DOUBLE BALANCED MIXER

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R & K-MX100-1S

SPECIFICATIONS
- LO & RF Frequency: 0.05 ~ 300 MHz
- IF Frequency: DC ~ 300 MHz
- Lo Drive Level: +10 dBm
- Low Cost
- RoHS Compliance

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Conversion Loss Max. (LO Drive Level +10dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO &amp; RF</td>
<td>0.05 - 0.5 MHz: 45 dB, 0.5 - 150 MHz: 25 dB, 150 - 300 MHz: 10 dB</td>
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<tr>
<td>LO - RF</td>
<td>0.05 - 0.5 MHz: 40 dB, 0.5 - 150 MHz: 20 dB, 150 - 300 MHz: 10 dB</td>
</tr>
<tr>
<td>RF - IF</td>
<td>0.05 - 0.5 MHz: 25 dB, 0.5 - 150 MHz: 15 dB, 150 - 300 MHz: 10 dB</td>
</tr>
</tbody>
</table>

Isolation (min.)
- LO - RF: 60 dB
- LO - IF: 55 dB
- RF - IF: 70 dB

Input IP3 @ Center Band: +17 dBm (typ.)
Input 1dB Comp. Point: +4 dBm (typ.)
Impedance (All Ports): 50 Ω
Maximum RF Input Power: 50 mW
Maximum Peak IF Current: 50 mA
Operating Temperature: -40°C to +85°C
Storage Temperature: -40°C to +100°C
Connectors (Standard): SMA-Female
Connectors (Option): BNC-Female
Weight (SMA Connector): 65 g (typ.)

HOW TO ORDER
- Model Name: R & K-MX100-1S
- S = SMA - FEMALE
- B = BNC - FEMALE

TYPICAL PERFORMANCE (Temp @+25°C)

Conversion Loss
- Frequency (MHz): 0.05, 0.1, 1, 10, 100, 300
- Conversion Loss: 0, 3, 6, 9, 12 dB

Conversion Loss vs LO Drive Level
- LO Drive Level (dBm): -10, -5, 0, 5, 10, 15
- Conversion Loss: 0, 3, 6, 9, 12 dB

Isolation
- Frequency (MHz): 0.05, 0.1, 1, 10, 100, 300
- Isolation (dB): 20, 40, 60, 80

Input IP3
- Input Signal Level (dBm): -40, -30, -20, -10, 0, 10, 20
- Output Level (dBm): -40, -30, -20, -10, 0, 10, 20
- Fundamental Output
- 3rd Order Intercept
- Output Level (dBm): 10, 20, 30, 40

SCHEMATIC

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