

# HIGH STABILITY SMALL SIZE TCXO MV176

## Features:

- SMD miniature package
- Frequency range: 5.0 – 52.0 MHz
- High stability vs. temperature: up to  $0.1 \times 10^{-6}$
- Ideal for STRATUM III, COSPAS-SARSAT

Power supply	
2.8 V	2.8
3 V	3
3.3 V	3.3
5 V	5

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

	VCTCXO	TCXO
Frequency pulling range	$> \pm 5.0 \times 10^{-6}$	–
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	C
K $\pm 1 \times 10^{-6}$	A	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	75/11	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	Us	

Availability of certain stability vs. operating temperature range for 10 MHz		2x10 <sup>-6</sup>	1x10 <sup>-6</sup>	0.5x10 <sup>-6</sup>	0.28x10 <sup>-6</sup>	0.14x10 <sup>-6</sup>	0.1x10 <sup>-6</sup>
		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

Power supply $U_s$ , V	Control voltage $U_{in}$ , V		
	Value for which $f=f_{nc}$	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
5.0 $\pm 5\%$	1.5	0.5-2.5	D1
	1.65	0.65-2.65	D2
	2.5	1.5-3.5	D3
	2.5	0.5-4.5	D4

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

