

ULTRA HIGH PERFORMANCE OCXO MV272M

Preliminary information

Features:

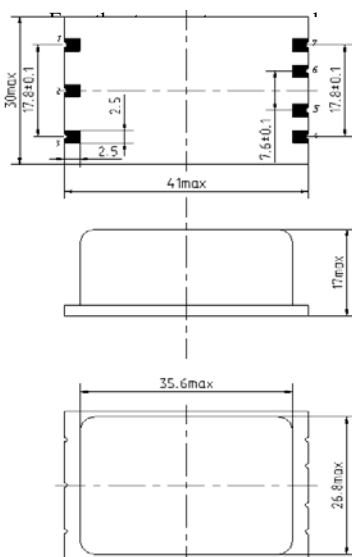
- Standard frequencies: 10.0 MHz
- High stability vs. temperature – up to $\pm 1 \times 10^{-9}$
- High long term stability – up to $\pm 1 \times 10^{-8}$ /year
- Oscillation ON/OFF function
- Ultra low phase noise
- Low g-sensitivity (1×10^{-9} - typical)
- SMD package

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

Availability of certain stability vs. operating temperature range, still air		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$
A	0...+55 °C	A	A	A	A
B	-10...+60 °C	A	A	A	A
C	-20...+70 °C	A	A	A	C
D	-40...+75 °C	A	A	C	C

A – available; C – consult factory.

Availability of certain aging values for certain frequencies		10.0 MHz
F	$\pm 5 \times 10^{-8}$ / year	A
E	$\pm 3 \times 10^{-8}$ / year	A
D	$\pm 2 \times 10^{-8}$ / year	A
C	$\pm 1 \times 10^{-8}$ / year	C



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

Phase noise, dBc/Hz	LN	ULN	IULN
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:	< 1×10^{-12} (1E-12)
option	< 5×10^{-13} (5E-13)
option (for ULN and IULN)	< 4×10^{-13} (4E-13)
Frequency stability vs. load changes ($\pm 5\%$)	< $\pm 5 \times 10^{-10}$
Frequency stability vs. power supply changes ($\pm 5\%$)	< $\pm 5 \times 10^{-10}$
Warm-up time within accuracy of $<\pm 2 \times 10^{-8}$ @ 25°C	<5 min
Power supply (Us)	12V $\pm 5\%$
Steady state current consumption @ +25°C	<200 mA
Peak current consumption during warm-up **	<500 mA
Frequency pulling range	> $\pm 3.0 \times 10^{-7}$
Control voltage range (Uin)	0...5 V
Reference voltage (Uref)	+5 V
Output	SIN
Level	>350 mV
Load	50 Ohm $\pm 5\%$
Harmonics	>30 dB

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

Vibrations:	
Frequency range	10-500 Hz
Acceleration	3 g
Shock:	75 g/ 3 ± 1 ms
Humidity @ 25 °C	98%
Storage temperature range	-55...85 °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



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