CONNECTORIZED PACKAGE OCXO

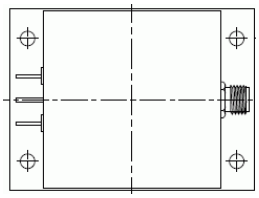
Datasheet

AXIOM90 — OCXO WITH SMA CONNECTOR, SINE WAVE OUTPUT

FEATURES

- SMA Connectorized package, size 54 x 40.5 x 19 mm.
- Sine Wave Output +3 dBm (R 50Ω)
- 3 different Supply Voltage options: 3.3V / 5.0V / 12.0V
- Standard Frequencies: 10.0 / 12.8 / 20.0 MHz

54 x 40.5 x 19 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		40	MHz	
Standard frequencies		10.000 / 12.800 / 20.000		MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V_C = centre
vs. operating temperature range (steady state)			± 200 ± 100 ± 50 ± 25	ppb ppb ppb ppb	Option II = "200" Option II = "100" Option II = "50" Option II = "25"
operating temperature range	-20		70	°C	
vs. supply voltage variation			± 10	ppb	
vs. load change			± 10	ppb	
Long term (aging) per day, after 30 days operation			± 10 ± 2	ppb ppb	Option II = "200", "100" Option II = "50", "25"
long term (aging) 1st year, after 30 days operation			± 200 ± 100	ppb ppb	Option II = "200", "100" Option II = "50", "25"
Frequency adjustment range					
Electronic Frequency Control (EFC) range	± 3 ± 1			ppm ppm	Option II = "200", "100" Option II = "50", "25"
EFC voltage V_C	0.15 0.25		3.15 4.75	V V	Option I = "33" Option I = "50" or "12"
EFC slope (Df / DV_C)		positive			
EFC input impedance	100			kΩ	
RF output					
Signal waveform		Sinus			
Load		50		Ω	
Output level	+3			dBm	
Harmonics attenuation	30			dBc	
Non-harmonics	50			dBc	
Warm-up time			5	min	Df_{final}/f_0 < ±0.1 ppm
Supply voltage V_S	3.15 4.75 11.4	3.3 5.0 12	3.45 5.25 12.6	V V V	Option I = "33" Option I = "50" Option I = "12"
Current consumption (steady state) @ +25°C			400 300 150	mA mA mA	Option I = "33" Option I = "50" Option I = "12"
Current consumption (warm-up)			1000 800 400	mA mA mA	Option I = "33" Option I = "50" Option I = "12"
Operable temperature range	-25		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) (L x W x H)		54 x 40.5 x 19 max.		mm	h = 2.0
Weight			50	gram	
Packing		Palette			

Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated

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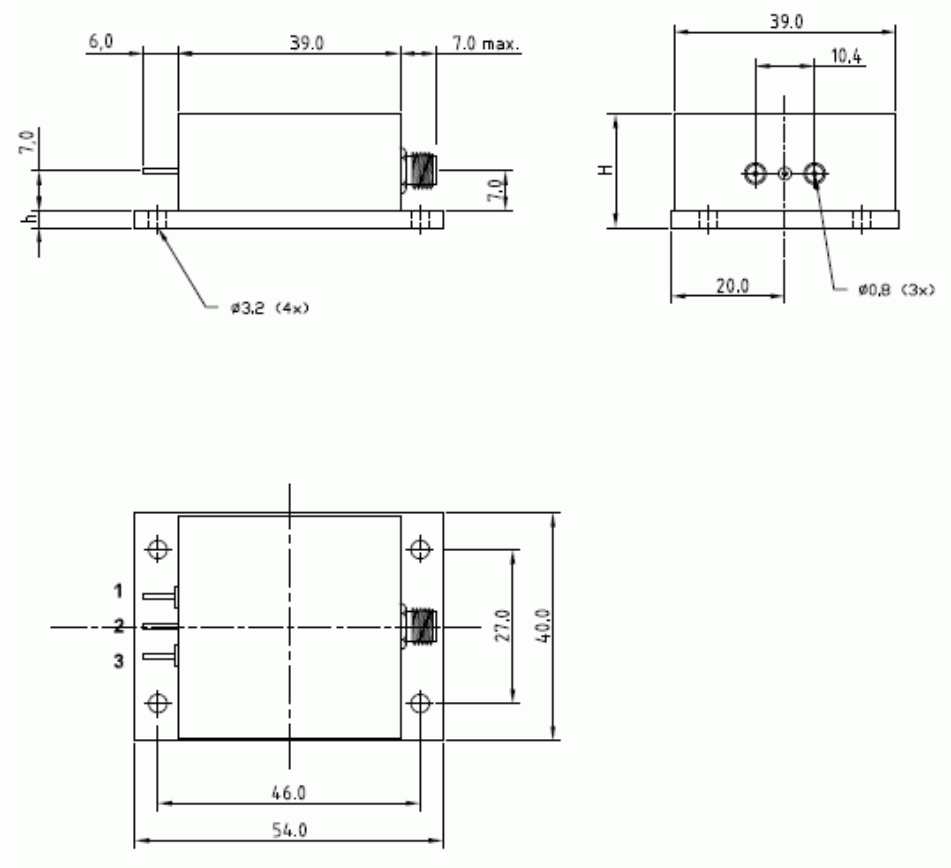
Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM90	50	100	10.000

Enclosure drawing



Pin connections

Pin#	Symbol	Function
1	VC	Control Voltage (EFC)
2	GND	Ground
3	V_S	Supply Voltage
SMA	RF OUT	RF Output

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Sealing tests (if applicable)	2-17	4.6.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		 4.7.1 4.7.2	 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

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