

Frequency Mixer

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

RMS-30+



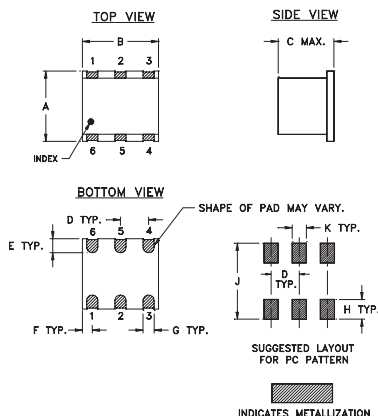
Maximum Ratings

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	1
RF	4
IF	5
GROUND	2,3,6

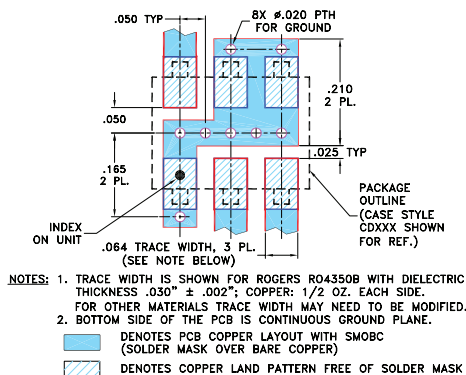
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

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



Features

- wideband, 200-3000 MHz
- conversion loss, 7.0 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- MMDS
- ISM/PCS/UMTS
- GPS

Electrical Specifications

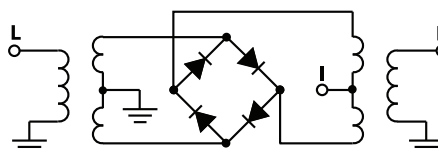
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
LO/RF	Mid-Band m			
f _L -f _U	X σ Max. Total Range Max.	Typ. Min.	Typ. Min.	Typ.
200-3000 DC-1000	6.5 .20 9.0 9.8	27 17	20 7	11

1 dB COMP.: +1 dBm typ.
m=mid band [2f_L to f_U/2]
For phase detection, DC output positive with in-phase RF & LO.

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 +7 dBm	LO +7 dBm	LO +7 dBm	LO +7 dBm
200.10	230.10	5.30	35.34	22.95	1.59
400.10	430.10	4.94	45.55	22.74	1.63
600.09	630.09	4.68	38.09	24.23	1.75
828.65	858.65	6.27	32.57	30.75	1.81
1000.07	1030.07	6.43	30.53	30.13	2.20
1114.35	1144.35	6.16	30.64	23.50	2.56
1228.63	1258.63	5.88	29.50	21.69	3.00
1342.92	1372.92	6.03	30.63	23.23	3.60
1457.20	1487.20	6.87	30.80	25.21	4.40
1500.00	1530.00	6.95	31.01	25.49	4.81
1685.76	1655.76	7.08	30.14	20.62	5.49
1857.18	1827.18	7.22	28.52	16.49	3.82
1971.47	1941.47	7.26	27.20	14.81	3.19
2085.75	2055.75	7.12	26.56	13.64	2.97
2200.03	2170.03	6.95	26.14	12.33	2.76
2371.45	2341.45	6.77	24.57	11.40	2.44
2542.87	2512.87	6.62	25.24	13.33	1.85
2714.30	2684.30	5.98	26.06	14.42	1.35
2885.72	2855.72	6.24	26.86	14.79	1.60
3000.00	2970.00	6.95	28.42	16.91	2.52

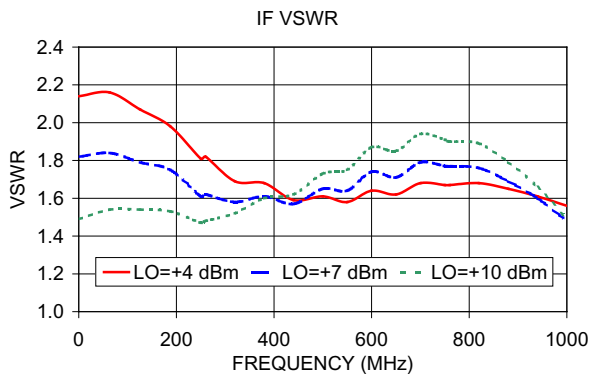
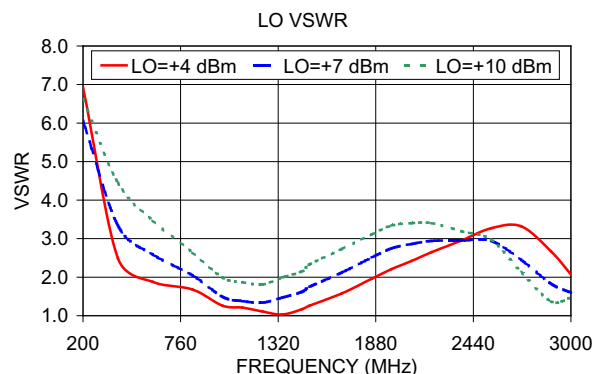
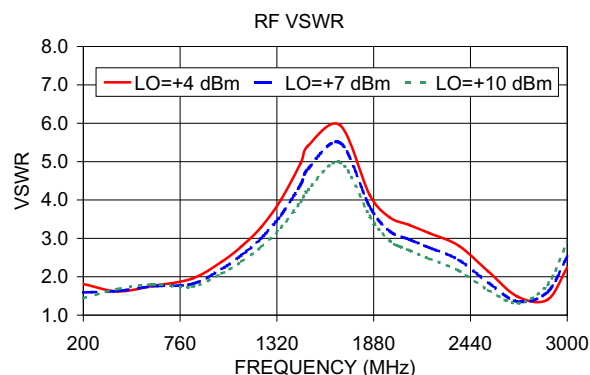
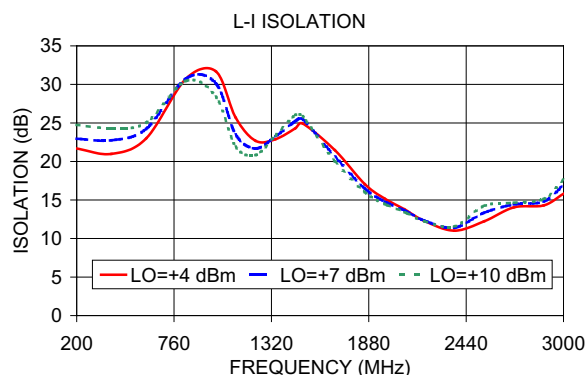
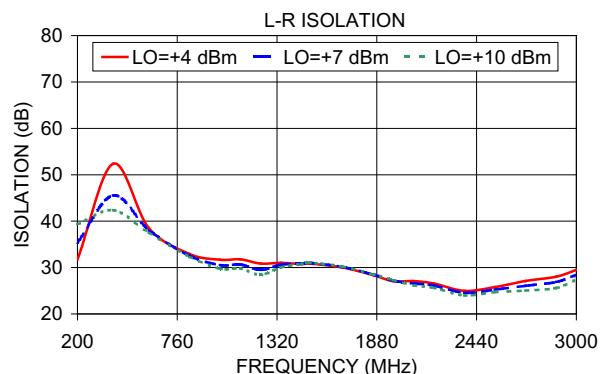
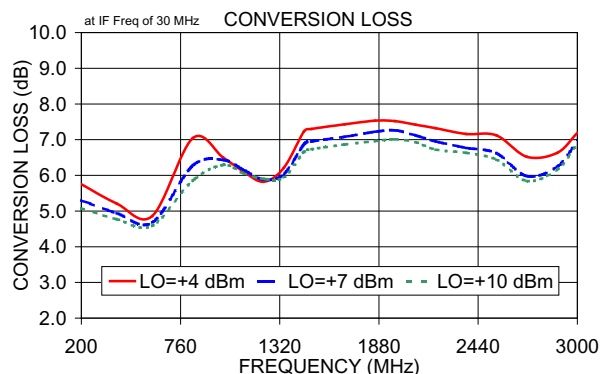
Electrical Schematic



Notes

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