

# Surface Mount Power Splitter/Combiner

2 Way-90° 50Ω 104 to 340 MHz

ADQ-32W+



Generic photo used for illustration purposes only

CASE STYLE: CJ725

**+RoHS Compliant**

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500

## Maximum Ratings

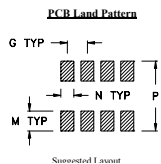
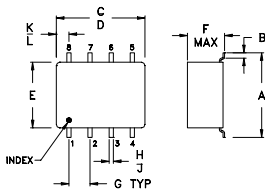
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.

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

## Pin Connections

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

## Outline Drawing



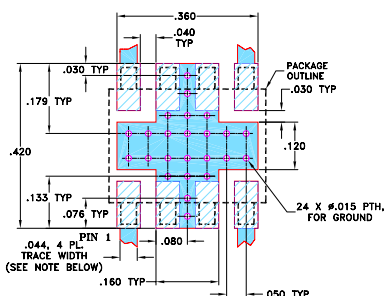
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.397	.032	.385	.435	.310	.215	.100
10.08	0.81	9.78	11.05	7.87	5.46	2.54

H	J	K	L	M	N	P	wt
.015	.025	.035	.075	.120	.060	.420	grams
0.38	0.64	0.89	1.91	3.05	1.52	10.67	0.45

## Demo Board MCL P/N: TB-83 Suggested PCB Layout (PL-063)



- NOTES:
- 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.
  - 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

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

## Features

- wideband, 104 to 340 MHz
- good isolation, 20 dB typ.
- good VSWR, 1.24 typ.
- small size surface mount

## Applications

- point to point microwave link
- VHF/UHF receivers/transmitters

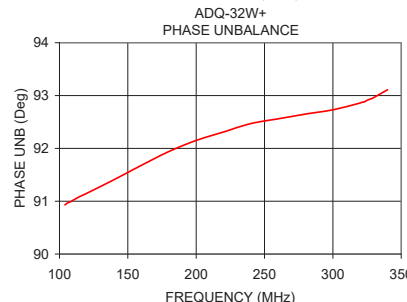
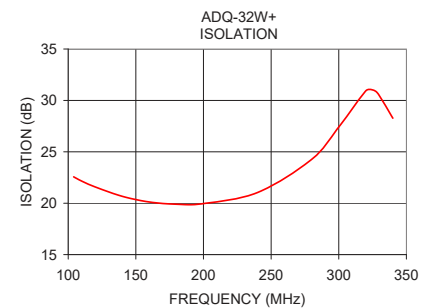
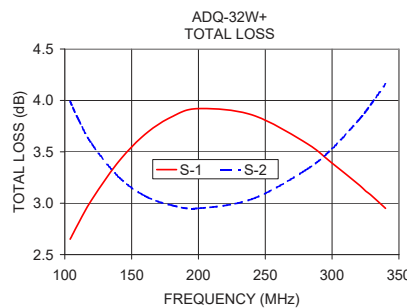
## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB		PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)		VSWR (:1)	
	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	S-Port Typ.	Output Typ.
f <sub>L</sub> -f <sub>U</sub>	20	16	0.6	0.9	3	8	0.8	1.8	1.22	1.25

## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-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.



## electrical schematic

