

# ULTRA HIGH PERFORMANCE OCXO MV272

## Features:

- Standard frequencies : 5.0; 10.0 MHz
- High stability vs. temperature: up to  $\pm 1 \times 10^{-9}$
- Long term stability up to  $\pm 2 \times 10^{-8}$ /year
- Low G - sensitivity
- ON/OFF function
- Low phase noise options

G-sensitivity (in frequency range 0-500 Hz)	
-	Not specified
1	$< 1.0 \times 10^{-9}$ /g
2	$< 1.5 \times 10^{-9}$ /g

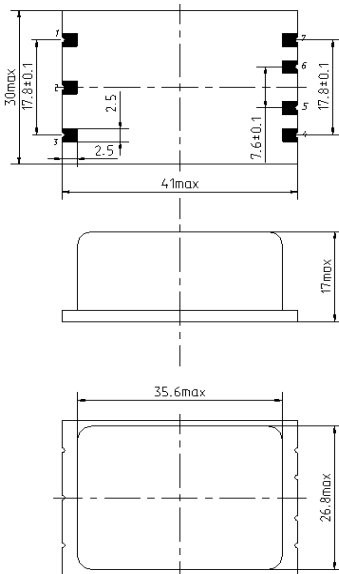
## ORDERING GUIDE: MV272-C 3 F-ULN-10.0 MHz - 2

Availability of certain stability vs. operating temperature range (for 10 MHz)		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$
		5	3	2	1
A	0...+55 °C	A	A	A	A
B	-10...+60 °C	A	A	A	A
C	-20...+70 °C	A	A	A	A
EX	-40...+85 °C	A	A	A	NA

A – available, NA – not available, C – consult factory

Availability of certain aging values for certain frequencies		Standard frequencies	
		5.0 MHz	10.0 MHz
F	$\pm 5 \times 10^{-8}$ / year	A	A
E	$\pm 3 \times 10^{-8}$ / year	A	A
D	$\pm 2 \times 10^{-8}$ / year	A	C

## Package drawings:



Pin	Designation
1	GND
2	NC
3	RF
4	Us
5	ON OFF
6	U in
7	U ref

Phase noise, dBc/Hz, for 10 MHz	-	LN	ULN*
1 Hz	<-95	<-105	<-110
10 Hz	<-125	<-135	<-140
100 Hz	<-145	<-155	<-157
1000 Hz	<-155	<-160	<-161
10000 Hz	<-158	<-161	<-162

\* measured values

<b>Vibrations:</b>	
Frequency range	10-500 Hz
Option	10-2000 Hz
Acceleration	10 g
<b>Shock:</b>	
Acceleration	100 g ±3ms
<b>Humidity @ 25 °C</b>	98%
<b>Storage temperature range</b>	-40...+85 °C

Short term stability (Allan deviation) per 1 sec, for 10 MHz LN, ULN option	$< 5 \times 10^{-12}$ $< 1 \times 10^{-12}$
Frequency stability vs. load changes (±5%) Optional	$< \pm 5 \times 10^{-10}$ $< \pm 2 \times 10^{-10}$
Frequency stability vs. power supply changes (±5%) Optional	$< \pm 5 \times 10^{-10}$ $< \pm 2 \times 10^{-10}$
Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C	<5 min
Power supply (Us) Option	12V±5% 10.6...12.6V
Steady state current consumption @ +25°C (for 10 MHz)	<150 mA
Peak current consumption during warm-up *	<400 mA
Frequency pulling range (for 10 MHz)	$> \pm 4.0 \times 10^{-7}$
Control voltage range (Uin)	0...5 V
Reference voltage (Uref)	+5 V
<b>Output</b>	SIN
Level	>400 mV
Load	50 Ohm±5%
Harmonics	>30 dBc

\* - for the oscillators with the lower operating temperatures  $> -20^\circ$ .

## 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