

<b>Specification</b>	<b>AXIOM90</b>	Issue: 2.1	Date: 2011-01-29
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**Oscillator type : OCXO with SMA connector**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		40	MHz	
<b>Standard frequencies</b>	10.000 / 12.800 / 20.000			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance		± 500		ppb	@+25°C, V <sub>C</sub> = 2.5V
vs. temperature in operating temperature range (steady state)			± 200	ppb	Option II = "200"
			± 100	ppb	Option II = "100"
			± 50	ppb	Option II = "50"
			± 25	ppb	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	ppb	Option II = "200", "100"
			± 2	ppb	Option II = "50", "25"
long term (aging) 1 <sup>st</sup> year, after 30 days operation			± 200	ppb	Option II = "200", "100"
			± 100	ppb	Option II = "50", "25"
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC) range	± 3			ppm	Option II = "200", "100"
	± 1			ppm	Option II = "50", "25"
EFC voltage V <sub>C</sub>	0.15		3.15	V	Option I = "33"
	0.25		4.75	V	Option I = "50" or "12"
EFC slope (Δf / ΔV <sub>C</sub> )	positive				
EFC input impedance	100			kΩ	
<b>RF output</b>					
Signal waveform	Sinus				
Load	50			Ω	
Output level	+3			dBm	
Harmonics attenuation	30			dBc	
Non-harmonics	50			dBc	
Warm-up time			5	min	Δf <sub>final</sub> /f <sub>0</sub> < ±0.1 ppm
<b>Supply voltage V<sub>S</sub></b>	3.15	3.3	3.45	V	Option I = "33"
	4.75	5.0	5.25	V	Option I = "50"
	11.4	12	12.6	V	Option I = "12"
<b>Current consumption</b> (steady state) @ +25°C			400	mA	Option I = "33"
			300	mA	Option I = "50"
			150	mA	Option I = "12"
<b>Current consumption</b> (warm-up)			1000	mA	Option I = "33"
			800	mA	Option I = "50"
			400	mA	Option I = "12"
<b>Operable temperature range</b>	-25		+75	°C	
<b>Storage temperature range</b>	-40		+85	°C	
<b>Enclosure (see drawing) (L x W x H)</b>	54 x 40.5 x 19 max.			mm	h = 2.0
<b>Weight</b>			50	gram	
<b>Packing</b>	Palette				

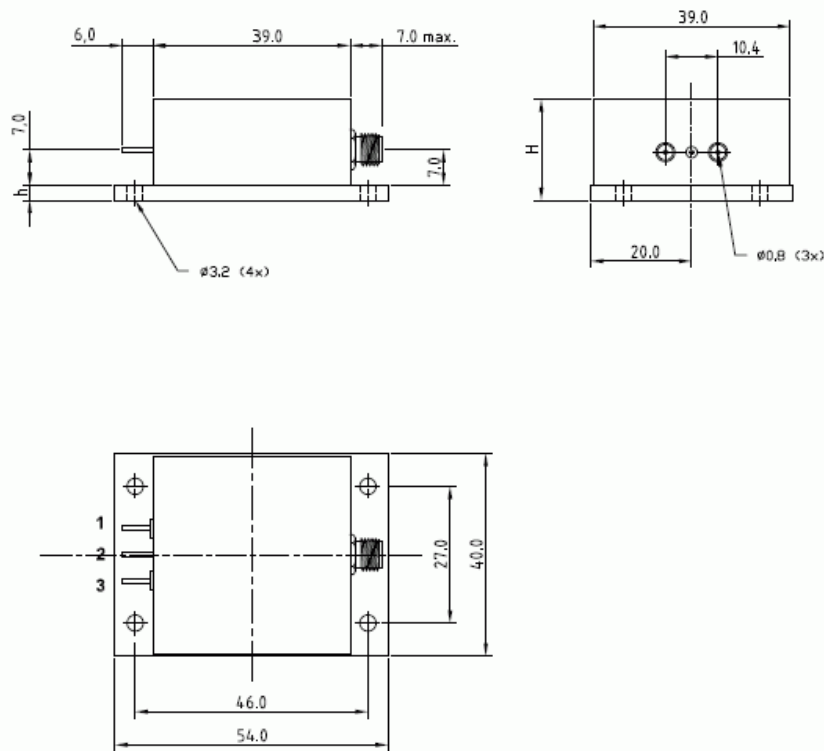
**Notes:**

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

**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 <sub>S</sub>	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

## Revision History

Rev.	Date [dd.mm.yyyy]	Remarks	Author
1	23.01.2006	First issue	BN
2	15.03.2006	Correction enclosure size (typing error)	BN
2.1	29.01.2011	Environmental conditions changed. New package drawing with height H and thickness of base plate (h) changed: PCN11012901	BN