

Frequency Mixer

ADE-17H

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



CASE STYLE: CD542

Maximum Ratings

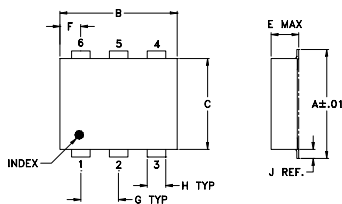
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

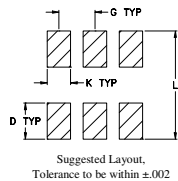
Pin Connections

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

Outline Drawing



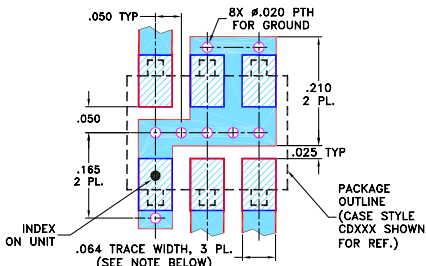
PCB Land Pattern



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-03 Suggested PCB Layout (PL-052)



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

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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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

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		L	U	L	U	
100-1700	7.2	32	36	32	37	25

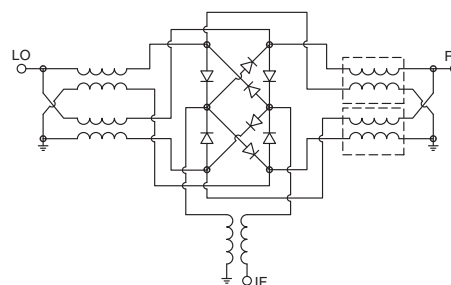
1 dB COMP.: +14 dBm typ.

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
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

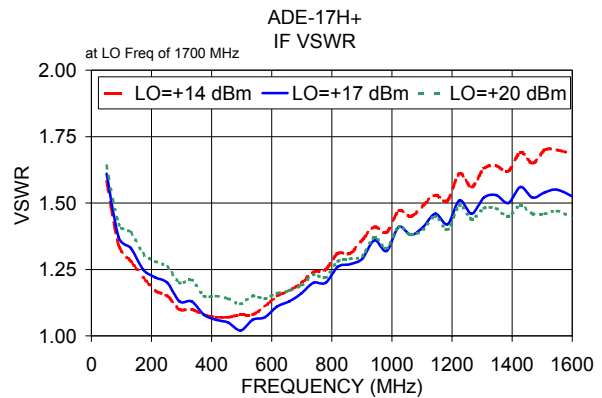
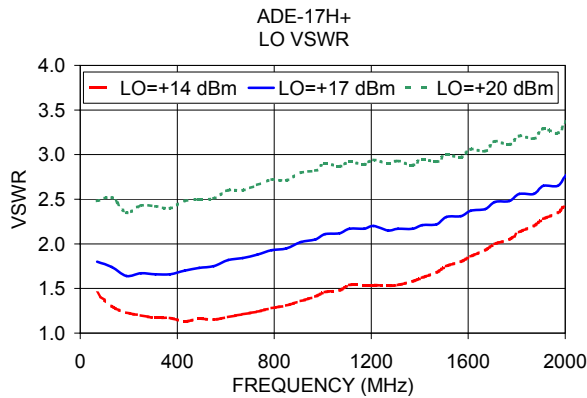
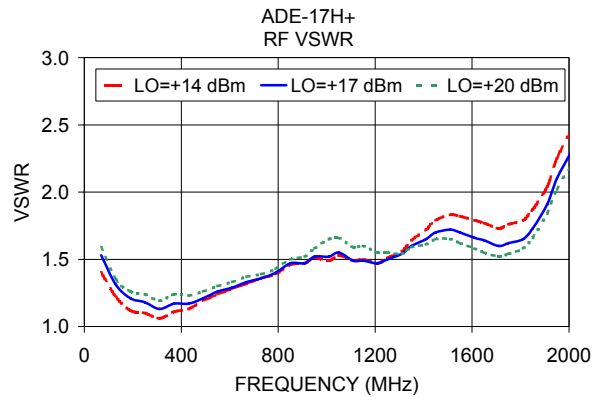
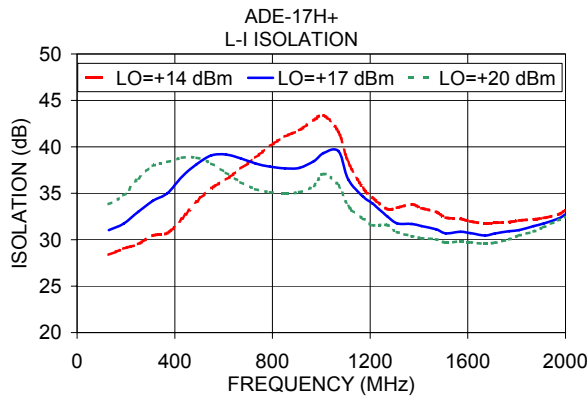
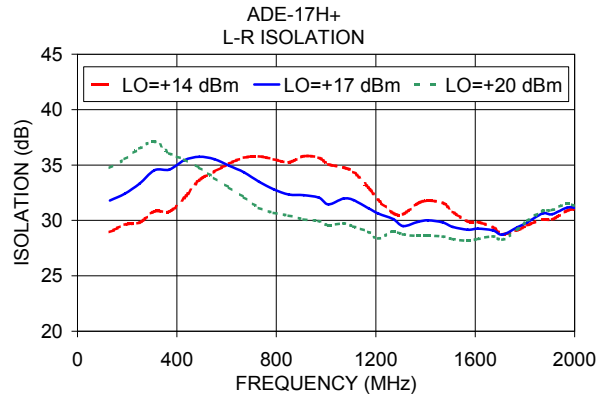
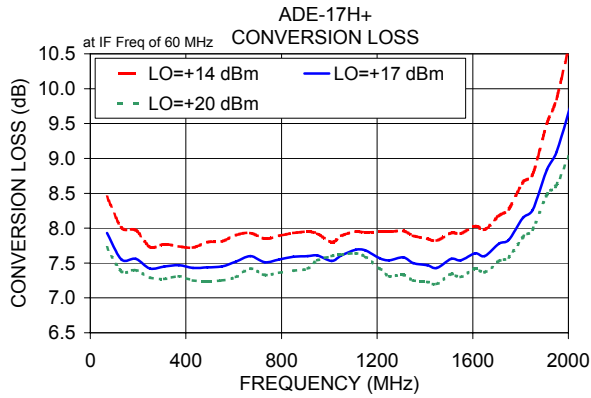
Electrical Schematic



NON-CATALOG

Performance Charts

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