

Surface Mount Frequency Mixer

Level 17 (LO Power +17 dBm) 100 to 1700 MHz

ADE-17H+ ADE-17H



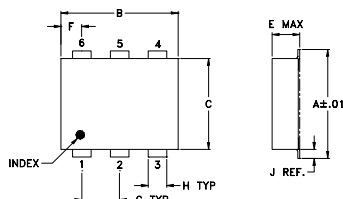
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

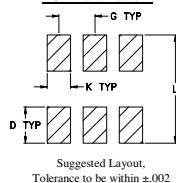
Pin Connections

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

Outline Drawing



PCB Land Pattern

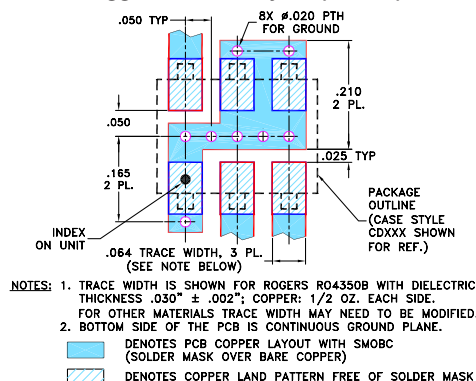


Suggested Layout,
Tolerance to be within ±.002

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	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)



Features

- low conversion loss, 7.2 dB typ.
- excellent IP3, 25 dB typ.
- low profile package
- aqueous washable
- protected by US patent 6,133,525

Applications

- VHF/UHF TV

CASE STYLE: CD542
PRICE: \$8.95 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.		L		U		L		U		
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
100-1700	50-1500	7.2	0.10	8.5	9.5	32	20	36	22	32	20	37	22	25

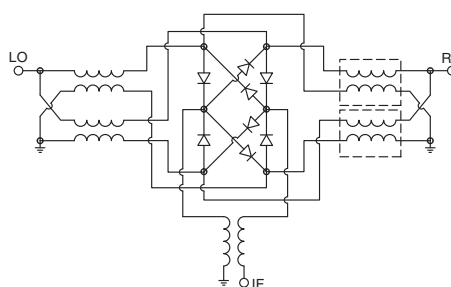
1 dB COMP.: +14 dBm typ.

L = 100 - 850 MHz U = upper range [$f_U/2$ to f_U] 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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
70.1	130.1	7.93	31.80	31.03	1.53	1.74
130.1	190.1	7.55	32.42	31.72	1.31	1.64
190.1	250.1	7.56	33.32	33.00	1.21	1.67
250.1	310.1	7.42	34.53	34.19	1.18	1.66
370.1	430.1	7.47	35.43	36.79	1.17	1.70
430.1	490.1	7.43	35.75	38.14	1.17	1.73
610.1	670.1	7.52	34.33	38.77	1.29	1.84
730.1	790.1	7.51	32.80	37.87	1.36	1.93
850.1	910.1	7.59	32.28	37.73	1.47	2.02
910.1	970.1	7.60	32.06	38.47	1.47	2.05
1010.1	1070.1	7.53	31.97	39.54	1.52	2.12
1110.1	1170.1	7.69	31.10	34.66	1.49	2.17
1210.1	1270.1	7.57	30.13	32.52	1.47	2.15
1310.1	1370.1	7.58	29.87	31.70	1.54	2.17
1410.1	1470.1	7.47	29.82	31.12	1.65	2.22
1510.1	1570.1	7.56	29.17	30.84	1.72	2.31
1550.1	1610.1	7.54	29.25	30.70	1.70	2.37
1610.1	1670.1	7.64	29.11	30.47	1.66	2.39
1650.1	1710.1	7.60	28.71	30.66	1.64	2.47
1710.1	1770.1	7.78	29.39	30.92	1.60	2.48

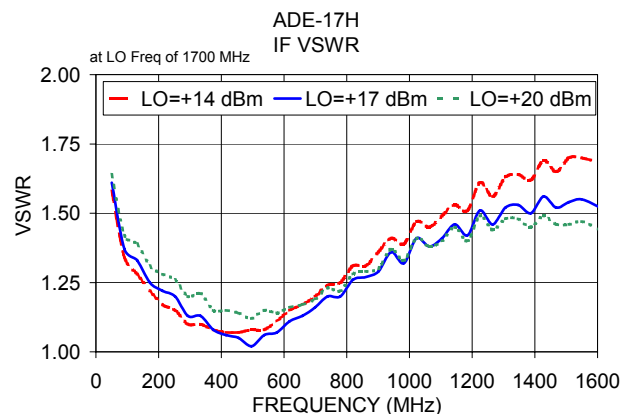
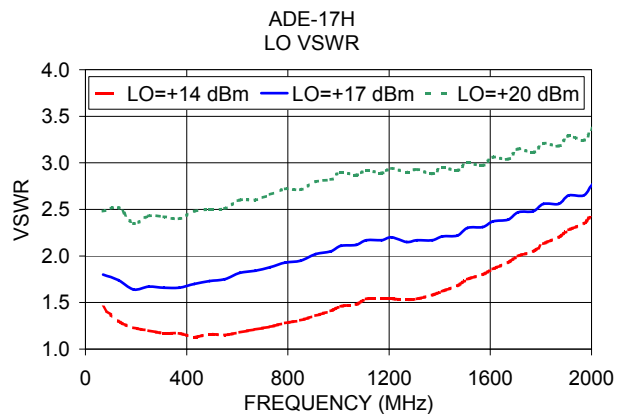
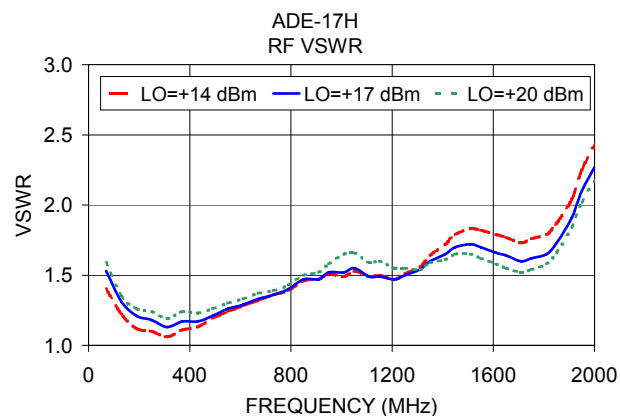
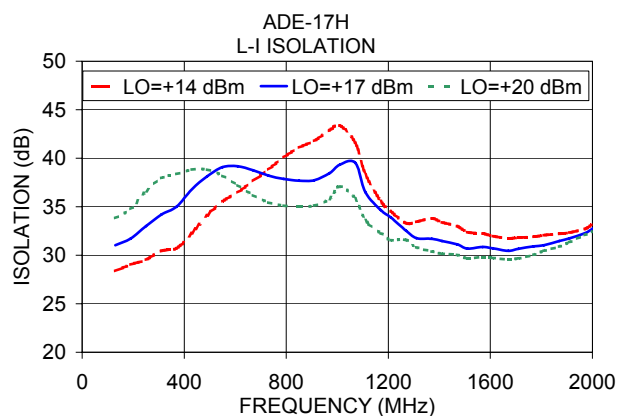
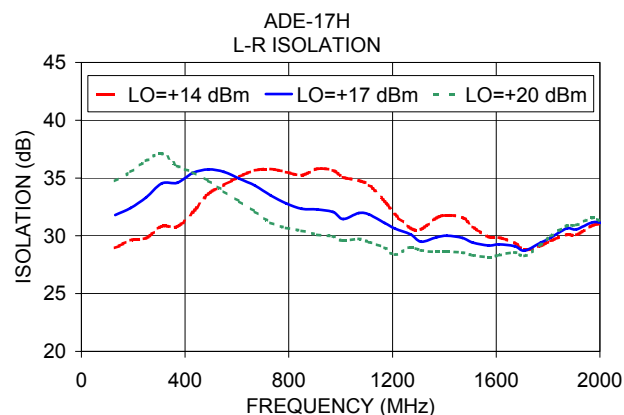
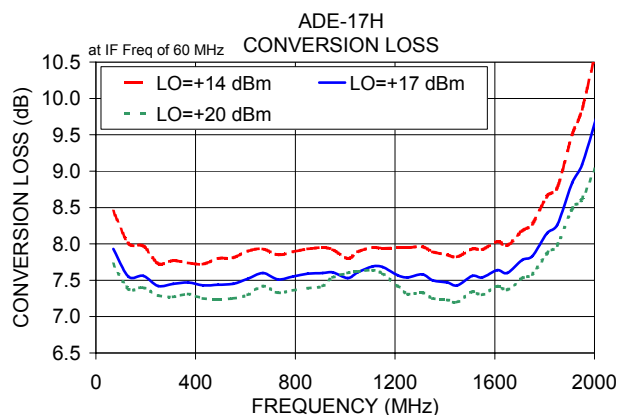
Electrical Schematic



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.
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