



SURFACE MOUNT

Power Splitter/Combiner

ADQ-32+

Mini-Circuits

2 Way-90° 50Ω 160 to 327 MHz

FEATURES

- Low Insertion Loss, 0.3 dB typ.
- High Isolation, 22 dB typ.
- Excellent VSWR, 1.22 typ.
- Small size



Generic photo used for illustration purposes only

CASE STYLE: CJ725

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

APPLICATIONS

- Point to point microwave link

ELECTRICAL SPECIFICATIONS

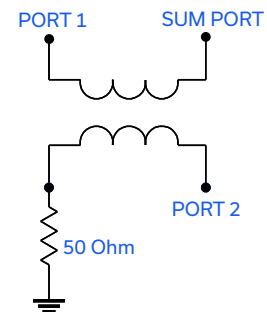
Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		—	160	—	327	MHz
Insertion Loss Avg. of Coupled Outputs above 3 dB		160-327	—	0.3	0.7	dB
Isolation		160-327	18	22	—	dB
Phase Unbalance		160-327	—	1	5	Degree
Amplitude Unbalance		160-327	—	0.6	1.6	dB
VSWR	S-Port	160-327	—	1.22	—	:1
	Output	160-327	—	1.22	—	

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Power Input (as a splitter)	1W Max.

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

ELECTRICAL SCHEMATIC





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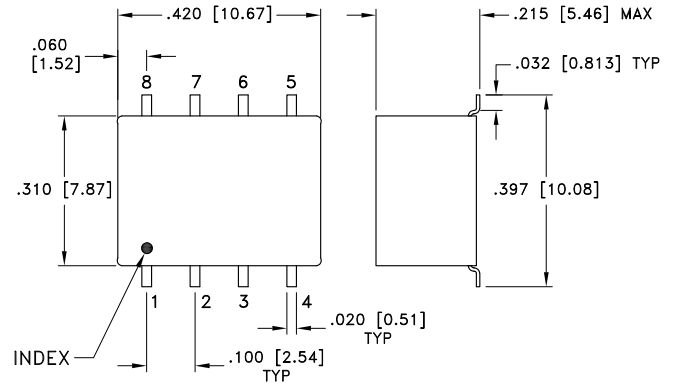
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PIN CONNECTIONS

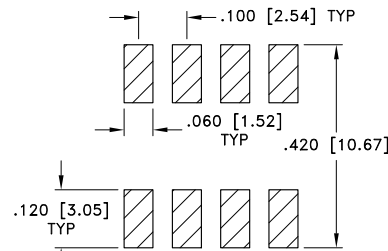
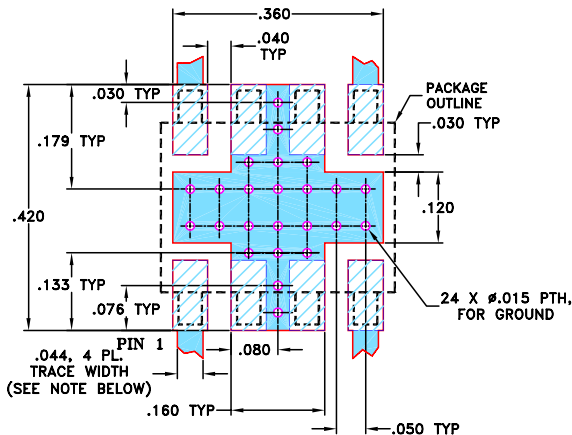
SUM PORT	1
PORT 1 (0°)	5
PORT 2 (+90°)	8
GROUND EXTERNAL	2,3,6,7
50 OHM TERM EXTERNAL	4

OUTLINE DRAWING



PRODUCT MARKING: N/A

DEMO BOARD MCL P/N: TB-83
SUGGESTED PCB LAYOUT (PL-063)



SUGGESTED LAYOUT FOR PCB LAND PATTERN PATTERN TO BE WITHIN ±.002



Weight: .40 gram
Dimensions are in inches [mm]. Tolerances: 2 Pl. ±.01; 3Pl.±.005 Inch

- Notes:
1. Case material: Plastic.
 2. Termination Finish: Tin plate over Nickel plate.

- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". 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

TAPE & REEL INFORMATION: F10



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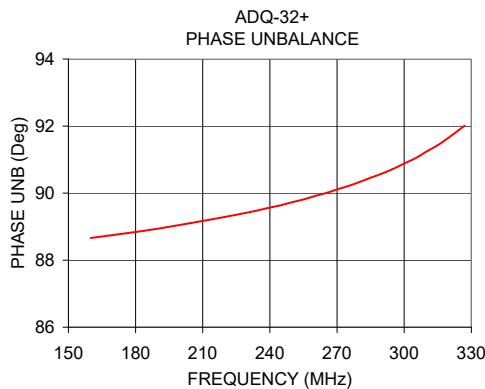
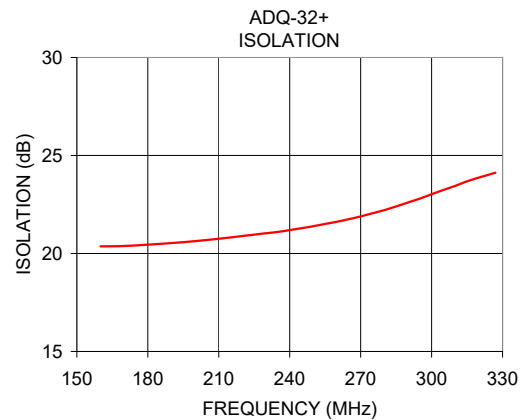
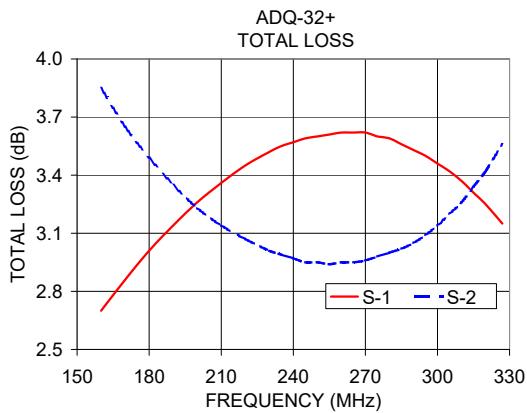
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TYPICAL PERFORMANCE DATA

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR (:1)		
	S-1	S-2				S	1	2
160.00	2.70	3.85	1.15	20.36	88.66	1.23	1.23	1.25
170.00	2.86	3.65	0.80	20.38	88.75	1.22	1.23	1.25
180.00	3.01	3.49	0.48	20.45	88.84	1.22	1.22	1.24
190.00	3.14	3.35	0.21	20.53	88.94	1.21	1.21	1.24
200.00	3.26	3.23	0.02	20.63	89.05	1.20	1.20	1.23
220.00	3.45	3.07	0.38	20.89	89.29	1.19	1.19	1.21
240.00	3.57	2.97	0.60	21.19	89.57	1.18	1.18	1.20
260.00	3.62	2.95	0.67	21.62	89.91	1.17	1.17	1.19
270.00	3.62	2.96	0.65	21.89	90.11	1.16	1.16	1.18
280.00	3.59	3.00	0.59	22.21	90.33	1.15	1.15	1.17
290.00	3.53	3.05	0.48	22.60	90.58	1.15	1.15	1.17
300.00	3.46	3.14	0.32	23.02	90.88	1.14	1.14	1.16
310.00	3.37	3.26	0.10	23.45	91.24	1.13	1.13	1.15
320.00	3.25	3.42	0.18	23.87	91.66	1.12	1.12	1.14
327.00	3.15	3.56	0.41	24.12	92.01	1.11	1.12	1.13

1. Total Loss = Insertion Loss + 3dB splitter loss.



- 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-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/terms/viewterm.html

