

# Surface Mount Frequency Mixer

## JYM-30H+ JYM-30H

Level 17 (LO Power +17 dBm) 2 to 3000 MHz



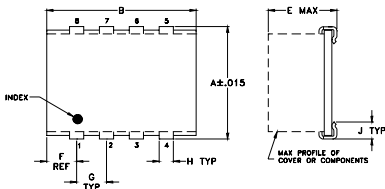
### Maximum Ratings

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.	

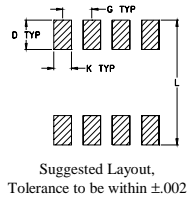
### Pin Connections

LO	5
RF	1
IF	7
GROUND	2,3,4,6,8

### Outline Drawing



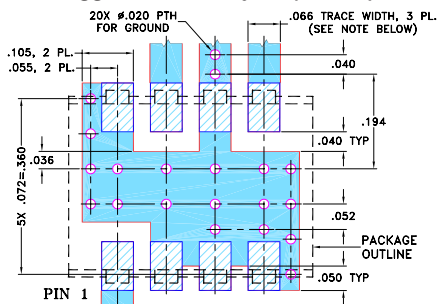
### PCB Land Pattern



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.395	.500	--	.100	.230	.100	.100
10.03	12.70	--	2.54	5.84	2.54	2.54
H	J	K	L	wt		
.047	.065	.065	.425	grams		
1.19	1.65	1.65	10.80	0.80		

### Demo Board MCL P/N: TB-259 Suggested PCB Layout (PL-080)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

### Features

- wide bandwidth, 2 to 3000 MHz
- good IP3, 24 dBm typ.
- high L-R isolation, 40 dB typ.

### Applications

- cellular
- GPS
- satellite distribution
- MMDS

CASE STYLE: BJ293  
PRICE: \$23.95 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.

### Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)	
		L	M	U	L	M	U		
LO/RF $f_L$ - $f_U$	Mid-Band $m$ $\bar{X}$ $\sigma$ Max.	Total Range Max.	L	M	U	L	M	U	Typ.
2-3000	4-1400	6.0 .20 8.9 10.6	40 30 40 25 30 25	40 35 30 20 22 15	24				

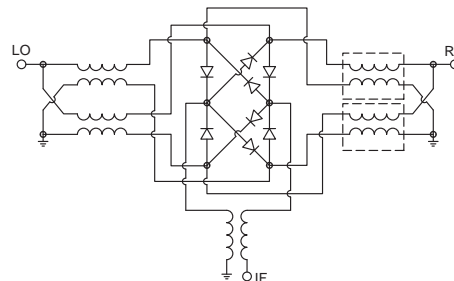
1 dB COMP.: +10 dBm typ.

L = low range [ $f_L$  to 10  $f_L$ ]  
M = mid range [10  $f_L$  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)
2.10	32.10	5.44	39.95	43.97	1.16
4.10	34.10	5.26	42.60	47.96	1.11
10.10	40.10	5.30	45.22	51.67	1.09
50.10	80.10	5.31	45.58	51.80	1.07
100.10	130.10	5.41	45.25	51.16	1.08
200.10	230.10	5.53	44.76	50.33	1.13
300.10	330.10	5.59	45.14	49.28	1.21
400.10	430.10	5.66	45.99	46.27	1.34
800.10	830.10	5.88	50.23	35.40	1.90
1000.10	1030.10	6.20	45.07	31.64	2.09
1200.10	1230.10	6.23	42.15	30.32	2.04
1500.10	1530.10	6.34	44.76	28.69	1.83
1800.10	1830.10	6.55	44.84	26.88	1.63
2000.10	2030.10	6.81	41.91	26.46	1.73
2200.10	2230.10	6.90	37.99	26.21	1.70
2400.10	2430.10	6.82	35.70	26.50	1.57
2500.10	2530.10	6.85	33.01	26.84	1.47
2600.10	2630.10	6.93	32.55	27.26	1.35
2800.10	2830.10	7.25	32.37	28.09	1.23
3000.10	3030.10	8.05	33.83	28.71	1.58

### Electrical Schematic



For detailed performance specs & shopping online see web site

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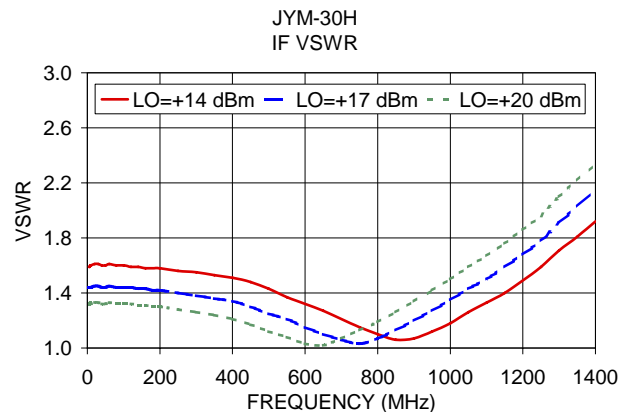
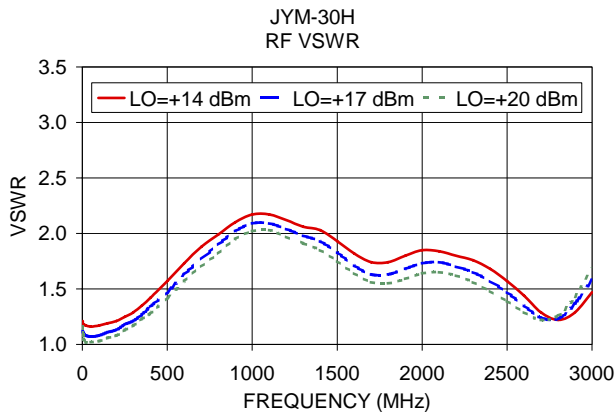
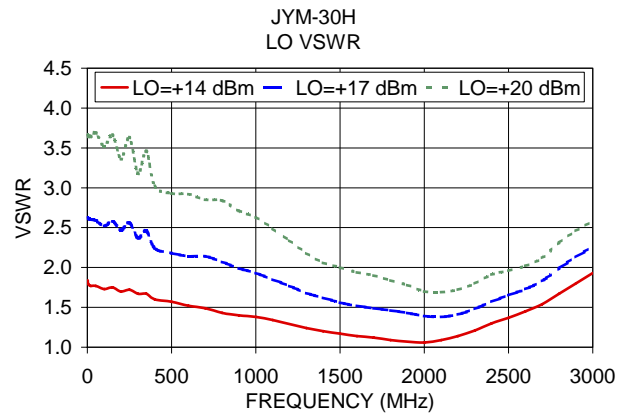
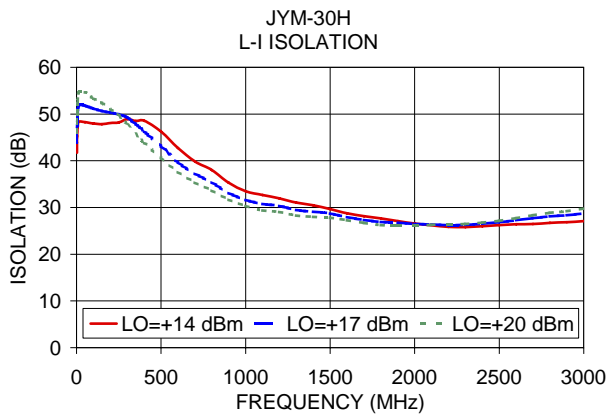
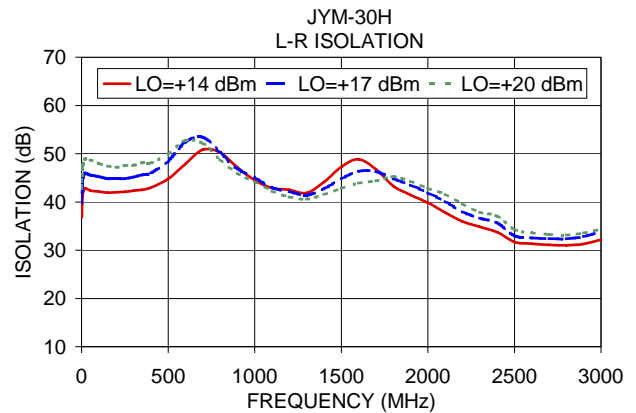
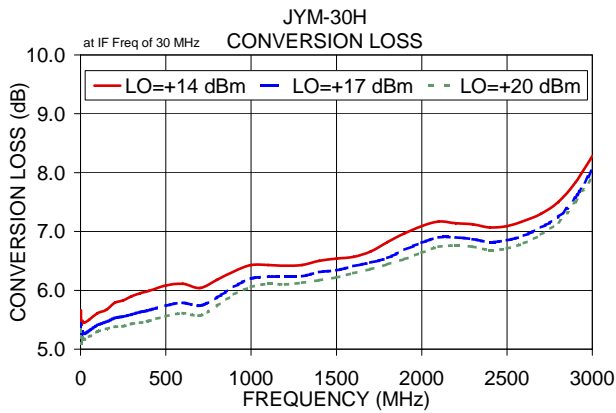
IF/RF MICROWAVE COMPONENTS

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# Performance Charts

# JYM-30H+ JYM-30H



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For detailed performance specs & shopping online see web site

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