TRIPLE-BALANCED MIXER
SURFACE MOUNT MODEL: STM-6000

WIDE BANDWIDTH
1-6000 MHz

FEATURES:
► High Performance
► High Interport Isolation
► Broad Bandwidth IF

APPLICATIONS:
► Narrow Band & Broadband Up/Down Conversion.

SPECIFICATIONS (Rev. A 01/17/18)

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Conversion Loss (dB)</th>
<th>LO/RF</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Typ.</td>
<td>Max.</td>
</tr>
<tr>
<td>1 - 200</td>
<td>8.3</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>200 - 3000</td>
<td>8.5</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>3000 - 6000</td>
<td>10.5</td>
<td>11.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isolation (dB)</th>
<th>LO/RF</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typ.</td>
<td>34</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isolation (dB)</th>
<th>LO/IF</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typ.</td>
<td>30</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isolation (dB)</th>
<th>RF/IF</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typ.</td>
<td>24</td>
<td>17</td>
</tr>
</tbody>
</table>

LO Power¹ | +15 to +23 dBm (Nom.)
1 dB Compression Point | +11 dBm (Typ.)
Input IP¹ | +21 dBm (Typ.)
Impedance | 50 Ohms (Nom.)
Operating Temperature Range | -40 to +85 °C

¹ Typical measurements made with LO at +15 dBm. Improves with higher LO drive.
TRIPLE-BALANCED MIXER
SURFACE MOUNT MODEL: STM-6000

WIDE BANDWIDTH 1-6000 MHz

PERFORMANCE PLOTS

- Conversion Loss (dB) vs. Frequency (MHz)
  - IF = 500 MHz (LO > RF)
  - IF = 2000 MHz (LO > RF)
TRIPLE-BALANCED MIXER
SURFACE MOUNT MODEL: STM-6000

WIDE BANDWIDTH 1-6000 MHz

Isolation (dB)

Frequency (MHz)

LO-IF
LO-RF

Isolation (dB)

Frequency (MHz)

RF-IF
TRIPLE-BALANCED MIXER
SURFACE MOUNT MODEL: STM-6000

WIDE BANDWIDTH 1-6000 MHz

PERFORMANCE PLOTS

- IF=50 MHz (LO>RF)
- IF=500 MHz (LO>RF)
TRIPLE-BALANCED MIXER
SURFACE MOUNT MODEL: STM-6000
WIDE BANDWIDTH 1-6000 MHz

PERFORMANCE PLOTS

Input IP3 (dBm)
Frequency (MHz)
IF=2000 MHz (LO>RF)