DESCRIPTION

AMCOM’s AM16026010XD-P4 is a passive double balanced mixer with 16 to 26GHz at RF/LO port and DC to 9GHz at IF port. The mixer operates with LO drive level range from +10dBm to +16dBm.

FEATURES

- LO/RF: 16–26GHz
- IF: DC–9GHz
- LO Level: +13dBm
- Conversion Loss: 7dB typ.
- RF Input: Up to +10dBm
- Input IP3: +17dBm
- SMA Female All Ports

APPLICATIONS

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

Electrical Specifications @ +25 °C, IF=100MHz, LO=+13dBm, 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>
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</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>GHz</td>
<td>16</td>
<td>26</td>
<td></td>
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<tr>
<td>LO/RF</td>
<td>GHz</td>
<td>DC</td>
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<td>IF</td>
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<tr>
<td>Conversion Loss</td>
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<tr>
<td>LO-RF Isolation</td>
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<tr>
<td>LO-IF Isolation</td>
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<td>RF-IF Isolation</td>
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<tr>
<td>RF Input P1dB</td>
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<tr>
<td>Input IP3</td>
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Typical Performance

Conversion Loss
LO=+13dBm, IF=100MHz

Conversion Loss
vs LO Power, IF=100MHz

Isolation
LO=+13dBm

Input P1dB
LO=+13dBm, IF=100MHz

RF, LO, IF Port VSWR
LO=+13dBm, IF=100MHz

IF Bandwidth, IF Return Loss
LO=17GHz, LO=+13dBm

RF, LO, IF Port VSWR
LO=+13dBm, IF=100MHz
Typical Performance

- **Input IP3**
  - LO=+13dBm, IF=100MHz
  - Graph showing Input IP3 vs Frequency (GHz)

- **Upconverter RF VSWR**
  - LO=+13dBm
  - Graph showing VSWR vs Frequency (GHz)
  - Two curves for different IF frequencies: IF=100MHz and IF=1000MHz

- **Upconverter Conversion Loss**
  - vs LO Power LSB, IF=100MHz
  - Graph showing Conversion Loss (dB) vs Frequency (GHz)
  - Three curves for different LO power levels: +13dBm, +10dBm, and +16dBm

- **Upconverter Conversion Loss**
  - vs LO Power LSB, IF=1000MHz
  - Graph showing Conversion Loss (dB) vs Frequency (GHz)
  - Three curves for different LO power levels: +13dBm, +10dBm, and +16dBm
Absolute Maximum Ratings

<table>
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<tr>
<td>RF Power</td>
<td>+25dBm</td>
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<tr>
<td>LO Driver</td>
<td>+25dBm</td>
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<tr>
<td>Operating Temperature</td>
<td>-40 °C to +85 °C</td>
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<tr>
<td>Storage Temperature</td>
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Schematic

Outline