

Surface Mount

# High Reliability Mixer

NON-CATALOG

ADE-R18WLH+

Level 10 (LO Power +10 dBm) 1750 to 3500 MHz



CASE STYLE: CD542

## Maximum Ratings

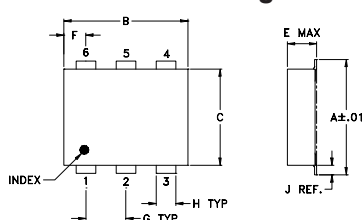
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

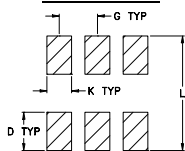
## Pin Connections

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

## Outline Drawing



## PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±0.02

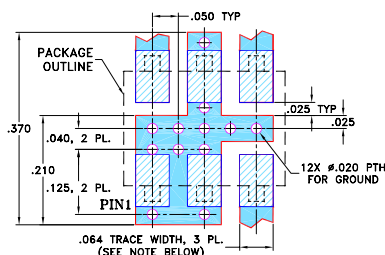
## Outline Dimensions (inch/mm)

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-02 Suggested PCB Layout (PL-051)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; 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.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- hermetically sealed ceramic quad
- low conversion loss, 5.4 dB typ.
- good L-R isolation, 33 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

## Applications

- PCS
- MMDS
- ISM

## Electrical Specifications

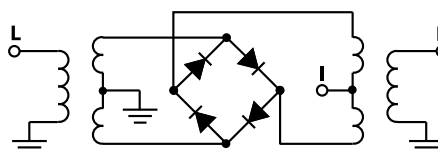
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)	
		Typ.	Min.	Typ.	Min.		
1750-3500	DC-700	5.4	0.30	8.9	33	22	11

1 dB COMP.: +5 dBm typ.

## Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation (dB)		VSWR RF Port (:1)	VSWR LO Port (:1)
		L-R (dB)	L-I (dB)		
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
1770.00	1800.00	6.09	29.98	20.02	4.74
1850.00	1880.00	5.67	30.43	18.09	3.26
1930.00	1960.00	5.44	30.83	16.42	4.33
2010.00	2040.00	5.29	30.53	14.85	4.20
2170.00	2200.00	5.26	29.61	12.43	3.95
2250.00	2280.00	5.24	29.05	11.80	3.80
2330.00	2360.00	5.21	29.58	11.39	3.72
2410.00	2440.00	5.15	30.43	11.22	3.63
2570.00	2600.00	5.28	32.05	11.59	3.37
2650.00	2680.00	5.22	33.90	12.03	3.30
2730.00	2760.00	5.14	35.97	12.38	3.26
2810.00	2840.00	5.13	37.60	12.42	3.15
2970.00	3000.00	5.44	37.23	12.94	2.98
3050.00	3080.00	5.50	39.39	13.16	3.07
3130.00	3160.00	5.54	41.93	13.56	3.02
3210.00	3240.00	5.59	41.54	14.09	2.98
3290.00	3320.00	5.88	40.92	14.59	3.01
3370.00	3400.00	6.23	40.74	15.02	2.94
3450.00	3480.00	6.54	42.04	15.36	2.93
3530.00	3560.00	6.75	44.44	15.68	2.84

## Electrical Schematic



## Notes

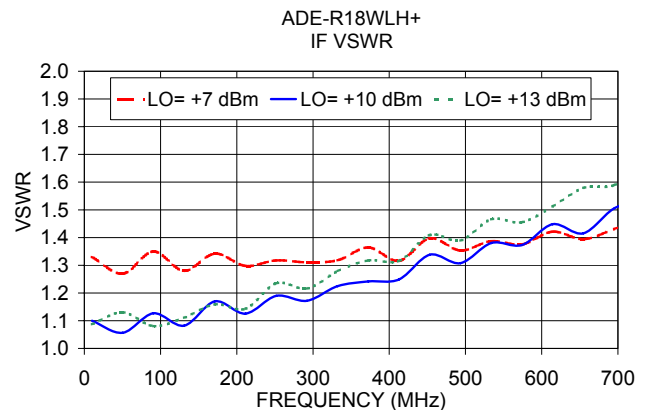
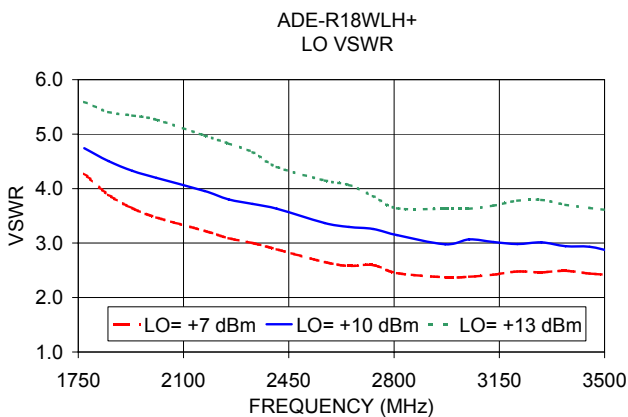
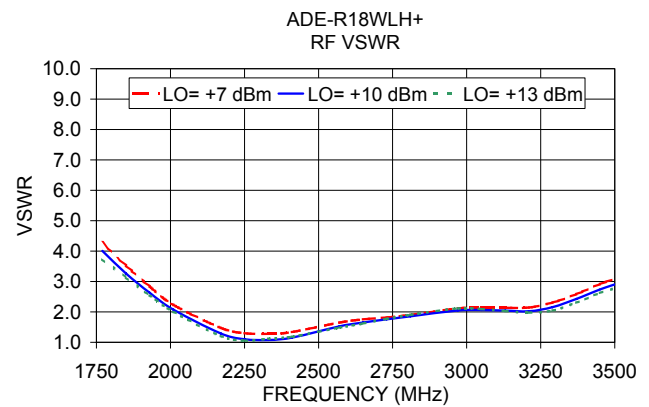
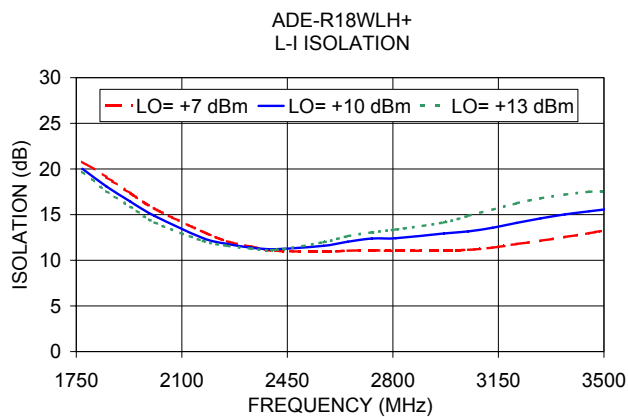
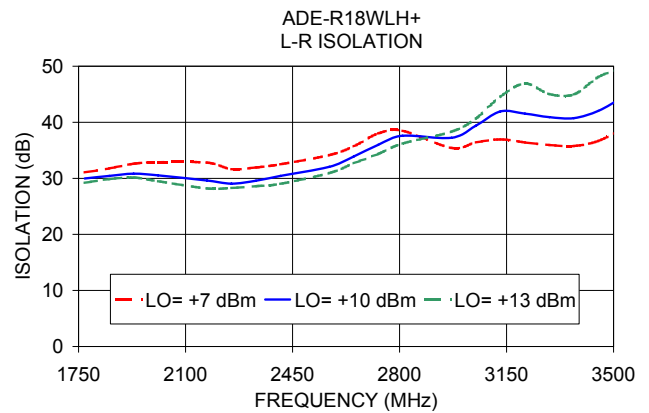
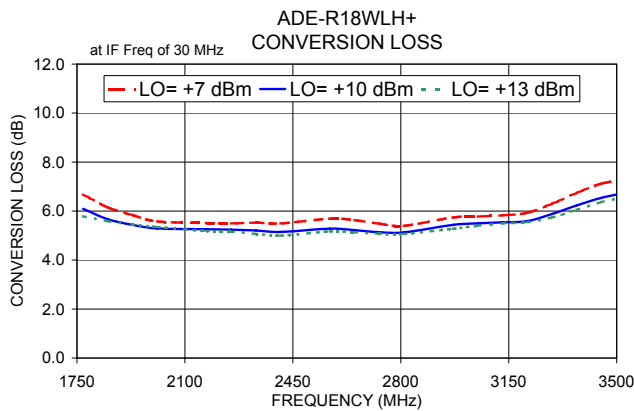
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# NON-CATALOG

## Performance Charts

## ADE-R18WLH+



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