

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 $\pm 5 \times 10^{-10}$
- Standard frequency 10.0 MHz

Package type	
50.8x50.8x12.7 mm	Z12.7
50.8x50.8x10 mm	Z10*

* - consult factory

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

Availability of certain stability vs. operating temperature range		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$	$\pm 5 \times 10^{-10}$
		5	3	2	1	05
A	0...+55°C	A	A	A	A	A
B	-10...+60°C	A	A	A	A	A
C	-20...+70°C	A	A	A	A	A
D	-40...+70°C	A	A	A	A	C
EX	-40...+85°C	A	A	C	C	C

available, NA – not available, C – consult factory

For 10 mm height - consult factory

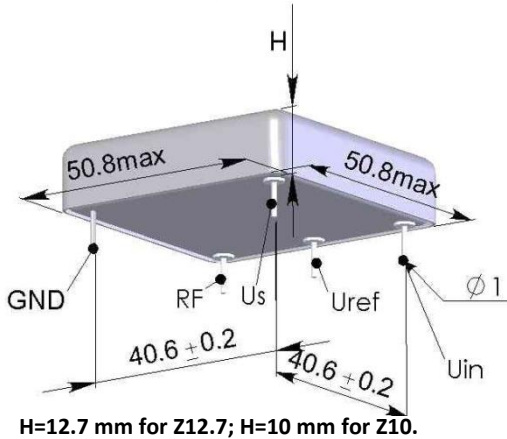
For other temperature ranges see designation at the end of Data Sheet.

Availability of certain aging values for certain frequencies		Standard frequency 10 MHz
G	$\pm 1 \times 10^{-7}$ /year	A
F	$\pm 5 \times 10^{-8}$ /year	A
E	$\pm 3 \times 10^{-8}$ /year	A

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

Phase noise, dBc/Hz, for 10 MHz, SIN	-	LN	ULN
1 Hz	<-90	<-90	<-100
10 Hz	<-120	<-120	<-133
100 Hz	<-153	<-153	<-158
1000 Hz	<-162	<-163	<-163
10000 Hz	<-165	<-168	<-168

Package drawing:



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

Short-term stability (Allan deviation) per 1 sec (for 10 MHz)	$< 5 \times 10^{-12}$
Frequency stability vs. load changes	$< \pm 5 \times 10^{-10}$
Frequency stability vs. power supply changes	$< \pm 5 \times 10^{-10}$
Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 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	$> \pm 4 \times 10^{-7}$
with external voltage range (Uin)	0...+5V
Reference voltage (Uref)	+5 V

Vibrations:	
Frequency range	10-500 Hz
Acceleration	5g
Shock:	
Acceleration	75 g
Duration	3±1 ms
Storage temperature range	-55...+85 °C

Output	SIN
Level	>800 mV RMS
Load	50 Ohm±5%
Harmonic suppression	>30dBc

Additional notes:

- Please consult factory for daily aging values. Normally typical correspondence of daily aging per day to aging per year is as following: $\pm 1 \times 10^{-7}$ /year - $\pm 1 \times 10^{-9}$ /day; $\pm 5 \times 10^{-8}$ /year - $\pm 5 \times 10^{-10}$ /day; $\pm 3 \times 10^{-8}$ /year - $\pm 3 \times 10^{-10}$ /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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Due to continuous development and improvement Morion reserves the right to modify design or specifications of its products without prior notice.

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