

Surface Mount Image Reject Mixer

JCIR-25+

Level 13 (LO Power +13dBm) 2490 to 2550 MHz



CASE STYLE: BG291

+RoHS Compliant

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

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	9
RF	2
IF	11
GROUND	1,3,4,5,6,7,8,10,12,13,14

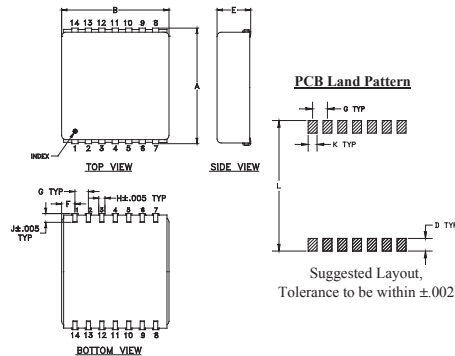
Features

- excellent image rejection, 27 dB typ.
- low conversion loss, 7.0 dB typ.
- aqueous washable
- J-leads for strain relief

Applications

- ISM

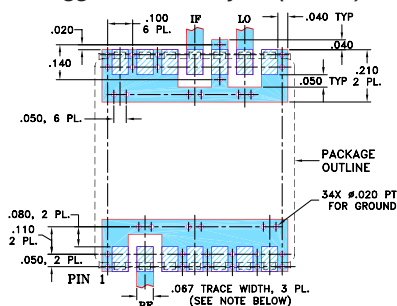
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G
.870	.800	--	.100	.250	.100	.100
22.10	20.32	--	2.54	6.35	2.54	2.54
H	J	K	L	wt		
.047	.065	.065	.890	grams		
1.19	1.65	1.65	22.61	4.0		

Demo Board MCL P/N: TB-367 Suggested PCB Layout (PL-212)



- NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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 SOLDER MASK

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Electrical Specifications

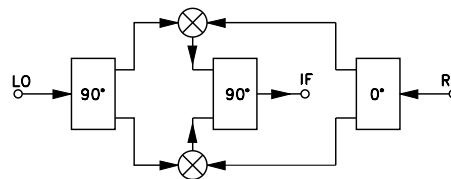
FREQUENCY (MHz)			CONVERSION LOSS (dB)		IMAGE REJECTION (dBc)		LO-RF ISOL. (dB)		LO-IF ISOL. (dB)		RF-IF ISOL. (dB)	IP3 at center band (dBm)	
RF	LO	IF	\bar{X}	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Typ.	
2490-2550	2420-2480	57-83	7.0	8.5	LO>RF	27	17	35	25	26	18	25	16

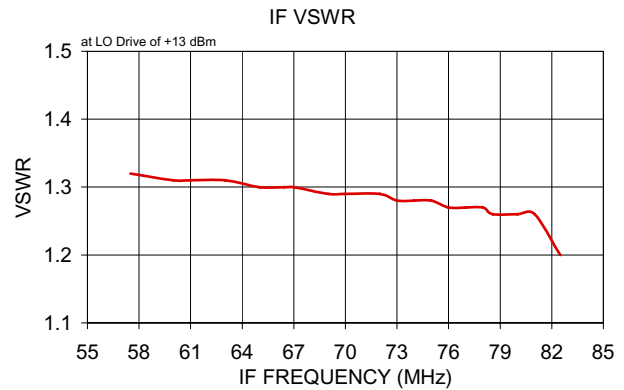
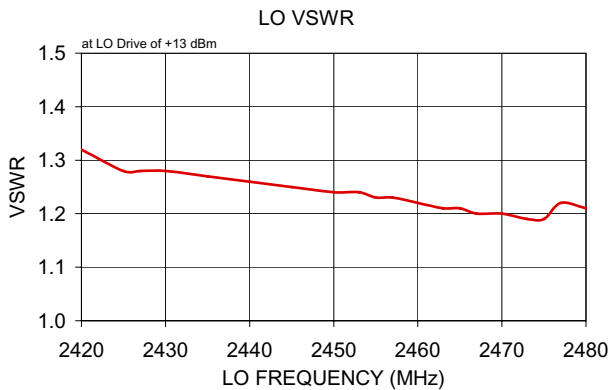
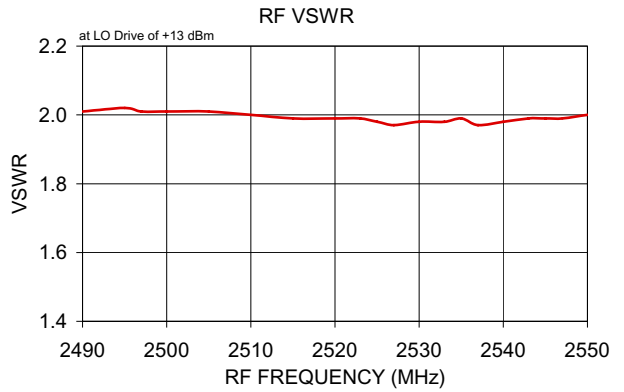
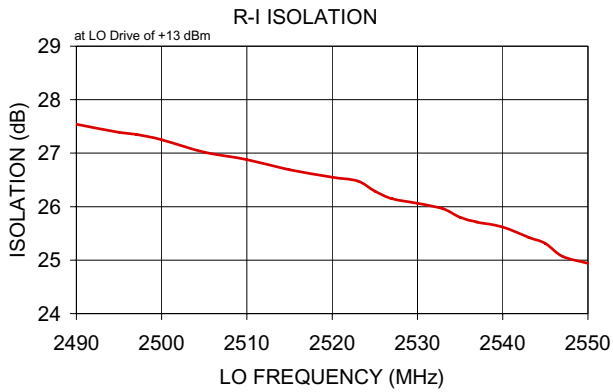
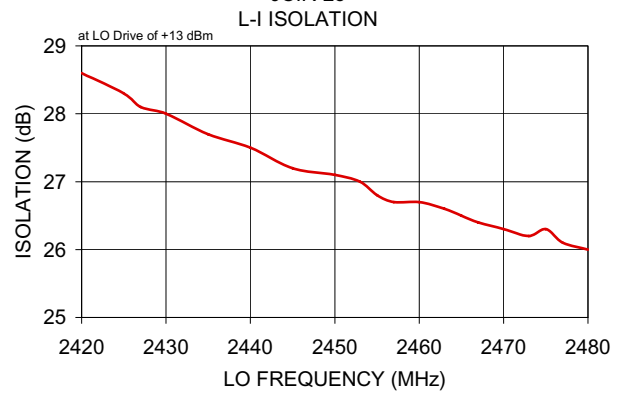
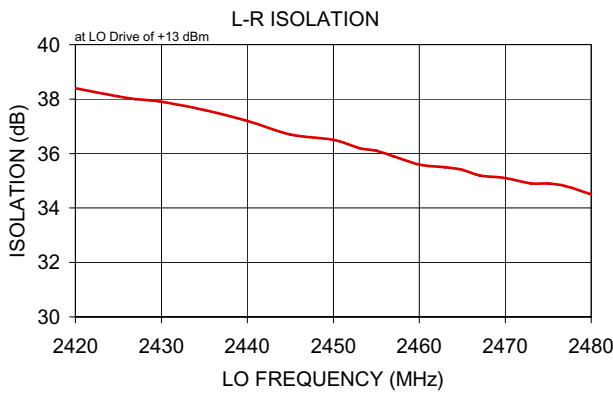
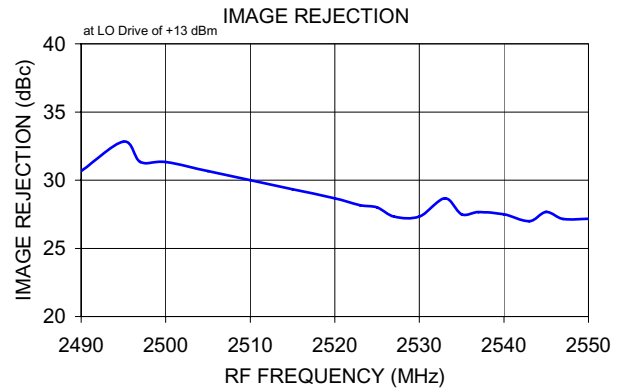
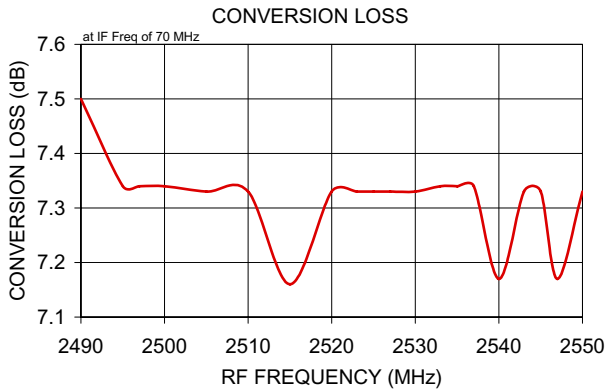
1 dB COMPR.: +1 dBm typ.

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Image Rejection (dBc)	Isolation (dB)			VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO			L-R	L-I	R-I		
2490.00	2420.00	7.50	30.67	38.40	28.60	27.54	2.01	1.32
2495.00	2425.00	7.34	32.83	38.10	28.30	27.39	2.02	1.28
2497.00	2427.00	7.34	31.33	38.00	28.10	27.35	2.01	1.28
2500.00	2430.00	7.34	31.33	37.90	28.00	27.25	2.01	1.28
2505.00	2435.00	7.33	30.67	37.60	27.70	27.02	2.01	1.27
2510.00	2440.00	7.33	30.00	37.20	27.50	26.88	2.00	1.26
2515.00	2445.00	7.16	29.34	36.70	27.20	26.69	1.99	1.25
2520.00	2450.00	7.33	28.67	36.50	27.10	26.55	1.99	1.24
2523.00	2453.00	7.33	28.17	36.20	27.00	26.48	1.99	1.24
2525.00	2455.00	7.33	28.00	36.10	26.80	26.29	1.98	1.23
2527.00	2457.00	7.33	27.33	35.90	26.70	26.15	1.97	1.23
2530.00	2460.00	7.33	27.34	35.60	26.70	26.06	1.98	1.22
2533.00	2463.00	7.34	28.66	35.50	26.60	25.96	1.98	1.21
2535.00	2465.00	7.34	27.49	35.40	26.50	25.80	1.99	1.21
2537.00	2467.00	7.34	27.66	35.20	26.40	25.71	1.97	1.20
2540.00	2470.00	7.17	27.50	35.10	26.30	25.62	1.98	1.20
2543.00	2473.00	7.33	27.00	34.90	26.20	25.43	1.99	1.19
2545.00	2475.00	7.33	27.67	34.90	26.30	25.31	1.99	1.19
2547.00	2477.00	7.17	27.16	34.80	26.10	25.07	1.99	1.22
2550.00	2480.00	7.33	27.17	34.50	26.00	24.94	2.00	1.21

Electrical Schematic





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