

Ceramic Frequency Mixer

New!
MCA-30FH

Level 17 (LO Power +17 dBm) 2960 to 3060 MHz



BLUE CELL™

CASE STYLE: DZ883
PRICE: \$11.95 ea. QTY (1-9)
(Patent pending)

Features

- excellent IP3, 34 dBm typ.
- good L-R isolation, 37 dB typ.
- excellent compression, 1 dB compr, RF>LO power
- industry standard foot print
- LTTC design for excellent temperature stability
- performance repeatability and small size
- water wash capability
- double balanced mixer
- low price

Applications

- line of sight links
- satellite communications

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

MODEL NO.	FREQUENCY (MHz)			IP3 (dBm)	RF @ 1dB compr. (dBm) Min.	CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		E FACTOR
	RF	LO	IF			Typ.	σ	Max.	Typ.	Min.	Typ.	Min.	
MCA-30FH	2960-3060	2780-2880	130-230	34	17	7.4	—	8.9	37	20	27	15	1.7

E= (IP3(dBm)-LO Power(dBm))/10

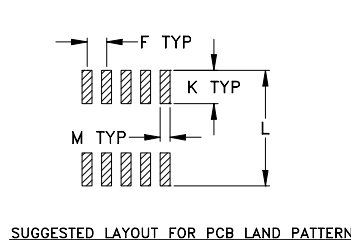
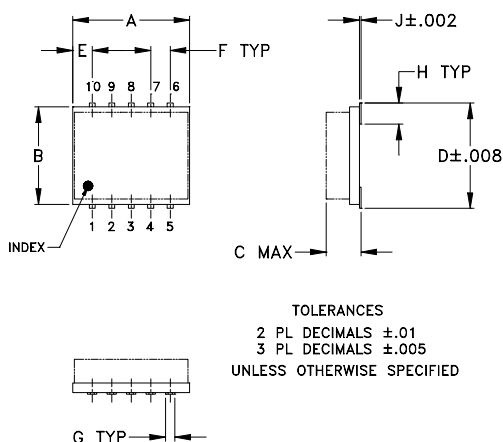
Pin Connections

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

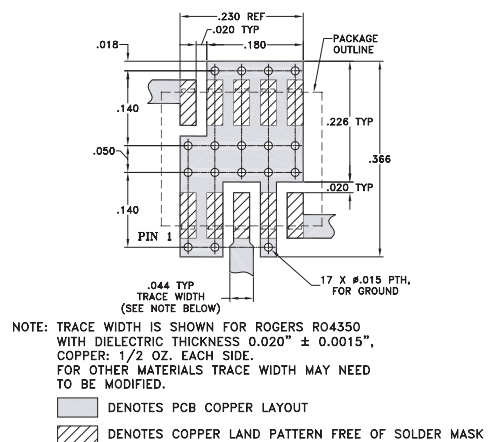
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
LO & RF Power	20 dBm

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

ISO 9001 CERTIFIED

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

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

REV. C
M85169
ED-9488B/2
MCA-30FH
DJJ/TD/CP
030206
Page 1 of 2

Typical Performance Data at 25°C

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	IP3 (dBm)
RF MHz	LO MHz	LO +17 dBm	LO +17 dBm	LO +17 dBm	LO +17 dBm
2960.00	2780.00	7.50	38.58	31.14	36.07
2970.00	2790.00	7.46	38.53	31.27	36.21
2980.00	2800.00	7.39	38.51	31.36	35.72
2990.00	2810.00	7.35	38.24	31.40	35.37
3000.00	2820.00	7.35	38.02	31.45	35.57
3010.00	2830.00	7.36	37.94	31.51	35.47
3020.00	2840.00	7.38	38.04	31.60	34.92
3030.00	2850.00	7.42	38.15	31.66	34.91
3040.00	2860.00	7.43	38.17	31.70	34.79
3050.00	2870.00	7.44	38.19	31.66	34.93
3060.00	2880.00	7.45	38.48	31.62	35.20

Performance Charts

