DOUBLE OVEN ULTRA PRECISION OCXO MV216

Features:

- *Overall stability up to $\pm3x10^{-8}$ / 10 years*
- *Not sensitive for rapid changes of ambient temperature*
- *Ultra low aging up to $\pm5x10^{-9}$ / year*
- *Ultra high stability vs. temperature - up to $\pm5x10^{-11}$*
- *Standard frequencies 5 MHz & 10.0 MHz*

Typical Applications:

- *3G Communication systems*
- *Test & Measurement*
- *Telecom synchronization modules*
- *GPS/GLONASS Timing & Navigation equipment*
- *Rubidium replacement*

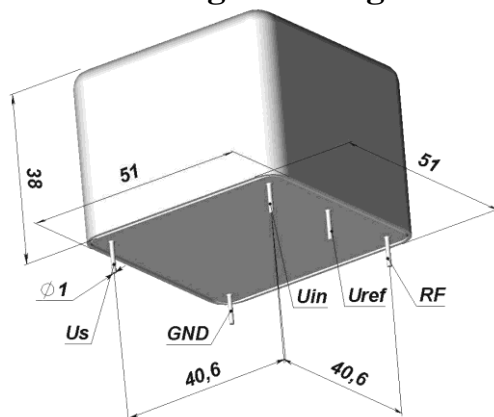## ORDERING GUIDE: MV216 – B 01 C – 10.0 MHz

Availability of certain stability vs. operating temperature range		$\pm2x10^{-10}$	$\pm1x10^{-10}$	$\pm5x10^{-11}$
		02	01	005
A	0…+55 ^{o}C	A	A	C
B	- 10…+60 ^{o}C	A	A	C
C	- 20…+70 ^{o}C	A	A	C
D	-40…+70 ^{o}C	A	C	C

	Overall stability for 10 years of operation	Overall stability for 1 year of operation
D	$\pm1x10^{-7}$	$\pm1.5x10^{-8}$
C	$\pm5x10^{-8}$	$\pm1x10^{-8}$
B	$\pm3x10^{-8}$	$\pm5x10^{-9}$

A – available, NA – not available, C – consult factory

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

Package drawing:

Mechanical characteristics:

Vibrations: Frequency range Acceleration	1-200 Hz 5g
Shock: Acceleration Duration	150 g 3±1 ms
Storage temperature range	-55…+80 ^{o}C

Short term stability (Allan deviation) per 1 sec	$<2x10^{-12}$
Frequency stability vs. load changes	$<\pm5x10^{-11}$
Frequency stability vs. power supply changes	$<\pm5x10^{-11}$
Warm-up time within accuracy of $<\pm5x10^{-8}$	<15 min
Power supply (Us)	12V±5%
Steady state current consumption @ 25°C (still air)	< 350 mA
Peak current consumption during warm-up Option for - 10…+60 ^{o}C	<1.5 A <1.0 A
Frequency pulling range	$>\pm2.5x10^{-7}$
with external control voltage range (Uin)	0…+5 V
Reference voltage (Uref)	+5V

Output	SIN
Level	+7 ±2 dBm
Load	50 Ohm±5%
Subharmonics (for 10.0 MHz)	<-40 dBc
Harmonic suppression	>30dBc
Phase noise (for 5 MHz)	
1 Hz	<-105 dBc/Hz
10 Hz	<-130 dBc/Hz
100 Hz	<-145 dBc/Hz
1000 Hz	<-150 dBc/Hz
10000 Hz	<-155 dBc/Hz

ADDITIONAL NOTES:

- **Showed values of frequency stability vs. temperature usually are tested in Still Air test conditions. Please inform factory about different conditions in operation to provide appropriate tests.**
- **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):**

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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