

Ceramic

Frequency Mixer WIDE BAND

New!

MCA-35H

Level 17 (LO Power +17 dBm) 500 to 3500 MHz

Features

- wide bandwidth, 500 to 3500 MHz
- excellent isolation, 30 dB typ. (1800-2500 MHz)
- good matching 2:1 VSWR (over1800-2800 MHz)
- small size 0.25"x0.3"x0.2"
- triple balanced mixer

Applications

- cellular
- PCN
- PDC
- DECT
- PHS



BLUE CELL™

CASE STYLE: DZ883
 PRICE: \$8.95 ea. QTY (10-49)
 (Patent pending)

Mixer Electrical Specifications (T_{AMB} = -55°C to 100°C)

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3@ center band Typ. (dBm)	E FACTOR
	LO/RF f _L -f _u	IF	\bar{x}	σ	Max.	Typ.	Min.	Typ.	Min.		
MCA-35H	500-3500	10-1500	6.9	0.1	8.9	•		•		26	0.9
	500-800	10-300	6.3	0.1	7.7	18	11	32	20		
	800-1000	10-200	6.4	0.1	7.6	24	17	27	20		
	1000-1800	10-800	6.6	0.1	8.6	29	20	26	20		
	1800-2000	10-200	6.0	0.1	7.6	30	22	26	20		
	1800-2500	10-700	5.8	0.1	7.6	30	22	27	19		
	2000-3500	10-1500	6.5	0.1	8.6	29	17	22	14		

1dB Compr.: +14 dBm typ.
 E= [IP3(dBm)-LO Power(dBm)]/10

* see individual band specs.

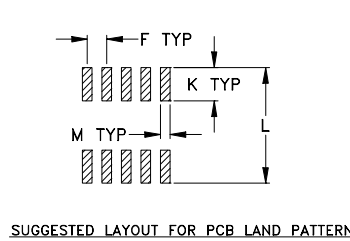
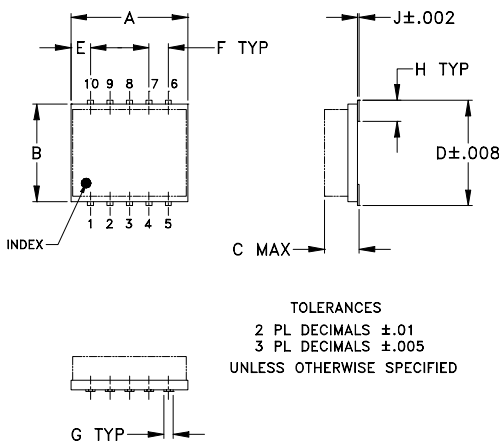
Pin Connections

LO	10
RF	5
IF	3
GROUND	1,2,4,6,7,8,9

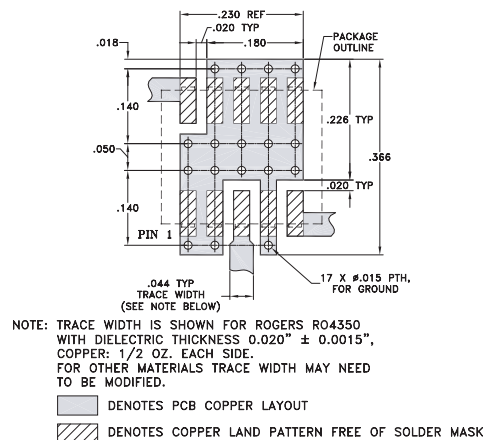
Maximum Ratings

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

Outline Drawing



Demo Board MCL P/N: TB-144 Suggested PCB Layout (PL-045)



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt.
.30	.250	.180	.274	.050	.050	.024	.05	.004	.085	.296	.030	grams
7.62	6.35	4.57	6.96	1.27	1.27	0.61	1.27	0.10	2.16	7.52	0.76	0.5



Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

ISO 9001 CERTIFIED

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 M85169
 ED-9595C/1
 MCA-35H
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Typical Performance Data at 25°C

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO port (:1)	VSWR RF port (:1)
RF MHz	LO MHz	LO +17 dBm	LO +17 dBm	LO +17 dBm	LO +17 dBm	LO +17 dBm
501.00	531.00	6.02	16.19	33.30	1.57	1.67
601.00	631.00	5.93	17.94	31.90	1.39	1.93
701.00	731.00	5.87	20.08	31.13	1.24	2.33
801.00	831.00	6.50	22.69	29.81	1.25	3.04
901.00	931.00	6.28	26.16	29.31	1.26	3.47
1001.00	1031.00	6.48	29.64	28.29	1.31	4.25
1301.00	1331.00	6.62	30.73	26.48	1.45	2.63
1501.00	1531.00	7.32	27.40	26.27	1.50	1.85
1801.00	1831.00	6.05	30.02	30.97	1.53	1.91
2000.00	2031.00	5.88	32.15	29.15	1.69	1.59
2101.00	2131.00	5.88	31.94	29.21	1.63	1.44
2301.00	2331.00	5.99	30.11	27.83	1.82	1.61
2501.00	2531.00	6.00	29.06	26.52	1.80	2.15
2701.00	2731.00	6.73	30.39	25.95	1.64	2.70
2901.00	2931.00	6.88	30.46	24.83	1.79	3.11
3100.00	3130.00	6.88	31.18	25.70	2.13	4.03
3200.00	3230.00	6.61	30.89	25.41	2.09	3.89
3300.00	3330.00	6.50	31.82	27.53	1.95	3.47
3400.00	3430.00	6.27	31.14	26.35	1.78	3.13
3500.00	3530.00	6.05	28.30	27.50	1.75	2.70

Performance Charts

