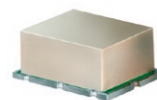


Surface Mount Frequency Mixer

Level 13 (LO Power +13 dBm) 40 to 2500 MHz

SYM-25DMHW+ SYM-25DMHW



Maximum Ratings

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

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

Pin Connections

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

Features

- wideband, 40 to 2500 MHz
- low conversion loss, 6.6 dB typ.
- high IP3, 26 dBm typ.
- IF response to DC

Applications

- cellular
- PCS
- satellite distribution

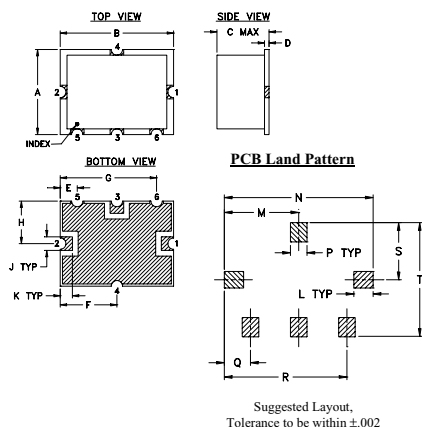
CASE STYLE: TTT167

PRICE: \$8.95 ea. QTY (10-49)

**+ 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.

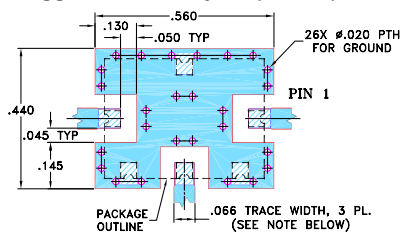
Outline Drawing



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)



Electrical Specifications

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	Mid-Band m			Total Range Max.	L		M		U		L		M		U		
		$\overline{X}$	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.			
																	Typ.	
40-2500	DC-1000*	6.6	.10	8.0	9.0	47	32	37	27	35	22	38	28	35	25	38	20	26

1 dB COMP: +9 dBm typ.

*Conversion loss increases up to 6 dB higher as IF frequency decreases from 5MHz to DC.

L = low range [f_L to 10 f_L]

m = mid band [$2f_L$ to $f_U/2$]

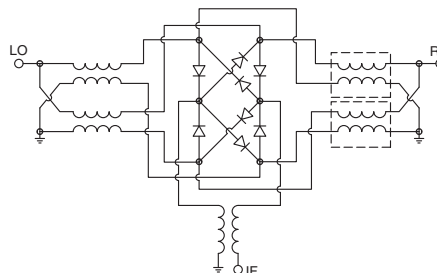
M = mid range [$10f_L$ to $f_U/2$]

U = upper range [$f_U/2$ to f_U]

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
10.10	80.10	6.05	53.30	37.85	1.14	1.50
100.10	170.10	6.13	61.96	37.66	1.14	1.48
200.10	270.10	6.20	57.62	37.58	1.17	1.45
400.10	470.10	6.17	51.91	37.25	1.28	1.42
644.24	714.24	6.32	48.85	36.97	1.49	1.26
805.62	875.62	6.34	44.29	34.60	1.70	1.20
1000.10	1070.10	6.49	40.91	34.12	2.01	1.11
1209.07	1279.07	6.72	36.71	32.67	2.27	1.04
1451.13	1521.13	6.87	35.32	33.07	2.79	1.08
1500.10	1570.10	6.99	35.51	33.59	2.90	1.11
1612.51	1682.51	6.98	36.55	34.68	2.94	1.18
1854.58	1924.58	7.66	35.12	37.81	2.52	1.35
2000.10	2070.10	8.04	33.74	39.74	2.41	1.47
2177.34	2247.34	8.02	32.04	37.96	2.21	1.59
2258.03	2328.03	8.00	31.23	35.83	2.14	1.65
2419.41	2489.41	7.92	30.39	32.11	2.09	1.85
2500.10	2430.10	7.67	29.98	30.34	1.82	2.00

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

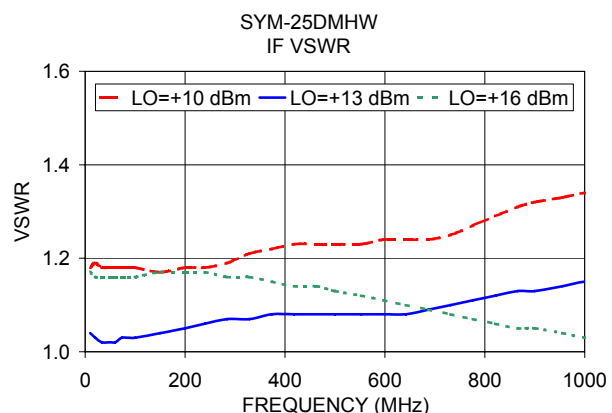
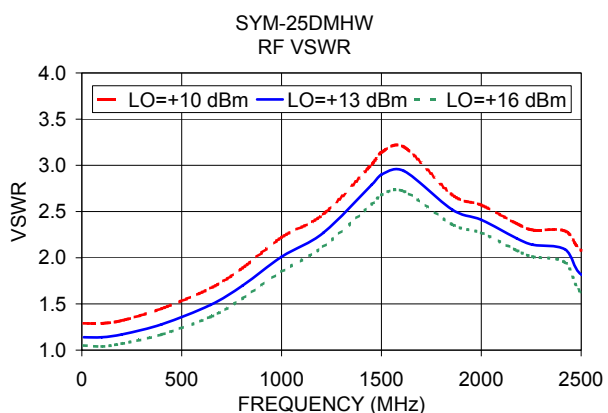
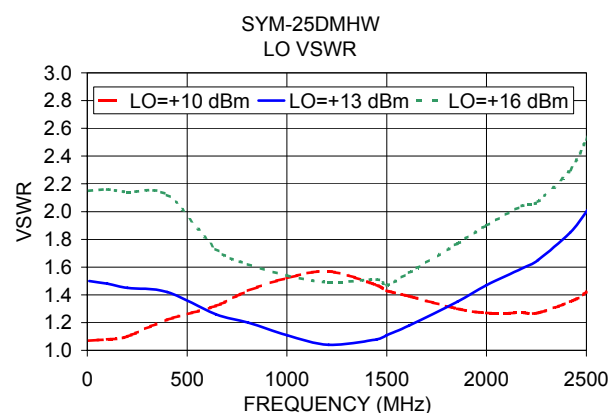
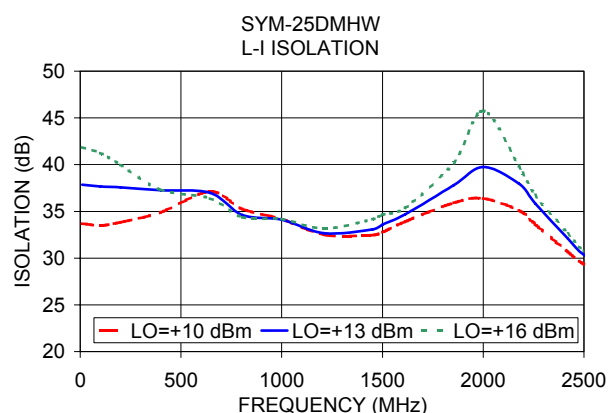
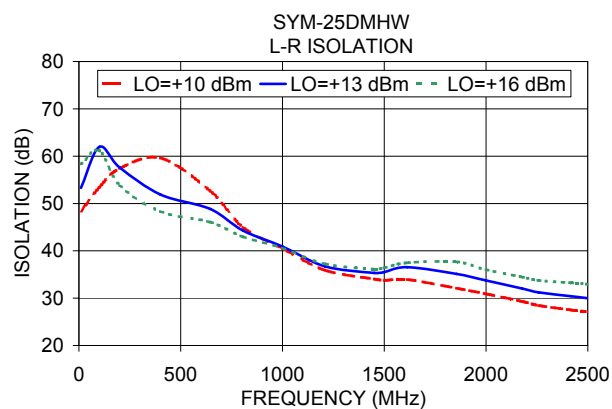
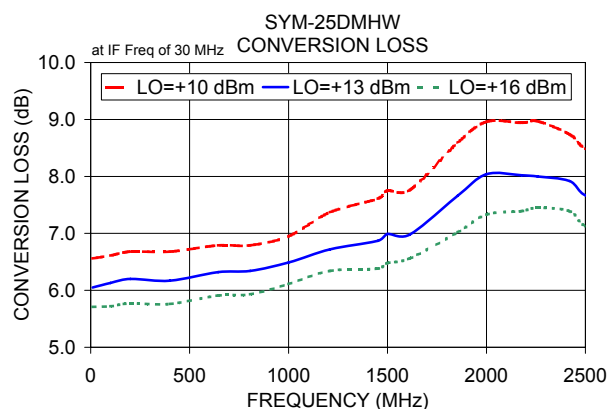
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Performance Charts

SYM-25DMHW+ SYM-25DMHW



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IF/RF MICROWAVE COMPONENTS

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