

HIGH STABILITY SMALL SIZE TCXO MV176

Features:

- SMD miniature package
- Frequency range: 5.0 – 52.0 MHz (other frequencies for request)
- High stability vs. temperature: up to 0.1×10^{-6}
- Ideal for STRATUM III, COSPAS-SARSAT

Power supply	
2.8 V	2.8
3 V	3
3.3 V	3.3

ORDERING GUIDE: MV176-VCTCXO-C 500 K-12.8MHz-SIN-3-75-B1

	VCTCXO	TCXO
Frequency pulling range	$\geq \pm 5.0 \times 10^{-6}$	–
Setting accuracy @ +25 °C	$\leq \pm 1.0 \times 10^{-6}$ ($\leq \pm 0.5 \times 10^{-6}$ consult factory)	

Availability of certain aging values for certain frequencies/year	Standard frequencies, MHz						
	10.0	12.688375	12.688656	12.8	19.2	20.0	33.6, 40.0, 50.0
J	$\pm 5 \times 10^{-7}$	A	C	C	C	C	C
K	$\pm 1 \times 10^{-6}$	A	A	A	A	A	A

A – available, C – consult factory

Frequency vs. supply voltage changes $\pm 5\%$	$\pm 0.2 \times 10^{-6}$	
Frequency stability vs. load changes $\pm 5\%$	$\pm 0.1 \times 10^{-6}$	
Power spectral density of phase noise at offset, for 12.8 MHz, dB/Hz	100 Hz	-120
	1 kHz	-140
	10 kHz	-150

Output type	clipped SIN	HCMOS
Consumption, mA	<4	<6
Level, V	> 0.8 V (ampl. value)	$U_H > 0.9 U_s$ $U_L < 0.1 U_s$
Load	10 kOhm 10 pF	– 15 pF

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
-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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Availability of certain stability vs. operating temperature range for 10 MHz	Stability vs. temperature range						
	2000	1000	500	280	140	100	
A	0...+55°C	A	A	A	A	A*	A*
B	-10...+60°C	A	A	A	A	A*	A*
C	-20...+70°C	A	A	A	A	A*	C
EX	-40...+85°C	A	A	A	A	C	NA
BX	-55...+85°C	A	C	NA	NA	NA	NA

A – available, NA – not available, C – consult factory
* for VCTCXO consult factory

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

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

