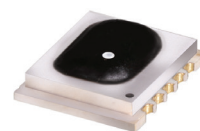


Ceramic

Frequency Mixer WIDE BAND

Level 10 (LO Power+10 dBm) 300 to 2400 MHz

MCA1T-24LH+



CASE STYLE: DZ885-2

PRICE: \$5.45 ea. QTY (10-49)

Maximum Ratings

Operating Temperature -40°C to 85°C

Storage Temperature -40°C to 85°C

RF Power 50 mW

IF Current 40 mA

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

LO 10

RF 5

IF 3

GROUND 1,2,4,6,7,8,9

Features

- wide bandwidth, 300 to 2400 MHz
- low conversion loss, 6.5 dB typ.
- excellent L-R isolation, 40 dB typ.
- LTCC double balanced mixer
- aqueous washable
- low cost
- low profile, 0.095"
- protected by US Patent 7,027,795 & 8,749,989

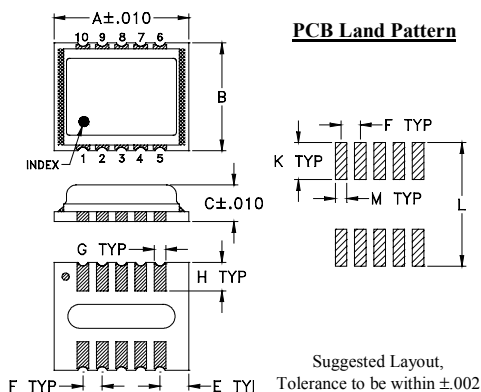
Applications

- cellular
- PCN
- defense & weather radar
- UHF TV
- WCDMA
- defense communications

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

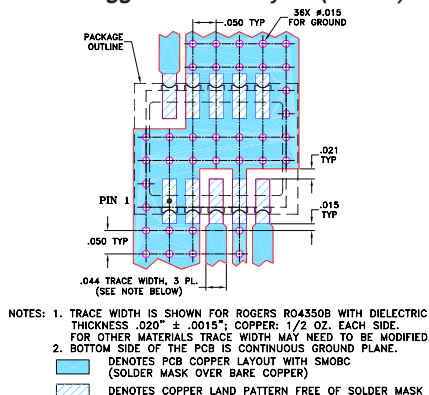
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	E	F	G
.350	.280	.095	.075	.050	.030
8.89	7.11	2.41	1.91	1.27	0.76
H	K	L	M	wt	
.074	.096	.321	.030	grams	
1.88	2.44	8.15	0.76	0.21	

Demo Board MCL P/N: TB-493+ Suggested PCB Layout (PL-288)



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.

www.minicircuits.com P.O. Box 35166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

Electrical Specifications (T_{AMB}=-40°C to 85°C)

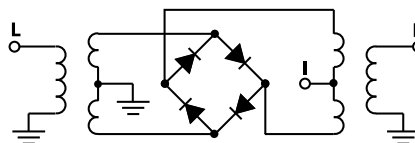
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF f _L -f _U	IF	$\bar{X}$	σ	Max.	Typ.	Min.	Typ.	Min.	
300-2400	DC-700	6.5	0.1	8.9	40	25	22	12	13

1 dB COMPR. +5 dBm typ.

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
301.00	331.00	5.75	47.96	22.24	1.84	6.52
401.00	431.00	5.00	41.59	24.26	1.46	2.34
501.00	531.00	6.40	43.45	27.04	3.74	1.38
701.00	731.00	6.34	43.78	27.28	3.52	2.43
901.00	931.00	7.26	42.42	26.85	4.31	3.80
1151.00	1181.00	7.32	44.15	30.33	4.79	4.23
1301.00	1331.00	7.16	42.78	34.33	3.38	3.84
1501.00	1531.00	5.61	40.19	29.17	1.87	2.26
1701.00	1731.00	5.14	36.19	25.42	1.46	1.40
2001.00	2031.00	6.07	33.56	22.01	2.01	2.77
2401.00	2431.00	6.73	33.38	25.12	2.32	3.97

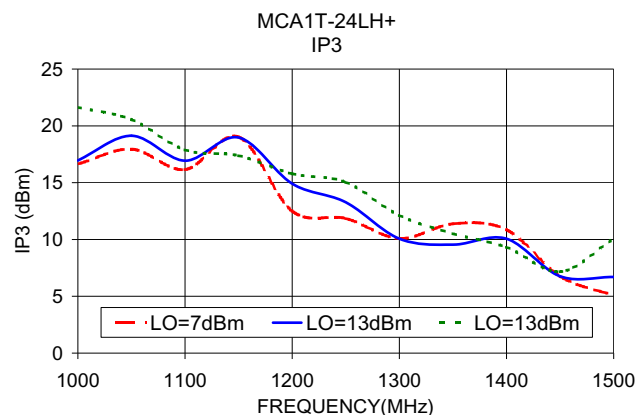
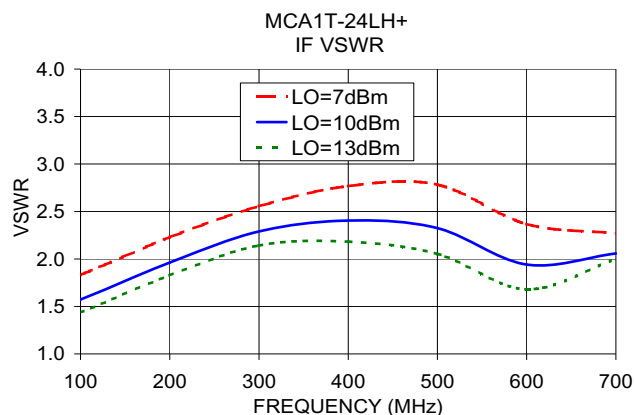
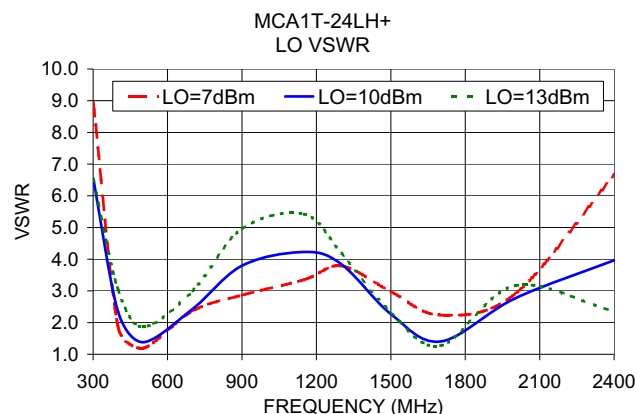
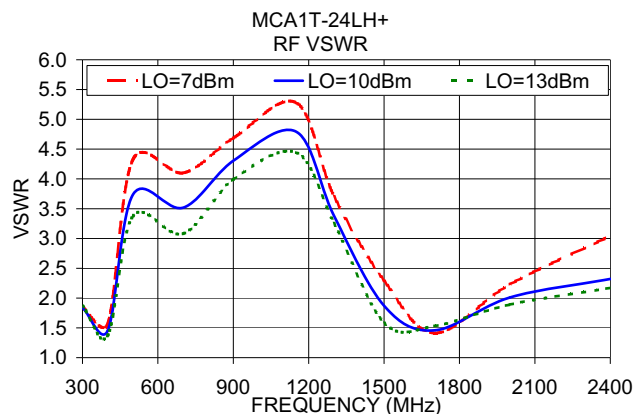
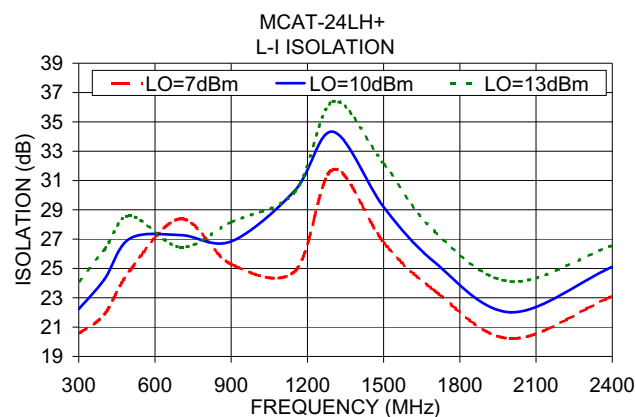
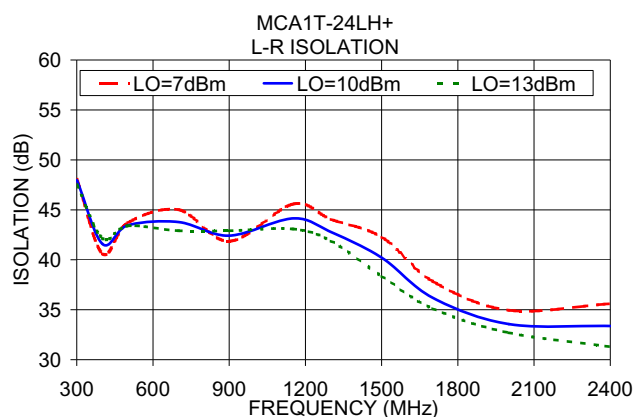
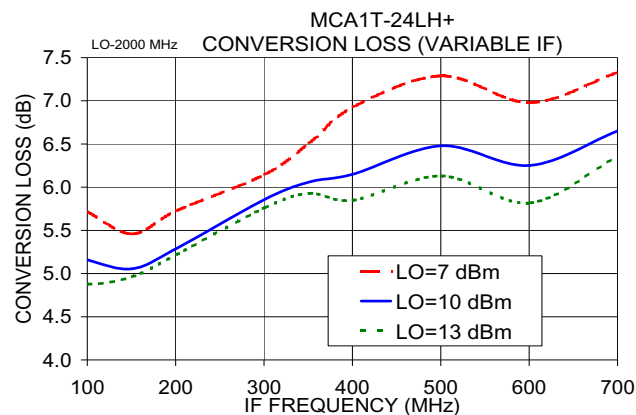
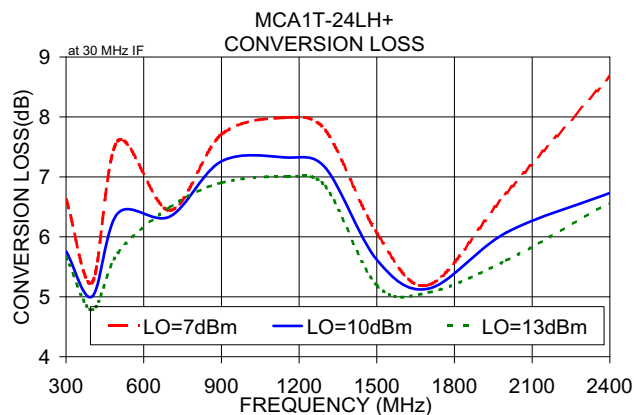
Electrical Schematic



REV. OR
M24554
MCA1-24LH+
DJ/RS/CP
140626

Performance Charts

MCA1T-24LH+



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