

Frequency Mixer

Level 7 (LO Power +7 dBm) 200 to 3000 MHz

ADE-30+ ADE-30



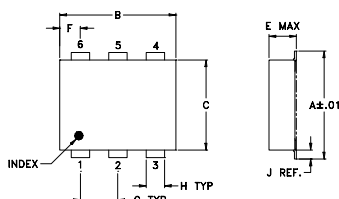
Maximum Ratings

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.	

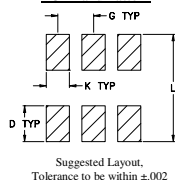
Pin Connections

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

Outline Drawing



PCB Land Pattern

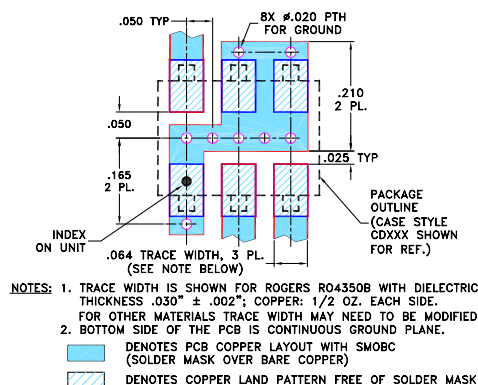


Suggested Layout,
Tolerance to be within ±.002

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			
.030	.026	.065	.300	wt		
0.76	0.66	1.65	7.62	grams		
				0.20		

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



Features

- low conversion loss, 4.5 dB typ.
- excellent L-R isolation, 35 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- cellular
- PCN
- instrumentation
- ISM

CASE STYLE: CD542
PRICE: \$6.95 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

Electrical Specifications

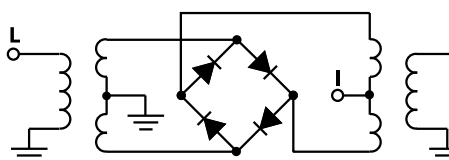
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.		Typ.	Min.	Typ.	Min.	
		$\bar{X}$	σ	Max.	Max.					
200-3000	DC-1000	4.5	.20	9.0	9.8	35	20	20	7	14

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

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
200.00	230.00	5.93	51.00	48.50	2.80	8.08
350.00	380.00	4.87	45.33	40.83	1.43	6.17
500.00	530.00	4.84	42.83	37.83	1.13	3.26
850.00	880.00	5.24	38.17	45.00	2.46	2.51
1050.00	1080.00	6.02	38.50	34.67	3.69	2.04
1250.00	1280.00	5.80	40.67	23.67	2.51	1.95
1450.00	1480.00	5.34	38.50	19.00	2.20	2.17
1650.00	1680.00	6.12	40.83	15.66	2.28	2.28
1850.00	1880.00	6.38	40.00	14.77	2.46	2.37
2000.00	2030.00	6.66	39.00	13.50	2.86	2.51
2250.00	2280.00	7.17	35.50	12.83	3.68	2.93
2450.00	2480.00	6.79	33.67	12.00	3.57	3.17
2650.00	2680.00	6.39	37.00	11.16	3.68	3.36
2850.00	2880.00	5.69	40.67	10.50	2.86	3.95
3000.00	3030.00	5.30	37.17	11.17	2.01	3.17

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

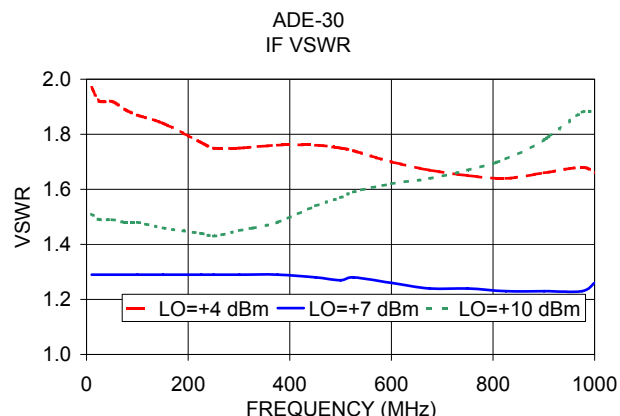
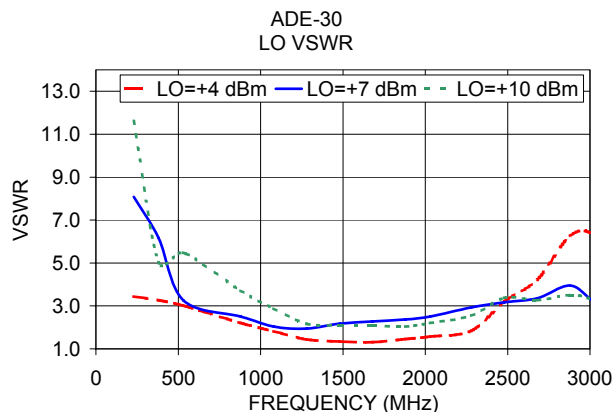
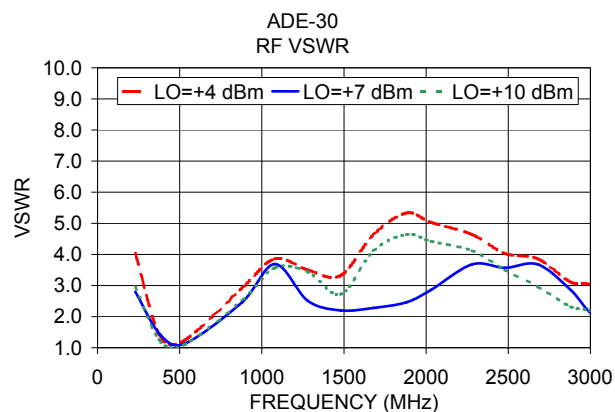
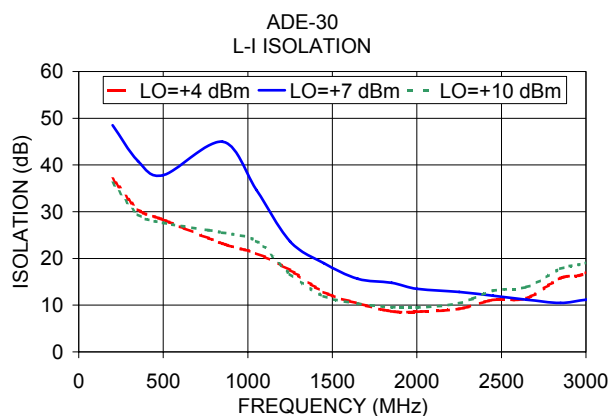
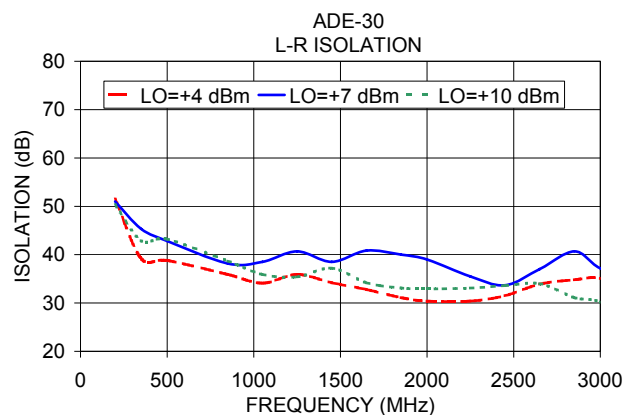
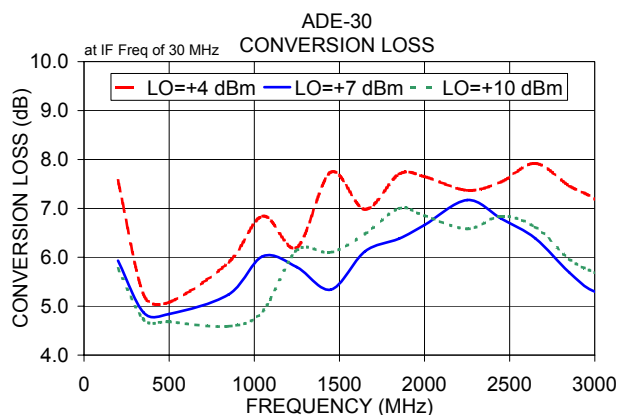
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Performance Charts

ADE-30+
ADE-30



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