DOUBLE BALANCED MIXER

R&K-MX030-0S

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**: 0.002 ~ 50MHz
- **IF Frequency**: DC ~ 50MHz
- **Lo Drive Level**: +15dBm
- **Low Cost**
- **RoHS Compliance**

**Frequency Range**

- [LO&RF]: 0.002 - 50MHz
- [IF]: DC - 50MHz

**Conversion Loss Max. (LO Drive Level +15dBm)**

<table>
<thead>
<tr>
<th></th>
<th>0.002 - 0.02MHz</th>
<th>0.02 - 25MHz</th>
<th>25 - 50MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typ.</td>
<td>6.5dB</td>
<td>4.5dB</td>
<td>5.5dB</td>
</tr>
<tr>
<td>Max.</td>
<td>12.0dB</td>
<td>6.0dB</td>
<td>8.0dB</td>
</tr>
</tbody>
</table>

**Isolation (min.)**

<table>
<thead>
<tr>
<th></th>
<th>0.002 - 0.02MHz</th>
<th>0.02 - 25MHz</th>
<th>25 - 50MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO - RF</td>
<td>50dB</td>
<td>30dB</td>
<td>25dB</td>
</tr>
<tr>
<td>LO - IF</td>
<td>45dB</td>
<td>30dB</td>
<td>20dB</td>
</tr>
<tr>
<td>RF - IF</td>
<td>30dB</td>
<td>10dB</td>
<td>10dB</td>
</tr>
</tbody>
</table>

**Input IP3 @Center Band**

- +20dBm (typ.)

**Input 1dB Comp. Point**

- + 8dBm (typ.)

**Impedance (All Ports)**

- 50Ω

**Maximum RF Input Power**

- 200mW

**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
  - BNC-Female

**Weight (SMA Connector)**

- 30g (typ.)

**HOW TO ORDER**

- Model Name: R&K-MX030-0S
  - S = SMA - FEMALE
  - B = BNC - FEMALE
  - N = N - FEMALE

**TYPICAL PERFORMANCE (Temp @+25°C)**

**Conversion Loss vs LO Drive Level**

**Conversion Loss**

**Isolation**

**Input IP3**

**SCHEMATIC**

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