



SURFACE MOUNT

Power Splitter/Combiner

ADQ-32W+

Mini-Circuits

2 Way-90° 50Ω 104 to 340 MHz

FEATURES

- Wideband, 104 to 340 MHz
- Good isolation, 20 dB typ.
- Good VSWR, 1.24 typ.
- Small size surface mount



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
- VHF/UHF receivers/transmitters

ELECTRICAL SPECIFICATIONS

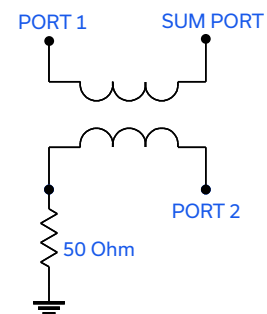
Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		—	104	—	340	MHz
Insertion Loss Avg. of Coupled Outputs above 3 dB		104-340	—	0.6	0.9	dB
Isolation		104-340	16	20	—	dB
Phase Unbalance		104-340	—	3	8	Degree
Amplitude Unbalance		104-340	—	0.8	1.8	dB
VSWR	S-Port	104-340	—	1.22	—	:1
	Output	104-340	—	1.25	—	

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Power Input (as a splitter)	0.5W Max.

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

ELECTRICAL SCHEMATIC



REV. C
ECO-019621
ADQ-32W+
MCL NY
231017





SURFACE MOUNT

Power Splitter/Combiner

ADQ-32W+

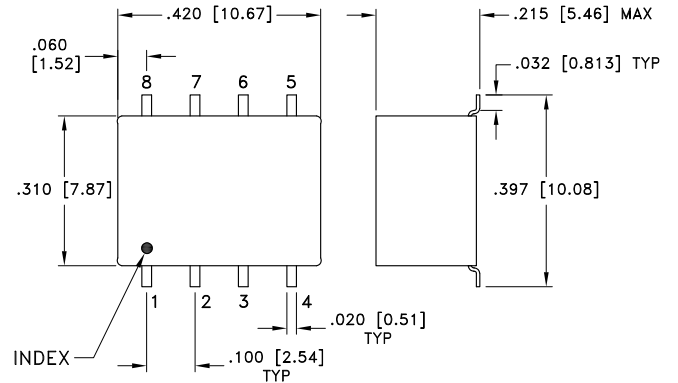
Mini-Circuits

2 Way-90° 50Ω 104 to 340 MHz

PIN CONNECTIONS

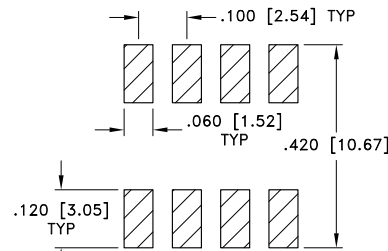
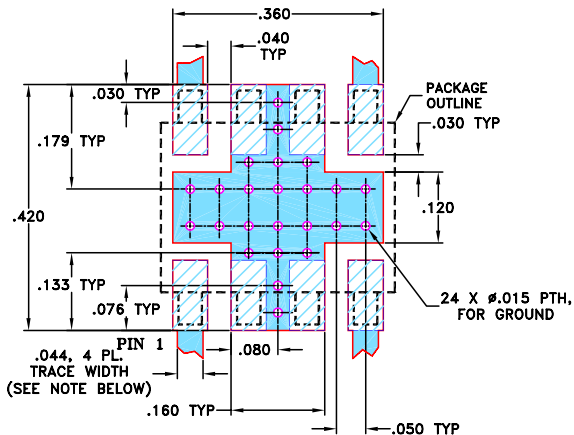
SUM PORT	1
PORT 1 (0°)	5
PORT 2 (+90°)	8
GROUND EXTERNAL	2,3,6,7
50 OHM TERM EXTERNAL	4

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



SURFACE MOUNT

Power Splitter/Combiner

ADQ-32W+

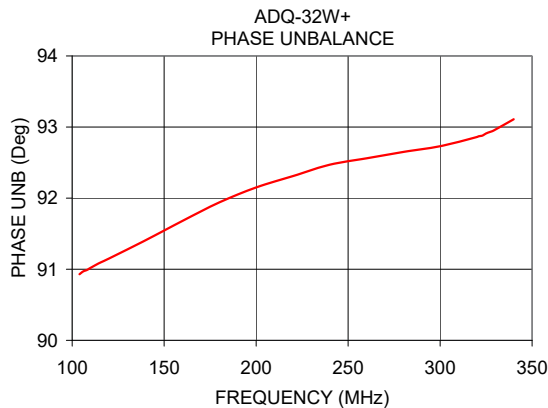
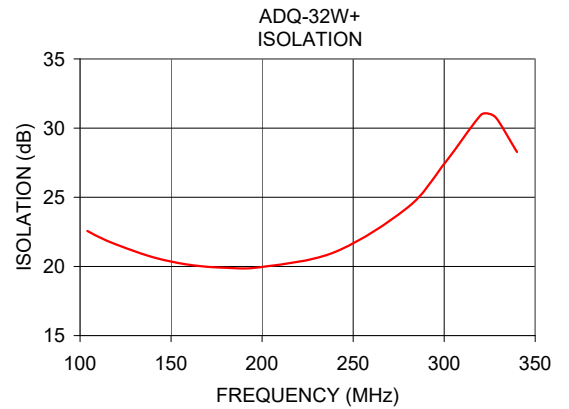
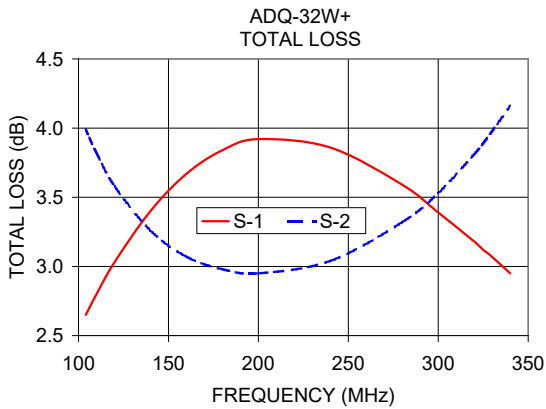
Mini-Circuits

2 Way-90° 50Ω 104 to 340 MHz

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
104.00	2.65	3.99	1.34	22.56	90.93	1.20	1.22	1.22
106.00	2.70	3.93	1.23	22.43	90.97	1.20	1.22	1.22
110.00	2.80	3.82	1.02	22.15	91.02	1.20	1.22	1.22
120.00	3.03	3.58	0.55	21.58	91.15	1.20	1.22	1.23
140.00	3.40	3.26	0.14	20.67	91.41	1.21	1.23	1.23
160.00	3.67	3.07	0.60	20.12	91.68	1.21	1.24	1.24
180.00	3.84	2.98	0.87	19.90	91.94	1.20	1.25	1.25
200.00	3.92	2.95	0.98	19.96	92.15	1.19	1.25	1.25
240.00	3.86	3.04	0.82	21.04	92.47	1.17	1.24	1.24
280.00	3.59	3.32	0.27	24.27	92.65	1.12	1.20	1.22
300.00	3.39	3.53	0.14	27.41	92.73	1.08	1.16	1.19
320.00	3.18	3.81	0.63	30.93	92.86	1.05	1.12	1.17
325.00	3.12	3.89	0.77	31.02	92.91	1.05	1.11	1.17
329.00	3.08	3.96	0.88	30.66	92.95	1.05	1.10	1.17
340.00	2.95	4.16	1.21	28.27	93.11	1.07	1.08	1.17

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

