

High IP3 Frequency Mixer

Level 17 (LO Power +17 dBm) 800 to 1000 MHz

SYM-10DH+ SYM-10DH



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Pin Connections

LO	2
RF	1
IF	3
GROUND	4,5,6

Features

- low conversion loss, 7.6 dB typ.
- excellent L-R isolation, 45 dB typ. & L-I isolation, 29 dB typ.
- high IP3, 31 dBm typ.
- excellent LO & RF VSWR, 1.32:1 typ. excellent IF VSWR, 1.1:1 typ.

CASE STYLE: TTT167
PRICE: \$9.95 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Applications

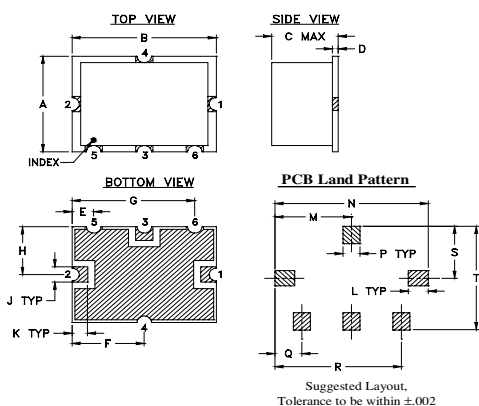
- cellular
- ISM/SMR/GSM

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
LO/RF	IF	Total Range Max.	Typ. Min.	Typ. Min.	Typ.
$f_L - f_U$		\bar{X}			
800-1000	20-200	7.6	45 34	29 20	31

1 dB COMP.: +14 dBm typ.

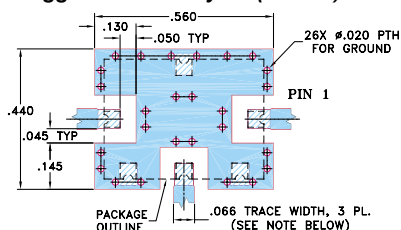
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K
.38	.50	.23	.020	.075	.250	.425	.187	.050	.050
9.65	12.70	5.84	0.51	1.91	6.35	10.80	4.75	1.27	1.27
L	M	N	P	Q	R	S	T	wt.	
.070	.270	.540	.060	.095	.445	.208	.415	grams	
1.78	6.86	13.72	1.52	2.41	11.30	5.28	10.54	0.8	

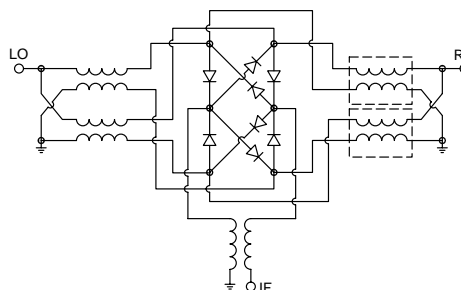
Demo Board MCL P/N: TB-12 Suggested PCB Layout (PL-079)



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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
800.10	801.10	7.45	41.49	30.20	1.29	1.22
810.63	811.63	7.48	41.53	30.14	1.29	1.21
821.15	822.15	7.50	41.50	30.05	1.30	1.20
831.68	832.68	7.49	41.42	30.01	1.31	1.20
842.21	843.21	7.48	41.37	29.94	1.32	1.20
852.73	853.73	7.46	41.31	29.89	1.33	1.21
863.26	864.26	7.52	41.41	29.88	1.34	1.21
873.78	874.78	7.59	41.44	29.78	1.35	1.21
884.31	885.31	7.68	41.41	29.71	1.35	1.20
894.84	895.84	7.76	41.43	29.74	1.36	1.19
905.36	906.36	7.82	41.42	29.74	1.36	1.18
915.89	916.89	7.84	41.16	29.61	1.37	1.17
926.42	927.42	7.85	40.86	29.53	1.38	1.17
936.94	937.94	7.86	40.49	29.43	1.40	1.17
947.47	948.47	7.90	40.18	29.32	1.41	1.17
958.00	959.00	7.95	40.09	29.25	1.42	1.17
968.52	969.52	8.04	40.04	29.19	1.43	1.17
979.05	980.05	8.14	40.07	29.08	1.44	1.15
989.57	990.57	8.25	40.13	29.03	1.45	1.14
1000.10	1001.10	8.35	40.12	29.02	1.46	1.13

Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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Performance Charts

