REFERENCE PHASE LOCKED TRANSLATOR
SURFACE MOUNT MODEL: VFCTS128-10

128 MHz

FIXED FREQUENCY

FEATURES:
► Ultra-Low Phase Noise
► No Programming Required
► Small Size, Surface Mount

SPECIFICATIONS (Rev. A 12/3/18)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>128 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Input Frequency</td>
<td>10 MHz¹</td>
</tr>
<tr>
<td>Reference Input Voltage</td>
<td>1.0 to 3.3 V p-p</td>
</tr>
<tr>
<td>Bias Voltage (Vcc)</td>
<td>+5 Vdc @ 85 mA (max.)</td>
</tr>
<tr>
<td>Output Power</td>
<td>8 dBm (Min.)</td>
</tr>
<tr>
<td>Modulation Bandwidth</td>
<td>30 Hz (Typ.)</td>
</tr>
<tr>
<td>Harmonic Suppression</td>
<td>20 dB (Typ.)</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>50 Ohms (Nom.)</td>
</tr>
<tr>
<td>Lock Detect Indicator</td>
<td>LVCMOS 3.3 V (logic: 1 = lock, 0 = unlock)</td>
</tr>
</tbody>
</table>

Typical Phase Noise

<table>
<thead>
<tr>
<th>Offset</th>
<th>Phase Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 100 Hz</td>
<td>-100 dBc/Hz</td>
</tr>
<tr>
<td>@ 1 kHz</td>
<td>-130 dBc/Hz</td>
</tr>
<tr>
<td>@ 10 kHz</td>
<td>-155 dBc/Hz</td>
</tr>
<tr>
<td>@ 100 kHz</td>
<td>-160 dBc/Hz</td>
</tr>
</tbody>
</table>

Operating Temperature Range
-40 to +85 °C

¹ External 10 MHz reference sources should have phase noise better than -138 dBc/Hz @ 50 Hz offset to achieve published specifications.

Absolute Maximum Ratings

| Storage Temp. Range | -40 to +85 °C |
| Bias Voltage (Vcc)  | +5.25 V |

Package # 453

1.045
R.0032
X 7 PLCS.

TOLERANCES ON THREE DECIMAL PLACES = ±0.025
PACKAGE MOUNTING BLE APPLICATION NOTE CM05

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201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents: http://www.synergymwave.com/patents
REFERENCE PHASE LOCKED TRANSLATOR
SURFACE MOUNT MODEL: VFCTS128-10

128 MHz

HARMONIC SUPPRESSION

REFERENCE SIDEBAND SUPPRESSION

PERFORMANCE PLOTS

@ 25 ºC
REFERENCE PHASE LOCKED TRANSLATOR
SURFACE MOUNT MODEL: VFCTS128-10

FIXED FREQUENCY

128 MHz

PERFORMANCE PLOTS

@ 25 ºC

REFERENCE SIDEBAND SUPPRESSION

PERFORMANCE PLOTS

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201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents : http://www.synergymwave.com/patents