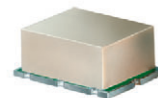


Surface Mount Frequency Mixer

SYM-36H+ SYM-36H

Level 17 (LO Power +17 dBm) 1500 to 3600 MHz



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

- low conversion loss, 6.3 dB typ.
- good L-R isolation, 30 dB typ. & L-I isolation, 34 dB typ.
- high IP3, 25 dBm typ.

Applications

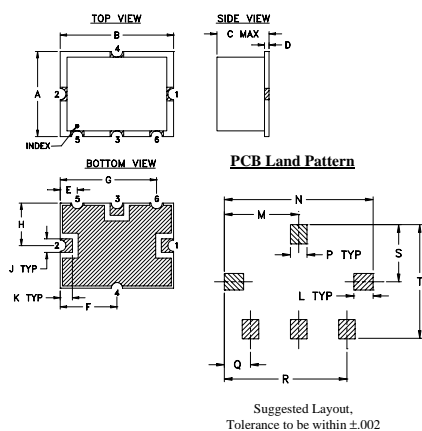
- ISM band
- PCS
- MMSDS

CASE STYLE: TTT167
PRICE: \$21.95 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.

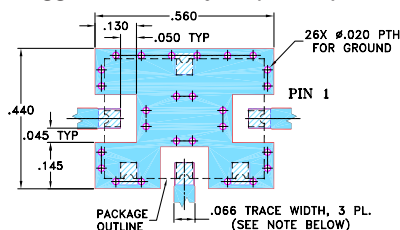
Outline Drawing



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

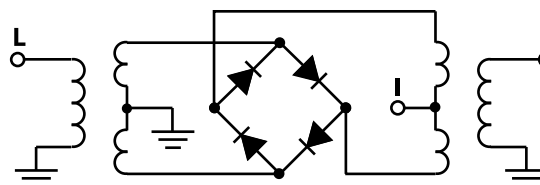
FREQUENCY (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)	
LO/RF	IF	Mid-Band	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	
$f_L - f_U$	\bar{X}	σ							
1500-3600	DC-600	6.3	.40	9.0	30	20	34	20*	25

1 dB COMP: +14 dBm typ.
* 15 dB min. over 1500-1800 MHz

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
1500.00	1530.00	5.92	33.00	27.70	2.32	2.03
1770.00	1800.00	5.68	42.40	30.30	2.32	1.49
1950.00	1980.00	5.76	34.30	30.40	2.25	1.29
2000.00	2030.00	5.50	32.60	30.70	2.18	1.27
2090.00	2120.00	5.33	36.50	32.50	2.23	1.20
2200.00	2230.00	5.18	41.90	33.00	1.81	1.21
2300.00	2330.00	5.29	29.20	32.60	1.54	1.29
2410.00	2440.00	6.73	29.00	34.60	2.96	1.43
2500.00	2530.00	7.04	30.20	34.20	3.79	1.54
2570.00	2600.00	6.62	28.00	33.20	3.79	1.54
2700.00	2730.00	6.82	27.90	36.60	3.79	1.64
2890.00	2920.00	6.74	28.80	32.90	2.92	1.77
3000.00	3030.00	6.09	27.70	43.00	2.96	1.71
3050.00	3080.00	6.08	28.10	44.50	2.88	1.85
3200.00	3230.00	5.78	29.00	39.30	2.40	1.88
3370.00	3400.00	5.75	26.50	37.50	2.37	2.18
3500.00	3530.00	6.60	28.10	33.60	2.96	2.49
3530.00	3560.00	6.70	28.60	33.10	3.16	2.32
3570.00	3600.00	6.89	28.90	32.10	3.38	2.43

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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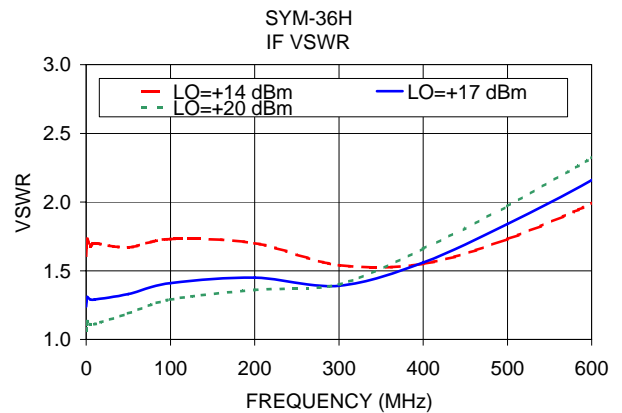
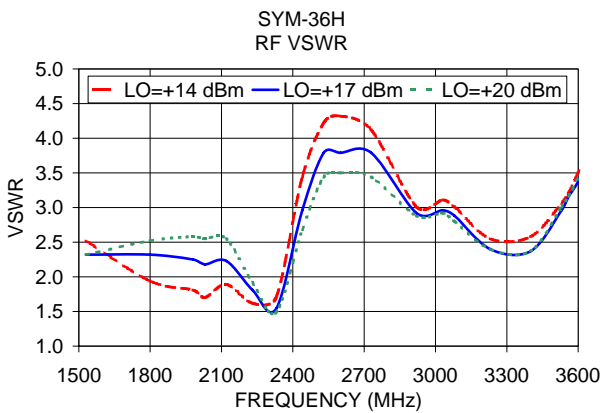
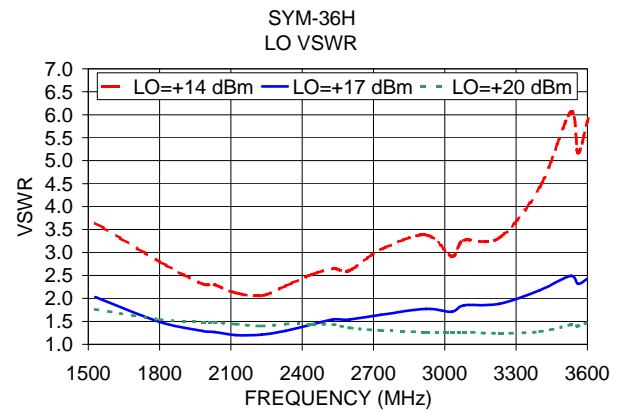
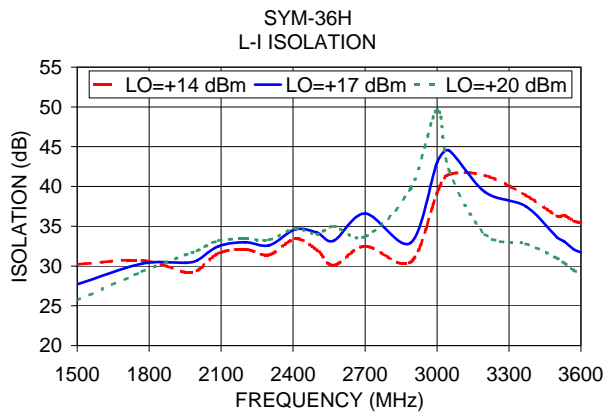
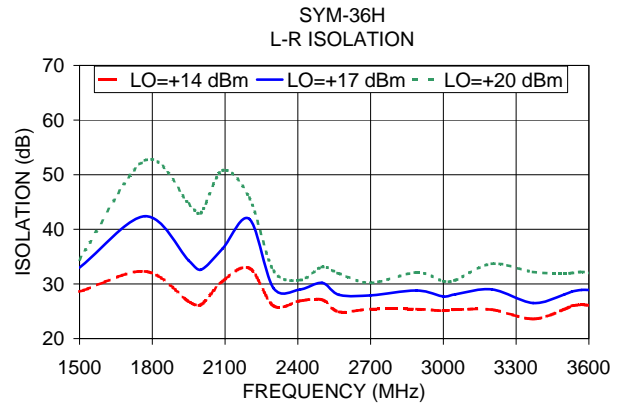
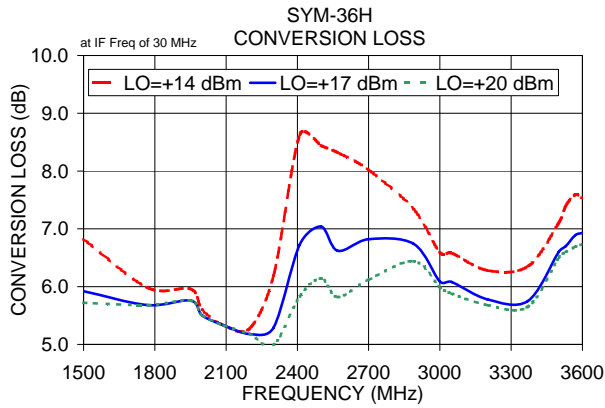
IF/RF MICROWAVE COMPONENTS

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Performance Charts

SYM-36H+ SYM-36H



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