

# HIGH STABILITY WIDE TEMPERATURE RANGE SMALL SIZE TCXO (VCTCXO) MV392

## Preliminary information

### Features:

- Ultra-wide temperature range from -55 °C to +125 °C
- Frequency range: 8.0 – 52.0 MHz
- Standard frequencies: 10.0; 12.8; 16.0; 19.2; 20.0; 25.6; 30.72; 40.0 MHz
- SMD miniature package

Package size, mm	
7.0 x 5.0 x 2.0	75
7.0 x 5.0 x 1.9	75/1
5.0 x 3.2 x 1.7	53

Power supply	
2.8V	2.8
3V	3
3.3V	3.3

## ORDERING GUIDE: MV392 – TCXO – EX500 – 20.0MHz - Sin - 3.3 – 75 – C2

	VCTCXO	TCXO
Frequency pulling range	$> \pm 5.0 \times 10^{-6}$	–
Setting accuracy	$\leq \pm 1.0 \times 10^{-6}$	

Output type	Clipped Sin	HC MOS
Consumption	<5 mA	<7 mA
Level	> 0.8 V (ampl. value)	$U_H > 0.8 U_s$ $U_L < 0.2 U_s$
Load	10 kOhm 10 pF	– 10 pF

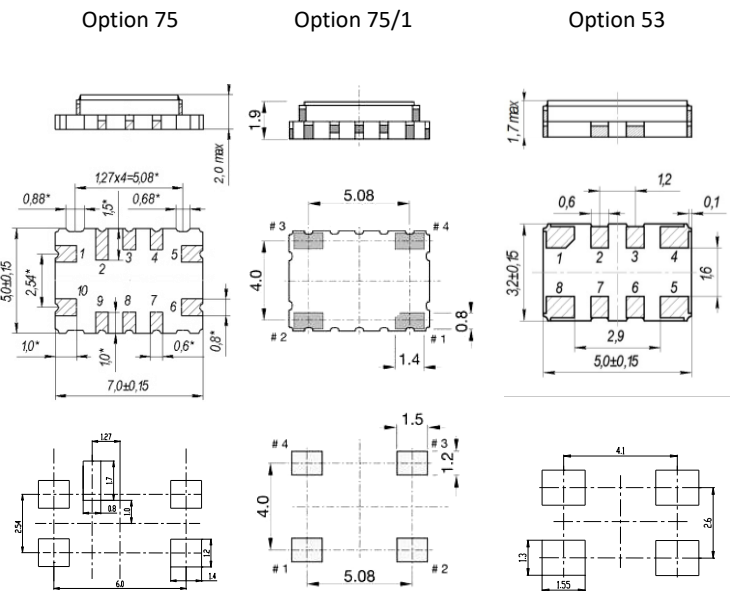
Availability of certain stability vs. operating temperature range for 20 MHz				
	$\pm 2 \times 10^{-6}$	$\pm 1 \times 10^{-6}$	$\pm 0.5 \times 10^{-6}$	$\pm 0.28 \times 10^{-6}$
	2000	1000	500	280
GT -20...+70 °C	A	A	A	A*
EX -40...+85 °C	A	A	A*	A*
BX -55...+85 °C	A	A*	C	C
EZ -40...+125 °C	A	C	C	C
BZ -55...+125 °C	A	C	C	C

A – available, NA – not available, C – consult factory  
\* not available for VC-TCXO

Power supply $U_s$ , V	Control voltage $U_{in}$ , V		
	Value for which $f=f_{nom}$	Range	Designation
2.8±5%	1.50	0.5-2.5	A1
	1.65	0.65-2.65	A2
3.0±5%	1.5	0.5-2.5	B1
	1.65	0.65-2.65	B2
3.3±5%	1.5	0.5-2.5	C1
	1.65	0.65-2.65	C2

Frequency vs. supply voltage changes ±5%	$\pm 0.4 \times 10^{-6}$	
Frequency stability vs. load changes ±5%	$\pm 0.2 \times 10^{-6}$	
Aging/year	$\pm 1 \times 10^{-6}$	
Power spectral density of phase noise at offset, for 20 MHz, dB/Hz	100 Hz	-113
	1 kHz	-133
	10 kHz	-146

Pinout:				
Contact			TCXO	VCTCXO
75	75/1	53		
#1	#1	#1	Not in use	$U_{in}$
#2, 3, 4	–	#2, 3	Not in use	
#5	#2	#4	GND	
#6	#3	#5	RF	
#7, 8	–	#6	Not in use	
#9	–	#7	Not in use	
#10	#4	#8	$U_s$	



### 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	Z
-60	-55	-50	-45	-40	-30	-20	-10	0	+10	+30	+40	+45	+50	+55	+60	+65	+70	+75	+80	+85	+125



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Due to continuous development and improvement Morion, Inc. reserves the right to modify design or specifications of its products without prior notice

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