R&K-MX250-0S

TRIPLE BALANCED MIXER

OUTLINE DRAWING

TOP VIEW

BOTTOM VIEW

IN MILLIMETERS

R&K reserves the right to make changes in the specifications of or discontinue products at any time without notice. R&K products shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as aerospace uses or medical life support equipment. Further, R&K cannot export products to any country for use in military or defense applications.

SPECIFICATIONS

- LO&RF Frequency: 0.2 ~ 3000MHz
- IF Frequency: 0.1 ~ 1000MHz
- Lo Drive Level: +10dBm
- Low Cost
- RoHS Compliance

Frequency Range

<table>
<thead>
<tr>
<th>Parameter</th>
<th>LO&amp;RF</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO</td>
<td>0.2 - 3000MHz</td>
<td>0.1 - 1000MHz</td>
</tr>
<tr>
<td>IF</td>
<td></td>
<td>2 - 1500MHz, 1500 - 3000MHz</td>
</tr>
</tbody>
</table>

Conversion Loss Max.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO Drive Level</td>
<td>6.5dB</td>
<td>7.5dB</td>
</tr>
<tr>
<td>+10dBm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Isolation (min.)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>LO - RF</th>
<th>LO - IF</th>
<th>RF - IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2 - 2MHz</td>
<td>1dB</td>
<td>10dB</td>
<td>9dB</td>
</tr>
<tr>
<td>2 - 1500MHz</td>
<td>20dB</td>
<td>25dB</td>
<td>25dB</td>
</tr>
<tr>
<td>1500 - 3000MHz</td>
<td>22dB</td>
<td>20dB</td>
<td>20dB</td>
</tr>
</tbody>
</table>

Input IP3 @Center Band: +16dBm (typ.)
Input 1dB Comp. Point: + 6dBm (typ.)
Impedance (All Ports): 50Ω
Maximum RF Input Power: 50mW
Maximum Peak IF Current: 50mA
Operating Temperature: −40°C to + 85°C
Storage Temperature: −40°C to +100°C
Connectors (Standard): SMA-Female
Connectors (Option): N-Female
Weight (SMA Connector): 30g (typ.)

HOW TO ORDER

Model Name: R&K-MX250-0S
S = SMA - FEMALE
N = N - FEMALE

TYPICAL PERFORMANCE (Temp @+25°C)

Conversion Loss vs LO Drive Level

Conversion Loss

- LO - RF
- LO - IF
- RF - IF

Isolation

- LO - IF
- RF - IF

Input IP3

- Fundamental Output
- 3rd Order Output

SCHEMATIC

LO

RF

IF

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