54	1.24	1.24	1.24	1.25	1.25
175	6.62	6.62	6.61	6.60	0.02	0.38	27.50	30.68	27.32	1.25	1.25	1.25	1.25	1.25
200	6.64	6.64	6.64	6.61	0.03	0.40	27.32	29.80	27.12	1.26	1.26	1.26	1.26	1.25
225	6.66	6.66	6.65	6.63	0.03	0.45	27.19	29.10	26.94	1.25	1.26	1.27	1.27	1.26
250	6.67	6.67	6.65	6.63	0.04	0.46	27.09	28.53	26.80	1.24	1.27	1.27	1.28	1.27
275	6.69	6.68	6.67	6.63	0.05	0.51	27.09	28.10	26.73	1.23	1.27	1.28	1.28	1.27
300	6.69	6.69	6.67	6.62	0.07	0.59	27.18	27.77	26.73	1.21	1.28	1.28	1.29	1.28
325	6.70	6.70	6.68	6.63	0.07	0.64	27.36	27.57	26.81	1.18	1.29	1.29	1.29	1.28
350	6.70	6.70	6.68	6.62	0.09	0.71	27.65	27.49	26.96	1.14	1.29	1.30	1.30	1.29
375	6.70	6.71	6.68	6.61	0.11	0.80	28.03	27.52	27.19	1.12	1.30	1.32	1.31	1.30
400	6.71	6.72	6.68	6.60	0.12	0.81	28.52	27.69	27.46	1.11	1.31	1.33	1.33	1.31
425	6.72	6.74	6.69	6.59	0.14	0.87	29.04	27.98	27.73	1.13	1.32	1.35	1.35	1.32
450	6.74	6.76	6.71	6.60	0.15	0.88	29.50	28.50	27.93	1.19	1.34	1.37	1.37	1.33
475	6.77	6.80	6.74	6.62	0.17	1.00	29.67	29.20	27.95	1.28	1.37	1.40	1.40	1.36
500	6.83	6.86	6.79	6.65	0.21	1.05	29.31	30.16	27.66	1.39	1.40	1.44	1.44	1.39
520	6.89	6.93	6.85	6.70	0.23	1.10	28.62	31.16	27.14	1.50	1.43	1.49	1.48	1.42
525	6.90	6.95	6.87	6.71	0.24	1.10	28.40	31.45	26.99	1.53	1.44	1.50	1.49	1.43
550	7.01	7.07	6.97	6.80	0.27	1.18	27.01	33.08	25.98	1.71	1.49	1.56	1.55	1.49
575	7.16	7.22	7.11	6.92	0.30	1.19	25.45	35.00	24.76	1.91	1.55	1.63	1.62	1.55
600	7.33	7.41	7.29	7.08	0.32	1.28	23.87	36.44	23.46	2.16	1.62	1.70	1.69	1.62
625	7.55	7.63	7.50	7.27	0.36	1.36	22.38	36.00	22.18	2.45	1.70	1.79	1.78	1.70
650	7.81	7.91	7.77	7.52	0.40	1.49	21.02	33.79	20.95	2.79	1.79	1.88	1.88	1.79
675	8.10	8.23	8.07	7.80	0.44	1.61	19.80	31.32	19.83	3.19	1.88	1.99	1.98	1.89
700	8.45	8.60	8.42	8.11	0.48	1.78	18.71	29.13	18.81	3.65	1.97	2.09	2.09	1.98
725	8.83	8.99	8.78	8.46	0.53	1.92	17.72	27.36	17.86	4.16	2.07	2.20	2.20	2.09
750	9.22	9.41	9.18	8.84	0.57	2.08	16.85	25.87	17.02	4.73	2.17	2.30	2.31	2.20

¹Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2

JS4PS-1+

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Page 2 of 3



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4 Way-0° Power Splitter/Combiner

JS4PS-1+

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TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +85°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)				AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)			VSWR (:1)				
	S-1	S-2	S-3	S-4			1-2	2-3	3-4	S	1	2	3	4
3	7.09	7.05	7.06	7.05	0.05	0.89	15.67	31.98	16.62	1.60	2.47	2.47	2.36	2.36
4	7.03	7.00	7.01	7.00	0.03	0.68	16.98	32.78	17.79	1.49	2.16	2.16	2.09	2.09
5	6.97	6.95	6.95	6.95	0.02	0.48	18.29	33.58	18.96	1.40	1.93	1.93	1.89	1.88
6	6.93	6.92	6.92	6.91	0.01	0.39	19.15	34.14	19.72	1.35	1.81	1.81	1.78	1.78
7	6.90	6.90	6.90	6.89	0.01	0.34	19.82	34.61	20.30	1.32	1.73	1.73	1.71	1.71
8	6.88	6.87	6.88	6.87	0.01	0.30	20.43	35.03	20.84	1.30	1.67	1.67	1.65	1.65
9	6.86	6.85	6.86	6.85	0.01	0.27	20.82	35.29	21.17	1.28	1.63	1.63	1.61	1.61
10	6.84	6.83	6.84	6.83	0.01	0.25	21.21	35.55	21.51	1.26	1.59	1.59	1.58	1.58
25	6.76	6.77	6.77	6.76	0.01	0.15	23.92	37.24	24.01	1.19	1.41	1.41	1.41	1.41
50	6.76	6.78	6.78	6.76	0.02	0.11	25.70	36.30	25.72	1.18	1.35	1.35	1.35	1.35
75	6.78	6.80	6.81	6.78	0.03	0.11	26.36	34.65	26.33	1.18	1.33	1.33	1.33	1.34
80	6.79	6.80	6.81	6.78	0.03	0.07	26.40	34.31	26.37	1.19	1.33	1.33	1.33	1.33
100	6.81	6.82	6.83	6.80	0.03	0.12	26.44	33.09	26.36	1.19	1.33	1.32	1.32	1.33
125	6.85	6.85	6.87	6.83	0.04	0.07	26.24	31.80	26.17	1.21	1.33	1.32	1.32	1.32
150	6.87	6.88	6.89	6.85	0.04	0.13	25.97	30.71	25.87	1.21	1.33	1.33	1.33	1.33
175	6.90	6.91	6.92	6.87	0.05	0.08	25.66	29.78	25.57	1.22	1.34	1.34	1.34	1.33
200	6.93	6.94	6.94	6.90	0.05	0.10	25.40	29.03	25.28	1.22	1.34	1.34	1.35	1.34
225	6.96	6.97	6.97	6.92	0.05	0.09	25.18	28.42	25.04	1.21	1.35	1.35	1.35	1.34
250	6.98	6.98	6.99	6.92	0.06	0.05	25.00	27.91	24.84	1.21	1.35	1.35	1.36	1.35
275	7.00	7.01	7.01	6.94	0.07	0.10	24.92	27.53	24.73	1.20	1.36	1.36	1.37	1.35
300	7.01	7.03	7.02	6.95	0.08	0.06	24.90	27.23	24.68	1.18	1.36	1.37	1.37	1.36
325	7.03	7.05	7.04	6.96	0.09	0.13	24.98	27.06	24.71	1.17	1.37	1.38	1.38	1.36
350	7.04	7.06	7.05	6.96	0.10	0.16	25.16	26.97	24.81	1.15	1.37	1.39	1.39	1.37
375	7.05	7.07	7.06	6.95	0.12	0.21	25.45	27.01	25.02	1.15	1.38	1.40	1.40	1.37
400	7.07	7.09	7.07	6.95	0.14	0.25	25.86	27.16	25.30	1.17	1.39	1.41	1.41	1.38
425	7.09	7.12	7.09	6.97	0.16	0.36	26.41	27.45	25.68	1.21	1.40	1.43	1.43	1.39
450	7.11	7.15	7.12	6.97	0.17	0.41	27.08	27.91	26.14	1.28	1.42	1.45	1.45	1.41
475	7.15	7.19	7.15	7.00	0.19	0.48	27.86	28.54	26.65	1.37	1.44	1.48	1.47	1.43
500	7.21	7.26	7.21	7.04	0.22	0.59	28.61	29.39	27.12	1.48	1.47	1.51	1.51	1.46
520	7.28	7.33	7.27	7.09	0.24	0.65	29.06	30.31	27.37	1.59	1.50	1.55	1.54	1.49
525	7.29	7.35	7.29	7.10	0.25	0.66	29.11	30.55	27.41	1.62	1.51	1.56	1.55	1.49
550	7.41	7.47	7.40	7.19	0.27	0.77	29.01	32.01	27.33	1.80	1.55	1.61	1.60	1.54
575	7.55	7.62	7.54	7.32	0.30	0.87	28.14	33.73	26.78	2.00	1.61	1.67	1.67	1.60
600	7.73	7.81	7.72	7.48	0.33	1.02	26.71	35.30	25.81	2.24	1.68	1.75	1.74	1.66
625	7.95	8.05	7.94	7.68	0.37	1.08	25.09	35.64	24.59	2.53	1.75	1.83	1.82	1.74
650	8.21	8.32	8.21	7.92	0.40	1.28	23.48	34.12	23.27	2.86	1.83	1.92	1.91	1.82
675	8.52	8.65	8.51	8.21	0.43	1.43	22.01	31.87	22.01	3.24	1.92	2.02	2.01	1.92
700	8.86	9.00	8.85	8.54	0.47	1.63	20.67	29.70	20.82	3.66	2.02	2.12	2.11	2.01
725	9.24	9.40	9.23	8.89	0.51	1.72	19.51	27.85	19.72	4.13	2.11	2.23	2.22	2.11
750	9.65	9.83	9.64	9.27	0.56	1.82	18.47	26.34	18.73	4.63	2.21	2.33	2.32	2.21

¹Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2
JS4PS-1+
110104
Page 3 of 3



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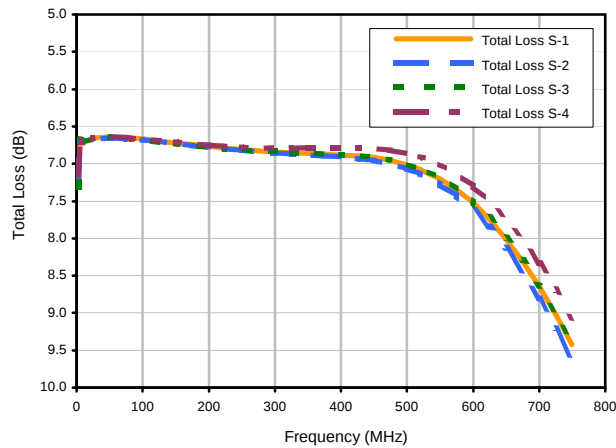


4 Way-0° Power Splitter/Combiner

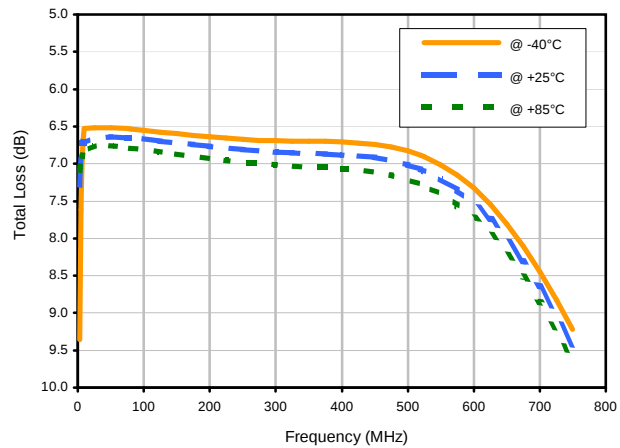
JS4PS-1+

Typical Performance Curves

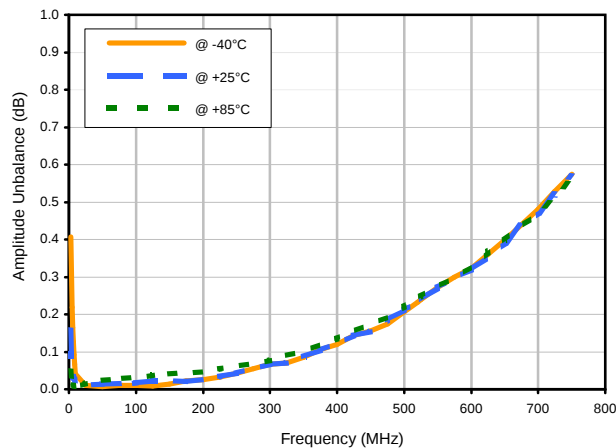
Total Loss



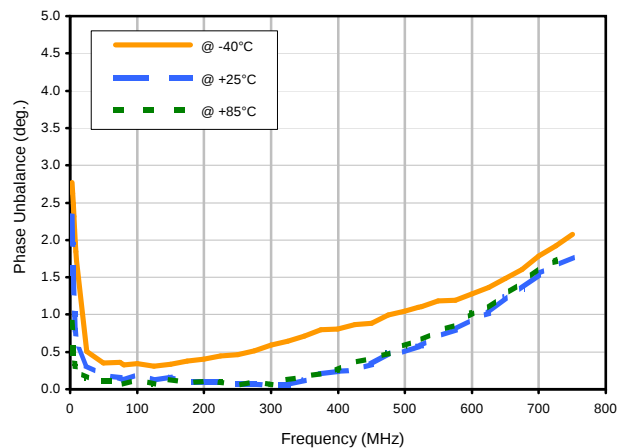
Total Loss S-1 vs. TEMPERATURE



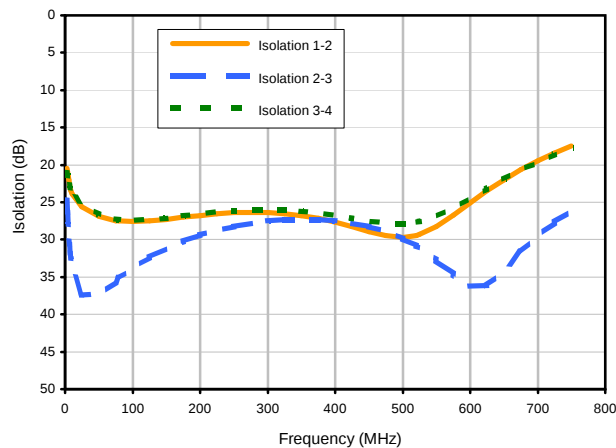
Amplitude Unbalance vs. TEMPERATURE



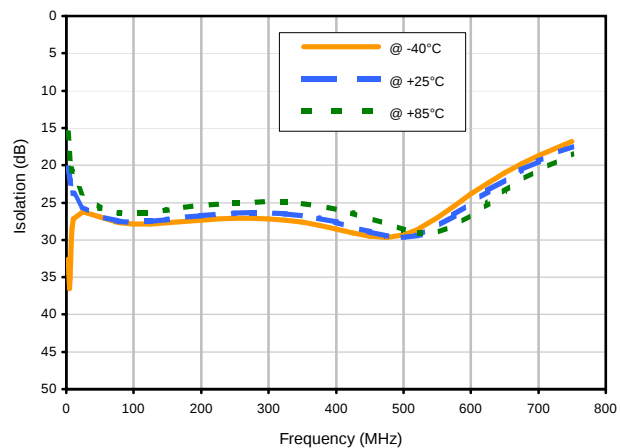
Phase Unbalance vs. TEMPERATURE



Isolation



Isolation 1-2 vs. TEMPERATURE



REV. X2

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Page 1 of 2



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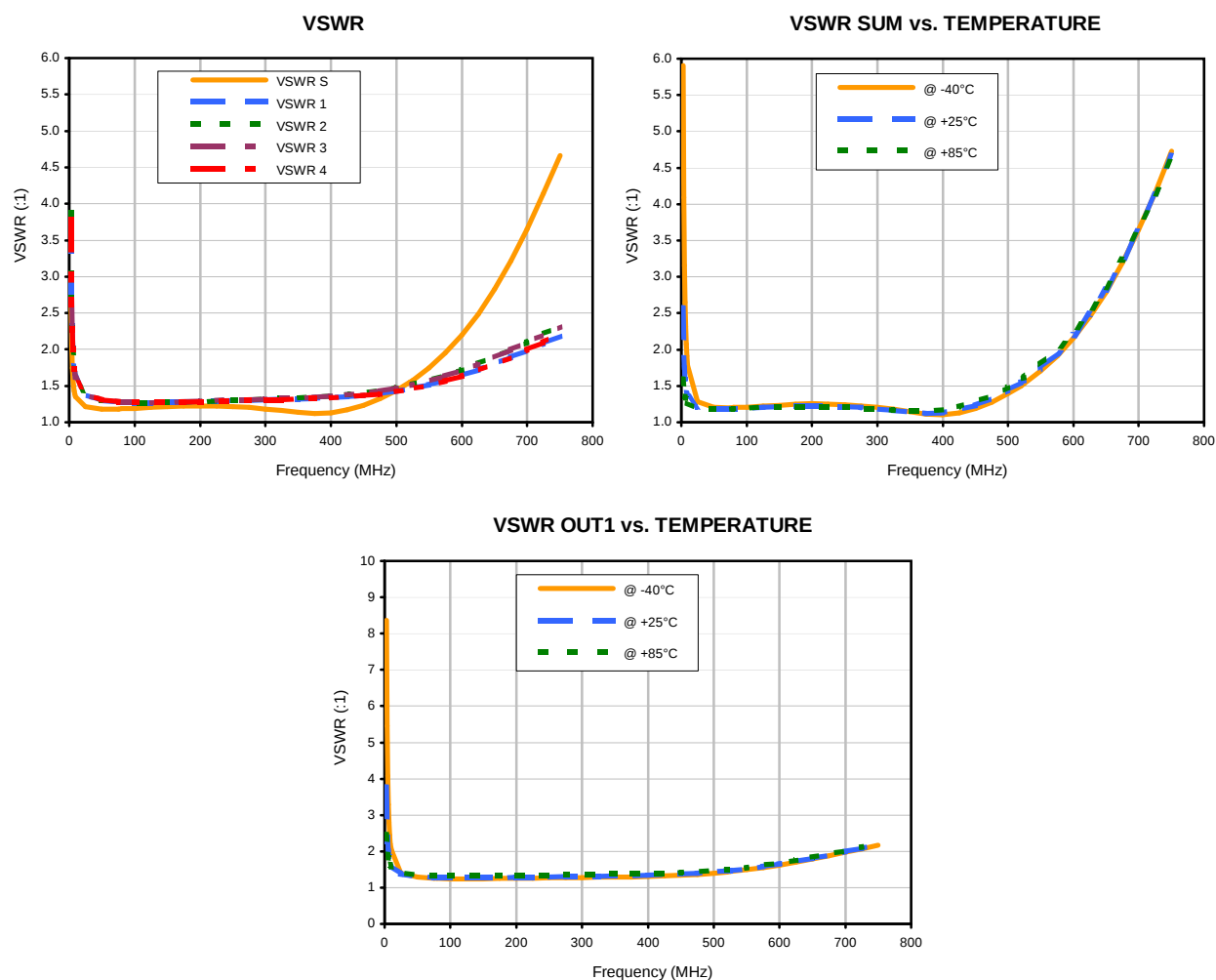


Patent Pending

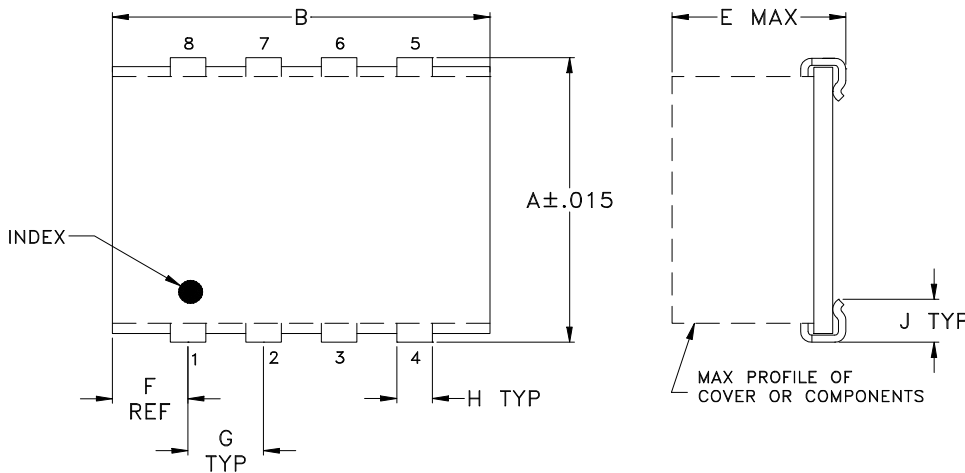
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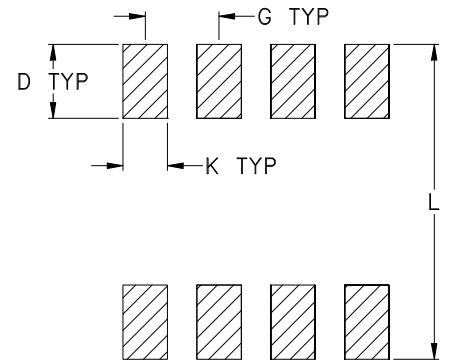
Typical Performance Curves



Outline Dimensions



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

CASE#	A	B	C	D	E	F	G	H	J	K	L	WT. GRAMS
BJ360	.450 (11.43)	.800 (20.32)	-- --	.100 (2.54)	.250 (6.35)	.100 (2.54)	.200 (5.08)	.047 (1.19)	.065 (1.65)	.065 (1.65)	.480 (12.19)	1.7

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

Notes:

- Case material: Nickel-Silver 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.



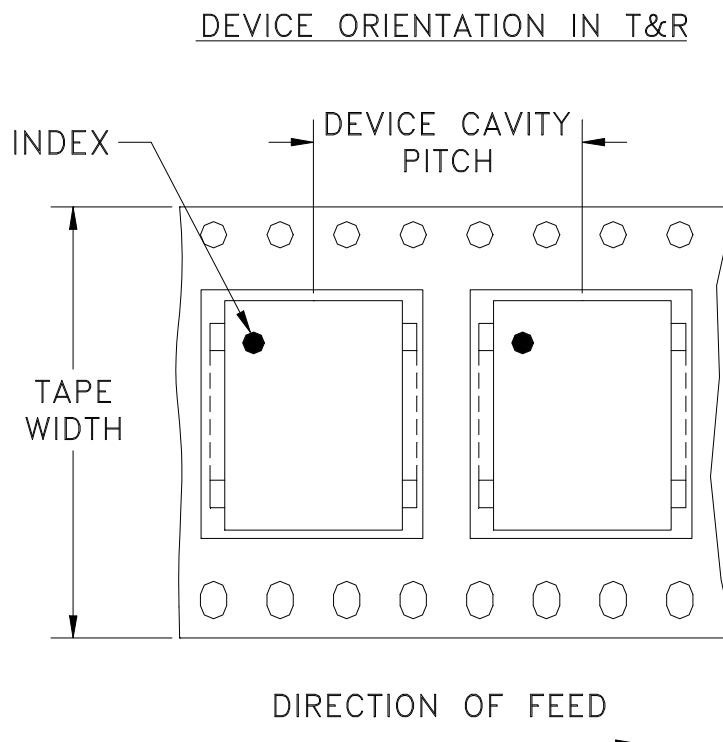
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Tape & Reel Packaging TR-F5



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
32	16	13	500

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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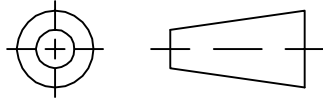
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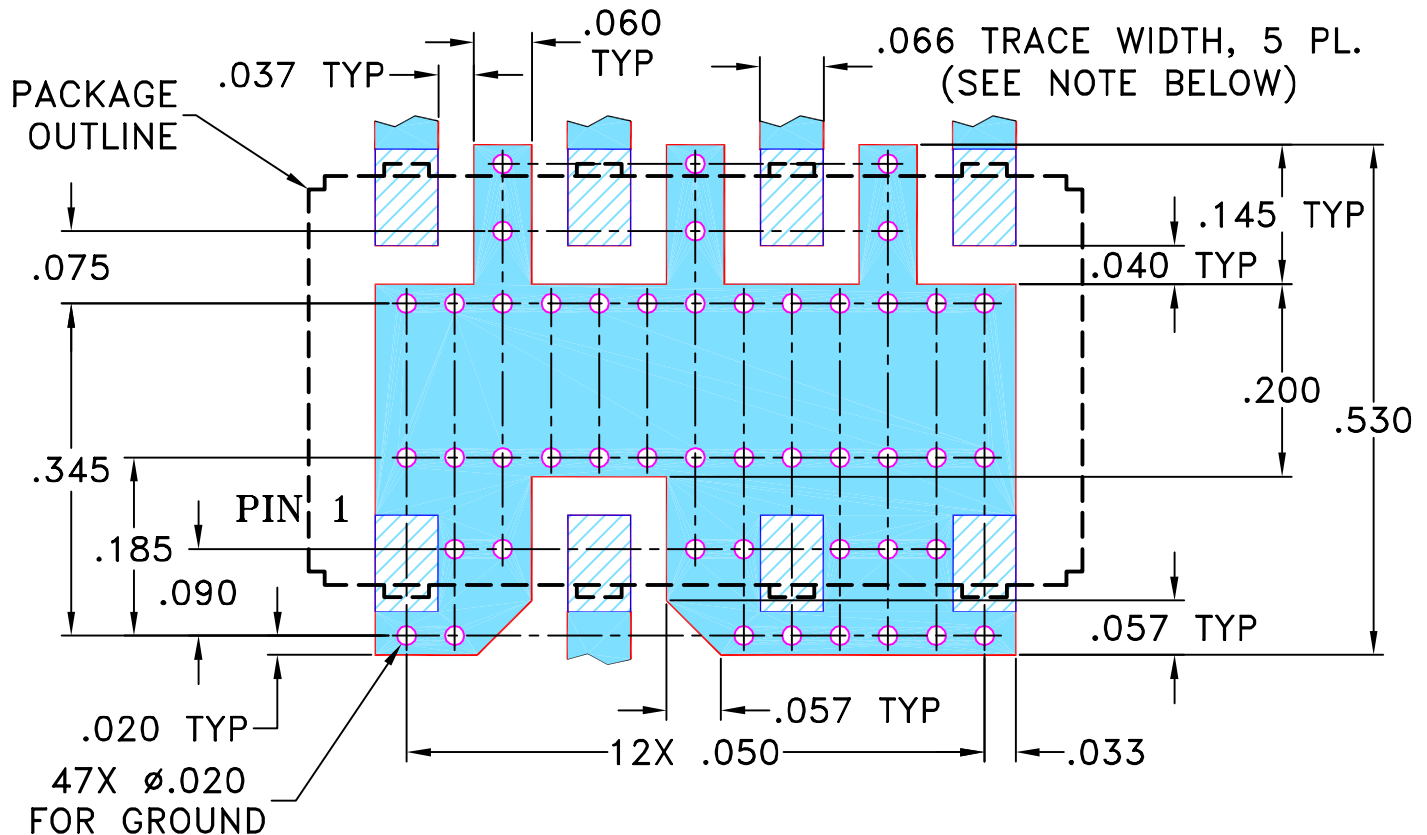
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M82548	NEW RELEASE	11/15/02	MMG	HY
A	M102713	ADDED "...WITH SMOBC"	01/14/06	GF	IL

SUGGESTED MOUNTING CONFIGURATION FOR BJ360 CASE STYLE, "kb" PIN CONNECTION



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B 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

09/11/02

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

CHECKED

AV

11/14/02

APPROVED

HY

11/15/02

ANGLES $\pm$
FRACTIONS $\pm$

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



Mini-Circuits®

13 Neptune Avenue
Brooklyn NY 11235

PL, kb, BJ360, JS4PS, TB-215

SIZE
A

CODE IDENT
15542

DRAWING NO:
98-PL-101

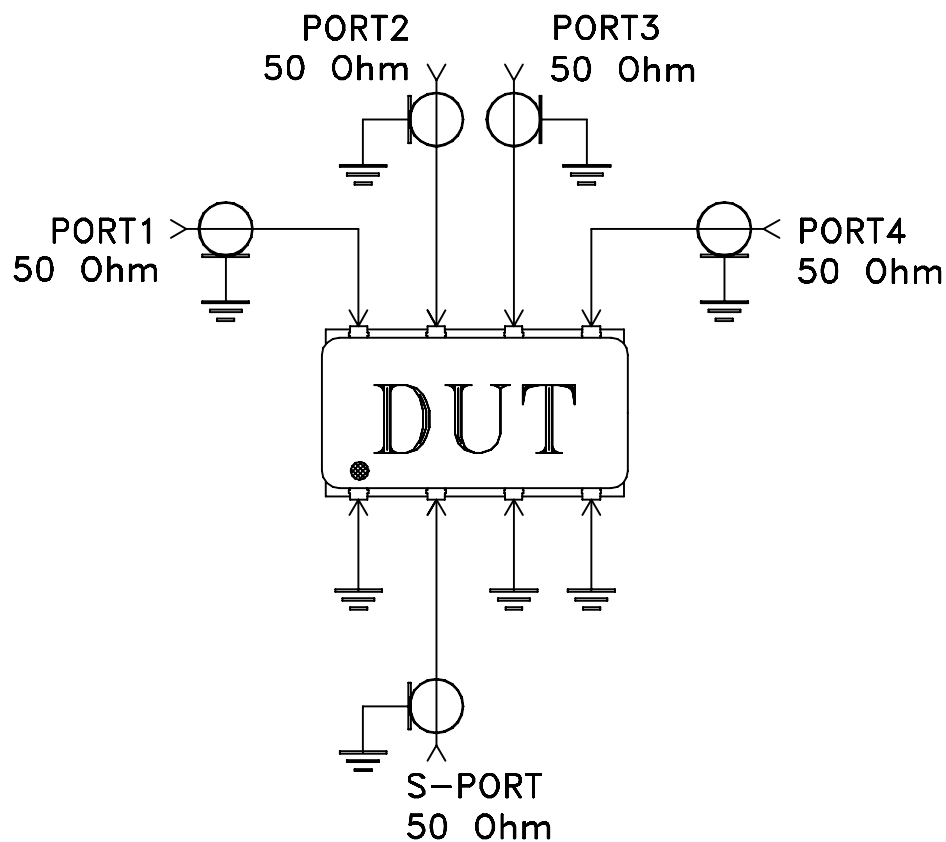
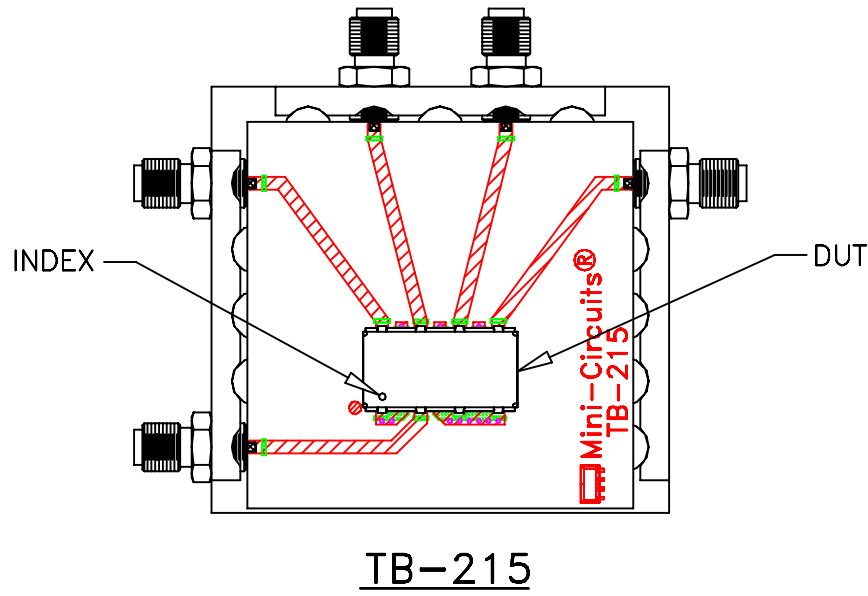
REV:
A

FILE: 98PL101

SCALE: 5:1

SHEET: 1 OF 1

Evaluation Board and Circuit



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 inch.

 **Mini-Circuits®**



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