

Ceramic

Frequency Mixer WIDE BAND

New!
MCA1-42MH

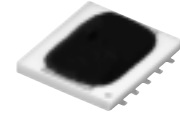
Level 13 (LO Power +13 dBm) 1000 to 4200 MHz

Features

- low conversion loss, 6.2 dB typ.
- excellent L-R isolation, 35 dB typ.
- wide bandwidth, 1000 to 4200 MHz
- double balanced mixer
- low cost
- low profile, 0.08"

Applications

- cellular
- PCN
- fixed satellite
- WCDMA
- defense radar
- defense communications



BLUE CELL™

CASE STYLE: DZ885
PRICE: \$7.95 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.		
MCA1-42MH	1000-4200	DC-1500	6.2	0.1	8.9	35	20	20	10	16	0.3

1dB Compr.: +9 dBm typ.
E= [(IP3(dBm)-LO Power(dBm))/10]

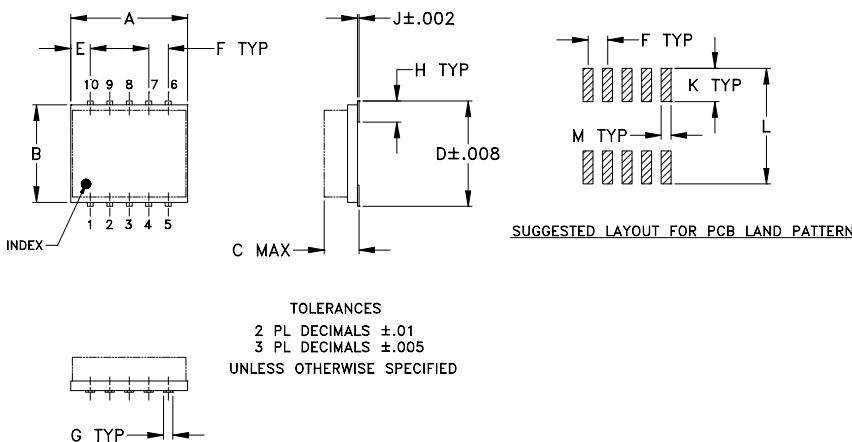
Pin Connections

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

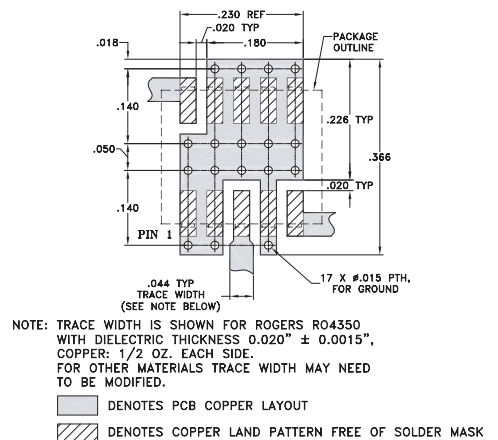
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
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	.080	.274	.050	.050	.024	.05	.004	.085	.296	.030	grams
7.62	6.35	2.03	6.96	1.27	1.27	0.61	1.27	0.10	2.16	7.52	0.76	0.3



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ISO 9001 CERTIFIED

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M85169
ED-10107/13
MCA1-42MH
DJ/TD/CP
030203
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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 +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm
1000.1	1030.1	6.41	38.13	22.25	5.29	2.53
1500.1	1530.1	5.46	31.57	22.23	2.67	3.23
1750.1	1780.1	5.77	32.48	20.81	2.33	2.57
2000.1	2030.1	5.96	33.34	21.32	3.21	2.78
2500.1	2530.1	5.99	32.94	21.44	4.29	2.45
3000.1	3030.1	5.22	32.62	21.48	4.18	2.24
3500.0	3530.1	5.84	30.35	23.79	2.35	2.50
4000.1	4030.1	7.32	33.89	20.18	4.21	4.57
4200.1	4230.1	8.14	37.60	17.38	5.64	4.90

Performance Charts

