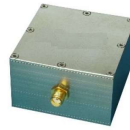
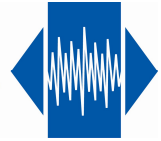


OCO-M50VS12 Preliminary

Low Phase Noise under vibration



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Features

- Low G-sensitivity :< 0.002ppb/g
- Frequency up to 130 MHz

Parameter	Specification				
	OCO-M50VS12				
Frequency Range	50 MHz to 130 MHz				
Standard Frequencies	100.000MHz & 120.000 MHz				
<u>Operating Temperature Range</u> Code	EH	GH	JK	NN	Z
°C	0 / +60	-10 / +60	-20 / +70	-40 / +85	Custom
Frequency Stability					
vs <u>Operating Temperature Range</u> Code	u30		u20		u10
Note 2	$\leq \pm 30 \times 10^{-8}$		$\leq \pm 20 \times 10^{-8}$		$\leq \pm 10 \times 10^{-8}$
vs. Supply Voltage change (Vdc $\pm 5\%$)	$\leq \pm 1 \times 10^{-8}$				
vs. Load change ($\pm 10\%$)	$\leq \pm 1 \times 10^{-8}$				
vs. Aging after 30 days of operation /day	$\leq \pm 2 \times 10^{-9}$				
vs. Aging after 30 days of operation 1 st year	$\leq \pm 1 \times 10^{-7}$				
Output waveform	Sine wave				
Output level	> 7 dBm				
Output load	50 Ω $\pm 5\%$				
Harmonics	< - 30 dBc				
Sub-harmonics	< - 90 dBc				
Supply Voltage [Vdc]	+12.0 V $\pm 5\%$				
Warm-current @ +25 °C still air	< 500 mA				
Steady-state current @ +25 °C still air	< 300 mA				
Warm-up time @ +25 °C still air	< 5 min		< $\pm 0.1 \times 10^{-6}$		
Electronic Frequency Control [EFC] range	> $\pm 1 \times 10^{-6}$ positive slope				
Voltage Control [Vc]	1 ~ +9.0 V				
Phase Noise @ 100MHz [dBc/Hz]	Frequency	Static Condition	Under Random Vibrations 0.02g²/Hz 20 ~2000 Hz		
	10 Hz	< -100	See page 2		
	100 Hz	< -135			
	1 kHz	< -160			
	10 kHz	< -172			
	100 kHz	< -175			
Storage temperature range	-55 ~ +85 °C				

Note 1: unless otherwise specified conditions are @ 25°C still air

Note 2: all combination not possible (consult factory)

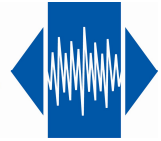
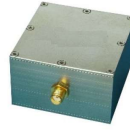
Ordering Guide:

OCO-M50VS12-NNu20-H 100MHz

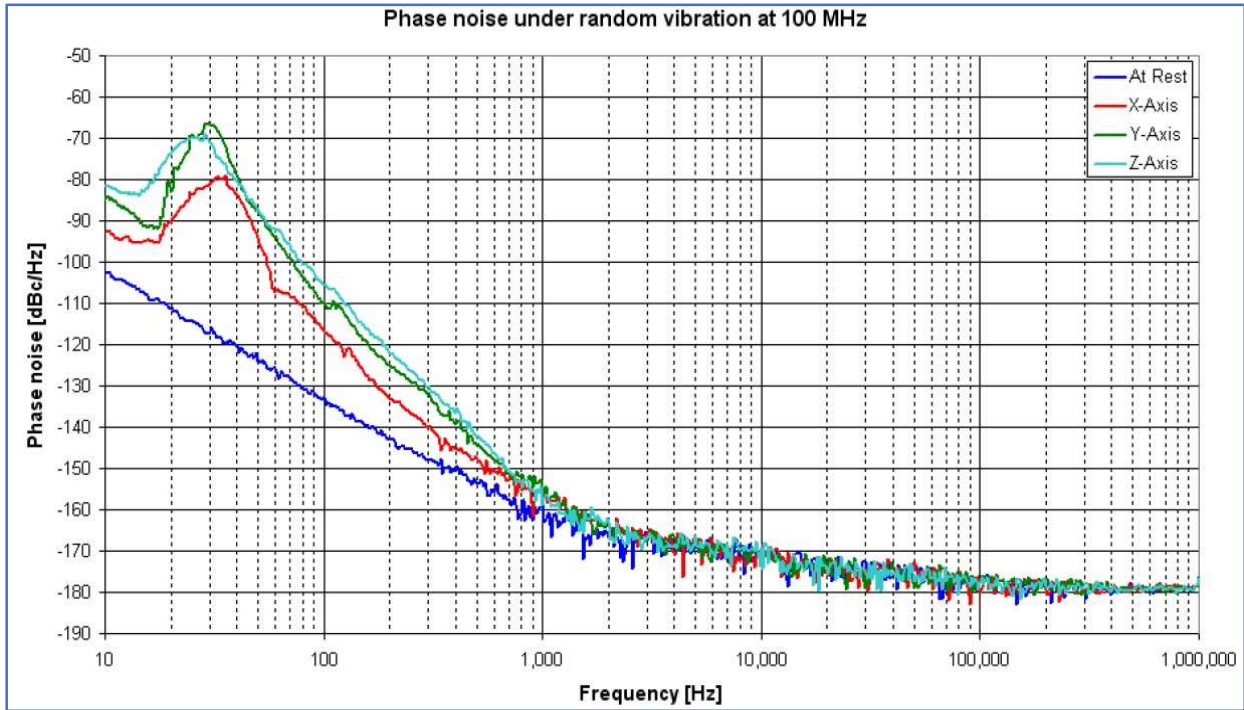
Vdc OTR Package

G-sensitivity

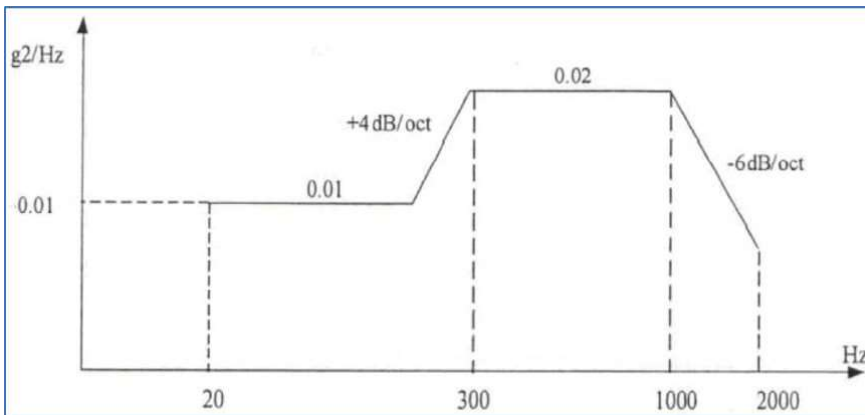




Phase Noise under random vibration at 100 MHz

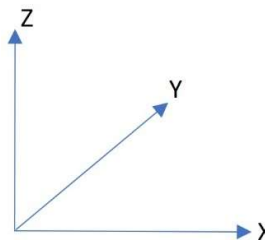


Vibration profile



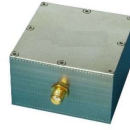
PSD = 0.02 g²/Hz

Functional test : 1 hour each direction

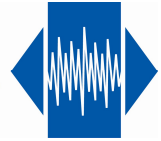


OCO-M50VS12 Preliminary

Low Phase Noise under vibration



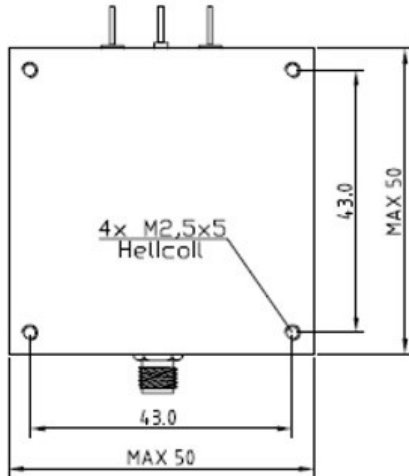
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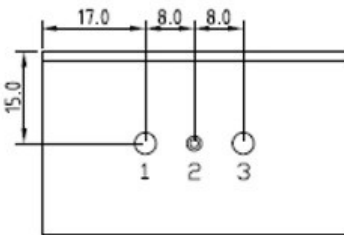
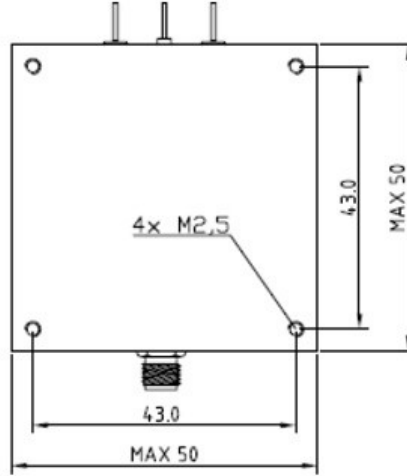
Package size : 50 x 50 x 30 mm

Package Option

H *Threaded Holes*

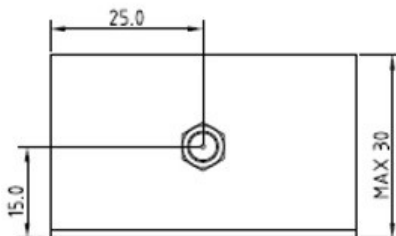
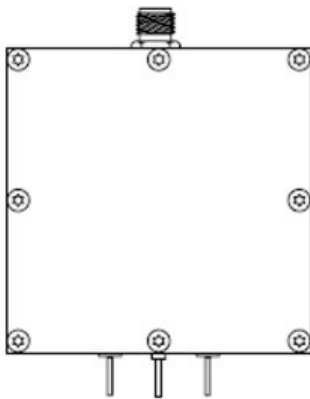


S *Threaded Studs*



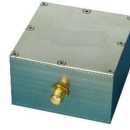
Pin Connections :

Pin #	Symbol	Function
1	V _{dc}	Supply Voltage
2	GND	Ground
3	V _c	Voltage Control [EFC]
SMA	RF Out	Output Signal

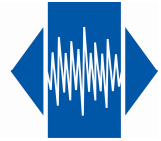


OCO-M50VS12 **Preliminary**

Low Phase Noise under vibration



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Environmental conditions

Test	IEC 60068 Part	IEC 600679-1 Clause	MIL-STD 202G Method	MIL-STD 810F Method	MIL-PRF 55310d Clause	IEC Test condition
Solderability	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta, Method 1 Test Td1, Method 2 Test Td2, Method 2
Shock	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3x /axe 100g 6ms ½ sine pulse
Vibration Sinusoidal	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test FC, 30 min /axe 10Hz – 50Hz 0.75mm 55Hz – 2kHz 10g
Vibration Random	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance			108A			
Aging		5.7.1			4.8.35	30 days @ 25°C
Ext Aging		5.7.2				1000h, 2000h, 8000h @85°C