

MINITURE LOW POWER PRECISION OCXO MV390

Features:

- Frequency range 10 - 50.0 MHz
- Small package size: 21.2x15.5x10.5 mm
- High stability vs. temperature - up to $\pm 2 \times 10^{-8}$
- Long-term stability: up to $\pm 1 \times 10^{-8}$ /year
- Steady state power consumption <260 mW
- Power supply: 5V or 3.3V

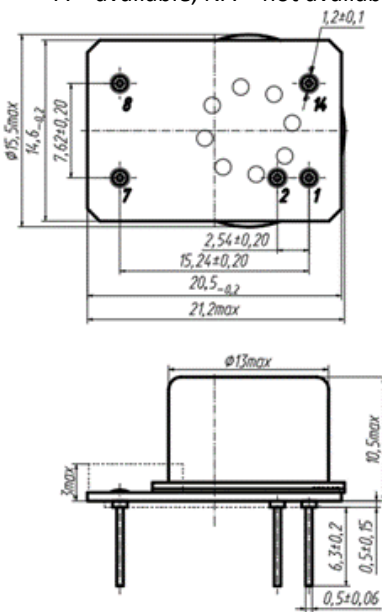
ORDERING GUIDE: MV390 - C 20 D - 2 - 10.0 MHz

Availability of certain stability vs. operating temperature		$\pm 5 \times 10^{-8}$	$\pm 3 \times 10^{-8}$	$\pm 2 \times 10^{-8}$	$\pm 1 \times 10^{-8}$
A	0...+50 °C	A	A	A	A
B	- 10...+60	A	A	A	A
C	- 20...+70	A	A	A	C
EX	-40...+85	A	A	C	NA

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

A – available NA – not available C – consult factory

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



Pin	Designation
1	Uin
2	Uref
7	GND
8	RF
14	Us

Short term stability (Allan deviation) per 1 s, typical	$< 5 \times 10^{-12}$	
Frequency stability vs. power supply changes ($\pm 1\%$)	$< \pm 2 \times 10^{-10}$	
Power supply (Us)	5V $\pm 5\%$	3.3V $\pm 5\%*$
Warm-up time with accuracy of $< \pm 1 \times 10^{-7}$ @ 25 ± 5 °C	<45 sec	<70 sec
Warm-up time with accuracy of $< \pm 1 \times 10^{-8}$ @ 25 ± 5 °C	<90 sec	<140 sec
Steady state current consumption @ 25°C (still air)	< 260 mA	< 300 mA
Power consumption during start-up	< 900 mW	
Frequency pulling range**	$> \pm 5 \times 10^{-7}$	
with external control voltage range (Uin)	0...+4.5 V	0...+3.0 V
Reference voltage (Uref)	+4.5V	+3.0V
Output	HCMOS	
Level	"0"	<0.4 V
	"1"	>2.7 V
Load	10 kOhm/15pF	

* Consult factory

** Sufficient to compensate aging during life time

Mechanical characteristics:

Vibrations:	
Frequency range	10-2000 Hz
Acceleration	30g
Shock:	
Acceleration	500 g
Duration	1.5 ± 0.5
G-Sensitivity	$< 1 \times 10^{-9}$ /G
Storage temperature range	-55...+85 °C

Option	1	2
1 Hz	-90	-100
10 Hz	-120	-135
100 Hz	-150	-158
1000 Hz	-160	-169
10000 Hz	-166	-170
100000 Hz	-170	-173

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

