

# LOW PHASE NOISE HIGH STABILITY SMALL SIZE TCXO MV121

## Features:

- Excellent phase noise performance
- High frequency stability vs. temperature – up to  $\pm 5 \times 10^{-7}$
- Small size 20x20x10 mm
- Frequency range 9.8 – 20.0 MHz

## ORDERING GUIDE: MV121 – C 2000 L – 5V – 10.0 MHz

Availability of certain stability vs. operating temperature range		$\pm 2 \times 10^{-6}$	$\pm 1.5 \times 10^{-6}$	$\pm 8 \times 10^{-7}$	$\pm 5 \times 10^{-7}$
		2000	1500	800	500
A	0...+55 °C	A	A	A	A
B	- 10...+60 °C	A	A	A	NA
C	- 20...+70 °C	A	A	NA	NA
D	- 40...+70 °C	A	NA	NA	NA

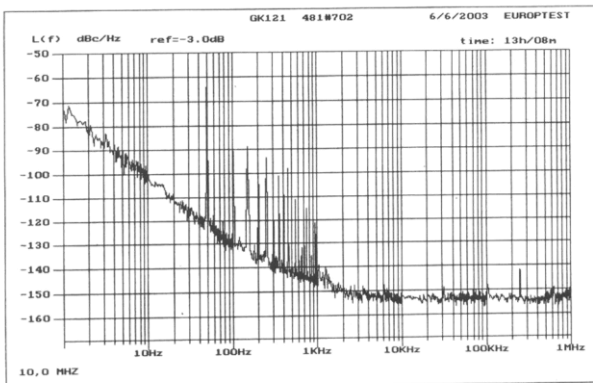
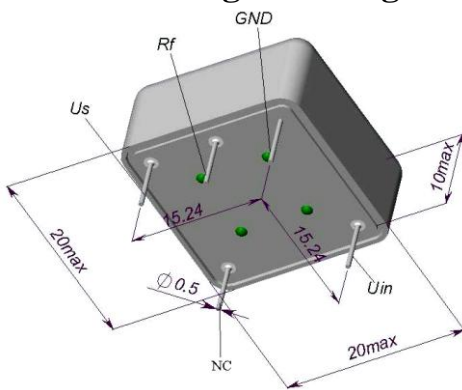
For other temperature ranges see designation at the end of Data Sheet

Power supply
5V
12V

Availability of certain aging values for certain frequencies		10.0 MHz	20.0 MHz
		L	$\pm 2 \times 10^{-6}$ /year
K	$\pm 1 \times 10^{-6}$ /year	A	NA

A – available, NA – not available

## Package drawing:



Short term stability (Allan deviation) per 1 s	$< 1 \times 10^{-9}$	
Frequency stability vs. load changes	$< \pm 2 \times 10^{-7}$	
Frequency stability vs. power supply changes	$< \pm 3 \times 10^{-7}$	
Power supply (Us)	5V	12V
Current consumption 25°C	$< 15 \text{ mA}$	$< 6 \text{ mA}$
Output	SIN	
Level	300-500 mV	500-800 mV
Load	2 kOhm $\pm 10\%$	
Harmonic suppression	$> 30 \text{ dB}$	
Phase noise at offset, dBc/Hz	For 10 – 12.8 MHz	For 13 – 20.0 MHz
1 Hz	-65	-
10 Hz	-95	-
100 Hz	-125	-115
1000 Hz	-145	-140
10000 Hz	-155	-145
Frequency pulling range	$> \pm 8.5 \times 10^{-6}$	
Vibrations	1-500 Hz, 10g	
Shock	500g, 2 ms	

## 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