

Surface Mount Image Reject Mixer

JCIR-152H+

Level 18 (LO Power +18dBm) 1000 to 1500 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	2
RF	9
IF	11
GROUND	1,3,5,6,7,8,10,12,13,14
50 OHM TERM EXTERNAL	4

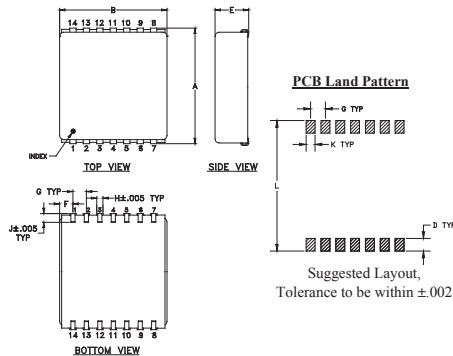
Features

- excellent image rejection, 28 dBc typ.
- excellent L-R isolation, 43 dB typ.
- low conversion loss, 7.5 dB typ.
- aqueous washable
- J-leads for excellent solderability & strain relief

Applications

- PDC
- land mobile

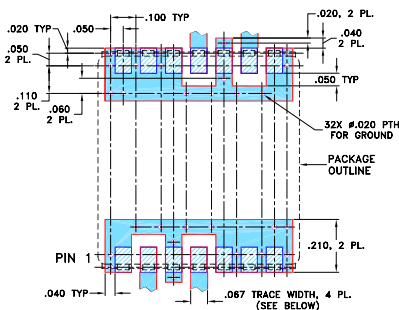
Outline Drawing



Outline Dimensions (inch/mm)

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

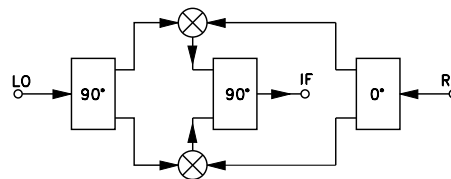
FREQUENCY (MHz)			CONVERSION LOSS (dB)			IMAGE REJECTION (dBc)		LO-RF ISOL. (dB)		LO-IF ISOL. (dB)		RF-IF ISOL. (dB)		IP3 at center band (dBm)	
RF	LO	IF	\bar{X}	σ	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	
1000-1500	1080-1580	68-100	7.5	0.15	9.0	RF>LO	28	18	43	35	32	24	32	20	25

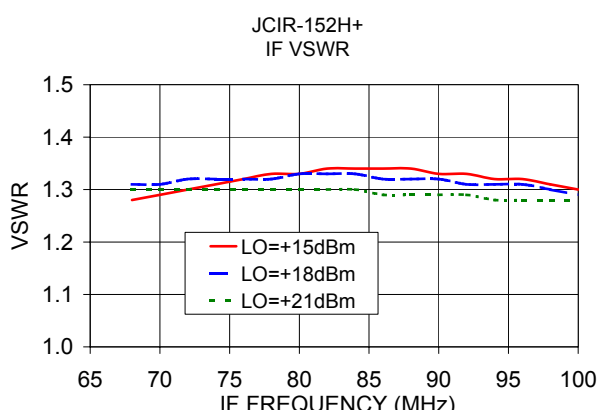
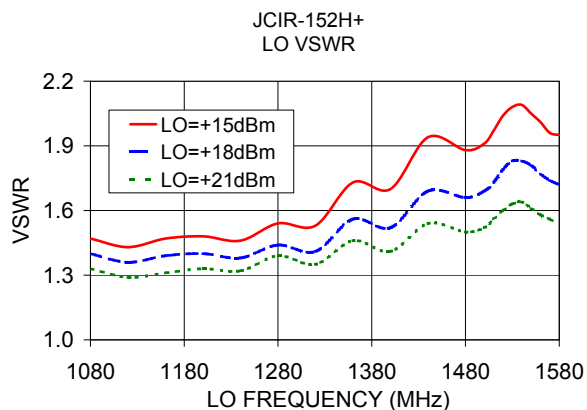
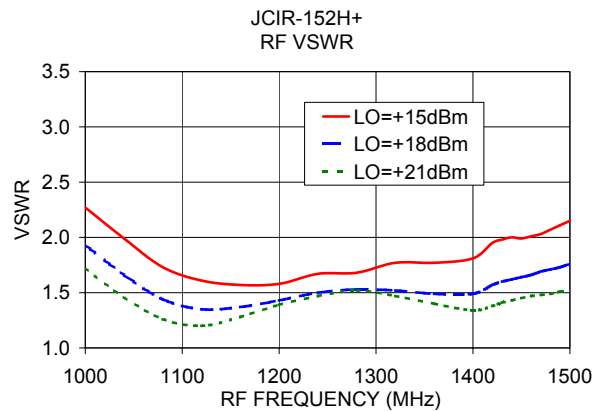
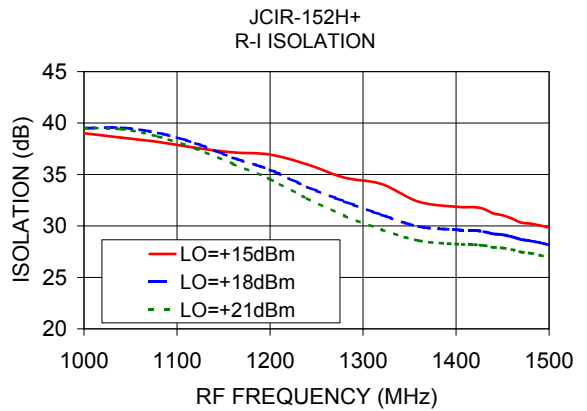
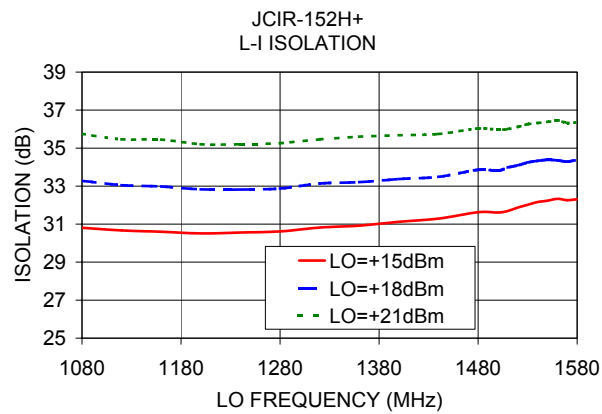
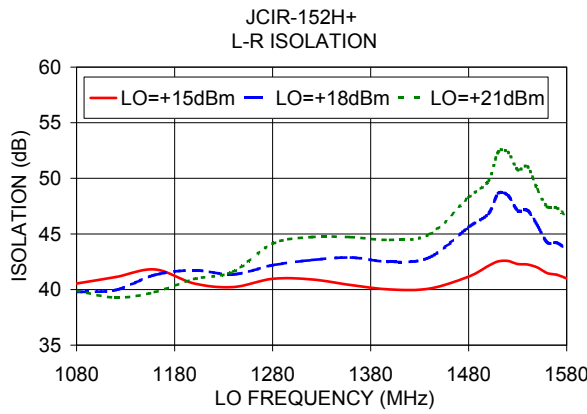
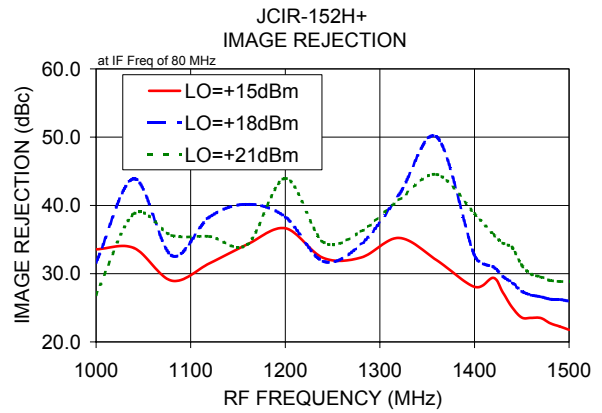
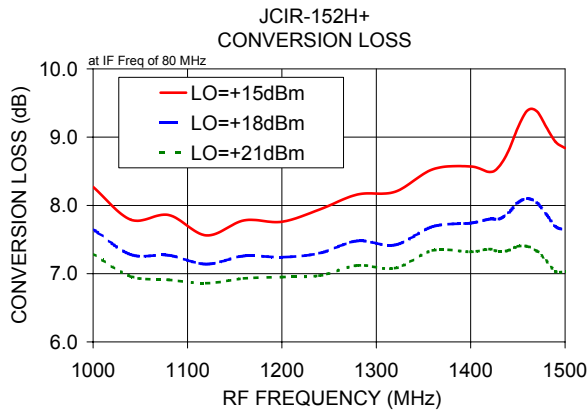
1 dB COMPR.: +11 dBm typ.

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		
1000.00	1080.00	7.65	31.63	39.78	33.28	39.50	1.93	1.40
1040.00	1120.00	7.28	43.89	39.96	33.05	39.54	1.66	1.36
1080.00	1160.00	7.27	32.63	41.31	32.98	39.03	1.44	1.39
1120.00	1200.00	7.14	38.31	41.73	32.83	38.03	1.35	1.40
1160.00	1240.00	7.26	40.17	41.36	32.82	36.63	1.37	1.38
1200.00	1280.00	7.24	38.31	42.19	32.87	35.45	1.43	1.44
1240.00	1320.00	7.30	31.82	42.65	33.14	33.79	1.50	1.41
1280.00	1360.00	7.48	34.28	42.88	33.21	32.38	1.53	1.56
1320.00	1400.00	7.42	41.52	42.48	33.37	31.08	1.52	1.52
1360.00	1440.00	7.69	50.03	42.89	33.49	29.94	1.49	1.69
1400.00	1480.00	7.74	32.64	45.61	33.86	29.64	1.49	1.66
1420.00	1500.00	7.80	30.99	46.81	33.81	29.56	1.57	1.69
1430.00	1510.00	7.80	29.60	48.64	33.98	29.44	1.60	1.73
1440.00	1520.00	7.89	28.66	48.46	34.09	29.24	1.62	1.79
1450.00	1530.00	8.04	27.42	47.10	34.24	29.15	1.64	1.83
1460.00	1540.00	8.10	26.87	47.11	34.33	28.95	1.66	1.83
1470.00	1550.00	8.04	26.62	45.78	34.38	28.69	1.69	1.81
1480.00	1560.00	7.87	26.26	44.24	34.36	28.55	1.71	1.77
1490.00	1570.00	7.69	26.22	44.20	34.29	28.38	1.73	1.74
1500.00	1580.00	7.64	25.96	43.62	34.39	28.15	1.76	1.72

Electrical Schematic





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