

Surface Mount

Power Splitter/Combiner

JS4PS-1W-75

4 Way-0° 75Ω 5 to 750 MHz

Maximum Ratings

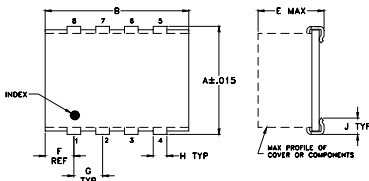
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.25W max.
Internal Dissipation	0.25W max.

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

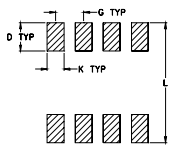
Pin Connections

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

Outline Drawing



PCB Land Pattern



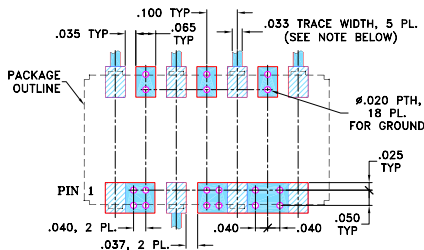
Suggested Layout,
Tolerance to be within ±0.02

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-218 Suggested PCB Layout (PL-149)



- NOTE: 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

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.
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Features

- high isolation, 35 dB typ.
- excellent input matching, VSWR 1.2 typ.
- very good output matching VSWR, 1.15 typ.
- excellent amplitude unbalance, 0.3 dB typ
- aqueous washable
- shielded case

Applications

- catv
- VHF/UHF
- communication systems
- instrumentation

Electrical Specifications

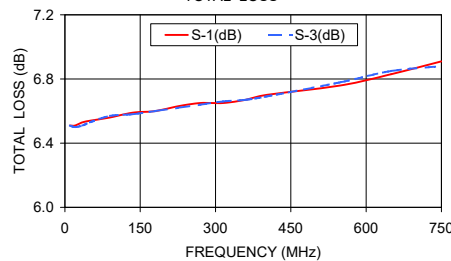
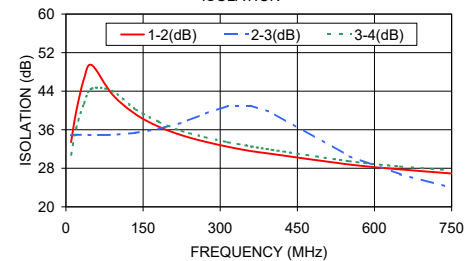
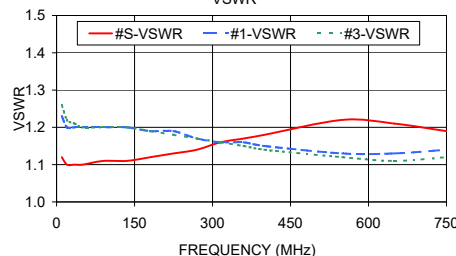
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L		M		U	
f_L - f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	L	Max.	M	Max.	U	Max.
5-750	34	25	35	25	30	18	0.6	1.2	0.6	1.5	0.8	1.5	3	5	6	0.2	0.3	0.6

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

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						
10.00	6.51	6.53	6.51	6.52	0.02	33.42	34.84	30.80	0.13	1.12	1.23	1.23	1.26	1.25
20.00	6.51	6.51	6.50	6.50	0.01	39.75	34.95	36.28	0.13	1.10	1.20	1.20	1.22	1.21
35.00	6.53	6.53	6.51	6.52	0.02	46.54	34.94	41.41	0.13	1.10	1.20	1.20	1.21	1.21
50.00	6.54	6.54	6.53	6.53	0.02	49.42	34.89	44.53	0.19	1.10	1.20	1.20	1.20	1.21
90.00	6.56	6.58	6.57	6.56	0.02	43.36	34.93	44.03	0.22	1.11	1.20	1.20	1.20	1.21
135.00	6.59	6.58	6.58	6.61	0.03	39.24	35.35	40.26	0.29	1.11	1.20	1.20	1.20	1.20
180.00	6.60	6.61	6.60	6.58	0.03	36.65	36.16	37.67	0.25	1.12	1.19	1.19	1.19	1.20
225.00	6.63	6.62	6.62	6.63	0.01	34.85	37.45	35.74	0.41	1.13	1.19	1.18	1.18	1.20
270.00	6.65	6.65	6.64	6.62	0.04	33.54	39.30	34.49	0.50	1.14	1.17	1.17	1.17	1.19
315.00	6.65	6.65	6.66	6.64	0.02	32.46	40.95	33.40	0.60	1.16	1.16	1.16	1.16	1.18
360.00	6.67	6.68	6.67	6.66	0.03	31.56	40.98	32.54	0.66	1.17	1.16	1.15	1.15	1.18
400.00	6.70	6.70	6.69	6.66	0.04	30.98	39.58	31.85	0.61	1.18	1.15	1.14	1.14	1.17
550.00	6.76	6.78	6.78	6.74	0.03	28.79	30.55	29.48	0.96	1.22	1.13	1.12	1.12	1.15
650.00	6.83	6.85	6.85	6.81	0.04	27.77	26.75	28.36	0.46	1.21	1.13	1.12	1.11	1.14
750.00	6.91	6.91	6.88	6.80	0.11	26.92	23.96	27.58	0.28	1.19	1.14	1.14	1.12	1.15

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

JS4PS-1W-75
TOTAL LOSSJS4PS-1W-75
ISOLATIONJS4PS-1W-75
VSWR

electrical schematic



4 Way-0° Power Splitter/Combiner

JS4PS-1W-75

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
5	6.62	6.57	6.57	6.58	0.04	0.15	39.60	33.18	41.29	1.14	1.27	1.27	1.27	1.27
10	6.57	6.54	6.55	6.54	0.03	0.17	43.42	34.30	42.11	1.12	1.22	1.22	1.23	1.23
20	6.58	6.55	6.55	6.54	0.03	0.14	45.65	34.73	42.20	1.12	1.21	1.21	1.21	1.22
30	6.58	6.57	6.56	6.56	0.03	0.12	47.13	34.81	42.10	1.12	1.21	1.21	1.21	1.22
40	6.60	6.58	6.57	6.57	0.03	0.15	47.15	34.77	42.49	1.12	1.21	1.21	1.21	1.22
50	6.61	6.60	6.58	6.59	0.03	0.13	48.03	34.89	42.80	1.12	1.21	1.21	1.21	1.22
75	6.63	6.61	6.61	6.61	0.03	0.21	49.58	35.01	44.30	1.14	1.21	1.21	1.21	1.22
100	6.65	6.63	6.62	6.62	0.03	0.19	48.87	35.38	45.66	1.15	1.21	1.21	1.21	1.22
125	6.66	6.64	6.63	6.63	0.03	0.27	46.58	36.00	46.64	1.16	1.21	1.21	1.21	1.22
150	6.67	6.66	6.65	6.64	0.03	0.36	44.04	36.94	47.20	1.18	1.21	1.21	1.22	1.22
175	6.69	6.67	6.66	6.65	0.04	0.45	41.94	38.18	46.32	1.20	1.21	1.21	1.22	1.22
200	6.70	6.68	6.67	6.66	0.04	0.47	39.92	39.87	44.56	1.21	1.21	1.21	1.22	1.22
225	6.72	6.69	6.68	6.67	0.04	0.56	38.38	42.20	42.49	1.23	1.21	1.21	1.23	1.22
250	6.73	6.71	6.70	6.68	0.05	0.66	36.73	46.04	40.63	1.25	1.21	1.21	1.23	1.22
275	6.75	6.72	6.71	6.69	0.05	0.66	35.34	54.22	38.77	1.26	1.21	1.21	1.23	1.22
300	6.76	6.73	6.72	6.70	0.07	0.80	34.09	59.11	37.13	1.27	1.21	1.21	1.23	1.21
325	6.78	6.75	6.73	6.71	0.07	0.90	32.93	47.09	35.72	1.29	1.21	1.20	1.23	1.21
350	6.79	6.76	6.74	6.71	0.08	0.98	31.86	41.79	34.43	1.30	1.21	1.20	1.23	1.21
375	6.81	6.78	6.75	6.72	0.09	1.04	30.95	38.57	33.25	1.31	1.21	1.20	1.23	1.21
400	6.84	6.79	6.76	6.73	0.11	1.15	30.06	36.15	32.22	1.31	1.21	1.20	1.23	1.21
425	6.85	6.81	6.78	6.74	0.11	1.21	29.33	34.29	31.30	1.32	1.21	1.20	1.23	1.21
450	6.87	6.82	6.79	6.75	0.12	1.36	28.61	32.55	30.48	1.33	1.21	1.20	1.23	1.20
475	6.89	6.84	6.80	6.75	0.14	1.42	27.97	31.13	29.73	1.33	1.21	1.19	1.22	1.20
500	6.90	6.86	6.81	6.76	0.14	1.59	27.38	29.91	29.07	1.34	1.21	1.19	1.22	1.20
525	6.92	6.88	6.82	6.77	0.15	1.62	26.84	28.81	28.50	1.34	1.21	1.19	1.22	1.20
550	6.94	6.88	6.84	6.77	0.17	1.79	26.40	27.89	27.96	1.34	1.21	1.19	1.22	1.20
575	6.96	6.91	6.85	6.78	0.18	1.82	25.96	27.00	27.48	1.34	1.21	1.19	1.22	1.19
600	6.97	6.92	6.87	6.79	0.19	2.02	25.58	26.20	27.07	1.35	1.21	1.20	1.22	1.19
625	6.99	6.94	6.88	6.79	0.20	2.05	25.22	25.50	26.71	1.35	1.21	1.20	1.22	1.19
650	7.01	6.95	6.90	6.81	0.20	2.21	24.90	24.84	26.39	1.35	1.21	1.20	1.22	1.19
675	7.02	6.97	6.90	6.81	0.21	2.29	24.62	24.28	26.10	1.35	1.22	1.20	1.22	1.19
700	7.04	6.98	6.92	6.82	0.22	2.48	24.36	23.74	25.82	1.36	1.22	1.20	1.22	1.19
725	7.05	7.00	6.93	6.81	0.24	2.55	24.13	23.24	25.61	1.36	1.23	1.21	1.22	1.20
750	7.07	7.01	6.96	6.84	0.23	2.72	23.91	22.80	25.39	1.37	1.24	1.21	1.22	1.20
775	7.08	7.03	6.96	6.83	0.25	2.84	23.72	22.39	25.25	1.37	1.24	1.22	1.23	1.20
800	7.10	7.05	6.99	6.85	0.24	3.02	23.51	22.00	25.07	1.38	1.25	1.22	1.23	1.20
850	7.12	7.08	7.03	6.86	0.26	3.23	23.08	21.32	24.75	1.39	1.27	1.22	1.22	1.22
900	7.15	7.09	7.05	6.88	0.27	3.55	22.64	20.79	24.30	1.41	1.29	1.23	1.23	1.24
950	7.17	7.12	7.07	6.88	0.29	3.96	21.98	20.38	23.72	1.42	1.31	1.24	1.22	1.25
1000	7.19	7.15	7.11	6.88	0.31	4.35	21.15	20.01	22.94	1.42	1.32	1.24	1.23	1.27
1050	7.22	7.19	7.15	6.91	0.31	4.87	20.17	19.73	21.92	1.42	1.33	1.27	1.25	1.29
1100	7.27	7.25	7.20	6.95	0.32	5.31	19.04	19.60	20.71	1.41	1.34	1.31	1.30	1.31
1150	7.35	7.33	7.30	7.03	0.32	5.76	17.82	19.60	19.41	1.40	1.35	1.35	1.35	1.33
1200	7.44	7.45	7.42	7.13	0.32	6.26	16.58	19.72	18.10	1.38	1.35	1.41	1.44	1.36
1300	7.73	7.74	7.76	7.44	0.32	7.05	14.23	20.57	15.53	1.34	1.35	1.54	1.61	1.41
1400	8.01	8.00	8.09	7.81	0.28	8.11	12.19	22.43	13.25	1.32	1.36	1.69	1.78	1.46

¹Total Loss = Insertion Loss + 6dB Splitter Loss

REV. X2

JS4PS-1W-75

100622

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4 Way-0° Power Splitter/Combiner

JS4PS-1W-75

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
5	6.64	6.64	6.64	6.64	0.00	0.19	25.71	31.95	27.24	1.21	1.48	1.47	1.44	1.44
10	6.45	6.46	6.46	6.47	0.02	0.11	29.29	32.74	31.68	1.12	1.31	1.30	1.28	1.28
20	6.41	6.42	6.42	6.41	0.01	0.08	33.99	33.77	37.13	1.08	1.20	1.19	1.18	1.18
30	6.40	6.42	6.42	6.41	0.02	0.08	37.39	34.10	40.40	1.08	1.17	1.16	1.15	1.15
40	6.41	6.42	6.42	6.42	0.02	0.11	39.86	34.29	43.32	1.08	1.16	1.14	1.13	1.14
50	6.42	6.43	6.43	6.43	0.02	0.12	42.43	34.44	45.83	1.08	1.15	1.13	1.12	1.13
75	6.43	6.44	6.44	6.44	0.01	0.20	49.27	34.76	53.22	1.09	1.14	1.12	1.12	1.12
100	6.44	6.46	6.46	6.45	0.02	0.32	55.30	35.26	63.10	1.10	1.14	1.14	1.14	1.14
125	6.45	6.47	6.46	6.46	0.02	0.41	49.34	35.91	54.59	1.11	1.13	1.15	1.15	1.15
150	6.46	6.48	6.47	6.47	0.02	0.49	45.26	36.86	48.98	1.13	1.13	1.14	1.14	1.15
175	6.47	6.48	6.48	6.47	0.01	0.58	42.16	38.04	45.36	1.14	1.14	1.13	1.12	1.14
200	6.48	6.49	6.49	6.48	0.02	0.68	40.07	39.79	42.63	1.15	1.14	1.14	1.13	1.15
225	6.49	6.50	6.50	6.49	0.02	0.75	38.13	42.08	40.60	1.17	1.15	1.16	1.14	1.16
250	6.50	6.51	6.50	6.49	0.02	0.88	36.61	45.58	38.80	1.19	1.15	1.16	1.15	1.17
275	6.51	6.52	6.52	6.49	0.02	0.97	35.21	50.96	37.29	1.20	1.16	1.15	1.14	1.16
300	6.52	6.53	6.52	6.50	0.03	1.06	34.02	51.73	35.89	1.22	1.17	1.15	1.13	1.16
325	6.53	6.54	6.53	6.51	0.03	1.20	32.96	45.55	34.72	1.23	1.18	1.15	1.14	1.16
350	6.54	6.55	6.54	6.51	0.04	1.30	31.93	41.24	33.58	1.25	1.18	1.16	1.15	1.17
375	6.56	6.56	6.54	6.52	0.05	1.44	31.01	38.17	32.64	1.26	1.18	1.16	1.15	1.18
400	6.57	6.57	6.55	6.52	0.05	1.52	30.24	35.78	31.73	1.26	1.18	1.16	1.14	1.17
425	6.58	6.58	6.56	6.53	0.06	1.66	29.48	33.92	30.94	1.27	1.18	1.16	1.15	1.17
450	6.59	6.59	6.56	6.53	0.07	1.85	28.81	32.25	30.17	1.27	1.18	1.17	1.15	1.17
475	6.60	6.60	6.57	6.53	0.07	1.92	28.21	30.84	29.53	1.28	1.18	1.17	1.16	1.18
500	6.61	6.61	6.58	6.53	0.08	2.11	27.63	29.68	28.92	1.28	1.19	1.17	1.15	1.18
525	6.63	6.63	6.59	6.53	0.09	2.20	27.13	28.57	28.42	1.28	1.19	1.16	1.16	1.18
550	6.64	6.64	6.60	6.54	0.10	2.41	26.67	27.62	27.93	1.29	1.19	1.17	1.17	1.18
575	6.65	6.65	6.60	6.54	0.11	2.48	26.26	26.76	27.48	1.29	1.20	1.18	1.17	1.19
600	6.66	6.66	6.61	6.54	0.12	2.66	25.87	25.95	27.07	1.30	1.20	1.19	1.18	1.20
625	6.67	6.67	6.62	6.55	0.12	2.77	25.56	25.25	26.73	1.30	1.21	1.20	1.18	1.21
650	6.68	6.67	6.63	6.55	0.13	2.97	25.25	24.58	26.45	1.31	1.21	1.20	1.19	1.21
675	6.69	6.69	6.63	6.55	0.14	3.05	24.98	23.99	26.17	1.31	1.22	1.20	1.21	1.21
700	6.70	6.70	6.65	6.55	0.15	3.28	24.71	23.43	25.91	1.32	1.23	1.21	1.22	1.22
725	6.70	6.71	6.65	6.55	0.16	3.44	24.47	22.96	25.71	1.33	1.24	1.22	1.23	1.23
750	6.72	6.72	6.67	6.56	0.16	3.69	24.26	22.47	25.50	1.33	1.24	1.24	1.25	1.24
775	6.71	6.72	6.67	6.55	0.17	3.78	24.05	22.05	25.30	1.34	1.25	1.25	1.26	1.24
800	6.73	6.74	6.69	6.56	0.17	4.12	23.82	21.64	25.13	1.35	1.26	1.26	1.28	1.25
850	6.74	6.75	6.72	6.57	0.18	4.44	23.38	20.91	24.76	1.37	1.29	1.29	1.32	1.27
900	6.75	6.76	6.74	6.58	0.18	4.94	22.78	20.35	24.23	1.39	1.32	1.30	1.35	1.29
950	6.76	6.78	6.75	6.57	0.21	5.40	22.03	19.85	23.56	1.41	1.34	1.31	1.38	1.31
1000	6.76	6.80	6.77	6.56	0.23	5.90	21.08	19.43	22.64	1.42	1.36	1.32	1.40	1.31
1050	6.79	6.83	6.80	6.58	0.25	6.45	19.99	19.09	21.53	1.41	1.37	1.32	1.41	1.33
1100	6.82	6.87	6.85	6.60	0.27	6.88	18.77	18.85	20.27	1.40	1.38	1.34	1.42	1.34
1150	6.88	6.94	6.92	6.67	0.27	7.28	17.50	18.75	18.95	1.38	1.38	1.34	1.40	1.32
1200	6.95	7.03	7.01	6.74	0.30	7.68	16.22	18.77	17.61	1.35	1.38	1.38	1.39	1.31
1300	7.19	7.27	7.29	6.98	0.30	8.13	13.88	19.36	15.08	1.28	1.35	1.42	1.36	1.33
1400	7.39	7.46	7.55	7.29	0.26	8.93	11.88	20.90	12.89	1.31	1.33	1.55	1.45	1.40

¹Total Loss = Insertion Loss + 6dB Splitter Loss

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JS4PS-1W-75

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4 Way-0° Power Splitter/Combiner

JS4PS-1W-75

Typical Performance Data

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
5	6.76	6.74	6.74	6.74	0.03	0.07	38.04	33.40	37.34	1.17	1.31	1.32	1.32	1.32
10	6.73	6.72	6.72	6.72	0.02	0.03	38.78	33.69	38.01	1.16	1.29	1.29	1.30	1.30
20	6.75	6.73	6.73	6.73	0.02	0.08	39.41	33.86	38.16	1.15	1.29	1.30	1.30	1.30
30	6.76	6.75	6.75	6.74	0.02	0.11	39.84	33.89	38.32	1.16	1.29	1.30	1.31	1.31
40	6.78	6.75	6.76	6.76	0.02	0.14	40.38	33.81	38.54	1.16	1.29	1.31	1.31	1.31
50	6.80	6.77	6.77	6.77	0.02	0.11	40.94	33.85	38.81	1.16	1.29	1.32	1.32	1.32
75	6.82	6.79	6.80	6.79	0.03	0.26	42.25	33.96	39.87	1.18	1.29	1.31	1.32	1.32
100	6.83	6.82	6.81	6.81	0.02	0.24	43.25	34.34	40.84	1.19	1.29	1.29	1.29	1.30
125	6.85	6.83	6.83	6.82	0.02	0.33	44.03	34.87	42.15	1.21	1.29	1.27	1.27	1.28
150	6.86	6.85	6.84	6.84	0.03	0.41	43.77	35.63	43.42	1.23	1.29	1.28	1.28	1.28
175	6.88	6.86	6.86	6.85	0.03	0.45	42.69	36.65	44.42	1.24	1.29	1.28	1.28	1.29
200	6.89	6.88	6.87	6.86	0.03	0.53	40.89	38.03	44.25	1.26	1.28	1.27	1.27	1.29
225	6.91	6.89	6.88	6.87	0.04	0.65	39.36	39.83	42.75	1.28	1.27	1.26	1.25	1.27
250	6.93	6.91	6.90	6.88	0.05	0.71	37.57	42.38	40.96	1.29	1.27	1.25	1.24	1.26
275	6.95	6.92	6.91	6.89	0.05	0.77	35.95	46.01	38.93	1.31	1.26	1.24	1.23	1.25
300	6.96	6.94	6.93	6.91	0.06	0.89	34.56	50.43	37.28	1.32	1.25	1.24	1.23	1.25
325	6.99	6.96	6.95	6.92	0.07	0.98	33.23	48.43	35.70	1.33	1.24	1.23	1.22	1.25
350	7.01	6.98	6.96	6.93	0.08	1.08	32.00	43.69	34.25	1.34	1.24	1.22	1.21	1.24
375	7.03	7.00	6.98	6.95	0.08	1.14	31.02	39.89	33.07	1.35	1.23	1.21	1.20	1.23
400	7.06	7.03	6.99	6.96	0.10	1.22	30.06	37.20	31.97	1.35	1.22	1.21	1.19	1.22
425	7.07	7.04	7.01	6.97	0.10	1.33	29.24	35.12	31.00	1.36	1.22	1.20	1.18	1.22
450	7.10	7.07	7.02	6.98	0.12	1.43	28.45	33.42	30.14	1.37	1.22	1.19	1.18	1.22
475	7.12	7.09	7.04	6.99	0.13	1.55	27.78	31.88	29.36	1.37	1.21	1.18	1.17	1.21
500	7.15	7.12	7.06	7.00	0.14	1.67	27.17	30.62	28.68	1.38	1.21	1.18	1.16	1.20
525	7.17	7.14	7.08	7.02	0.15	1.72	26.60	29.52	28.07	1.38	1.20	1.17	1.16	1.20
550	7.19	7.16	7.10	7.03	0.16	1.89	26.10	28.54	27.53	1.39	1.20	1.17	1.16	1.19
575	7.22	7.18	7.12	7.04	0.18	1.99	25.66	27.69	27.04	1.39	1.20	1.17	1.15	1.19
600	7.24	7.20	7.13	7.06	0.18	2.15	25.25	26.94	26.62	1.39	1.20	1.17	1.15	1.19
625	7.26	7.23	7.15	7.07	0.19	2.17	24.90	26.24	26.23	1.40	1.20	1.17	1.15	1.19
650	7.28	7.25	7.17	7.08	0.20	2.32	24.59	25.58	25.92	1.40	1.20	1.17	1.16	1.18
675	7.30	7.27	7.18	7.09	0.21	2.42	24.31	25.08	25.61	1.40	1.21	1.18	1.16	1.18
700	7.32	7.29	7.21	7.11	0.22	2.58	24.06	24.54	25.39	1.40	1.21	1.18	1.17	1.18
725	7.34	7.31	7.22	7.11	0.23	2.63	23.87	24.11	25.19	1.41	1.22	1.19	1.18	1.18
750	7.36	7.34	7.25	7.13	0.23	2.82	23.66	23.69	25.04	1.41	1.22	1.20	1.19	1.19
775	7.38	7.35	7.25	7.13	0.25	2.88	23.47	23.34	24.86	1.41	1.23	1.20	1.20	1.19
800	7.40	7.38	7.29	7.15	0.25	3.11	23.33	22.97	24.76	1.42	1.24	1.21	1.21	1.20
850	7.43	7.41	7.34	7.17	0.26	3.28	23.00	22.39	24.62	1.42	1.26	1.21	1.24	1.20
900	7.47	7.44	7.37	7.20	0.27	3.65	22.68	21.96	24.31	1.43	1.27	1.22	1.28	1.22
950	7.50	7.48	7.40	7.21	0.29	4.04	22.20	21.64	23.91	1.43	1.29	1.23	1.30	1.24
1000	7.54	7.52	7.44	7.23	0.31	4.30	21.52	21.38	23.31	1.43	1.30	1.24	1.33	1.25
1050	7.57	7.57	7.50	7.27	0.31	4.82	20.67	21.23	22.46	1.43	1.30	1.26	1.37	1.27
1100	7.63	7.64	7.57	7.32	0.32	5.27	19.64	21.19	21.38	1.42	1.30	1.29	1.39	1.28
1150	7.72	7.76	7.69	7.43	0.32	5.81	18.47	21.31	20.14	1.42	1.29	1.33	1.41	1.30
1200	7.84	7.89	7.84	7.56	0.33	6.30	17.25	21.54	18.83	1.42	1.29	1.38	1.43	1.33
1300	8.17	8.27	8.25	7.95	0.32	7.23	14.89	22.66	16.22	1.43	1.31	1.52	1.47	1.38
1400	8.54	8.60	8.66	8.39	0.27	8.43	12.78	24.78	13.86	1.40	1.37	1.68	1.52	1.44

¹Total Loss = Insertion Loss + 6dB Splitter Loss

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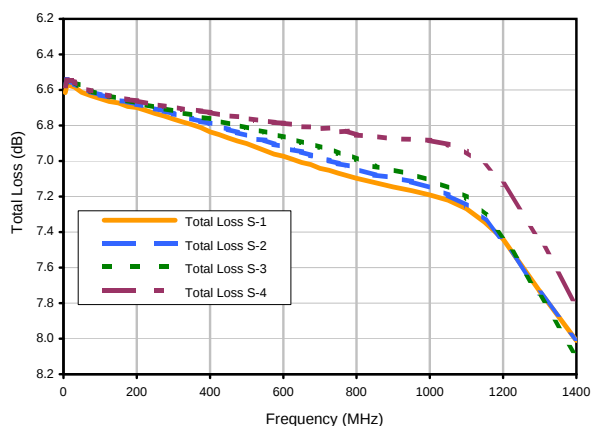


4 Way-0° Power Splitter/Combiner

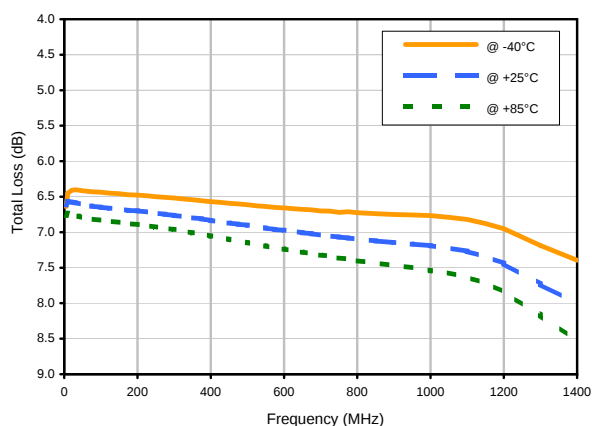
JS4PS-1W-75

Typical Performance Curves

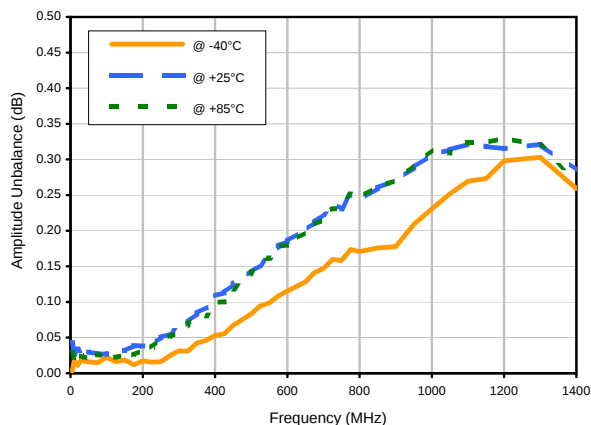
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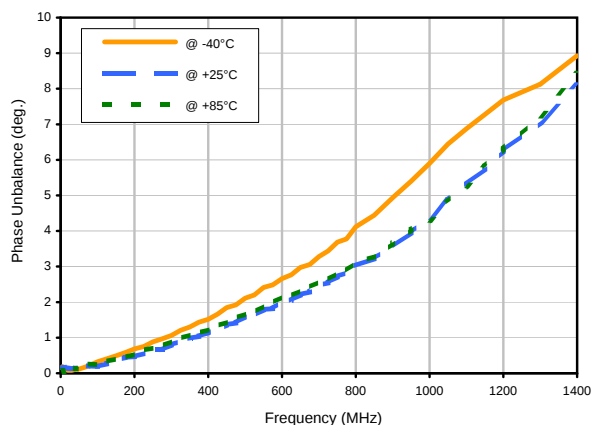
Total Loss S-1 vs. TEMPERATURE



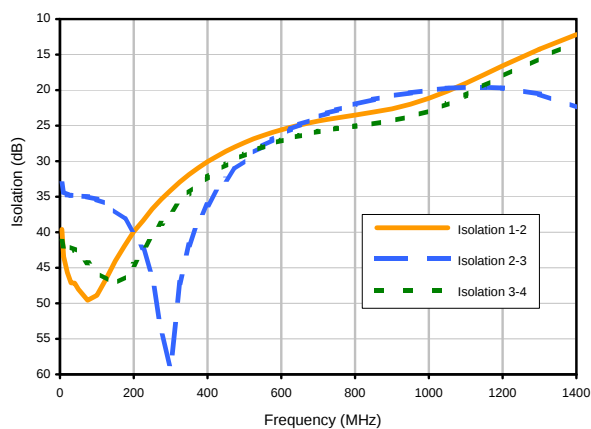
Amplitude Unbalance vs. TEMPERATURE



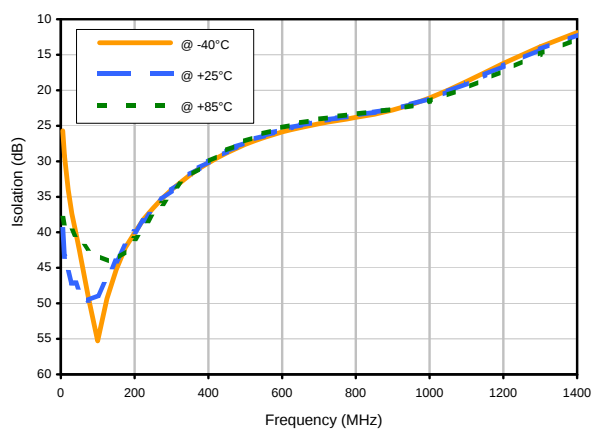
Phase Unbalance vs. TEMPERATURE



Isolation



Isolation 1-2 vs. TEMPERATURE



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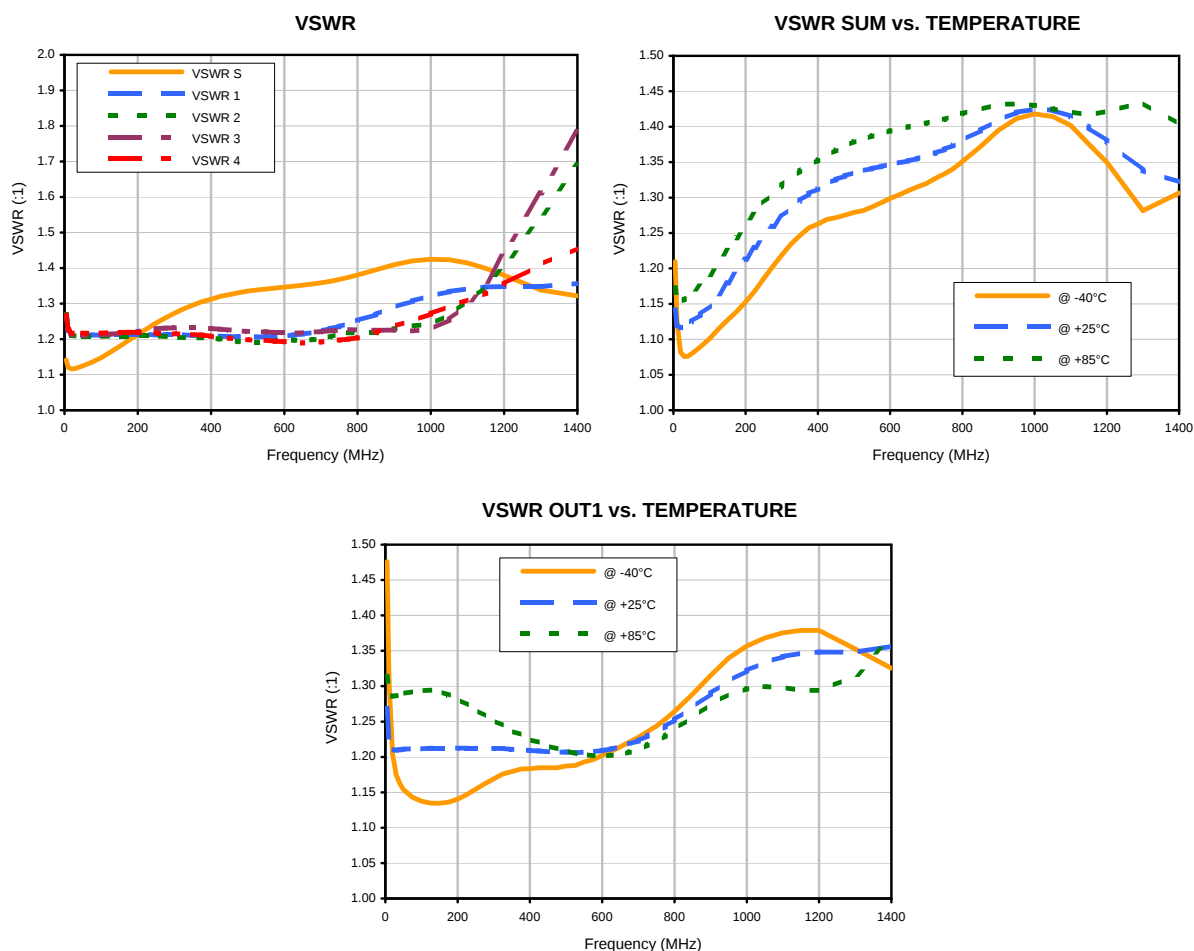
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4 Way-0° Power Splitter/Combiner

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Typical Performance Curves



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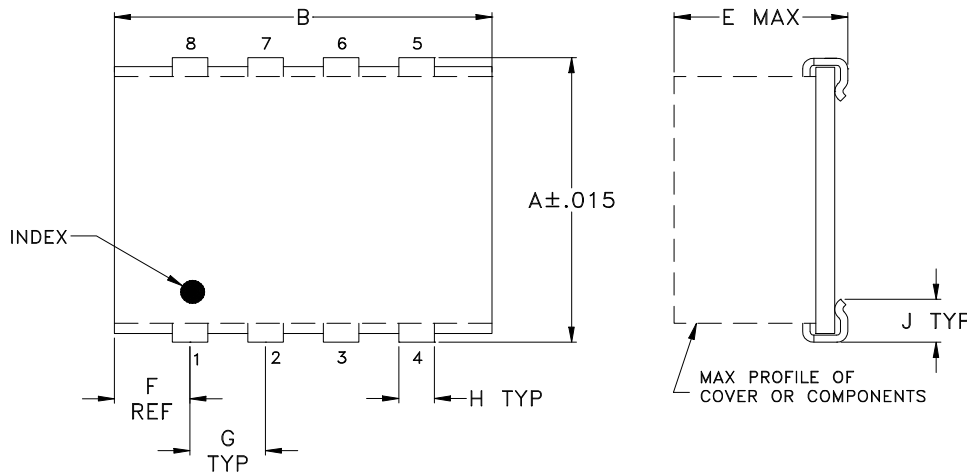
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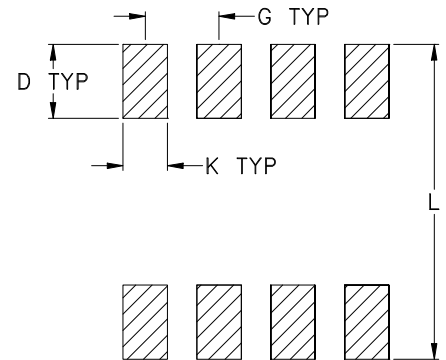
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Outline Dimensions



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 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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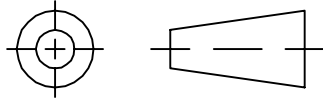
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

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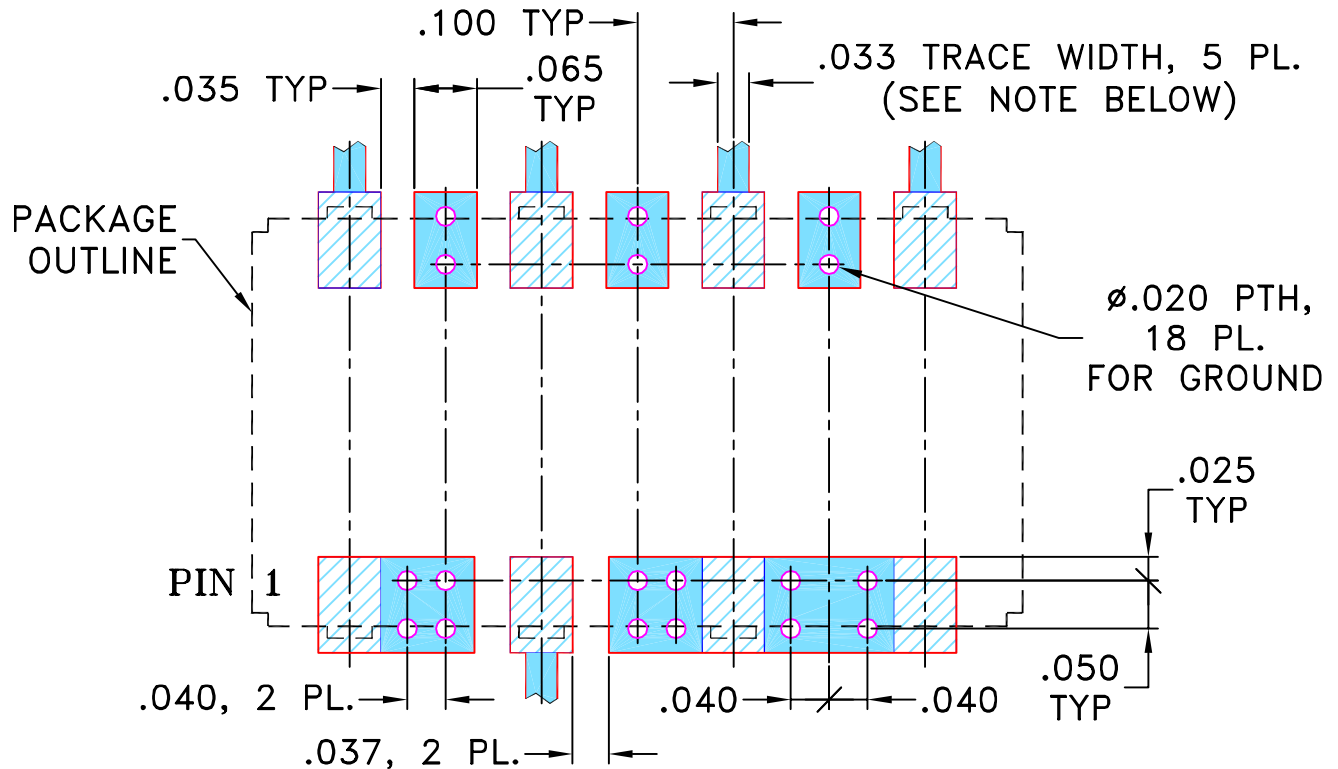
THIRD ANGLE PROJECTION



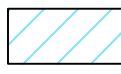
REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M90087	NEW RELEASE	12/18/03	AV	HY
A	M102713	ADDED "...WITH SMOBC"	01/12/06	GF	IL

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



- NOTE: 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

AV

12/11/03

TOLERANCES ON:

CHECKED

IL

12/18/03

2 PL DECIMALS $\pm$

APPROVED

HY

12/18/03

3 PL DECIMALS $\pm$.005ANGLES $\pm$ FRACTIONS $\pm$
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ASHEETA1.DWG REV:A DATE:01/12/95


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Brooklyn NY 11235

PL, kb, 75, BJ360, JS4PS, TB-218

SIZE

A

CODE IDENT

15542

DRAWING NO:

98-PL-149

REV:

A

FILE:

98PL149

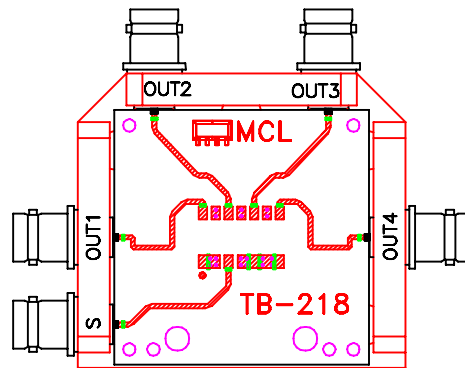
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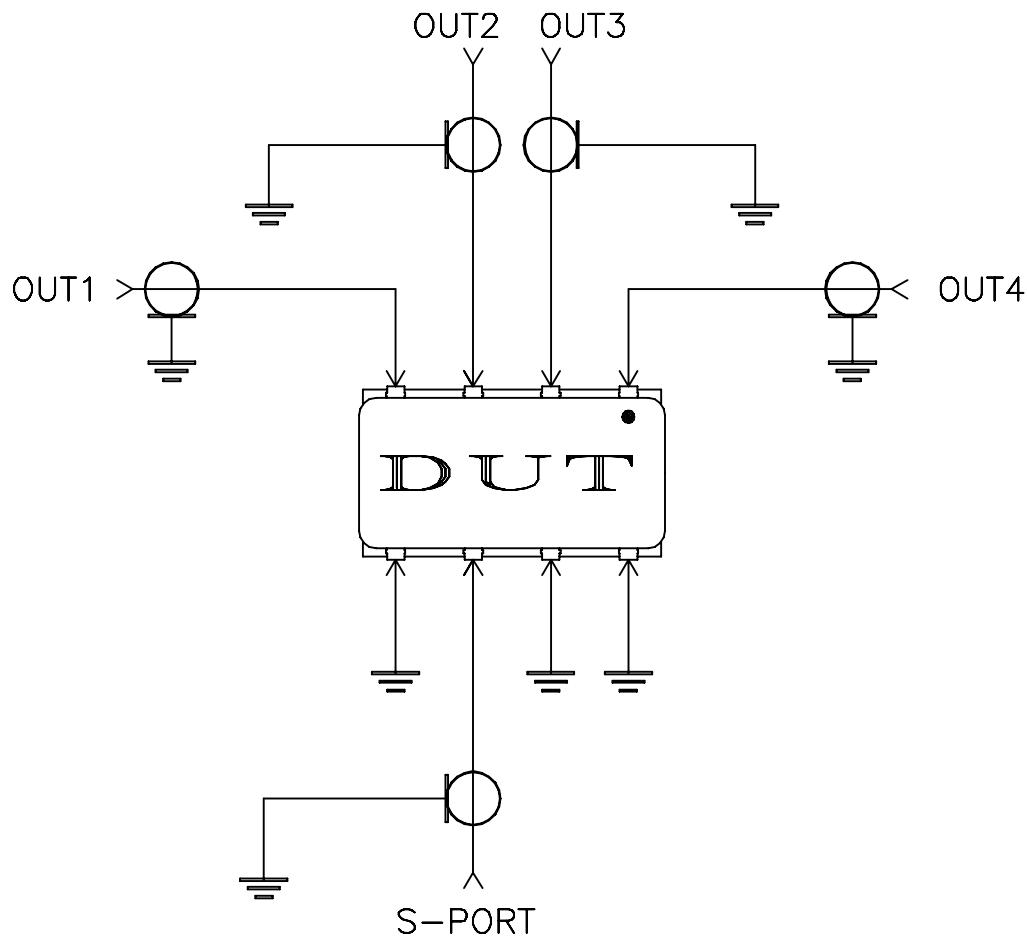
SHEET:

1 OF 1

Evaluation Board and Circuit



TB-218



Schematic Diagram

Notes:

1. 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