ULTRA HIGH PERFORMANCE OCXO WITH LOW G-SENSITIVITY
MV272M

Features:
- Standard frequencies: 10.0 MHz
- Ultra low phase noise
- High stability vs. temperature: up to $\pm 1 \times 10^{-9}$
- High long term stability: up to $\pm 1 \times 10^{-8}$/year
- Oscillation ON/OFF function
- Low G-sensitivity ($1 \times 10^{-9}$ – typical)
- SMD package

ORDERING GUIDE: MV272M–C 3 D–ULN–10.0 MHz–5E-13

<table>
<thead>
<tr>
<th>Availability of certain stability vs. operating temperature range, still air</th>
<th>5</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 0…+55°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>B -10…+60°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>C -20…+70°C</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>EX -40…+85°C</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

A – available, C – consult factory.
For other temperature ranges please consult factory.

Phase noise, dBc/Hz

| 1 Hz | <112 | <115 | <118…120 |
| 10 Hz | <142 | <144 | <145 |
| 100 Hz | <154 | <157 | <159 |
| 1000 Hz | <160 | <160 | <165 |
| 10000 Hz | <160 | <160 | <168 |

Short-term stability (Allan deviation) per 1 sec, for 10 MHz: option (for ULN and IULN)

| Frequency stability vs. load changes (±5%) | <5x10^{-10} |
| Frequency stability vs. power supply changes (±5%) | <5x10^{-10} |
| Warm-up time within accuracy of <±2x10^{-5} at 25°C | <5 min |

Power supply (Us)

12V±5%

Steady state current consumption @ +25°C

<200 mA

Peak current consumption during warm-up **

<500 mA

Frequency pulling range

>±3x10^{-7}

Control voltage range (Uin)

0…5 V

Reference voltage (Uref)

+5 V

Output

SIN

Level

>350 mV

Load

50 Ohm±5%

Harmonics

>30 dB

** - for the oscillators with the lower operating temperatures >-20°C.

Additional notes:
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 |

* - ON/OFF function allows to switch off oscillation while the oven will be operating. An oscillator will have an output signal when the voltage from 2.4 V up to supply voltage will be fed to pin 5. If you do not need to use ON/OFF function you need to feed supply voltage to pin 5 for proper oscillator functioning.

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