

High Reliability Mixer

Level 7 (LO Power +7 dBm) 300 to 4000 MHz

ADE-R30W+



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

LO	6
RF	3
IF	2
GROUND	1,4,5

Features

- hermetically sealed ceramic quad
- low conversion loss, 6.0 dB typ.
- excellent L-R isolation, 38 dB typ.
- low profile package
- aqueous washable
- protected by U.S. patent 6,133,525

Applications

- cellular
- PCN
- instrumentation
- ISM

CASE STYLE: CD542

PRICE: \$9.35 ea. QTY. (10)

+RoHS Compliant

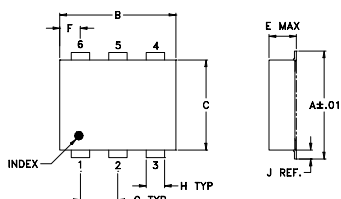
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



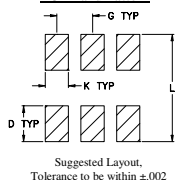
Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200, 500
13"	500, 1000

Outline Drawing



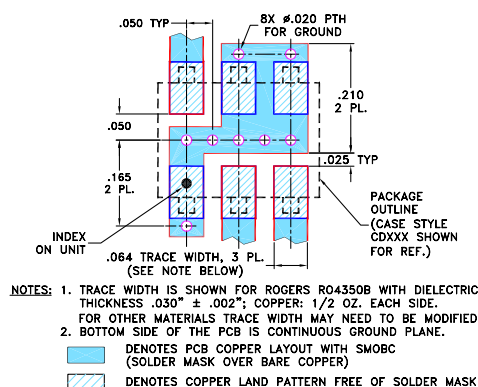
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54
H	J	K	L		wt	
.030	.026	.065	.300		grams	
0.76	0.66	1.65	7.62		0.20	

Demo Board MCL P/N: TB-03 Suggested PCB Layout (PL-052)



Electrical Specifications

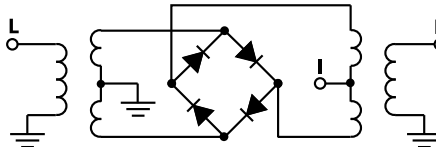
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF f _L -f _U	IF	Mid-Band m		Total Range		Typ.	Min.	Typ.	Min.	
		$\overline{X}$	σ	Max.	Max.					
300-4000	DC-950	6.0	0.20	9.0	9.8		38 18		13 6	12

1 dB COMP: +1 dBm typ.
m= mid band [$2f_L$ to $f_U/2$]

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
220.00	250.00	6.05	54.31	36.33	3.04	6.63
320.00	350.00	5.28	50.04	33.50	1.97	4.59
420.00	450.00	5.10	48.09	32.21	1.47	3.90
620.00	650.00	4.99	45.12	30.84	1.22	3.19
820.00	850.00	5.19	42.90	29.52	1.98	2.74
1020.00	1050.00	5.78	46.25	27.01	3.00	2.11
1220.00	1250.00	6.09	49.86	18.05	3.36	1.81
1420.00	1450.00	5.96	52.17	14.47	3.01	1.87
1620.00	1650.00	6.38	38.54	13.08	2.72	2.05
1840.00	1870.00	6.82	39.68	11.88	3.27	2.33
2060.00	2090.00	7.12	45.23	11.40	3.79	2.70
2280.00	2310.00	7.05	51.67	11.39	3.77	3.12
2400.00	2430.00	7.20	49.37	11.46	3.46	3.47
2620.00	2650.00	7.14	42.78	11.25	3.32	3.72
2840.00	2870.00	6.69	39.28	10.57	3.04	3.97
3060.00	3090.00	6.63	33.16	9.61	2.47	3.37
3280.00	3310.00	6.03	31.58	10.64	1.66	2.65
3600.00	3630.00	5.91	30.06	13.14	1.02	3.26
3820.00	3850.00	6.63	30.25	14.23	1.59	3.93
4040.00	4070.00	7.92	30.47	14.24	2.45	4.91

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
IF/RF MICROWAVE COMPONENTS

For detailed performance specs
& shopping online see web site

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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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/MCLStore/terms.jsp.

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