

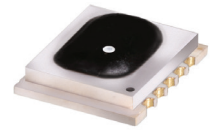
Ceramic

NON-CATALOG

Frequency Mixer WIDE BAND

MCA1T-24LH+

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



CASE STYLE: DZ885-2

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

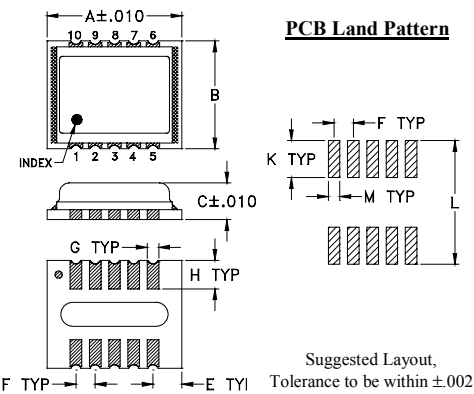
+RoHS Compliant

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

Applications

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

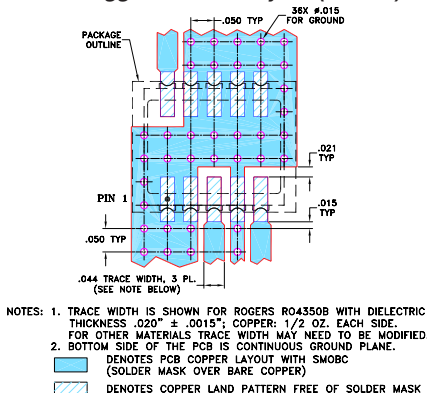
Outline Drawing



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)



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

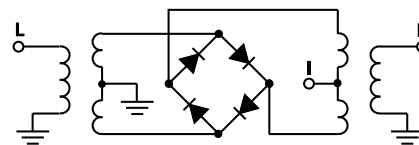
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		Typ.	Min.	Typ.	Min.	
300-2400	6.5	40	25	22	12	13

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

Electrical Schematic



Notes

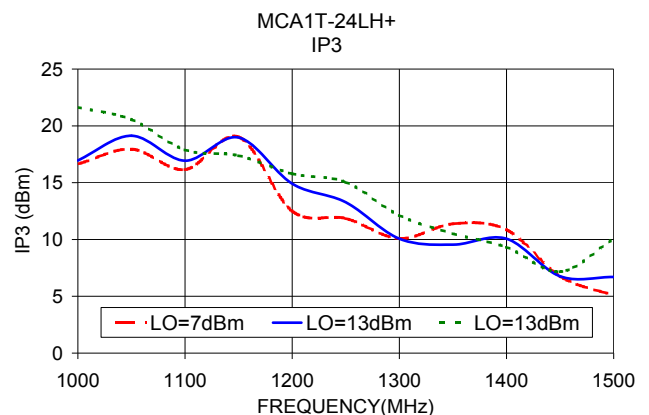
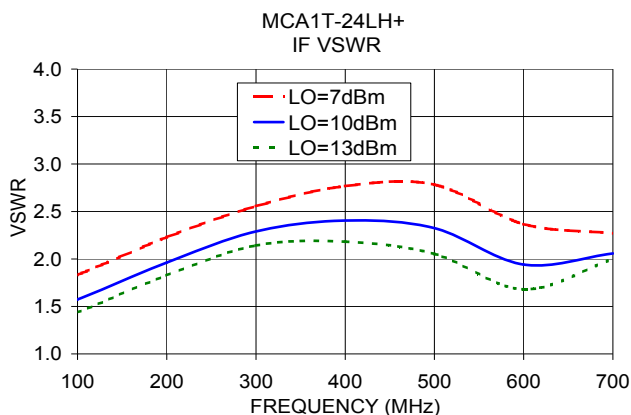
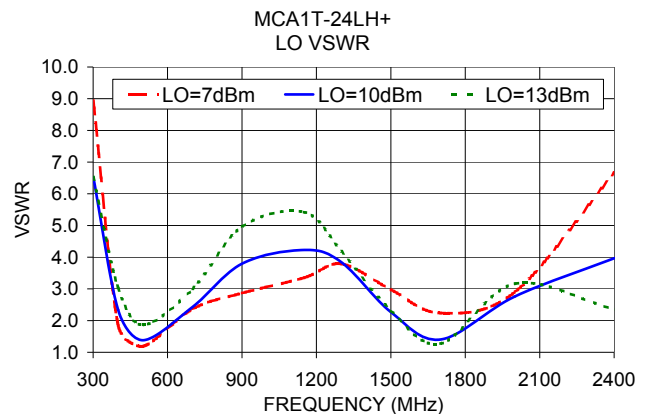
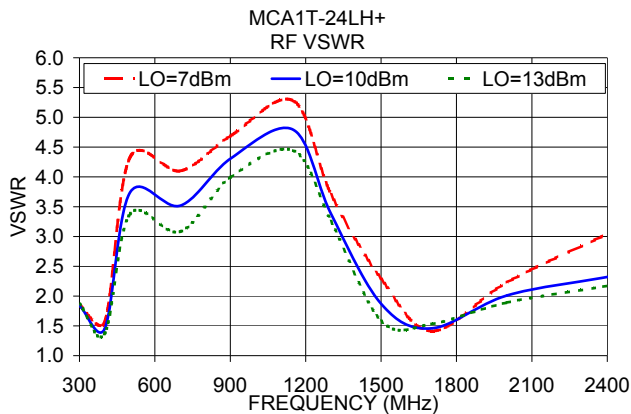
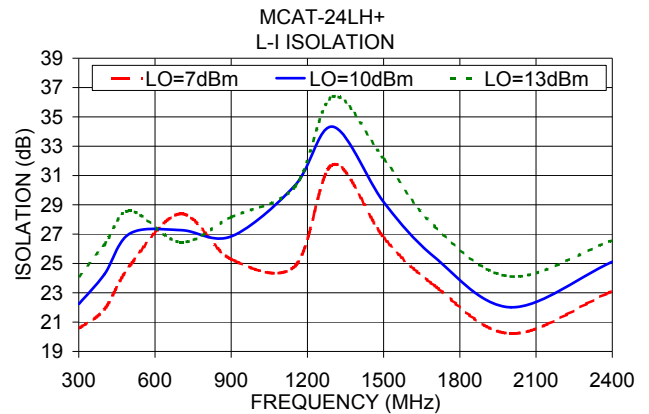
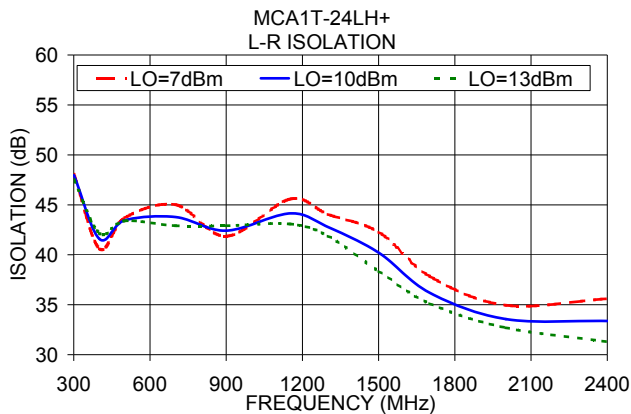
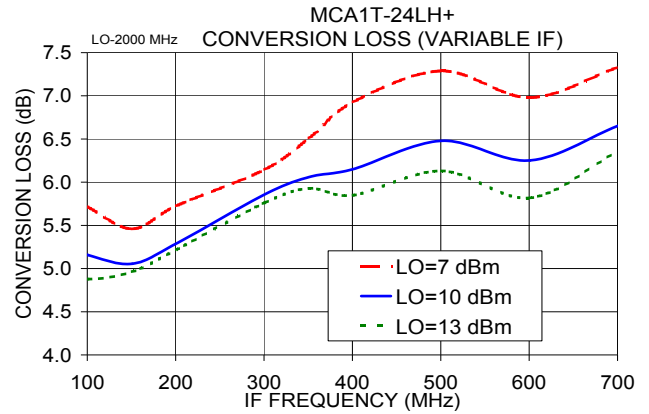
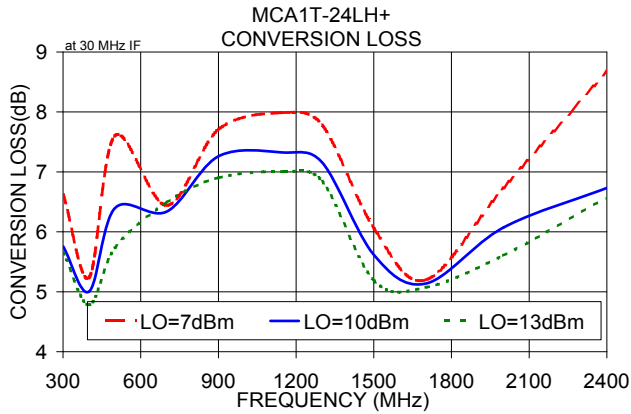
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NON-CATALOG

Performance Charts

MCA1T-24LH+



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