

HIGH FREQUENCY LOW PHASE NOISE OCXO MV87

Features:

- Frequency range: 48.0-120.0 MHz without internal multiplication
- Low phase noise – floor of <-167 dBc/Hz
- High stability vs. temperature – up to $\pm 5 \times 10^{-8}$
- Low harmonics and sub-harmonics (optional)
- SMA output (optional)
- Low profile – just 12.7 mm height
- Ideal for PLL, VSAT, Frequency synthesizers

Frequency range: 48.0- 500.0 MHz
Standard Frequency: 48.0; 56.0; 60.0; 80.0; 100.0; 400.0; 500.0 MHz

Package type

50.8x50.8x12.7 mm	
F	48.0 ... 120.0 MHz
G	100 ... 500.0 MHz

ORDERING GUIDE: MV87-B 300 J - 3 - 100.0 MHz - F

Availability of certain stability vs. operating temperature range		$\pm 5 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	$\pm 1 \times 10^{-7}$	$\pm 7.5 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
		500	300	100	75	50
A	0...+55°C	A	A	A	A	A
B	-10...+60°C	A	A	A	A	A
C	-20...+70°C	A	A	A	A	A
D	-40...+70°C	A	A	A	A	A

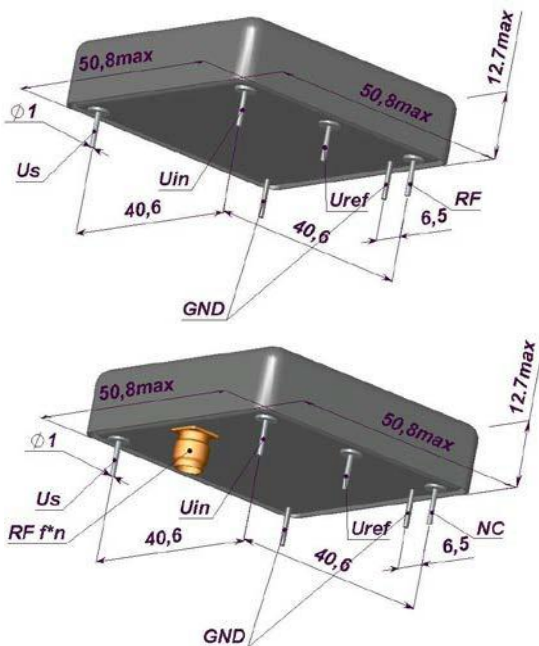
Phase noise, dBc/Hz (for 100.0 & 500.0 MHz)

Option	1		2		3		4	5	6
Freq.	100	500	100	500	100	500	100	100	100
Offset									
10 Hz	-85	-70	-90	-75	-95	-80	-98	-100	-100
100 Hz	-115	-100	-120	-105	-125	-110	-128	-130	-130
1000 Hz	-140	-125	-145	-130	-150	-135	-150	-152	-155
10000 Hz	-160	-140	-162	-142	-165	-145	-165	-165	-167

Aging

I	$\pm 3 \times 10^{-7}$ /year
H	$\pm 2 \times 10^{-7}$ /year
G	$\pm 1 \times 10^{-7}$ /year

Package Drawings



Frequency stability vs. load changes	$< \pm 5 \times 10^{-8}$
Frequency stability vs. power supply changes	$< \pm 5 \times 10^{-8}$
Warm-up time with accuracy of $< \pm 2 \times 10^{-7}$ at +25 °C	< 5 min
Power supply (Us)	12V \pm 10%
Steady state current consumption @ 25°C (still air)	< 150 mA
Peak current consumption during warm-up	< 450 mA
Frequency pulling range	$> \pm 3 \times 10^{-6}$
with external control voltage range (Uin)	0...+8 V
Reference voltage (Uref)	+8 V

Output	SIN
Level	> 400 mV RMS
Load	50 Ohm \pm 10%
Harmonics & sub harmonics	< -25 dBc (< -40 dBc optional and available for Package Type G)
Vibrations	10-500 Hz, 5g
Storage temperature range	-55...+80 °C

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

