

Level 3 (LO Power +3 dBm) 2 to 500 MHz

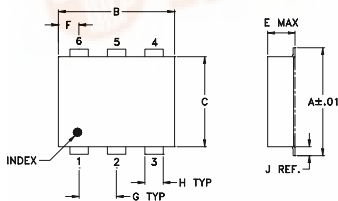
Maximum Ratings

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

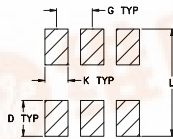
Pin Connections

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

Outline Drawing



PCB Land Pattern

Suggested Layout,
Tolerance to be within ±.002

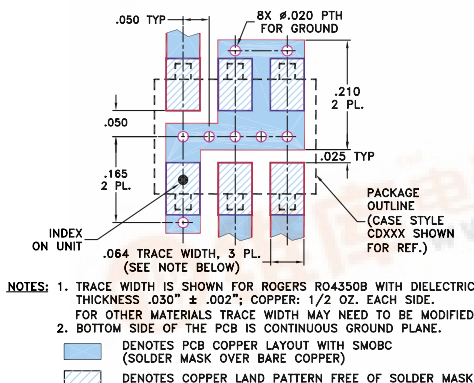
Outline Dimensions (inch)

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

- hermetically sealed ceramic quad
- low conversion loss, 5.6 dB typ.
- excellent L-R isolation, 55 dB typ.
- low profile package
- aqueous washable
- protected by US patent 6,133,525

Applications

- cellular
- instrumentation

CASE STYLE: CD542

PRICE: \$4.35 ea. QTY. (10-49)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS
Compliance. See our web site for RoHS Compliance
methodologies and qualifications.

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
LO/RF $f_L - f_U$	Mid-Band m $\bar{X}$ σ Max. Total Range Max.	L M U Typ. Min. Typ. Min. Typ. Min.	L M U Typ. Min. Typ. Min. Typ. Min.	Typ.
2-500 DC-500	5.6 0.10 7.2 8.8	68 55 55 42 44 35	60 45 45 32 35 25	14

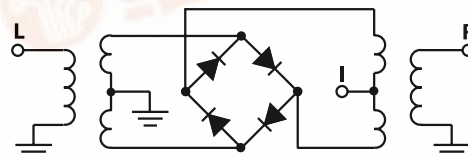
1 dB COMP.: 0 dBm typ.

L = low range [f_L to $10 f_L$]m = mid band [$2f_L$ to $f_U/2$]M = mid range [$10 f_L$ to $f_U/2$]U = upper range [$f_U/2$ to f_U]

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 +3dBm	LO +3dBm	LO +3dBm	LO +3dBm	LO +3dBm
2.00	32.00	6.61	65.26	57.10	1.65
6.00	36.00	5.88	65.10	56.12	1.28
8.00	38.00	5.76	65.14	55.62	1.23
10.00	40.00	5.69	65.06	55.20	1.21
59.00	89.00	5.63	62.33	47.86	1.11
108.00	138.00	5.66	57.94	44.52	1.10
157.00	187.00	5.66	54.76	42.14	1.08
206.00	236.00	5.69	51.63	41.58	1.07
230.50	260.50	5.75	50.62	40.71	1.07
255.00	285.00	5.74	49.85	39.80	1.06
279.50	309.50	5.76	48.93	39.70	1.05
304.00	334.00	5.79	47.42	39.78	1.05
328.50	358.50	5.86	46.02	39.31	1.05
353.00	383.00	5.87	44.99	38.34	1.05
377.50	407.50	5.90	44.68	37.39	1.06
402.00	432.00	6.00	44.64	36.12	1.08
426.50	456.50	6.05	44.52	34.99	1.09
451.00	481.00	6.09	43.69	33.80	1.10
475.50	505.50	6.09	43.36	33.28	1.11
500.00	530.00	6.17	43.65	33.31	1.12

Electrical Schematic



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