

Surface Mount Image Reject Mixer

JCIR-4MH+ JCIR-4MH

Level 15 (LO Power +15dBm) 430 to 930 MHz



Generic photo used for illustration purposes only
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	100mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

LO	2
RF	9
IF	11
GROUND	1,3,4,5,6,7,8,10,12,13,14
50 OHM TERM EXTERNAL	4

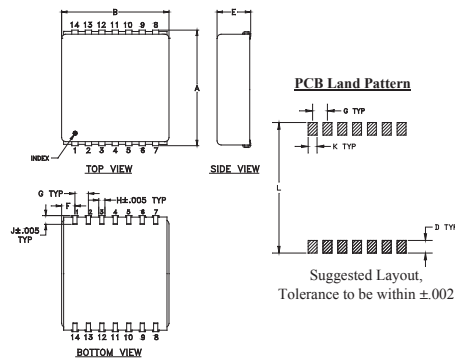
Features

- excellent image rejection, 28 dB typ.
- low conversion loss, 7.9 dB typ.
- aqueous washable
- J-leads for excellent solderability & strain relief

Applications

- cellular

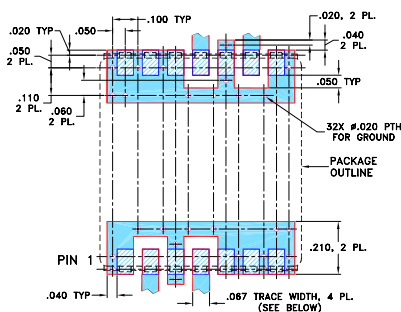
Outline Drawing



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-21 Suggested PCB Layout (PL-209)



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Electrical Specifications

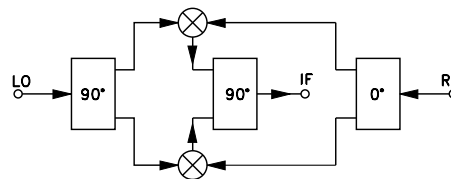
FREQUENCY (MHz)			CONVERSION LOSS (dB)			IMAGE REJECTION (dBc)		LO-RF ISOL. (dB)		LO-IF ISOL. (dB)		RF-IF ISOL. (dB)		IP3 at center band (dBm)	
RF	LO	IF	\bar{X}	σ	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	
430-930	500-1000	65-75	7.9	0.15	9.0	RF>LO	28	18	55	40	25	20	25	15	20

1 dB COMPR.: +1 dBm typ.

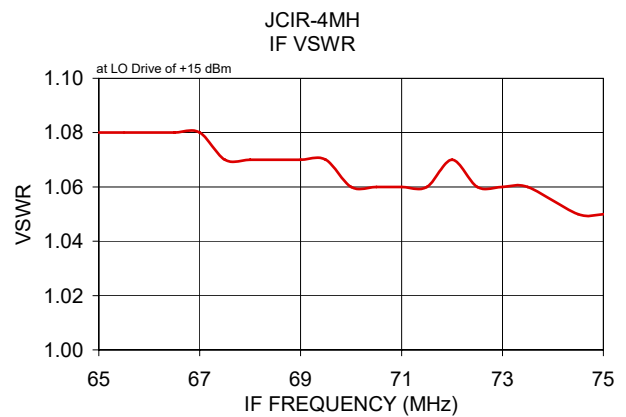
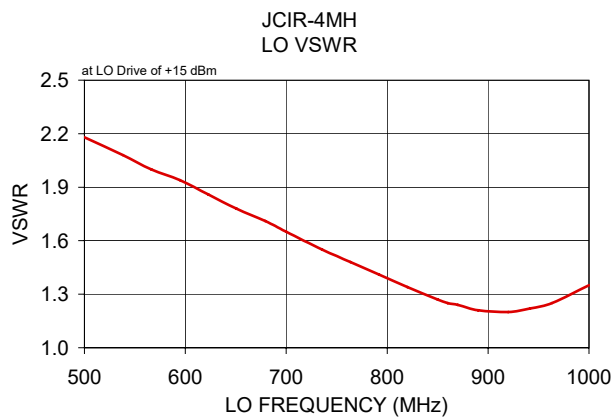
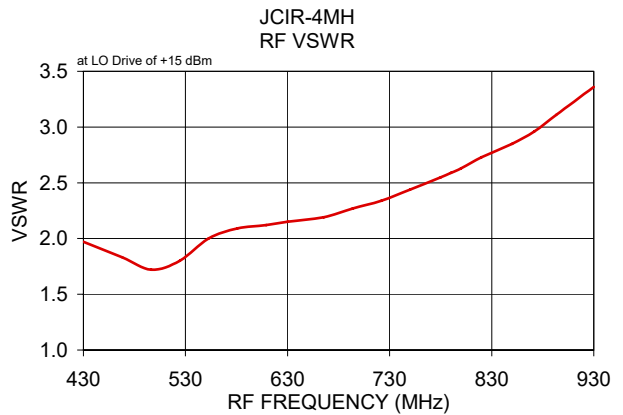
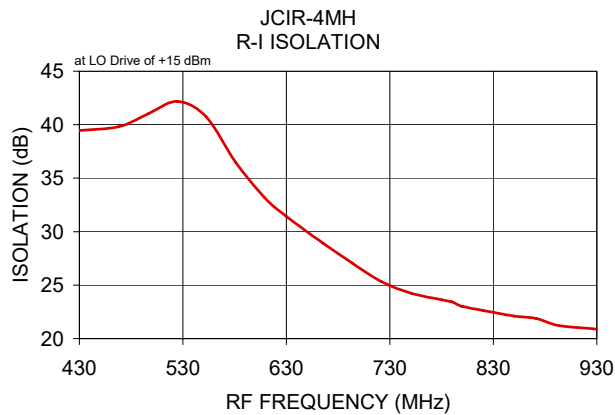
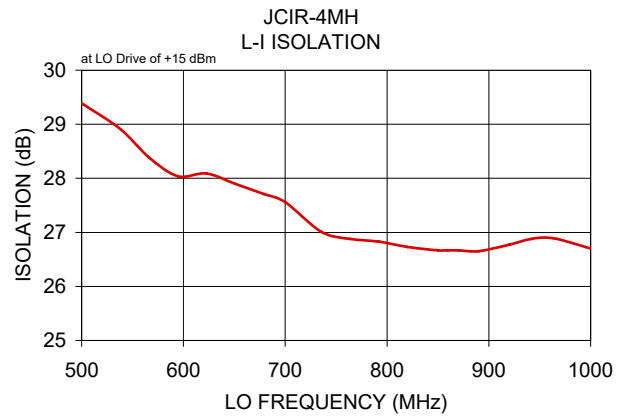
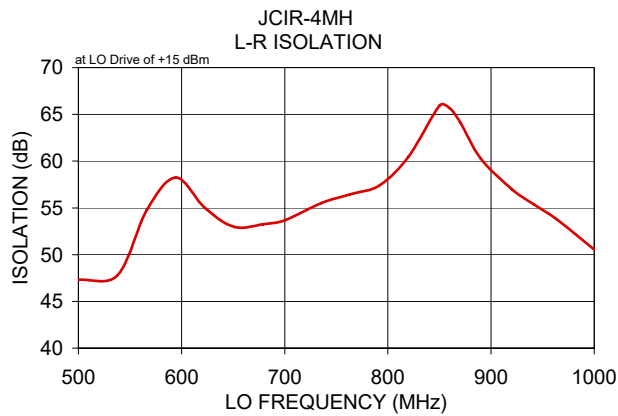
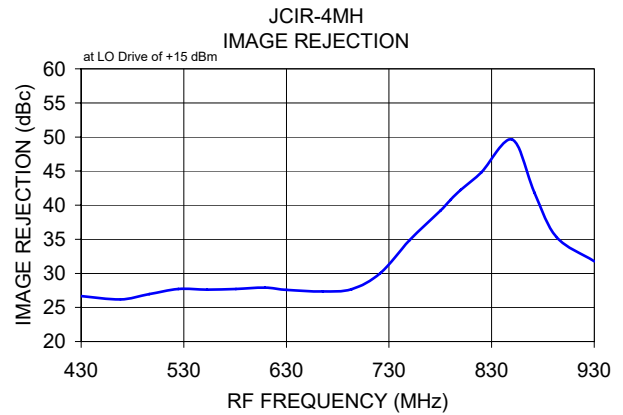
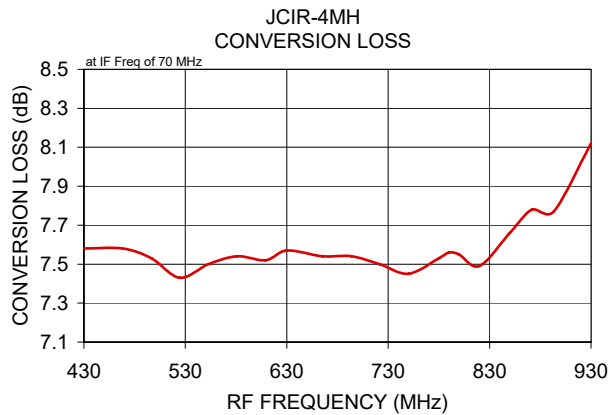
Typical Performance Data

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		
430.00	500.00	7.58	26.66	47.31	29.39	39.46	1.97	2.18
468.18	538.18	7.58	26.18	47.83	28.91	39.81	1.83	2.08
496.36	566.36	7.53	26.97	54.79	28.38	41.02	1.72	2.00
524.54	594.54	7.43	27.70	58.25	28.04	42.18	1.80	1.94
552.72	622.72	7.50	27.61	55.00	28.09	40.72	2.00	1.86
580.90	650.90	7.54	27.71	52.96	27.90	36.49	2.09	1.78
609.09	679.09	7.52	27.90	53.24	27.71	33.17	2.12	1.71
630.00	700.00	7.57	27.58	53.69	27.56	31.43	2.15	1.65
665.45	735.45	7.54	27.36	55.51	27.01	28.92	2.19	1.55
693.63	763.63	7.54	27.69	56.47	26.88	27.06	2.27	1.48
721.81	791.81	7.50	30.05	57.39	26.83	25.33	2.34	1.41
750.00	820.00	7.45	34.87	60.49	26.73	24.26	2.44	1.34
780.00	850.00	7.53	39.19	65.92	26.67	23.62	2.55	1.27
790.00	860.00	7.56	40.78	65.64	26.67	23.44	2.59	1.25
800.00	870.00	7.55	42.26	64.17	26.67	23.02	2.63	1.24
820.00	890.00	7.49	44.80	60.26	26.65	22.64	2.73	1.21
850.00	920.00	7.66	49.62	57.01	26.77	22.10	2.85	1.20
871.66	941.66	7.78	41.85	55.37	26.88	21.88	2.96	1.22
893.33	963.33	7.77	35.32	53.79	26.89	21.22	3.11	1.25
930.00	1000.00	8.12	31.78	50.53	26.70	20.88	3.36	1.35

Electrical Schematic



Performance Charts



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