

Surface Mount

Power Splitter/Combiner

2 Way-90° 50Ω 120 to 180 MHz

ADQ-180+



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

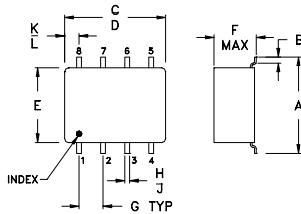
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Permanent damage may occur if any of these limits are exceeded.	

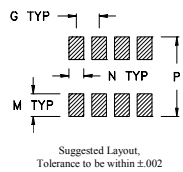
Pin Connections

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

Outline Drawing



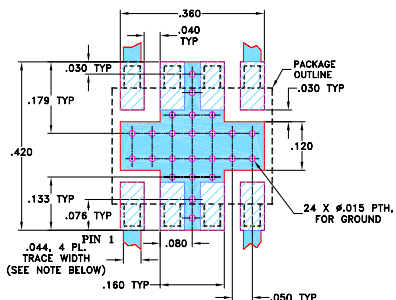
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.397	.032	.385	.435	.310	.215	.100	.015	.025	.035	.075	.120	.060	.420	grams
10.08	0.81	9.78	11.05	7.87	5.46	2.54	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: 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.
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

- excellent amplitude unbalance, 0.6 dB typ. and phase unbalance, 0.7 deg. typ.
- very low insertion loss, 0.2 dB typ.
- small surface mount package
- protected under U.S. Patent 6,133,525

Applications

- VHF TV

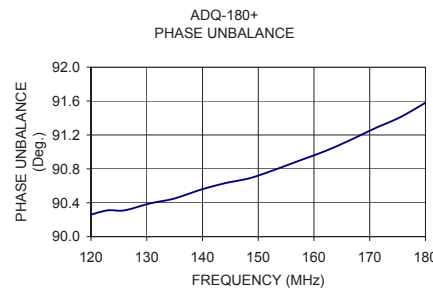
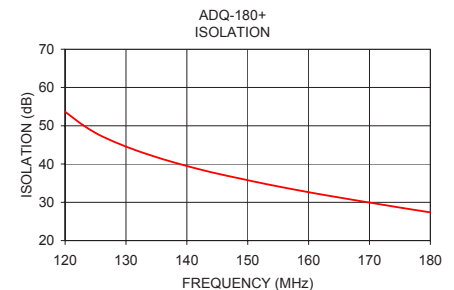
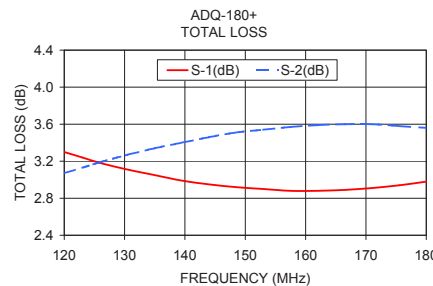
Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)	INSERTION LOSS (dB) Avg. of Coupled Outputs ABOVE 3 dB	PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L - f_U	Typ. Min.	Typ. Max.	Max.	Max.
120-180	35 20	0.2 0.7	6	1.5

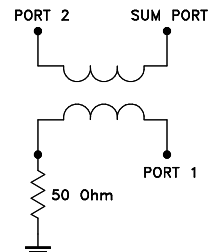
Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)	Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2					
120.00	3.30	3.07	0.23	53.66	90.26	1.04	1.03
123.00	3.24	3.13	0.11	50.12	90.31	1.04	1.03
126.00	3.18	3.19	0.01	47.30	90.31	1.04	1.03
130.50	3.11	3.27	0.16	44.27	90.39	1.03	1.03
135.00	3.05	3.34	0.30	41.81	90.45	1.03	1.03
139.50	2.99	3.40	0.41	39.71	90.55	1.03	1.03
144.00	2.95	3.46	0.51	37.87	90.63	1.03	1.03
148.50	2.92	3.51	0.59	36.28	90.69	1.03	1.03
153.00	2.90	3.54	0.65	34.78	90.79	1.03	1.03
157.50	2.88	3.57	0.69	33.39	90.90	1.03	1.03
162.00	2.88	3.59	0.71	32.08	91.01	1.04	1.04
166.50	2.89	3.60	0.71	30.85	91.14	1.04	1.04
171.00	2.91	3.60	0.69	29.66	91.28	1.05	1.05
175.50	2.94	3.58	0.64	28.50	91.41	1.05	1.06
180.00	2.98	3.56	0.57	27.36	91.58	1.06	1.06

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



electrical schematic



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