DOUBLE OVEN ULTRA PRECISION OCXO WITH DIGITAL FREQUENCY CONTROL OPTION MV268

Features:

- ***Low sensitivity to rapid changes of ambient temperature***
- ***Availability of frequency control by SPI protocol***
- ***Low aging up to ±1x10^{-8}***
- ***High stability vs. temperature - up to ±1x10^{-10}***

ORDERING GUIDE: MV268–B 02 E –10.0 MHz-D

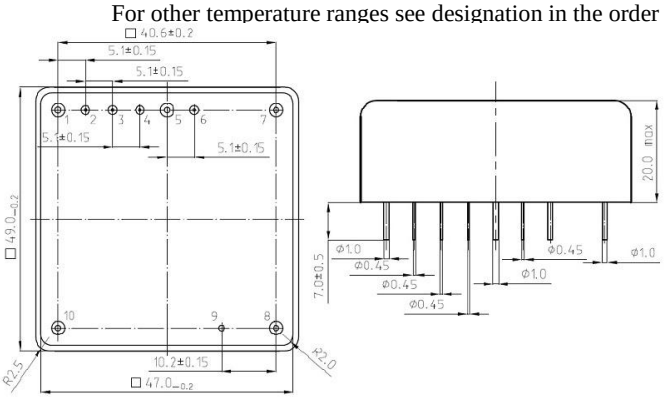
Availability of certain stability vs. operating temperature		±1x10^{-9}	±5x10^{-10}	±3x10^{-10}	±2x10^{-10}	±1x10^{-10}
		1	05	03	02	01
A	0…+55 °C	A	A	A	A	A
B	- 10…+60 °C	A	A	A	A	A
C	- 20…+70 °C	A	A	A	A	A
D	- 40…+70 °C	A	A	A	C	C

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

For other temperature ranges see designation in the order guide.

Availability of certain aging values for certain frequencies		Standard frequencies			
		5.0 (5x2) MHz	5.115 (5.115x2) MHz	8.192 (8.192x2) MHz	10 MHz
F	±5x10^{-8}/year	A	A	A	A
E	±3x10^{-8}/year	A	A	A	A
D	±2x10^{-8}/year	A	A	A	C
C	±1x10^{-8}/year	C	C	C	C

Analogue Control (A)	
Frequency pulling range	>±2.5x10^{-7}
External control voltage range (Uin)	0…+5V
Reference voltage (Uref)	+5V
Digital Control (D)	
Frequency pulling range for code from 0000 HEX to FFFF HEX -step -typical	>±2.5x10^{-7} <1.3x10^{-11} <1.0x10^{-11}
Logical signal levels for frequency adjustment (SPI interface) -Low level -High level	 <0.8 >2.0



Digital Control		Analog Control	
1	CS (chip select input)*	1	U in
2	NC	2,3	NC
3	DIN (serial data input)	4	NC
4	SCLK(serial clock input)	5	U ref
5,6	NC	6	NC
7	RF out	7	RF out
8	GND	8	GND
9	GND, Case	9	GND, Case
10	Supply (+12V)	10	Supply (+12V)

* Active low

Short term stability (Allan deviation) per 1 sec, for 5 MHz and 10 MHz	<2x10^{-12}
Frequency stability vs. load changes	<±1x10^{-10}
Frequency stability vs. power supply changes	<±1x10^{-10}
Warm-up time with accuracy of <±1x10^{-8} @25°C	<15 min
Power supply (Us)	12V±5%
Steady state current consumption @ 25°C (still air)	< 300 mA
Peak current consumption after switch-on:	< 900 mA
Output	SIN
Level	>5 dBm
Load	50 Ohm±10%
Harmonic and subharmonics suppression	>30dBc
Phase noise, typical, dBc/Hz	for 10 MHz (5x2)
1 Hz	-100
10 Hz	-125
100 Hz	-140
1000 Hz	-145
10000 Hz	-150

Vibrations: Frequency range Acceleration	 10-500 Hz 5g
Shock: Acceleration Duration	 15 g 2±0,5 ms
Storage temperature range	-55…+80 °C

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.**
- **Please consult factory for daily aging values. Normally typical correspondence of daily aging per day to aging per year is as following: ±5x10^{-8}/year - ±5x10^{-10}/day; ±3x10^{-8}/year - ±3x10^{-10}/day; ±2x10^{-8}/year - ±2x10^{-10}/day; ±1x10^{-8}/year - ±1x10^{-10}/day**
- **Please mention RoHS requirement (if any) while requesting for quote or while placing PO.**
- **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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