

Surface Mount

High Reliability Mixer

Level 10 (LO Power +10 dBm) 300 to 4000 MHz

ADE-R30WLH+



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

- ultra wideband, 300 to 4000 MHz
- hermetically sealed ceramic quad
- low conversion loss, 7.5 dB typ.
- excellent L-R isolation, 40 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- cellular
- PCN
- instrumentation
- ISM

CASE STYLE: CD542

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

+RoHS Compliant

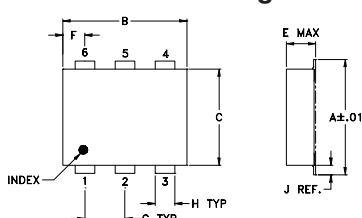
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



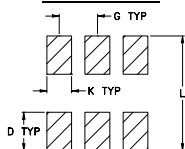
Available Tape and Reel
at no extra cost

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

Outline Drawing



PCB Land Pattern



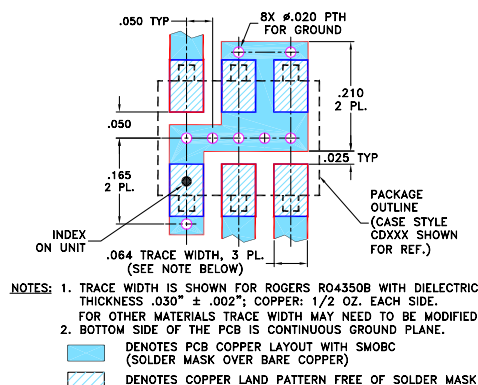
Suggested Layout,
Tolerance to be within ±.002

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	IF	Mid-Band m			Total Range Max.					
f _L -f _U		$\overline{X}$	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.
300-4000	DC-950	7.5	0.20	9.0	9.8	40	24	16	6	15

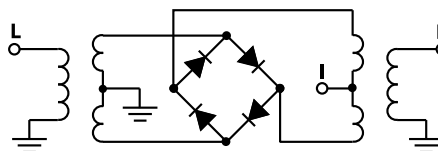
1 dB COMP.: +5 dBm typ.

m= mid band $[2f_L + f_U/2]$

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
220.00	250.00	6.99	55.00	41.71	3.67	9.48
320.00	350.00	6.05	51.10	36.54	2.29	5.16
520.00	550.00	5.67	47.81	32.60	1.43	3.60
740.00	770.00	5.31	44.14	29.98	1.23	2.87
960.00	990.00	6.57	43.31	29.04	2.63	2.35
1180.00	1210.00	6.32	46.52	20.93	3.15	1.73
1400.00	1430.00	6.68	53.58	16.16	3.11	1.59
1620.00	1650.00	6.70	47.73	14.37	2.49	1.82
1840.00	1870.00	7.08	46.42	13.36	3.62	2.10
1940.00	1970.00	7.30	45.49	13.49	3.93	2.30
2160.00	2190.00	7.71	44.51	13.71	4.40	2.59
2380.00	2410.00	8.05	42.37	13.46	4.30	2.94
2500.00	2530.00	8.21	40.68	13.46	4.37	3.18
2720.00	2750.00	8.09	39.37	13.00	4.54	3.34
2940.00	2970.00	7.71	39.78	11.97	3.87	3.54
3160.00	3190.00	7.48	40.13	10.49	3.37	3.25
3380.00	3410.00	6.88	43.93	11.96	2.82	2.79
3600.00	3630.00	6.49	40.09	14.32	2.25	3.25
3820.00	3850.00	6.51	36.86	16.70	1.84	4.37
4040.00	4070.00	7.04	38.40	18.41	1.65	5.79

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

For detailed performance specs
& shopping online see web site

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Page 1 of 2

