DESCRIPTION

AMCOM’s AM020313XD-P3 is a high IP3 passive double balanced mixer operates with LO drive level range of +14dBm to +20dBm operating between 220-300 MHz.

FEATURES

- LO/RF: 220-300MHz
- IF: DC-80MHz
- LO Level: +17dBm
- Conversion Loss: 7.5dB
- RF Input: Up to +14dBm
- Input IP3: +26dBm
- SMA Connector

APPLICATIONS

- Telecom Infrastructure
- Military & Aerospace
- VSAT
- Test & Instrumentation
- Radar
- Communication

Electrical Specifications @ +25 °C, LO=+17dBm, 50 Ω

Unless otherwise noted, all measurements performed as a downconverter.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO/RF</td>
<td>MHz</td>
<td>220</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>IF</td>
<td>MHz</td>
<td>DC</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Conversion Loss</td>
<td>dB</td>
<td>7.5</td>
<td></td>
<td>8.5</td>
</tr>
<tr>
<td>LO-RF Isolation</td>
<td>dB</td>
<td>38</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>LO-IF Isolation</td>
<td>dB</td>
<td>30</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>RF-IF Isolation</td>
<td>dB</td>
<td>40</td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>RF Input Power P_{1dB}</td>
<td>dBm</td>
<td></td>
<td>+13</td>
<td></td>
</tr>
<tr>
<td>IP3 (Center Band)</td>
<td>dBm</td>
<td></td>
<td>+26</td>
<td></td>
</tr>
</tbody>
</table>
Typical Performance @ +25 °C

[Graphs showing various performance metrics such as Conversion Loss, Isolation, VSWR, and Return Loss for different conditions like LO=+17dBm, IF=10MHz, and LO=240MHz, LO=+17dBm, IF=10MHz.]
### Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF/IF Power</td>
<td>+23dBm</td>
</tr>
<tr>
<td>LO Power</td>
<td>+23dBm</td>
</tr>
<tr>
<td>Peak IF Current</td>
<td>40mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 °C to +85 °C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 °C to +100 °C</td>
</tr>
</tbody>
</table>

### Schematic

![Schematic Diagram](image)

### Outline

**Dimensions (Inch):**
- A: 1.250
- B: 1.250
- C: 0.563
- D: 0.625
- E: 1.000
- F: 0.625
- G: 1.000
- H: 0.250

**Dimensions (mm):**
- A: 31.75
- B: 31.75
- C: 14.29
- D: 15.88
- E: 25.40
- F: 15.88
- G: 25.40
- H: 6.35

4-40 Tap 0.15" Deep on Back, 4-PLCS