

Surface Mount Image Reject Mixer

JCIR-152H+

Level 18 (LO Power +18dBm) 1000 to 1500 MHz



CASE STYLE: BG291
PRICE: \$39.95 ea. QTY (1-9)

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

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

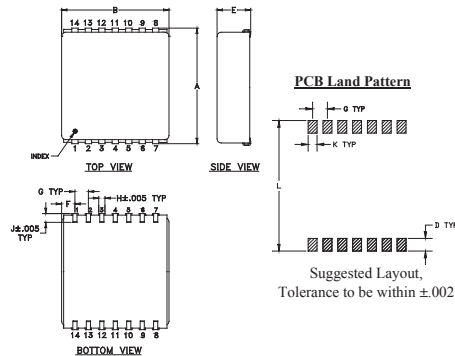
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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.

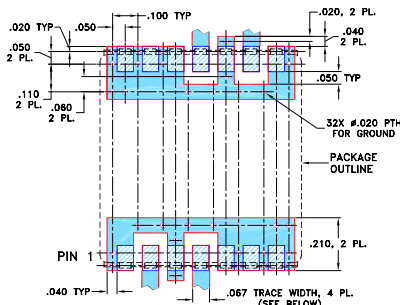
Outline Drawing



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)



- 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

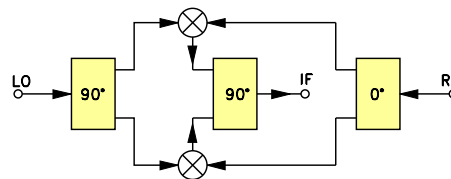
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IF/RF MICROWAVE COMPONENTS

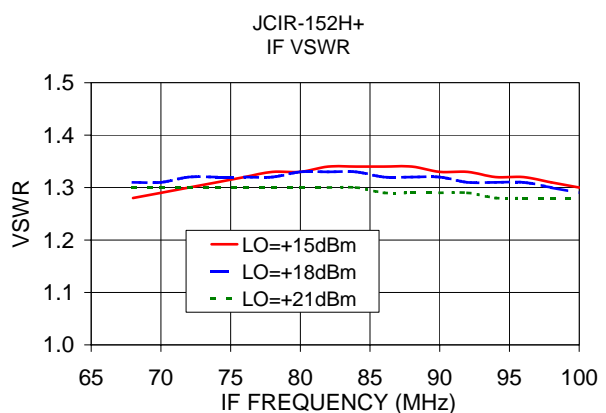
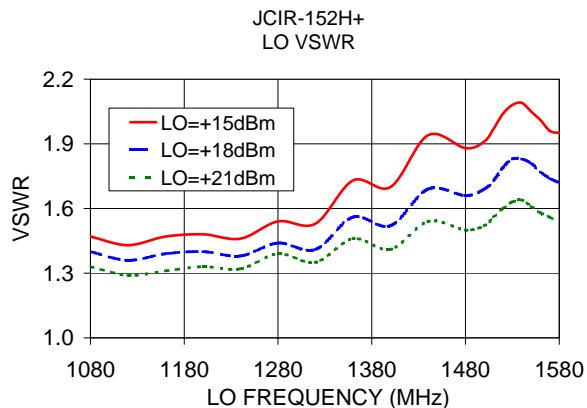
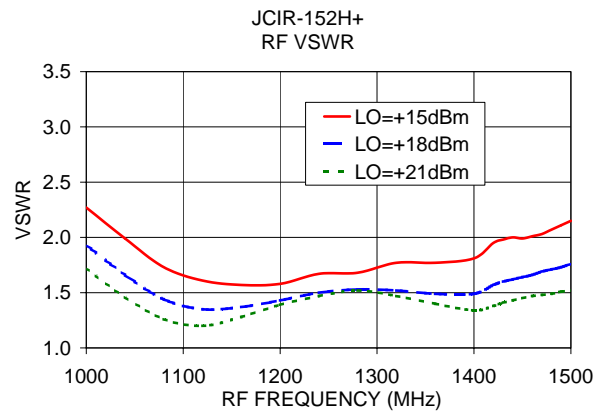
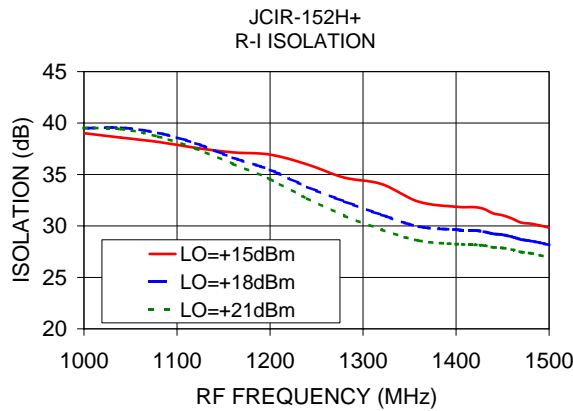
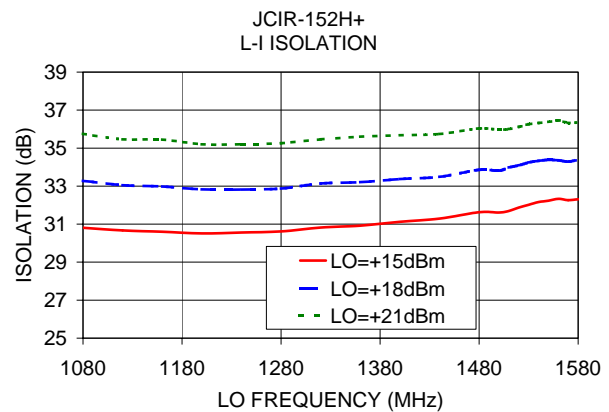
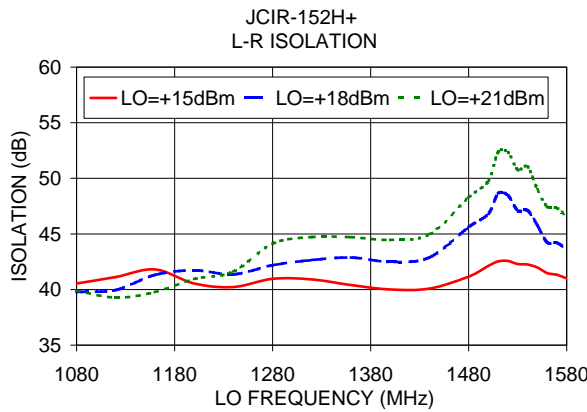
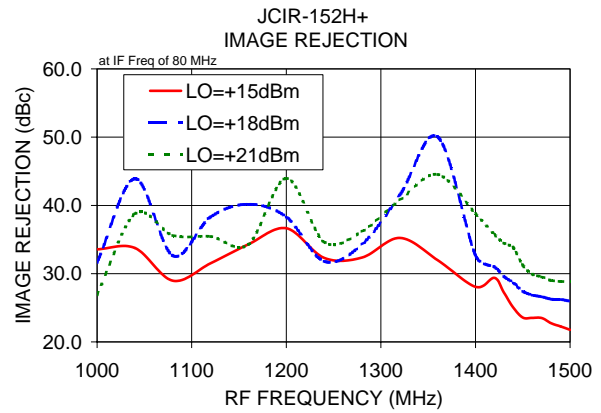
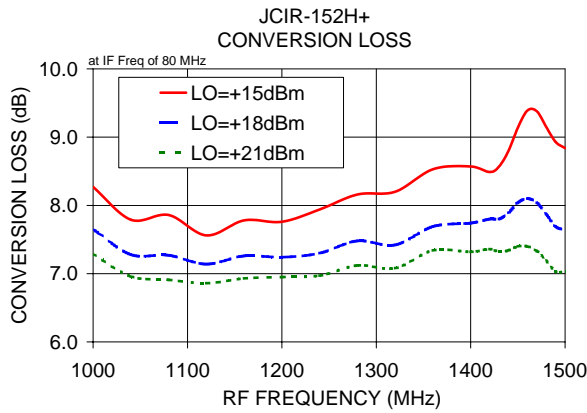
For detailed performance specs & shopping online see web site

Electrical Schematic



Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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