LOW PHASE NOISE PRECISION OCXO MV220

Features:
• Package height from 12.7 mm down to 10 mm
• Ultra low phase noise
• High stability vs. temperature: up to ±5x10^-10
• Standard frequency 10.0 MHz

ORDERING GUIDE: MV220–C 2 F–Z12.7–10.0 MHz–LN

<table>
<thead>
<tr>
<th>Package type</th>
<th>50.8x50.8x12.7 mm</th>
<th>Z12.7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50.8x50.8x10 mm</td>
<td>Z10*</td>
</tr>
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</table>

* - consult factory

Availability of certain aging values for certain frequencies

<table>
<thead>
<tr>
<th>Standard frequency</th>
<th>10 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>±1x10^-7/year</td>
</tr>
<tr>
<td>B</td>
<td>±5x10^-8/year</td>
</tr>
<tr>
<td>C</td>
<td>±3x10^-8/year</td>
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A – available, NA – not available, C – consult factory

For other temperature ranges see designation at the end of Data Sheet.

Package drawing:

H=12.7 mm for Z12.7; H=10 mm for Z10.

Available, NA – not available, C – consult factory

For 10 mm height - consult factory

<table>
<thead>
<tr>
<th>Phase noise, dBC/Hz, for 10 MHz, SIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hz</td>
</tr>
<tr>
<td>10 Hz</td>
</tr>
<tr>
<td>100 Hz</td>
</tr>
<tr>
<td>1000 Hz</td>
</tr>
<tr>
<td>10000 Hz</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>LN</td>
</tr>
<tr>
<td>ULN</td>
</tr>
<tr>
<td>-90</td>
</tr>
<tr>
<td>-120</td>
</tr>
<tr>
<td>-153</td>
</tr>
<tr>
<td>-162</td>
</tr>
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<tr>
<td>-158</td>
</tr>
<tr>
<td>-163</td>
</tr>
<tr>
<td>-168</td>
</tr>
</tbody>
</table>

Package drawing:

GND

Uref

UlIn

50.8max

50.8max

H=12.7 mm for Z12.7; H=10 mm for Z10.

Short-term stability (Allan deviation) per 1 sec (for 10 MHz)

<5x10^-12

Frequency stability vs. load changes

±5x10^-10

Frequency stability vs. power supply changes

±5x10^-10

Warm-up time within accuracy of ±2x10^-8 @ 25°C

<3 min

Power supply (Us)

12V±5%

Steady state current consumption @ 25°C

<230mA

Peak current consumption during warm-up (for “D” temp. range)

<550mA

Frequency pulling range

±4x10^-7

with external voltage range (UlIn)

0…+5V

Reference voltage (Uref)

±5 V

Output

SIN

>800 mV RMS

Level

50 Ohm±5%

Load

>30dBc

Harmonic suppression

8108, Email: sales@morion-us.com

Due to continuous development and improvement Morion reserves the right to modify design or specifications of its products without prior notice.

Revision 5. February 2016

1750 Meridian Ave. #5128, San Jose, CA 95150
Tel: 408-329-8108, Email: sales@morion-us.com

Additional notes:
• Please consult factory for daily aging values. Normally typical correspondence of daily aging per day to aging per year is as following: ±1x10^-7/year - ±1x10^-9/day; ±5x10^-4/year - ±5x10^-10/day; ±3x10^-8/year - ±3x10^-14/day.
• Please mention RoHS requirement (if any) while requesting for quote or while placing PO.
• For non standard operating temperature ranges please use the following two letters designations (first letter for the lower limit, second letter for the upper limit). °C

| A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | T | U | W | X |
| -60 | -55 | -50 | -45 | -40 | -30 | -20 | -10 | 0 | +10 | +30 | +40 | +45 | +50 | +55 | +60 | +65 | +70 | +75 | +80 | +85 |

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