

High IP3 Frequency Mixer

ADE-751H+

Level 17 (LO Power +17 dBm) 20 to 750 MHz



CASE STYLE: CD541
PRICE: \$6.95 ea. QTY. (10)
\$5.95 ea. QTY. (100)

Maximum Ratings

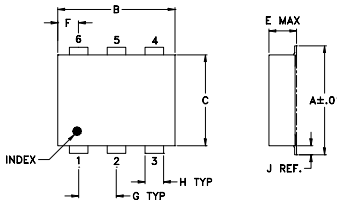
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

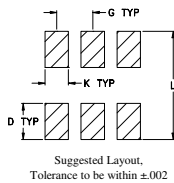
Pin Connections

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

Outline Drawing



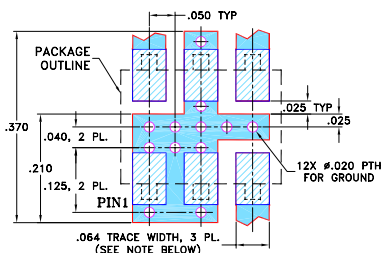
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.082	.055	.100
6.91	7.87	5.59	2.54	2.08	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.15		

Demo Board MCL P/N: TB-02+ Suggested PCB Layout (PL-051)



Features

- high IP3, 27 dBm typ.
- low conversion loss, 6.5 dB typ.
- good L-R isolation, 42 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- cellular

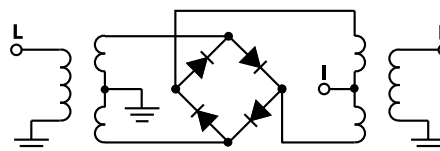
Electrical Specifications at 25°C

Parameter	Min.	Typ.	Max.	Unit
Frequency Range, RF	20	—	750	MHz
Frequency Range, LO	50	—	780	MHz
Frequency Range, IF	DC	—	250	MHz
Conversion Loss	—	6.5	8.0	dB
LO to RF Isolation	28	42	—	dB
LO to IF Isolation	27	40	—	dB
IP3	—	27	—	dBm
RF Input Power at 1 dB Compression	—	+9	—	dBm

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	IP3 (dBm)
RF	LO	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
20.10	50.10	6.55	62.00	64.65	1.24	2.86	28.64
50.10	80.10	6.51	57.54	61.04	1.22	2.96	40.05
100.10	130.10	6.51	53.50	58.09	1.21	2.77	38.21
150.10	180.10	6.50	50.42	54.59	1.21	2.83	32.38
200.10	230.10	6.45	48.87	52.36	1.21	2.67	30.83
250.10	280.10	6.37	47.00	49.43	1.20	2.81	30.69
300.10	330.10	6.30	46.10	48.17	1.20	2.69	29.85
350.10	380.10	6.31	44.73	45.32	1.19	2.81	28.17
400.10	430.10	6.21	44.09	45.53	1.19	2.68	27.83
450.10	480.10	6.14	43.50	42.41	1.18	2.83	28.33
500.10	530.10	6.20	42.96	42.40	1.21	2.70	34.04
550.10	580.10	6.05	42.26	41.46	1.16	2.78	27.56
600.10	630.10	6.06	42.54	39.50	1.14	2.76	24.27
650.10	680.10	6.11	42.37	37.81	1.14	2.98	27.81
700.10	730.10	6.18	42.01	37.68	1.14	2.93	29.20
710.10	740.10	6.14	41.83	37.47	1.12	2.96	28.44
720.10	750.10	6.12	41.70	37.39	1.11	2.97	27.37
730.10	760.10	6.14	41.50	37.25	1.11	2.97	26.07
740.10	770.10	6.13	41.19	37.16	1.11	2.99	25.24
750.10	780.10	6.10	40.97	37.19	1.10	2.97	24.34

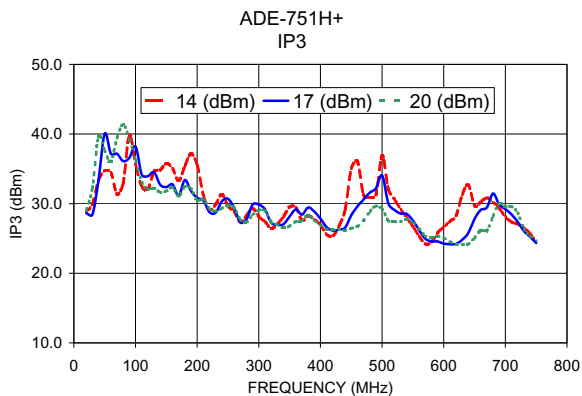
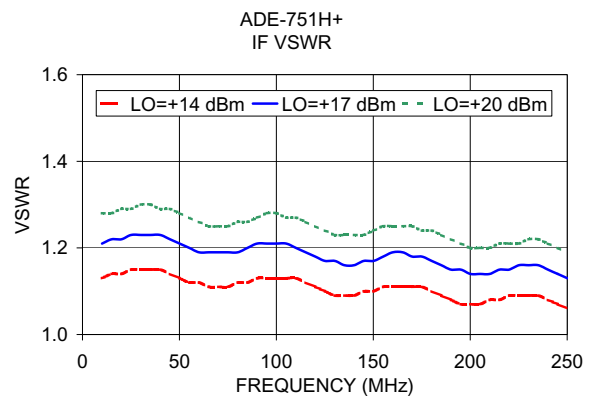
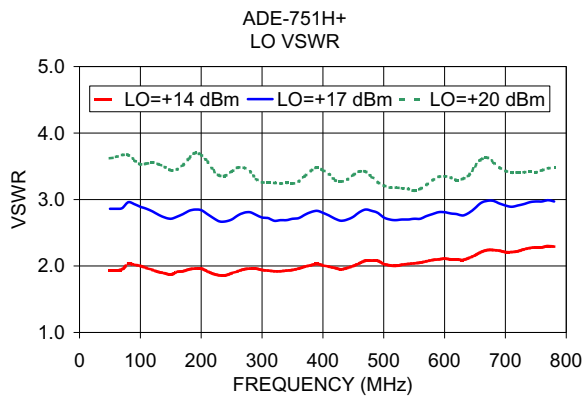
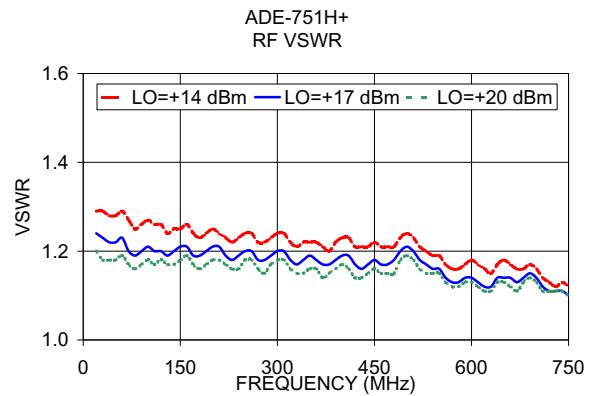
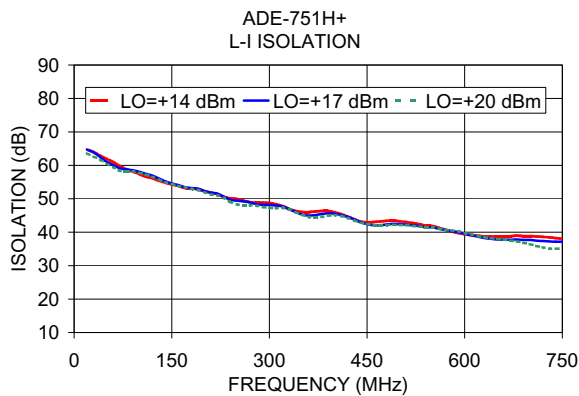
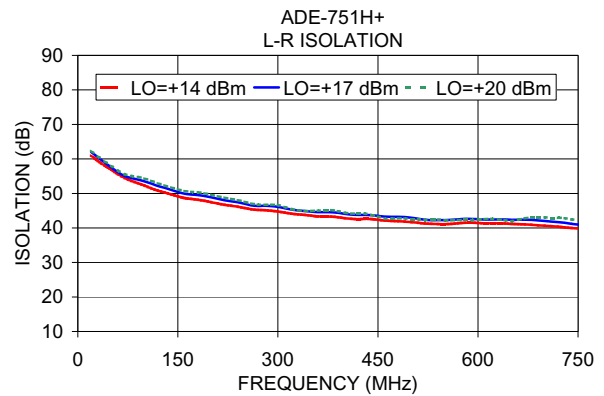
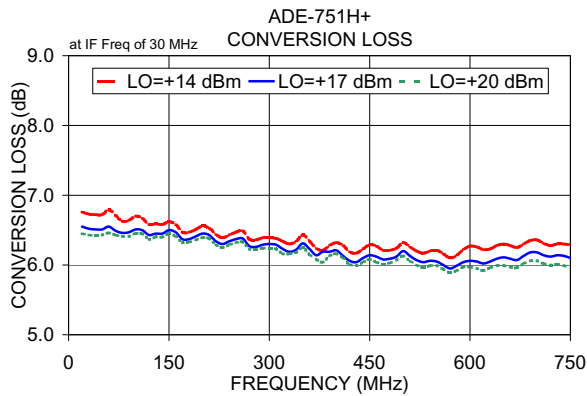
Electrical Schematic



Notes

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